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Contents

Original Articles	Page	Selections.	Page
Diagnosis of Brain Tumors - - - - - Dr. J. E. Burns	1	Treatment of Rheumatoid Arthritis - Dr. Latham	19
History and Technic of Skin Grafting - - - - - Dr. L. P. Jones	5	Safe Investments for Physicians - - Dr. Lambert Ott	21
Essentials in the Surgery of Inguinal Hernia - - - - - Dr. R. J. Reed	10	First Interview with the Patient - - Dr. W. S. Ely	23
Puerperal Infection - Dr. H. R. Fairfax	13	Editorial.	
Hydrotherapy and Massage - - - - - Miss M. J. Steele	15	Anent the Coming Association Meeting - - - - -	26
Freud's Ideas on Psychoneuroses - - - - - Dr. Tom A. Williams	16	The Murderous Fourth - - - - -	27
B. & O. Emergency Splint - - - - - Dr. W. P. Megrall	18	Confederation of Examining and Licensing Boards - - - - -	29
Report of a Tumor - - - - - Dr. J. E. Cannaday	19	State News - - - - -	30
		Society Proceedings - - - - -	30
		Reviews - - - - -	31
		Medical Outlook - - - - -	34

DISEASES OF THE GENITO-URINARY ORGANS

By EDWARD L. KEYES, JR., M. D.

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DIAGNOSIS OF BRAIN TUMORS.

Report of a Case of Brain Cyst.

J. Edward Burns, B.A., M.D.,
Wheeling, W. Va.

(Read at Annual Meeting of the W. Va. State Medical Association, October, 1910.)

Brain tumors may be divided, for convenience sake, into the localizable and non-localizable varieties. Localizable tumors *per se*, or by their irritative or destructive processes, give rise to symptoms which when carefully studied give great assurance as to the probable location of the tumor. Non-localizable tumors for the most part occupy the "silent area" of the brain. By the "silent area" is meant that portion of the brain occupied almost exclusively by the fibres of the association tracts. These tumors, usually by pressure, but sometimes by direct extension, give rise to symptoms which, though apparently definite, are usually so complex and so extensive as to be very confusing when localization of the tumor is undertaken. For instance, a tumor of the right parietal lobe posterior to the post-central gyrus, may by pressure give rise to sensory and motor disturbances of the left side of the body, and cranial nerve involvement of both sides; or if the growth be unusually large the iter may be blocked, giving rise to internal hydrocephalus with all sorts of symptoms due to the great pressure. These tumors are frequently found in the temporal, frontal and right parietal lobes.

Symptoms are either general, caused by increased intracranial tension, or special,

caused by the tumor itself. Of the general symptoms of brain tumor, by far the most important, are headache, vomiting, and "choked disc." Others, such as rise of blood pressure, slowing of pulse, and Cheyne-Stokes respiration so often met with in acute intra-cranial lesions, are often either absent or occur as terminal events. Of the all important triad, "choked disc" is the most reliable. This may occur of equal degree of intensity on both sides or be more pronounced on one side, this latter finding not always being of localizing importance. The swelling of the disc may reach 7 D. with accompanying swelling and tortuosity of the retinal veins, and hemorrhages. This condition is most often confused with albuminuric retinitis, a condition which, according to Cushing, is absolutely indistinguishable from it. The pre-operative examination of the urine is in this, as in all other surgical procedures, of paramount importance. It is true that the two conditions might co-exist, thus giving rise to much confusion unless other symptoms are present, which is usually the case. Nausea and vomiting may or may not be present. The latter being true in the case I am about to present. Vomiting is often unpreceded by nausea, and bears as a rule no relation whatever to the taking of food. It may be projectile in character, and a slight change in the position of the head will bring on an uncontrollable paroxysm. Other gastro-intestinal symptoms are usually absent. Headache is the most constant symptom, for it is either present all the time with paroxysmal intensification, or occurs at times throughout the attack. It may be general or localized, this latter feature not having much

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diagnostic significance. Headache seems to be due to the stretching of the dura from pressure, but this is the only thing to which the latter seems to be sensitive. Pressure upon a certain region of the skull may intensify it. Chronic nephritis, severe anemia, thrombosis or embolism, and lead poisoning are characterized mainly by these three symptoms, but a careful history and physical examination should prevent a mistake in diagnosis.

Other general symptoms which are rather inconsistent are progressive mental dulness, convulsions (generalized), and dizziness. Localizing symptoms are very important and their occurrence a most helpful aid in diagnosing the position of the tumor. Jacksonian fits involving a group of muscles, or successive groups in a regular march, as I have seen in several cases, and preceded by sensory auras would of course suggest a cerebral involvement of the contralateral side in a region embracing both pre- and post-central gyri; and, according to the muscles involved in the fits, would tell us what part of the pre-central gyrus was affected. Tonic spasm followed by clonic jerks without loss of consciousness, characterize these fits. A left-sided hemiplegia with headache, "choked disc" and vomiting would suggest a tumor involving the whole motor tract of the right side. In this latter case there may be a mono-lateral third or sixth nerve involvement due to pressure. Tumors of the parietal lobe may cause "word blindness." Tumors of the frontal lobe are hardest to localize and often attain a large size only to be found at autopsy. Mental deterioration, and aphasia due to involvement of Broca's convolution, are sometimes present, particularly if the tumor be situated in the left frontal lobe. Tumors of the temporal lobe may give rise to "word deafness" and if extensive enough cause symptoms from lower motor area. In the occipital lobe some visual disturbance is usually evinced, generally hemianopsia, although, as I have said before, these symptoms may be produced by involvement lower down in the paths of the tracts. Basilar tumors are hardest to localize, and are for the most part inoperable. There is generally some cranial nerve involvement, the motor tract as a whole may be destroyed at the internal capsule, or in part lower down, the same be-

ing true of the sensory paths. These tumors, by causing an internal hydrocephalus, may give rise to all sorts of symptoms. Deep reflexes are usually increased, and the superficial may be absent. Plantar stimulation gives dorsal flexion of the great toes, and astereognosis, and incoordination are usually present.

Cerebellar tumors usually cause an early "choked disc" by causing internal hydrocephalus. A staggering gait, ataxia, nystagmus and flaccidity of muscles are also localizing symptoms. Staggering is usually towards the side of the lesion.

Conditions most frequently confounded with brain tumors are chronic nephritis, of which I have already spoken; abscess, characterized by fever, leucocytosis, and secondary to an otitis media or a mastoiditis; ependymitis leading to early bilateral, and monolateral internal hydrocephalus with early spastic paralysis; and gummatous meningitis which usually yields to stringent antiluetic treatment, although this is not always the case. Sir Victor Horsley's 12 weeks is the limit for this treatment. Metastases sometimes clear up under iodides and mercury, and so this test is not absolutely reliable. Lumbar puncture is to be used very cautiously as a diagnostic measure if there is greatly increased intra-cranial tension, for by relieving the pressure in the spinal canal the pressure above may jam the medulla down into the foramen magnum and shut off the respiratory center, thus killing the patient.

The case I am about to present was referred to me by Dr. R. E. Venning of Charles Town, and I want to take this opportunity to thank him for his kindness, and help in the operation.

Patient came into the hospital at Charles Town on August 20, 1910, with the following history:

W. H., male, negro, aged 17 years. Complaint: "inability to see and cannot walk without being led." The only thing of importance in the family history is the occurrence of tuberculosis, one sister and two maternal aunts having had it. Past history is unimportant.

Present illness.—Patient dates present illness from a blow he received from a rock between the right eye and nose in September, 1909. Patient says blow stunned him but he got up and walked home. Soon afterwards he noticed that the right arm became weak. About Christmas neuraeche began. This at first seemed general, but lately it has been more intense on the right side. Patient noticed that his sight began to fail in April. At

I have used successfully pieces of skin from mangled limbs after amputation and kept on ice for various periods of time: having one whole thickness piece of skin take after being kept on ice for 72 hours. I was also successful with a few grafts from the belly of a puppy.

Grafts have been used with varying degrees of success taken from the inner surface of a pullet's wing, skin from pigeons, young puppies, guinea pigs, rats, rabbits, kittens, pigs, lizards and frogs. The lining membrane of a hen's egg has been used. Hamilton, of Edinburgh, tried grafting with small pieces of sponge, but was unsuccessful.

The method of whole thickness grafting (Wolfe & Krause) are advisable in exposed positions where more resisting skin is required than is given by the Thiersch method, but in this paper, only the methods of using thin grafts will be described; the method of whole thickness grafting, only being mentioned in reference to their history.

Keeney & J. C. Overdin obtained his small bits of epidermis usually from the inner side of the leg. He introduced the point of a venesection lancet to the depth of about 5mm., then pushed it forward so that the point would emerge farther on and cut it loose with the edge of the lancet. (Agnew picked up minute pieces of epidermis, by means of a sewing needle held in a pair of artery clamps, and raised it to form a cone, then with a scalpel or scissors cut off the tip of the cone and transferred it to the granulating surface). He placed the lancet bearing the graft upon the healthy granulations and slid it off raw surface down, with the point of a pin taking care that the edges were not rolled under. After the grafts were placed he covered them with strips of plaster which were not disturbed for 24 hours. These grafts are obtained without pain and an anesthetic is not required.

This method gives numerous small epidermic islands from which the new epidermis will spread to fill the gaps between, and finally meet the stimulated epithelium from the edges of the ulcer. These grafts are applied to undisturbed granulating surfaces. There is more liability of future cicatricial contraction than from the Thiersch method.

Technic of Dr. Harrison for Thiersch grafting as carried out in the Mercy hospi-

tal, Baltimore. This is the method which I found most successful:

Preparation of the Skin from which the Graft is to be cut. Shave the area and scrub carefully with green soap and water, and rinse with water. Sponge well with ether, follow with alcohol, then wash thoroughly with 1-1000 bichloride solution and finally wash thoroughly with sterile normal salt solution. The grafts are generally cut from the anterior and inner aspect of the thigh.

Cutting of the Graft. Place a small sand bag beneath the thigh in order to support it and give a better surface from which to cut. Arrange sterile towels and sheets as in any other operation. Care must be taken that no antiseptic solutions be brought in contact with the field or touch the graft. The skin, wet with salt solution, is put on the stretch and held flat as possible by means of two sterile boards about 6 or 8 inches long and placed at right angles to the length of the limb, the first being held by the assistant, the second by the left hand of the operator. The edge of a thin, sharp catlin, or an ordinary razor, is then engaged in the skin between the boards and held almost flat against the limb, and by a rapid sawing motion the graft is cut, the knife following close after the board in the hands of the operator. The graft is cut at a level which will include the top of the papillary layer of the corium. A very slight amount of bleeding will follow. The length of a graft cut in this manner is limited only by the length of the surface cut from and the skill of the operator. The graft wrinkles and curls up on the knife or razor and on this is carried immediately to the surface to be grafted. The margin of the graft is then fixed and held to the surface with a sterile bodkin, or darning needle and the knife slipped from under. This spreads the graft smoothly in any position desired. It is then pressed down with a sponge, wet in salt solution to make it adhere as close as possible and to get rid of any air bubbles. The grafts are placed to overlap slightly as they contract somewhat while healing is taking place. Davis says all grafts over 3 cm. should be buttonholed to allow the escape of any blood or serum which may collect beneath them. (Johns Hopkins Hospital, Bul. Vol. 15). If the grafted surface is so

situated that by being covered by a wire cage it can be exposed to the air the grafts will heal nicely and keep perfectly dry and adherent without dressing.

Dressing of the Grafts. The grafts and surface surrounding them, are then covered over with several layers of silver foil and over this is placed a light dressing of sterile gauze and cotton. This is then fastened with adhesive plaster to prevent slipping and the entire dressing covered with a bandage, and the part immobilized. This dressing allows the secretions to come through and be absorbed by the gauze above it and will not slip. This is allowed to remain for 10 days when the first dressing is done.

One of the most prolific causes of failure in achieving a favorable result, by the older methods, is the fact that the protective dressing becomes adherent to the grafts, and when it is removed the grafts are torn away. To avoid this, the protective is kept constantly moist with normal salt solution, the theory being that the gauze will not adhere to the grafts under these conditions. This does not achieve the object, and in addition the moist dressing constitutes a condition very favorable to the entrance of infection.

Another method which yields better results is the cutting of diamond shaped openings in the rubber protective, submerging it in sterile olive oil as also the first few layers of gauze covering it. This serves to keep the grafts moist, but where the grafts are kept moist there seems to be more sloughing than where they are allowed to dry.

By dressing with silver foil this is all obviated. The grafts are kept dry and adherent; no infection can gain entrance from without and even the smallest amount of secretion will burst out through the silver foil and be absorbed by the gauze covering it.

Preparation of the Surface to be Grafted. If the surface to be grafted is a clean, fresh wound, it is important to see that all hemorrhage has stopped and the wound is as dry as possible. If the wound be a granulating one it is necessary that the granulations be flat and in a perfectly healthy condition. The granulating surface should be cleansed as thoroughly as possible by irrigation and gauze pledgets, being careful not to cause

any bleeding. If the granulating surface is not healthy or the granulations are too abundant, the surface is removed with a scalpel, curette or scrubbing brush, down to the firm base and all bleeding stopped by not salt solution irrigations or gauze compresses wet in not salt solution. Of the many methods of securing a healthy granulating surface I have found that dressing with pieces of old sterile linen, clipped full of holes to allow for the escape of secretions, and saturated with equal parts of balsam of Peru and castor oil, and this covered with gauze, to be the most satisfactory.

Dressing of the Area from which the Graft is Cut. The surface from which the grafts have been cut is covered by silver foil, and gauze, which is secured by a bandage. This is left alone until healed, which is generally done in 10 days to two weeks.

Other Methods of Thin Grafting. Von Mangoldt's method is to scrape the skin with a razor, after it is carefully cleaned up. He discards the first scrapings of the surface, but when the fine punctate bleeding of the tops of the papillae is seen, the layer with most vitality is reached. Then he scrapes thoroughly and transfers the mixture of blood and epithelium to the fresh wound and spreads it out evenly.

Noesske claims that this has special advantages in lining cavities in long bones after operations for osteomyelitis. The cosmetic results are better than with the Thiersch method, but it requires a longer time for healing. It is best adapted to surfaces not exposed to friction.

Lusk's method consists in using the epidemic from blisters over burns and scalds. This is sterilized like any other surgical dressing and placed on the wound and covered with gauze saturated in balsam of Peru, 1 dr. and castor oil 1 oz., and the dressing is not changed for 10 days.

Hodgin successfully transplanted dry epithelial scrapings which were sown on the wound.

Kibbler was successful with thin sections of callous from the palms of the hands and the soles of the feet.

Various kinds of knives and razors have been tried for cutting Thiersch grafts, but the catlin knife, or an ordinary razor give as good satisfaction as anything in use at the present time.

Vogel after Thiersch grafts are in place, cuts with curved scissors in the flap two small windows each about 2 mm. sq., in each sq. cm. of surface. He uses a wet salt solution dressing for 4 or 5 days, then dresses with an ointment. The little windows soon heal over, but before this takes place they allow free escape of secretions in the moist dressings which prevent drying.

Fosterling instead of making windows, cuts little flaps in the graft which allow drainage as long as necessary and do not leave spaces to be covered.

McBurney introduced broad, sharp retractors which held the skin flat and tense while the graft is being cut.

There are many failures for the reason that the grafts slip with the dressings after being applied, or are floated off with blood and serum collecting beneath them. To obviate this Davis advocates the splintering of the grafts with a meshed net, which has been soaked in a solution of gutta serena 15 to 30 parts in 150 parts of chloroform, allowed to dry, and then sterilized in three changes of 1-1000 bichloride, washed in salt solution and dried. This is pressed down snugly on the grafted area, the edges being allowed to overlap and are secured by adhesive plaster.

Reverdin established the fact that pigmented thin grafts from a negro transplanted upon white skin gradually fades, and this has been confirmed by many observers.

Pollack, Maxwell, Mayer and T. Bryant all report cases in which negro skin grafted on white patients remained black and white skin grafted on negroes remained white.

I transplanted several white whole thickness grafts onto a negro, and found that after a considerable time the graft took on a dusky hue which was steadily increasing when the patient went from under observation.

Thiersch grafts are as a rule, cut under a general anesthetic although, several other methods are in use.

Rose cuts grafts 1 to 2 inches wide and as long as necessary, without the use of an anesthetic. Among the methods which have been reported successful are, freezing the area to be cut with ethyl chloride, infiltrating the area with salt solution and cocaineizing the external cutaneous nerves.

General Comments. The tension hooks of McBurney and the small boards are handy and servicable, but not essential, as the skin from which the grafts are taken can be made sufficiently tense for the purpose, by opposing traction, by the hands of the operator and the assistant.

Accurate placing of the grafts minimizes the scar, and thus prevents, to a certain extent, secondary contraction. It is better to cover the defect with a single large graft, if possible, as the healing is just as satisfactory as if several small grafts were used, and the scar is much less.

The vitality of grafts is much greater than is generally supposed, and the immediate transference of the graft is unnecessary. Grafts may be preserved for a number of days and then transplanted successfully.

Too much pressure of the dressing on the grafted area may cause sloughing of the freshly applied graft, and a heavy dressing, causing too much heat and sweating, is to be avoided. In the majority of cases, the wound caused by the cutting of the graft is healed some time before the grafted area.

Grafts do not take as well on syphilitic patients, and care must be taken in isodermic grafting not to transmit disease to a healthy person, as cases have been reported in which smallpox, syphilis and tuberculosis have been transmitted in this manner.

The operation is performed, not with antiseptic, but with aseptic precautions and no solution should be used during the operation except a normal salt solution.

The use of Reverdin grafts on extensive wounds is not advisable. The application of a large number of these grafts is very tedious, and although healing may be rapid, the result is unstable and ulcerations may follow. A single large Thiersch graft, on the other hand, will cover an enormous area in comparison with the above. A greater operative procedure is necessary to secure this type of graft, but it is the one generally chosen and gives a more stable result.

Thiersch grafting has a very wide sphere of usefulness. Where there is extensive loss of skin in the vicinity of a joint, as may follow a burn or other injury, it will prevent cicatricial limitation of motion. Similarly where the healing of a wound by granulation would result in a distortion of soft parts, it will prevent the deformity.

Large areas of malignant disease may be freely removed, and rapid healing secured. In cases where scar contraction has already caused deformity, the scar tissue can be completely removed, the part brought into natural position, held by means of splints if necessary, and the wound covered by grafts. If the faulty position has not caused grave damage to the deeper structures, the deformity can be relieved and lost function restored. In short, Thiersch's method finds application wherever it is desirable to interpolate an area of soft, healthy integument and normal tissues can be provided for its reception. Unless the operation is a very trifling one and the patient of especially good endurance a general anesthetic should be given.

Transplanted skin begins to regain its sensation within a few weeks. The nerve supply comes from the periphery (Davis) and not from the underlying tissues. The sensation of touch appears first, followed by pain and lastly temperature sense.

Although skin grafting, each year, is coming into more general use it is not yet half appreciated and many cases are dressed week after week and allowed to heal by granulation, that could by the application of a few grafts be healed in a very much shorter time, and without so much danger of future cicatricial contraction and deformity.

THE ESSENTIALS IN THE SURGERY OF INGUINAL HERNIA.

Robert J. Reed, M.D., Wheeling, W. Va.

(Read at Annual Meeting of the W. Va. State Medical Association, October, 1910.)

Through a popular magazine of recent date the eminent Dr. Keen, of Philadelphia, addressed the laity upon the subject of "The New Surgery." He recounted the advances in many surgical fields, dwelling at length upon the final operative results in hernia. The mortality was given at one-tenth of one per cent, and recurrence at seven-tenths of one per cent. Through this and other mediums of information, the public is in possession of, the high standard fixed for the modern hernial operation, and physicians engaging in this special work must rise to the new measure of excellence.

Guarantee is a word not found in the vocabulary of the ethical profession, but one

assuming the responsibility of hernial surgery must tacitly give it. A recurrence occasions the suspicion of faulty workmanship in the mind of the enlightened patient and in that of the conscientious surgeon as well, who must of necessity accept the situation and "make good." The appendix, the ovary, the prostate, the thyroid or any other of the body's numerous appendages having once encountered the scalpel of a devotee of the "new surgery," is in a position similar to that of a late lamented pugilist; and like him, it does not "come back,"—a reassuring fact to the surgical participant, but the hernia may, to his great chargin and embarrassment.

The alleged "radical" operation for hernia, until about 1890 was a misnomer and a delusion. It consisted in uniting the pillars of the external ring. It did not reach, consequently, to the root of the defect and therefore was *not* radical. The truth is, that not a few operators to this very year and hour, are satisfied with a *superficial* method of hernial repair of little or no improvement upon the old treatment. The recurrences amounted in former years to about forty per cent;—a great reflection upon our art, and deeply discouraging, it was to hernial victims, many of whom were driven by such results to a truss existence.

There are many druggist-truss-fitters still quoting this percentage of operative failure to encourage their patrons to patience in their mechanical bondage.

There is no reason for West Virginia surgeons falling below the standard raised by the work of Bull and Coley, of Halstead, Degarmo, Ferguson and many other American surgeons; and when one per cent, or less of failure has become a universal attainment with us, our lost prestige shall be regained.

Steps essential to a permanent cure lead along three lines, and consist of measures which insure first, *primary* union; second, a *clear* inguinal canal, with adequate attention to sac; third, closure of canal by opposing *surfaces*, instead of edges.

Primary Union. No operative wound demands greater care with respect to asepsis than does the hernial; and to keep the field sterile in the after treatment is most difficult on account of its locality. Infection delays union as in all wounds, but in this should the many buried sutures become

taminated, an extensive and protracted suppurative process follows, and although repair by secondary union may prove effective for a time, a recurrence of the hernia may be expected as an ultimate result.

Consequently every refinement of the aseptic technique should be practiced.

Both general and local conditions which may affect primary union should be given exceptional consideration. When not an emergency operation for strangulation, and a choice of time is therefore possible, the constitutional question should be given the same careful attention as in the graver abdominal operations: namely, a selected and limited diet for a few days; thorough intestinal cleansing; and assurance from close investigation, of normal renal, circulatory and respiratory conditions.

Marked abdominal tympany, troublesome vomiting, or a severe cough may undo the surgeon's work; the one from tissue strangulation by increasing suture tension, the others from mechanical irritation by encouraging wound secretion or capillary bleeding.

The local preparation demands great care, but does not differ from that given to every operative field; surface shaving, a night's application of a sterile soap poultice, a morning scrub followed by the alcohol and bichloride solution, and when upon the table, a tincture of iodine application.

Sterilization of every thing in any way connected with the operation is understood to be essential.

Another question does not admit of argument here, that continues to invite discussion among surgeons in general work. If not always, certainly in hernial surgery rubber gloves on sterile hands should be the practice, invariably. They are (1) an added safeguard against direct infection; (2) by their smoothness of surface, trauma of the tissues is in a measure lessened, and (3) the suture material will remain more certainly sterile by escaping skin contact with the surgeon's fingers, which is very intimate in the process of knot-tying.

If gloves are out of the question, not being at hand and the operation immediately imperative, the suture material especially should be manipulated, in threading and tying, through the medium of forceps, not with the fingers.

Inguinal Canal. A direct entrance into the canal is made without delay or confusion if after the skin incision the aponeurosis of the external oblique muscle is first perfectly exposed. The deep layer of the superficial fascia clings to it closely and is often mistaken for it, concealing an important landmark. When its removal is complete the glistening aponeurotic fibers come into view as well as the line of their separation—the landmark,—which below widens into the pillars of the external ring. By an incision of the aponeurosis along this line for at least four inches the canal is fully opened, and by reflecting its edges after stripping it freely from the internal oblique, the canal's contents are well exposed for inspection.

At this point prompt recognition of the sac avoids unnecessary sacrifice of time as well as the trauma consequent upon an extended hunting expedition.

The shortest and best method for locating and freeing it, is to incise it at its neck in a line parallel with it. It should be opened after the same cautious manner of incising the peritoneal layer in any abdominal section. Through a short incision the interior of the sac may be inspected and its contents, if free and normal, at once returned to the abdomen. Through this opening then one or two fingers may be introduced within the sac and made to act as a staff upon which it is lifted up when the cord and other tissues are stripped away by a gauze sponge with the least possible injury to the vessels, and with great dispatch.

An important step just here is to carry the work of separation well within the internal ring that the ligation of the sac may be made upon as high a level as possible, in order to obliterate the funicular process.

When the veins of the cord are in the least varicose or unusually large they should be exercised, after careful ligation, with fine catgut tied as far within the abdomen as possible. All bleeding vessels about the cord as well as the branches of the superficial epigastric and pubic arteries should be treated in like manner by fine plain gut ligation. Long pressure by forceps will stop the bleeding and the method by torsion as well, but both are objectionable, neither so efficient as the fine ligature, and both encourage tissue necrosis. Ragged shreds of cremaster muscle and any exces-

sive quantity of subserous adipose tissue should be carefully removed.

The "fortification of the canal." With a canal dry and free of all things foreign, it is in readiness for a closure that is usually described as a restoration of the normal canal, but is in fact to be an improvement on nature's plan.

Many illustrious names in surgery are associated with the evolution of the perfected herniotomy, and it is in connection with this particular step of the operation that their wisdom and ingenuity have been chiefly displayed. In the interests of brevity their names will be omitted here, nor can credit be given to the many who have suggested valuable modifications, as interesting historically as that subject is. The fundamental principle, however which has controlled every advance, is based on the fact that the apposition of surfaces gives stronger union than the joining of edges; that it is more "difficult to separate two sheets of paper gummed together by their faces than by their edges."

One doing the operation frequently is inclined to appropriate modifications from different sources, mixed with a little originality of his own and fall in time into a routine technique which he is prone to believe the best. The author of this paper is not an exception to the rule and has adopted a practice which carries the overlapping idea to the extreme point of its application.

This demands first, flaps at least four inches in length and as wide as it is possible to make them from the aponeurosis of the external oblique: the inner flap being freed to the edge of the rectus muscle and the outer freed until on its under surface the shelving process of Poupert's ligament stands out prominently to view.

In the second place the idea is more perfectly carried into effect by leaving the cord undisturbed in its natural bed. The inner flap of aponeurosis not being reserved for a protection to a transplanted cord is utilized to reinforce the internal oblique. Its fibers being purely muscular may be cut through by a ligature tied too tight, or made so by unusual strain as in vomiting or coughing, accidents scarcely possible if the ligature holds both fascia and muscle.

The first sutures then, by this method placed from within out, pass through the aponeurosis of the external oblique, the in-

ternal oblique, over the cord and through the inner aspect of Poupert's ligament. These sutures should be of kangaroo tendon, preferably, and interrupted. The lowest and uppermost are placed with special caution snugly against the cord, but not so close as to endanger its circulation. The next suture holds fascia only. The outer aponeurotic flap is carried across the line of deep sutures and over the inner flap, which has already been sewed to Poupert's ligament, for $\frac{1}{2}$ or $\frac{3}{4}$ of an inch and is held in that position by tissue forceps while a continuous suture of chromic catgut is introduced. This takes in the deep layer of the superficial fascia of the skin, next the aponeurosis, going sufficiently deep to catch the aponeurotic flap underneath, and up through the deep skin fascia of the opposite side. The third suture of same material needed to appose the skin is placed by the subcuticular method. This is decidedly preferable to one which penetrates the skin, as the danger of staphylococcal infection is greatly lessened; a matter of considerable importance in view of the disaster which may follow should the deep suture become secondarily infected.

A moist bichloride dressing completes the operation performed for the simple uncomplicated oblique inguinal hernia.

Provisions assuring asepsis, a clear and dry canal, and its proper rebuilding, are fundamentally essential, but the prompt recognition of abnormalities and the avoidance of operative complications are also essentially important. To meet the first, familiarity with the possibilities is essential, and to avoid the second, familiarity with the local anatomy is essential.

"Surprises in Hernial Surgery" is a theme in itself for a paper, but a partial list of the unusual findings will be mentioned here, simply as a hint to the wise.

In the canal may be found the undescended testicle, the ovary, the appendix, large sections of omentum, adhesions within the canal and herniae of unusual size, obliterating landmarks.

About seven per cent. of inguinal hernia are direct, and with certain peculiarities of this type it is necessary to be acquainted; and in its sac strange things may appear, the bladder, the caecum and the sigmoid.

The anatomical points of interest concern the location and relation of the ilio-in-

first he saw double, but lately he has had great trouble in distinguishing objects at all. About six weeks ago right eye seemed to turn inwards. No nausea nor vomiting at any time. In April patient says he began having trouble in walking. His feet seemed hard to push forward, particularly the left one. For the past six weeks he has been unable to control sphincters particularly at night.

Present condition.—Patient is a well nourished colored man. Head is large and somewhat triangular in shape. Frontal and parietal eminences very prominent. Mentality poor, speech tremulous and reaction time slow.

Eyes.—Marked exophthalmos. Paralysis of right external rectus, and slight ptosis on right side. Pupils equal, widely dilated, react to light and accommodation. Vision very poor. Ears negative for tophi and discharges.

Mouth.—Tongue deviated slightly to right, and is heavily coated; breath foul; teeth fair; pharynx normal. Thyroid not enlarged. Cervical, axillary, and inguinal glands palpable but not enlarged. Thorax well formed and symmetrical; respiratory movements good and equal.

Lungs—Vocal fremitus normal. Percussion note resonant throughout. Breath sounds clear, no rales heard.

Heart.—P. M. I. neither seen nor felt. Sounds at apex best heard in fifth intercostal space 2 c. m. inside of mammillary line. Sounds clear at base and apex. No murmurs heard. Relative cardiac dulness not increased.

Abdomen full and symmetrical. Edges of spleen and liver not felt. No tenderness on deep palpation. Genitalia normal. Abdominal and cremasteric reflexes normal, knee jerks exaggerated, particularly on the left side. Plantar stimulation gives plantar flexion of great toes. No ankle clonus. Temperature, pain, and touch sensations normal. No edema of feet nor ankles. Patient walks with a staggering and shuffling gait and has to be led everywhere. Marked muscular weakness on right side. Muscle sense good. Pulse 20 to the quarter minute, regular in force and rhythm, fair volume and tension, vessel-wall not thickened. Blood pressure 100 m. m., Hg.

Urinary examination negative. Eye ground examinations, for which I am greatly indebted to Dr. R. W. Miller, of Martinsburg, were as follows before operation:

Right eye.—Pupil widely dilated and reacting faintly to light, more marked consensual reaction. The papilla of "choked disc" type measuring about 6 D. on nasal side; the temporal side showing less elevation. Veins tortuous and dilated. Several minute hemorrhages in region of disc. Vision—faint light perception.

Left eye.—Finger movements away from light distinguished. Disc measures about 6 to 8 D. Vessels dilated and tortuous. Minute hemorrhages present.

On account of right sided headache, "choked disc," without nausea or vomiting, and the symptoms of the beginning of spastic paralysis, loss of control of sphincters, mentality becoming poorer, and ptosis and

paralysis of right external rectus, operation was decided upon.

Operation—August 22, 1910.—The right post-parietal area was chosen because symptoms seemed to point to that side and there was a history of trauma on the same side. The osteoplastic flap operation, as done by Cushing, was performed and his technique was followed out. The horse-shoe flap incision was made through skin and galea, and turned back exposing the skull and upper part of temporal muscle. A trephine opening was made at the upper back angle of bone flap and three burr openings, one at upper front angle, and two at the basilar angles of flap, the latter being made after the fibres of the temporal muscle had been separated by blunt dissection. The trephine opening revealed the skull to be little thicker than an egg shell, and the Gigli saw incisions connecting the openings showed the flap to be little thicker at any other part. After the three sides of the quadrilateral flap had been made by the saw, the flap broke spontaneously across its base from the greatly increased intracranial pressure. The dura then bulged into the opening and was so thin that the cerebral convolutions could be easily seen through it. Pulsation was present. The quadrilateral flap was then made in the dura parallel to the bone flap, and with enough margin to allow for suturing. On incising the dura a little cerebrospinal fluid escaped, and the cerebral convolutions bulged greatly into the opening. An infusion needle of large caliber with the plunger in place was then carefully pushed through the middle of the convolution furthest occipitalwards, and after proceeding for about 1½-inch met with much resistance. Further pressure overcame this, and fluid began to escape around the needle. After the plunger was withdrawn a greenish yellow opalescent fluid escaped through the needle with much force, and the brain began to recede. After taking my hands off the needle, and while watching the escaping fluid, the needle dropped in up to the hilt, thus showing the extent of the cavity. After allowing all the fluid to escape that would, the needle was withdrawn and the dura sutured. The bone flap was then replaced and the galea sutured. The skin was then approximated by fine black silk sutures as described by Cushing, the sutures being wide apart to allow for drainage. A pressure skull cap bandage was then placed over the dressing.

A careful record of blood pressure every few minutes showed that it varied from 100 to 85 m. m. Hg. during the operation. After the cyst was punctured, breathing, which had before been labored and stertorous, became absolutely quiet. Patient recovered from anaesthetic in three hours. In 72 hours the sutures were removed from skull, but drainage of the same fluid as escaped at the time of puncture continued for six days. Wound healed per primam and there was no evidence of hernia. In three days after the operation blood pressure was 120 m. m. Hg., and the patient could count fingers with the left eye at a distance of three feet. On the sixth day the patient was up walking around, and going up and down stairs without assistance. No trouble with sphincter control. Headache disappeared three days after operation. Speech less tremulous and better. Post

operative temperature never rose higher than 101 3-5 and this was on the third day after the operation. It soon came to normal and remained so. Post operative eye ground examination was as follows:

Right eye.—Condition unchanged. Light perception faint. Swelling of disc measured about the same.

Left eye.—Vision much better. Counts fingers from four to six feet. Swelling of disc three to four D. Vessels of lessened caliber. Patient says he feels and sees much better.

The question may now arise as to why the cyst was not removed at the time of operation, but in a cyst of the size this must have been, this would hardly seem possible on account of the great destruction of brain substance that would have been necessary for its complete removal. On account of the thinness of the skull, the shape of the head, and the mental condition, this cyst must have been congenital in origin.

December 28, 1910.—Patient is much better, walks steadily and well, says he sees and feels much better. Headaches have never recurred. Patient has been working as a farm hand this fall. His head has decreased in size, and shows a slight hernial protrusion at the site of operation.

Eye ground examination.—Condition of the right eye remains about the same. The swelling of the disc of the left eye is slightly less intense, but the vessel walls show slight degenerative changes.

This case shows the great importance of early operation in cases where there is early increased intracranial tension before optic atrophy begins, for, as is shown in the right eye, the disc of which had already undergone atrophic changes, remained unchanged six months after operation, whereas the left disc, in which there was no atrophy, showed marked improvement.

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DISCUSSION.

Dr. Beebe (Cincinnati), said that the symptoms of brain tumors are very inconstant, and hence the diagnosis is usually very difficult. In the great majority of cases it is made only after inspection. The results of operation are often accidental, as in this case. The needle went suddenly into a soft substance or cavity, which revealed the nature of the disease. Many of the symptoms are common to many different conditions, which makes a correct diagnosis extremely difficult. The ophthalmoscope is a valuable aid to diagnosis and should be resorted to much more frequently than it is. Few use it. Referred to a case of arteriosclerosis in a young man, the result of enormous over-eating. Choked disc was present with blindness. The vessels were engorged and burst, filling the eye with blood.

Dr. Dabney, (Marietta, O.). Not having heard all of the paper, I cannot discuss it as intelligently as I might otherwise have done, but will give my views as clearly as possible.

In order to accomplish the best results in tumor of the brain we must arrive at an early diagnosis, and in order to do this the general practitioners must be taught the methods of diagnosis that will enable them to arrive at a diagnosis early or, at least, lead them to suspect a tumor. The use of the ophthalmoscope should be taught in all schools of medicine, as this instrument will reveal changes in the fundus of the eye that point to a possible brain tumor long before other symptoms are manifested. Many of the symptoms that are ascribed to a new growth in the brain are but evidences of an increased intracranial pressure, therefore in many cases we must make a diagnosis by exclusion, which is not always an easy matter.

The essayist insists that the ophthalmoscopic examination should be made by an expert, and I would be quite ready to agree with him if these cases first came to the expert, but they do not; it is the family medical adviser that is first consulted, and if he is taught the use of the ophthalmoscope he will be better qualified to refer these cases to the expert for examination and operation at a time when we can hope for a better prognosis.

It is only within the last decade that diseases of the accessory sinuses of the nose have been recognized as a very important factor in the etiology of increased intracranial pressure, and it has been our privilege to see several cases in which many of the cardinal eye symptoms of brain tumor were manifested. One of the cases referred to was seen by a prominent neurologist and pronounced an inoperable tumor of the brain. The man finally became so violent that he was sent to state hospital for the insane. After he had been an inmate of this institution for several weeks an abscess in the left sphenoid sinus ruptured, and the man was soon restored to his normal mental and physical health. Within the past few weeks we have seen two cases of sphenoid sinusitis that manifested a choked disk and optic neuritis. Both of these cases were of the closed form, that is, there was not pus in the nose, nor could it be aspirated by negative pressure. These cases were operated and the symptoms promptly cleared up.

In the differential diagnosis of tumor of the brain from accessory sinus disease, radiography is playing a very important part. It has enabled us, in not a few instances, to promptly diagnose empyema of one or more of the air chambers that communicate with the nose.

An old encapsulated brain abscess that has been lighted up by an endogenous infection will very rapidly, at times, take on the symptoms of brain tumor or increased intracranial pressure.

I am in accord with the essayist when he says that lumbar puncture is a dangerous procedure in any case of increased pressure within the cranial cavity, as a sudden release of pressure below the foramen magnum allows the pressure within the skull to force the medulla down against the inner rim of the foramen, thus embarrassing the respiratory center to a serious, if not fatal extent; but the latter usually occurs.

Dr. Burns, closing, remarked that the ophthalmoscope should be used earlier than it commonly is resorted to, in any case where a brain tumor is suspected, and that this work should be done

by an expert, because very few general practitioners are capable of making and interpreting an ophthalmoscopic examination.

(The following case is interesting in this connection, and may serve to impress some of the lessons of Dr. Burns' case.—Editor).

J. B. Thomas, Santa Cruz, Cal. (*Journal A. M. A.*, May 13), reports a case of brain tumor with choked disc, the tumor being a large round-celled sarcoma, as shown at necropsy. Blindness came on suddenly, though it had been preceded years before by an attack of unconsciousness and later transient attacks of numbness in the right arm and side. After the blindness, which was confined to the right eye at first, there was severe headache and vertigo and marked choked discs of the left eye, progressive in character, with at last complete loss of sight. The patient denied any specific infection and specific treatment failed. The case he thinks is of use as showing the value of optic neuritis as an early symptom of brain tumor, as it developed in the patient at least four months before the appearance of other distinctive tumor symptoms. The following facts, he says, are noteworthy in this case. 1. The tumor was precentral and the accompanying optic neuritis was very severe. Paton concludes that precentral tumors are nearly always associated with a fairly severe neuritis, whereas postcentral tumors are nearly always associated with a moderate neuritis. It is unnecessary to remind the oculist that the severity of the optic neuritis should be judged, not so much by the loss of vision, as by the height of the swelling of the disc, turgescence of the retinal vessels, the extent of hemorrhages and patches of exudate. 2. The eye on the opposite side of the tumor was first affected. 3. The difference in severity of the optic neuritis in the two eyes could not be noted because the process in the right eye had begun the atrophic stage, and in the left eye was at the height of the acute stage when the patient first came under observation. Both the second and third signs as noted above are untrustworthy, according to Paton. In about one-half of his cases a difference in the severity of the neuritis in the two eyes was observed, but the more severe neuritis often occurred on the opposite side from the tumor.

HISTORY AND TECHNIC OF SKIN GRAFTING.

Latimer P. Jones, M. D., Pennsboro, W. Va.

(Read at Annual Meeting of the W. Va. State Medical Association, October, 1910.)

This paper is based upon a study of the literature and my own personal observation while on the resident staff of the Mercy hospital, of Baltimore, Md., in the service of Dr. A. C. Harrison, in assisting him and on cases which he turned over to me.

Definition. Skin grafting is the transplantation of either the whole thickness, or a portion of the thickness of the skin, from

one part of the body to another, for the purpose of causing the more rapid healing of fresh or granulating surfaces, and to prevent cicatricial contraction. This may be done immediately, on a fresh wound, or after repair has set in.

History. The first effort leading to skin grafting was done by the tile-makers in India, long before it was attempted in Europe or America, who obtained good results by using pedunculated flaps from the cheeks and forehead for the repair of amputated noses. They also used sessile flaps, including the subcutaneous fat, from the gluteal region, after it had been beaten with a wooden slipper until a certain amount of swelling had taken place. A secret cement was used to which they ascribed a special healing power. This is called the Ancient Indian Method.

The Ebers Papyrus and the sacred writings of India mention rhinoplasty as a well known procedure, showing that plastic surgery was used in ancient India and Egypt. Celsus speaks of the restoration of ears, noses and lips by the aid of the neighboring skin.

In 1597, Gasper Tagliccozzi published, in Venice, the first systematic work on plastic surgery. He gave especial mention to his original method in which the whole-thickness living flap was obtained from the arm. This is called the Italian method and is the basis of the operation used today.

Baronio, the physiologist, in 1804 carried out the following experiments on sheep: In the first experiment two whole-thickness pieces of skin, not including the subcutaneous tissue, were cut from either side of the root of the tail of a sheep, and immediately transferred to opposite sides. The second experiment was the same, except that the pieces were kept detached 18 minutes. In the third, large pieces were used and included the cellular tissue and a bit of muscle, and were detached one hour before being transferred to opposite sides. These were all successful and bled when cut into ten of twelve days later.

In London, in 1814, Carpué first used the Italian method, as did Bunge in Marburg, in 1823, both being successful.

Several attempts were made by Graefe, who was unsuccessful, as were Von Walther, Diffenbach and Mertzler.

Other surgeons continued to experiment

from time to time, in spite of these discouraging results. Franklin H. Hamilton on January 21, 1854, in the Buffalo General hospital, used a whole-thickness pedunculated graft from the calf of a man's leg for the relief of a large traumatic ulcer of the other leg. This flap was held away from its bed by dressings, and remained viable although there was considerable shrinkage. After two weeks he freshened the under surface and edges of the flap, excised the ulcer and part of the cicatrix, then partly covered the wound with the flap and secured the legs together. Two weeks later the flap was excised from its base and a portion of it subsequently sloughed. Hamilton had suggested this same procedure for a similar case, ten years before, but was unable to secure the consent of the patient. Great stimulus was given the subject throughout the entire world by J. L. Reverdin, who showed a patient, before the Society of Surgery in Paris, December 8, 1869, on whom he had practiced epidermic grafting with small bits of skin on a granulating surface. His idea was obtained from observing the epithelial growth from a spontaneous island in an ulcer case. He said that the living epidermis was alone necessary for the success of the graft, and that the transplanted epidermis caused the transformation of the embryonal cells of the granulation tissue into epidermic cells. Bryant declared that the grafts themselves grew, and that there was a spread of epithelium from the graft, and this view has been proven correct.

Pollack, in 1870, reported several cases done by Reverdin's method to the Clinical Society of London. These were very small grafts and cut with scissors. George Lawson presented cases at the same time, on which he had grafted, successfully, pieces of epidermis as large as a sixpence.

Ollier, in 1872, made a distinct advance when he grafted large areas of skin, 4, 6 and 8 cm. sq. in extent. He used the whole thickness of the dermis instead of the small bits of epidermis. His idea was to substitute for the ordinary healing a surface having the essential elements of the normal skin surrounding it, and also preserve its characteristics.

This is the object aimed at today.

Thiersch, 1874, transplanted whole thickness pieces of skin 1 cm. in diameter, from

which the adipose tissue had been carefully removed. He insisted that in grafting a granulating surface it was necessary that the superficial part of the granulations should be removed and the skin placed immediately upon the lower horizontal ground. This has been proved a fallacy.

Wolfe, of Glasgow, in 1875 reported using, successfully, whole thickness grafts, from which the subcutaneous tissue had been carefully removed, and he is credited with introducing this method.

Thiersch, in 1886, showed that healing of a fresh or granulating wound of whatever size could be brought about more quickly by covering the defects with large films of epidermis in connection with the stratum papillae of the cutis.

Krause, in 1896, reported that sessile whole thickness flaps could be transplanted to or from any part of the body. He said that skin from any location could be used and the less handled the better.

In 1907, J. Staige Davis reported a case in which he transplanted a sessile whole thickness flap on which a considerable amount of the subcutaneous fat still remained, but this, as a rule, is not as successful as when the subcutaneous fat is entirely removed.

In 1905, Young, of Glasgow, modified Krause's technic.

Classification. Grafts may be classified, in general, into thin and thick grafts. Thin grafts, where only a portion of the thickness of the skin is utilized, as in the methods of Reverdin and Thiersch, and thick grafts where the whole thickness of the skin is used. The latter division includes whole thickness sessile flaps and whole thickness pedunculated flaps, from distant parts of the body.

They may be further classified into: autodermic, where the graft is obtained from the same individual; isodermis, where the graft is obtained from another individual of the same species; zoodermic, where the graft is obtained from a lower species. The great majority of grafts are autodermic, although as good results are obtained with grafts from other individuals, such as still born children, mangled or amputated limbs a few hours after death.

Davis has used successfully whole thickness pieces taken from lax abdominal walls during laparotomy operations.

ginal and ilio-hypogastric nerves, also the position and relation of the larger blood vessels. Accidental needle wounds will give troublesome and possibly serious complications.

Certain questions which were formerly believed to be of primary importance are no longer so considered.

The transplantation of the cord was heralded by Bassini as a signal advance, but Bull, Halstead, Ferguson, Andrews and many others have proven by their results, without transplantation, that it is a non-essential step.

Many surgeons have deemed a certain kind of ligature necessary for the best results. Bassini considered silk alone sufficient, others wire, and Marcy introduced kangaroo tendon, which continues a favorite, and improved chromic catgut is now becoming popular.

Results seem to be influenced little, if at all, by the kind of ligature used and it is therefore obvious that the suture material question, is non-essential.

Three to five weeks in bed were formerly believed to be essential to permanent recovery, now ten days, at most two weeks, are considered sufficient.

Doubtless other advances will be made in hernial surgery as the years pass, but the efficiency and sufficiency of the present-day operation, appear to finite vision to have closely approached the ideal.

DISCUSSION.

Dr. Odgen said that in these hernia operations it is very important to prevent tissue necrosis. The parts involved should therefore be handled as little as possible and with extreme care. This is especially true of the cord, which it is important to leave free. Has known insanity to occur after this operation, and wondered whether this might not be due to tight occlusion of the cord. Swollen testicle may occur, requiring a second operation. It is important to avoid operation when this can be postponed if the patient has a bad cough. He had, however, operated on a patient with pertussis with good result.

Dr. Covert impressed the importance of having a dry canal. He would advise the use of a round needle under the skin. He uses horse hair in closing the skin, and catgut in suturing under it.

Dr. Keever reported a case that resulted from a railroad accident. He operated six months after the accident, and removed seven pounds of omentum. (Photograph shown).

Dr. L. P. Jones said that he had seen 65 cases operated in which Scotch linen was the suture material. They all did well.

PUERPERAL INFECTION.

H. R. Fairfax, M.D., McComas, W. Va.

(Read before Mercer County Medical Society April 15, 1911.)

Under the general heading, puerperal infection, are now included all the various morbid conditions which result from the entrance during labor or the puerperium of infective micro-organisms into the female generative tract. It is probable that puerperal infection has occurred almost as long as children have been born. It is referred to by Hippocrates, Galen and many of the older writers. Organisms causing puerperal infection are streptococcus pyogenes (which is the most frequent of the fatal forms), staphylococcus, gonococcus, bacillus of diphtheria, bacillus coli communis, and a few others of less importance.

Pathological Anatomy. There may be an almost infinite series of gradations, from a slight membrane covering a slight perineal tear to an inflammatory process involving the entire generative tract, or extending beyond to the peritoneum and sometimes resulting in a systemic infection.

Etiology. Careful investigation has demonstrated that the bacteria concerned in puerperal infection are identical with those with which we are familiar as causing wound infection; contact infection. In this country we are mainly indebted to Dr. Oliver Wendell Holmes for introducing the theory of the infectious nature of the affection. It was not, however, until Lister had introduced antiseptic methods into surgery and Stadfeld, of Copenhagen, had recommended the use of bichloride of mercury in obstetrics, that the great mass of the profession began to understand that puerperal fever was due to contact infection, and could be prevented to a very great degree. Some authorities teach that in certain cases micro-organisms that are already within the generative tract, in the vagina especially before the onset of labor, may be the cause of infection, and to this auto-infection is applied. Gonococci especially are a frequent cause and by one authority they are claimed to be operative in 50 per cent. of cases. It is also agreed that auto-intoxication from intestinal origin may cause a temporary rise in temperature which may be confusing for a time.

Modes of External Infection. The most usual mode of infection is by the hands of the obstetrician or midwife. Since the introduction of antiseptic methods the mortality has decreased very markedly, until now in a well regulated hospital the mortality is a small fraction of 1 per cent, but in private practice not quite so good.

Symptoms. The most common lesion is an endometritis and this may be of the septic or putrid variety, each type presenting more or less characteristic symptoms. In the cases of the septic variety, after everything has gone smoothly for the first three or four days after delivery, the patient may complain of pain in back, headache, anorexia, restlessness and a feeling of chilliness, or she may have a well defined chill; the temperature going up to 103° F. or higher, and remaining high. The lower part of abdomen is usually tender. The lochial discharge is sometimes increased in quantity and may be partly bloody and partly purulent in character, but if the temperature remains high it may be greatly diminished or even disappear, especially in the septic form, and when it is slight there is very little odor.

The character of the uterine discharge in these cases often leads to a mistake in diagnosis, for the average practitioner associates puerperal infection with profuse and foul-smelling lochia; whereas in reality the most virulent cases, and especially in those due to a pure streptococcus infection, there is very little if any odor to be noticed, and its absence therefore is not necessarily a favorable indication, but rather the reverse. Another point of importance is the faulty involution of the uterus. This must be looked upon as a factor in the further spread of the disease, as the micro-organisms make their way through the muscular walls of the uterus by means of the lymphatics, and when the organ is markedly relaxed these channels are more open and offer much less resistance to the outward passage of the bacteria than when firm normal contraction is present. With the putrid variety we usually have the initial chill and high temperature, but the patient's condition does not appear to be so serious and is usually not. The main difference in the two varieties is to be noted in the uterine discharge, which in the putrid case is abundant, very foul-smelling, and frequent-

ly has a frothy appearance on account of the large number of gas bubbles contained in it. Between these there may be a mixed infection and the symptoms will vary accordingly. Fever occurring a few days after delivery is not uncommonly due to inflammatory trouble about the breast; the subsequent history of the case usually clears up the diagnosis.

Treatment. Prophylactic is best and should occupy the most important place. As long as vaginal examinations are made infection will occasionally occur, even though the carefully disinfected hand be covered by a sterile rubber glove, as it is impossible to disinfect the vulva thoroughly. For this reason vaginal examinations should be limited and dispensed with as far as possible. Another point is to close with sutures immediately after labor any perineal wound that extends beyond the mucosa.

The curative treatment is one about which there is a great diversity of opinion and which I will leave open for discussion, but will add that so far we possess no satisfactory treatment for all cases of puerperal infection as indicated by the vast number of methods advocated from time to time. The following may be advised as covering modern ideas on the subject. Remove blood-clots, fragments of placenta or membranes, if present, with well disinfected finger if possible, and if not with dull curette, very gently. The curette is dangerous, and especially the sharp one, where there is streptococcal infection, as its use may break down the protective wall of leucocytes exposing fresh areas to infection and thereby making bad matters worse. Swab out the uterine and vaginal cavities with pure tincture of iodine, give fluid extract of ergot as necessary to keep uterus well contracted, a good tonic containing iron and strychnine, a light nourishing diet, water *ad libitum*, the more the better, and cold baths to reduce temperature. Give none of the coal tar antipyretic drugs. Quinine may be given separately or added to the tonic mixture. Elevate the head of the bed of the patient to get good drainage and thereby lessen the chances for the spread of the infection. If the discharge is profuse, vaginal douches of hot sterile salt solution night and morning. In severe cases normal salt solution enemata, one pint every six hours by the slow or drop method, and if this does not

have the desired effect, either or both trans- fusion and hypodermoclysis may be tried.

HYDROTHERAPY AND MASSAGE.

Mrs. M. J. Steele, Charleston, W. Va.

(Read before Kanawha County Medical Society, Tuesday, January 10, 1911.)

Hydrotherapy and massage are very closely related, and in so many cases the use of the two together produce the best results, while in other cases one only is indicated and the other would prove to be injurious.

We will first consider massage and its effect on the different fluids and organs of the body. Massage not only helps to distribute the blood to every part of the body, but it also assists in manufacturing new blood. The heart is relieved of extra work and muscles and nerves are supplied with more and better nutrition. The function of the secretory glands is improved, which relieves the whole system of poisonous matter that would otherwise remain in the system and cause disease. Massage will improve the condition of muscles too weak to be used voluntarily and keep in condition muscles over which voluntary control is deficient or absent. Nerves are restored to their normal condition by stimulating or soothing treatment as the case may require, also by the better nourishment received.

All the organs of the body are improved and functionate more normally as the result of manipulations directly or indirectly through the circulation. We can readily see from the above statements that such diseases as neurasthenia, anemia, mental disorders, insomnia, some diseases of spinal origin, drug habits, any disturbances of digestion, gout in patients who are often not able to take active exercise, and many other troubles that arise from some of the above mentioned disturbances, will be benefited by massage.

Some of the counterindications for massage are the presence of fever, as massage causes a rise of temperature, although it can be used to lower temperature, but as it is nearly always distasteful to the patient as well as doubtful in results, I would advise some other method. In tuberculosis a moderate amount can be given if applied at a time when fever is not present. Any

break in the skin, pus formation, malignant growth, cystic tumors, would naturally prevent massage altogether, or at least in the neighborhood of the trouble.

It is usual to stop the application during the menstrual period, although, unless the flow is excessive, I have found it to be of the greatest help in relieving pain and the general bad feeling attendant on these periods. Pregnancy is another condition in which authorities differ; but personally I have found massage to be of the greatest benefit unless there is a tendency to miscarry. After the fourth or fifth month manipulations of the abdomen should be left off, and the patient should not be put in a prone position for massage of the back. Massage and hydrotherapy are both efficacious in the reduction of flesh and in the replacement of fat by muscle.

Hydrotherapy has been used very successfully in all of the conditions I have mentioned in which massage is counterindicated, as well as in those in which massage is indicated; so we see that the proper use of water is the most widespread and successful remedial agent we can command. I ran across a little book edited in the year 1849 called "*The Water Cure in America*," and it is very interesting to know that water was applied in the treatment of disease then in a very similar manner to the application of it now. I am quite inclined to agree with one statement made in the preface to a history of cases given by Dr. Sheeferdecker. I am convinced that cold water, exercise, a proper diet and pure air will give men the age of 150 or 200 years. We are too much inclined to think that because we cannot have all of these, that not much can be accomplished with what we can have.

When we consider how widespread and powerful are the effects of such simple things as water and manipulations, it will make the thoughtful physician pause and think how very necessary it is, when turning cases over to a masseur or masseuse, to give minute directions as to the temperature and duration of a bath, as well as the length of time, character, etc., of massage. If this is not possible, be sure that the operator knows his or her business, and give a history and diagnosis of the case.

I would like especially to call your attention to a few conditions in which I consider

the early application of massage and hydrotherapy to be of the greatest importance, that is, for fractures, dislocations and sprains. In these cases, if hot fomentations and manipulations be applied early, the period of union and healing is very much shortened and the patient does not have the after stiffness and disability which often lasts for weeks, and in some cases months and years. This is quite apparent when we consider the amount of exudate thrown out, and know that perfect healing cannot take place until this is removed. Then, too, this exudate may become organized tissue which will interfere with neighboring joints, tendons and muscles, and possibly by pressure injure nerves. The same thing applies to dislocations and sprains, only in fractures it will be necessary to use great care not to move the bones apart. Dr. Barber used to remove the splints and bandages from a broken limb and hold the bones firmly so that I could give massage before the bones were firmly knit together. That, of course, can only be done when the physician is present, but it gave great relief from pain and very much hastened the recovery of the limb.

Of course there are some cases which, for special reasons, cannot have massage early, and some cannot have it at all. Displacement of a tendon would not permit early treatment. Aneurysms and malignant diseases of the bones or tissues would prevent massage altogether in their location, and great care should be exercised where there is a tendency to gout or tuberculosis. The presence of varicose veins is another serious drawback to the manipulations of massage.

Neuritis is another disease which gives all parties concerned a great deal of trouble. Massage can be used after the acute stage is passed, sometimes with good results, but in nearly all cases that have come under my observation the application of hot and cold douches has been more satisfactory both for the relief of pain and for restoring the nerve to its normal condition. In occupational neuroses it is more difficult to obtain results unless the occupation be changed.

DISCUSSION.

Dr. Nicholson quoted Winternitz in saying that he could cure any curable disease with massage and hydrotherapy. He also made mention of the use of massage in treatment of chronic constipation and in the removal of the localized edemas following fractures.

Dr. Mitchell described some features of the Scott treatment for heart disease, and told what he had seen of the methods in vogue at Nauheim. He believes that massage and hydrotherapy, tactfully and rightly administered, may work wonders in the treatment of many chronic conditions. He says that undoubtedly the regular physicians have themselves only to blame for the popularity of the osteopaths; that if they prescribed massage oftener their patients would not so frequently go to the osteopath for relief. Some patients may object to massage on the score of expense, but the charges made by the masseurs are often less than those made by the osteopath.

Dr. Cannaday called attention to the value of massage in three surgical conditions: first; the relief it gives from the backache and general un-comfortableness following many major operations. These patients are confined to the bed. They become exceedingly tired of keeping quiet in the bed, and a mild, suitably modified form of massage gives them very great relief.

Second. In nearly all fractures, particularly compound fractures, there are numerous adhesions involving muscles and tendons. In these conditions nothing will break up the adhesions and liberate the imprisoned structure as will massage.

Third. Massage is of the very greatest value in the treatment of all forms of pseudo-ankylosis due to infiltration, adhesions, or thickening occurring external to the joint capsule. In nearly all cases of fracture of the femur there follows a considerable amount of limitation of the movements of the knee joint. This joint can be restored to the normal function rapidly in most cases by massage.

FREUD'S IDEAS ON PSYCHONEUROSES.

Tom A. Williams, M.B., C.M.,
Washington, D. C.

Putnam of Harvard has been experimenting to test the validity of the astonishing conceptions upon which Freud lectured at the twentieth anniversary of Clark University last summer. Before the American Neurologic Association he declared his purpose was, firstly, to point out the character of his own successes and failures in applying psycho-analysis, and secondly, to envisage the far-reaching importance of the whole subject, and to map out the point of view which should be adopted toward it. Most adverse criticism had come from persons who had not themselves applied Freud's method. Putnam himself finds that, with increasing care and thoroughness his own conclusions tend more and more to coincide with those of Freud and his followers.

Compared with the methods he previous-

ly employed, such as waking suggestions, hypnosis, reasoning, social psychotherapy, and re-education of the point of view, the six cases he has studied comparatively have shown greater improvement since Freud's method was applied. He attributes the success of psycho-analysis to its power of bringing into full consciousness the submerged thought which Freud finds at the root of so many neurotic symptoms. The most important and influential of these lost memories are those which have arisen in early childhood; and the most especially significant are those pertaining to the sexual life. All of Freud's followers in this country follow him in this striking conclusion, while Freud himself in his later writings has modified this point of view by saying that "the sexual *moments* are of only occasional significance"; and he has to revert to the "neuropathic tendency" of the French writers who first inspired him. In other words the sexual *moment* is only the nucleus around which the neuropathic manifestations precipitate themselves.

The interpretation of the symbolism of dream life shows how often suppressed sexual feelings and ideas really color indifferent matters; and although the allusions seem at first very far-fetched, most males admit at once their erotic significance when taxed therewith.

The apparently incongruous associations of dream-thought also present themselves in the train of ideas revealed during psycho-analysis by what Freud calls the free-association method. This consists of placing the patient in a passive attitude while he endeavors to think aloud with the most complete unreserve possible. To do this requires practice and the aid of the physician, who can detect the suppression of a thought by the interruption and delay in the patient's utterances, as also by what his experience shows him to be the most common evasions of painful or unpleasant memories. In this way he reveals memories which have long since passed out of consciousness as events, but of which the unpleasant mood has continued to arise from time to time when some incident occurs which is capable of "touching the complex." For example, the smell of a particular flower may have once been associated with a particularly perturbing experience; and even though the event is entirely forgotten,

the smell of that flower will always arouse an uncomfortable mood. Indeed, knowledge of its source almost automatically dispels the unpleasant emotion.

(It seems proper to make it known to our readers that, in the discussion following the reading of Dr. Putnam's paper, not many accepted Freud's ideas. Sachs of New York—*J. A. M. A.* July 16th—did not regard Freud's teachings as sound. There are very small results from the necessarily very long examination of these neurasthenic patients by Freud's method. A more serious objection to the method is, that it has a distinct sexual taint. Physicians do only harm by taking young people especially, and pushing their thoughts back to some sexual mistake that may have been made in earlier life. Therapeutic results have not been any better, nor have they been reached any more quickly, than by the older methods of investigation.

C. L. Dana of New York confessed that his practical experience with the new method had not only been a failure but oftentimes disastrous, and he has abandoned it, especially with the better educated and intelligent patients. Ordinary methods of investigation and treatment bring good results and generally end in the cure of the patients. The worst cases, often dating back to early life, he treats in the hospitals with good nurses and close personal attention; and the results are better than with Freud's method.

C. K. Mills of Philadelphia is not in accord with Freud, whose method he has not found satisfactory; and the cures are not more numerous than by the more common methods.

H. T. Patrick of Chicago regards it as distinctly injurious to encourage the neurasthenic patient to probe himself when he is alone and without the control and guiding intelligence of his medical adviser, and to search into his past life, because patients cannot observe facts without drawing conclusions, and these neurasthenic, poorly balanced, hypersensitive people especially are so prone to reach wrong conclusions. This he regards as distinctly dangerous, and hence he cannot agree with this part of Freud's method in such cases.

P. C. Knapp of Boston said that the condition of these patients is often due to some emotional disturbance, and they improve

as this nervous disturbance is put into the background and forgotten. It does not seem to him to be a reasonable method of treatment in cases due to a forgotten emotional disturbance, to drag that once more into the field and get the patient to dwell on it. This he regards as the primary unreasonableness of Freud's view.

L. F. Barker of Baltimore and H. N. Moyer of Chicago look with some favor upon the suggestions of Freud. The former thinks we should separate the method of psychoanalysis from the purely sexual idea. The latter thinks the ordinary methods of investigation should first be pursued, and that these are generally efficient. But there are a few cases in which Freud's method is distinctly adequate and efficient.

Only the experienced and skilled specialist in nervous diseases, it seems to us, can undertake the Freud method of investigation and management of neurasthenic cases with any hope of securing better results than those reached by intelligent investigation by other and better known methods.—
(EDITOR.)

(The above has been in type some months, but was overlooked in the printing office).

B. & O. EMERGENCY SPLINT.

W. P. Megrail, M.D., Wheeling, W. Va.

It has always been a problem to those who have had to deal with transportation of the injured, whether it be on the battlefield, railroad, in mill, factory, mine or remote places, to the hospital or home, how to do so with the least amount of danger, pain and suffering.

We hardly need to mention to the physician or surgeon, the fact that simple injuries are often rendered, during transportation, into the most serious, and sometimes attended with fatal results; nor the untold amount of damage or danger to life that the sharp, jagged end of fractured bones do to the muscles, blood vessels, nerves and other tissues at every jolt of the wheel or step of the stretcher carrier; nor the many millions of infectious germs that are pumped into lacerated or incised wounds by every movement of the injured member; nor the amount of life blood that would be saved if the wounded parts could

be kept rigid, thus permitting the blood to clot in the ends of the wounded vessels.

The soldier uses his bayonet or gun-stock, the civilian a piece of board, shingle or bark from a tree, to make a splint to relieve the pain and to support the shattered member until he can secure surgical aid.

Knowing the above facts the writer has devised the splint herein described, believing that it will fill a much needed want in the better care and treatment of a certain class of injuries.

The splint can be packed in a shoe box when not in use, so that it can be conveniently carried in the "first aid box" of the army or city ambulance, railroad caboose or baggage car, or kept in the office of the mine or mill.

The splint can be quickly applied to the patient without removing the clothing, by any person who has had a few minutes instruction, and thus place the injured member in a more comfortable and safe position, the parts being held rigid so that no further damage may be done during transportation.

The splint is constructed of *metallic bands, rods* and small *clamps*.

The bands are rolled out of sheet metal, with a slight taper, and are hinged into two parts so that they may be readily placed around the limb. A strip of adhesive plaster, bandage, or if nothing better is at hand a handkerchief, a piece of string or rope is used to bind them in place. It does not make any great difference whether the ends of the bands entirely meet, or overlap each other to some extent.

On the outside of the bands near the margin are three sets of staples placed equidistant around the circumference, and into these are fitted rods of such lengths as will best suit the injured member. These rods can be readily bent to any angle when such a position is desired, and if the patient is very heavy double rods may be placed on each side to give sufficient stability.

The clamps are so simple that a description is unnecessary.

To apply the splint, the bands of proper size are placed above and below the injury and as near the joints as possible. Three or more rods are placed in the staples of each band, then the band is clasped and fastened firmly in place, after which the limb is extended into as near a natural position as

possible, and the rods of opposite bands are clamped together.

In multiple injuries, two or more sections may be joined to each other so that the entire limb may be encased within the splint.

This splint will be of special value to the surgeon in the treatment of compound and ununited fractures, as it gives an open field for any kind of dressing, irrigation, X-ray examination or inspection that may be desired, and at the same time prevents the fractured ends of the bone from disturbance.

In these conditions the bands are properly adjusted over absorbent cotton, and after the fracture is reduced the rods are clamped. Parts of the limb above and below the splint may be encased in plaster of paris, which should cover the bands, thereby making a continuous splint of such a length as the surgeon believes to be necessary to keep the entire limb at rest.

This splint will be of great value in making extension in diseases of the joints, particularly those of the shoulder, elbow, hip and knee.

We believe that with this splint and rods of a special form, the fracture of the hip can be successfully managed with less discomfort to the patient than is possible with any form of splint or appliance that is in use at the present time.

A CYSTIC MIXED TUMOR OF THE EMBRYONAL TYPE.

John Egerton Cannaday, M.D., Charleston, W. Va., Surgeon to Charleston General and McMillan Hospitals.

Baby Smith, child of doctor, of Clay, W. Va., eleven months of age, had a low placed tumor over sacral region about the size of a large orange. The skin over this was smooth and unbroken. It presented a cystic appearance and a diagnosis of spina bifida was at first made. An X-Ray examination was advised, but as the father of the child was in quite a hurry to leave the city and return to some urgent medical cases, I decided to operate without having availed myself of this aid.

This large, well developed child was born with a small flat tumor over the sacrum.

This contained a small opening, caused by rupture of the cyst during the passage through the birth canal. This continued to leak for some time, but eventually healed. With the exception of an occasional diarrhoea, the child's health was excellent.

Operation at Charleston General Hospital, chloroform anesthesia. An elliptical incision was made in the skin covering the mass, and the growth dissected free from the rectum and lower end of the sacrum, to both of which it was firmly attached. In the upper portion of the tumor there was a cyst containing about 60 c. c. of a straw-colored serum. The remainder of the tumor was of a solid character, and when cut into its appearance suggested sarcoma. The growth apparently sprang from the lower end of the sacrum. A part of this had to be resected in the removal of the tumor. The large, deep cavity left by the removal of the growth was obliterated with several tiers of catgut suture. No drainage was used. Healing was prompt by primary intention.

Selections

TREATMENT OF RHEUMATOID ARTHRITIS.

In the *Lancet* of September 24, 1910, LATHAM tells us that if the case is one due to spinal irritation or congestion, or chronic myelitis chiefly affecting the ganglion cells of the anterior horns, but extending also, when the disease is associated with "glossy skin," to the ganglion cells in the posterior horns, the natural inference would be that in the earlier stages of the malady at all events the treatment should be directed to the abatement of this spinal irritation, and that probably this can be most effectively done (the exciting cause being removed) by cupping or blistering the spine.

This is no new suggestion. As far back as 1831 a paper appeared in the *American Journal of Medical Sciences*, vol. viii, p. 55, by Prof. J. K. Mitchell, the father of Dr. Weir Mitchell, on "A New Practice in Acute and Chronic Rheumatism." In this paper he describes cases of chronic rheumatism arising from various causes, and cases of arthritic troubles following spinal injury, which were successfully treated by cupping and blistering. From 8 to 16 ounces of

blood were abstracted from the neighborhood of the cervical or lumbar enlargements according as the upper or lower extremities were affected, and if the cupping did not afford relief blisters were applied to the same regions. Latham asserts he has rarely had recourse to cupping, but has found continuous counter-irritation a most valuable remedy. To obtain beneficial results, however, in rheumatoid arthritis, the counter-irritation must be pronounced and prolonged—slight irritation is useless—and it must be in the neighborhood of the cervical and lumbar enlargements. Applied, for instance, to the middorsal region it is useless, as was pointed out by Dr. J. K. Mitchell eighty years ago in the paper above referred to.

The following is the plan the author usually adopts: Two cantharides plasters, four or five inches long by two and a half wide (painted over immediately before their application with linimentum cantharidis or liquor epispasticus to insure rapid action), are applied at bedtime, one on each side of the seventh cervical vertebra or the twelfth dorsal, according as the joints of the upper or lower extremities are most affected. The blisters are kept on for twenty-four hours. They are then removed, the loose cuticle cut away, and a bread poultice made with boracic lotion applied for the night. In the morning the blistered surface is dressed with freshly prepared savine ointment spread on lint, and the dressing repeated every morning for eight or ten days. Each time before removing the lint it should be well soaked with boracic lotion so as to prevent its adhering to the blistered surface and causing unnecessary pain to the patient. The writer generally administers 20 drops of laudanum the first night on applying the blisters, and if the joints are painful repeats the dose every night. If the joints both of the upper and lower limbs are affected, then seven or eight days after applying the two blisters, two others are applied, one on each side of the seventh cervical vertebra if the first have been applied to the dorsal region, and *vice versa*, carrying out the same routine as before, the morning dressing of these blistered surfaces with savine ointment being repeated for eight or ten days. The pain and swelling of the joints are generally much relieved in three or four days after the appli-

cation of the blisters, even when no laudanum has been given, but the improvement is more marked, both as regards the swelling and the pain, when the narcotic is given. If the patient is suffering much pain, instead of the single evening dose the author gives 10 minims of laudanum together with 30 minims of the liquor hydrargyri perchloridi every six hours.

Whilst the counter-irritation is being carried out it is most important that the patient should have complete rest in bed, the affected limbs being moved as little as possible, especially if movement causes pain. At the end of eight or ten days the healing of the blistered surfaces may be promoted by the application of some simple dressing. The patient's general health must be attended to, the diet must be such as can be easily digested—beef, mutton, fowl, etc.—with such alcoholic stimulants as are suitable. A daily action of the bowels must be insured, and a proper amount of sleep must be obtained, if necessary by the regular administration at bedtime of opium or morphine. As the patient improves, massage, warm baths, radiant heat, etc., are important auxiliaries in the treatment, but on no account must massage be employed if it causes pain in any of the joints. As regards medicine, the author has found the liquor hydrargyri perchloridi useful in doses of one drachm twice a day with some bitter infusion. Sometimes 3 to 5 minims of liquor arsenicalis may be combined with the perchloride solution with advantage, but it does not agree with all patients. Not infrequently it may be necessary, especially in severe and chronic cases, to repeat the blistering process after an interval of two or three months.

It need hardly be said that it is of the utmost importance that before using cantharides or opium the condition of the kidneys should be carefully investigated. If they are unhealthy this plan of treatment is absolutely unsuitable. The electric cautery may then be employed instead of the cantharides.

Such, then, is the plan of treatment which in the hands of the author, and in the hands of others, notably Dr. S. Gurney Champion and Mr. W. I. Middleton, both of Bourne-mouth, and Dr. Alexander of Buxton, has proved successful. Patients ailing for three, five, and ten years, some "thin, wasted, bed-

ridden, and wishing to die, have been restored with "good movement in all the joints and able to walk three or four miles with ease." Such is Dr. Champion's report to the writer. Sometimes the diminution of pain and swelling of the joints very quickly follows this plan of treatment. In one case four days after the application of a "blister to the cervical region the patient's wedding-ring slipped off her finger. She had been for six months previously unable to remove it owing to the swollen condition of the phalangeal joint." The author asserts he has himself seen a similar result. Time does not permit him to submit notes of some cases successfully treated after this method. The *Lancet* of April 6, 1901, contains reports of two of his earliest cases, and of one also under Dr. Arthur Latham at St. Gregory's Hospital. In the *Lancet* of September 28, 1907, Dr. Middleton reports several cases, one of which in particular possesses features of extreme interest. A married woman, aged forty-three, ailing for two years, was wasted to a skeleton and unable to move hand or foot, every joint in the body being stiff and painful; she was pronounced by several medical men to be incurable. Counter-irritation of the spine was employed and repeated twice at intervals of two and three months. At the end of twenty months the patient was well nourished and active and able to resume her household duties.—*Therapeutic Gazette*.

SAFE INVESTMENTS FOR PHYSICIANS.

Lambert Ott, M.D.

How shall we invest our earnings so as to make them bring us a fair return and safeguard the principal? If I am permitted to impersonate my own experience I will give you a series of negatives:—

Do not look for a high rate of interest and a sound investment conjointly; they are seldom safe companions.

Do not buy or invest in mining stock unless you are on the ground to inform yourself of all that transpires.

Do not buy industrial stock because your friends advise you; usually the first purchasers lose their all and the subsequent purchaser in the reorganization succeeds.

Do not lend a patient money, for you will lose both patient and loan.

Do not consort with stock brokers, for woe betide the physician and his earning who learns to know such a person. The doctor and his savings are soon parted.

Do not invest in any promotion in which you are given a directorship or an official position to induce you to advance money. Nine tenths of them fail.

Do not invest in anything where you have not a voice, or must permit others to handle your money.

Do not listen to propositions where you are offered much for little, or something for nothing, as there is usually concealed a trick which may involve you in further expense to save what little you have left.

Do not always act upon your own advice, but think hard and long and consult your wife, and above all consult a good lawyer and pay him well for his advice; he will often save you much trouble and money.

An investment in mining stock is a beautiful gamble, but I have never heard of a physician making anything out of one. The promoter acquires a claim and sells you and me shares of preferred stock with two or three of common stock as a bonus. He capitalizes for 200,000 shares of preferred stock and 1,000,000 common. The innocent purchaser pays for the prospecting whilst holding only a small share of stock and the promoter, who controls three-fourths of this stock which does not cost him a cent, spends your money liberally and lives princely; should ore be discovered you will later hear of it but never benefit by it as the majority of stock holders control the mine and money, and any output, large or small, he salaries into his pocket, sending you each year or oftener a glowing and promising prospectus to stimulate your hope and feed you on that sweet morsel known as pleasing anticipation. A successful doctor and gold-mine owner of Colorado happened in my office just at the time I had invested in a gold mine with a number of prominent Philadelphians, the high character of the men prompting me to advance my money, of which I told him. He at once said you have thrown your money away: good mines are not bartered to Eastern people at a nominal sum per share and should one at any time have purchased a small amount of stock in a valuable mine he will not hear of it until he has parted

with his shares in disgust, and then the rich-bearing ore is exposed. The doctor advised that to mine successfully one should go to the works, examine what comes out of the ground, and watch every element of the undertaking, and he would soon be able to conclude whether to buy more stock or sell what he has, provided it is marketable and his conscience permits him to unload a worthless article on an unsuspecting public. Beware of the dulcet tones of the mine broker, and when he sends you a midnight telegram calling your attention to a decided mining investment, do not bite and you will save money.

Do not be misled by a glowing prospectus in which striking tabulations appear and grand assets are rounded off with large numbers adding unnatural and phenomenal profits to their balances, which only exist on paper and are purposely made to catch the unwary. I once invested in a large ice-making plant on receiving such a prospectus and much of its promises could have been fulfilled had the inside men been honest; but they stole the earnings and plant and I lost my money with two subsequent assessments.

Then, after having learned what not to buy, the question arises what to buy or how to invest money. I would name them in what I consider the order of their importance: Real estate; first mortgages; municipal, state or government bonds; and building and loan associations.

The late Anthony Drexel once made the remark that real estate is one of the safest investments. This statement, now several years old, holds good today, conditions not having materially changed since his time. There are many families in Philadelphia made up solely of one or more women whose principal income depends entirely upon real estate holdings. There is, it is true, a gradual reduction in their income as properties age, but there is always something for them to live on. Small residence properties are the class of houses to buy, or central business houses, the latter having the possibility of enhancing in value while residence property is more likely to decrease except when located in a neighborhood in which there is a trend of business. Corner properties always have greater possibilities, consequently their purchase price is higher. The fortunes in real estate are made in buying central property, which

now in Philadelphia is phenomenally high, or in suburban land, especially along the line of transportation. A physician should always have a few thousand dollars handy, not tied up in some unmarketable stock, but watch his opportunities, for snaps, in the vernacular of real-estate agents, do not linger long.

In the consideration of purchase or sale of real estate always have the advice of some substantial real-estate firm whose integrity is beyond question. As parting advice in making such investment or dealing in realty it is well to keep your own counsel; do not confide too much in friends and be careful in consulting or writing to a real-estate agent who may precede you in the expected purchase or hold your letter against you for some unexpected claim. First mortgages when judiciously placed are investments next to government bonds. If one is not conversant with this line of dealing let him go to some large trust company and ask for a loan on one of his properties, and he will soon realize the many elements to be weighed before lending his money. Do not purchase a mortgage unless you have investigated critically the nature of the real estate carrying the same; especially beware of mortgage and loan companies emanating from the West placing loans on farms, the assessed value of which has been surreptitiously raised for the purpose of inducing some innocent dupe to advance this pseudo-promising loan with the invariable result of having to take a piece of worthless land. This was once a lucrative business in which the East lost many millions. State, municipal and government bonds speak for themselves. Their rate of interest is low and therefore requires a princely capital to bring a living return. Bonds of corporations must be bought with care and only with the advice of some reputable firm. Taxes, over-capitalization and the character of the men behind the corporations are elements to be carefully considered in making a purchase.

I once bought a first mortgage, six per cent bearing bond, at what I thought was a bargain; when I deposited my first coupons a return notice accompanied my dividend deducting so much for taxes. It was not a bargain but a hasty purchase which in the end bore a low rate of interest but withal was a safe and marketable bond.

Building and loan association shares are

among the staunchest investments today. State laws now so safeguard this line of investments that you seldom hear of one defaulting. The placing of loans is in the hands of a reputable committee selected with care and in most cases, even with the success of well-organized loan agencies, they are judiciously placed. The purchase of a good dividend-bearing railroad or street-car stock is considered by some financiers a safe investment. If bought at all by the physician he should buy them outright and lay them aside, but never buy such stock on margin for he will be sure to lose. The Pennsylvania Railroad has been a dividend bearer for many years and probably will continue to be so for a long time; many families depend upon this income and hold the stock with the degree of confidence we have in a government bond.

Finally, let me advise you to vary your investments; as the trite saying is, do not carry all your eggs in one basket. Buy a little of a good bank stock, a few shares of good railroad stock, some small houses, now and then a business house, also bonds when a bargain, thereby scattering your investments so that a panic or hard times coming will not cripple you as it might were your money out in one line.—*Penna. Medical Journal*.

THE FIRST INTERVIEW WITH THE PATIENT.

William S. Ely, M.D.

There is often a tendency in the preliminary examination of patients to overlook details which might help to a fuller comprehension of the case, and determine the best plan of treatment or management. A prominent consultant in a central city of this state recently said that it was common for him to see patients whose physicians had not thoroughly examined them before calling him in consultation. Hence, erroneous or inadequate diagnoses were submitted to him. It is this that suggested the subject of this paper—too little dwelt upon in text-books under the head of anamnesis—a word which has never come into general use.

The first interview with the patient—has its significance impressed you? Often you meet as strangers. The patient is in an attitude of distrust, suspicion, reserve—studying you as intently as you are studying him. It is high art to overcome this reserve, suspicion, distrust, while you are making your examination, and to compel the patient's confidence and belief that you understand him and his disease, if you really do, and are the most competent person to treat him and to tell him what he can know, what he ought to do, and what he has to hope for. To this end experience, address, training and knowl-

edge of human nature in health and sickness contribute, and though it is no discredit to fail at times in winning your patient, success is highly satisfactory.

Every physician evolves his own method of examination and may excel in some particular. If time permitted, it might be interesting to compare and criticize different methods of investigating the problems of disease.

Of the many phases of our subject which deserve attention on the first interview with the patient, we can only refer to four that are at times overlooked:

1. The search for the causes of numerous disturbances that frequently receive only symptomatic treatment.

2. The correct estimate of nutritive changes.

3. The significance of heredity.

4. The physical aspects of many disorders.

From the study of these factors comes a large part of the satisfaction attaching to our calling. We should consider every case as a problem to be solved, or a riddle to be answered. Without this interest and satisfaction our work would be monotonous. To those content with mere symptom treatment the practice of medicine must often be irksome.

1. Voltaire made an important contribution to accurate diagnosis in his little work called "Zadig," but "the method of Zadig" is yet unknown to the majority of physicians. The Sherlock Holmes of the sixteenth century was Zadig. He saw a thousand differences in nature which appeared to the untrained eye and mind as uniformity.

Perhaps lawyers could give physicians points in the investigation of their cases. Have you noticed the minute details into which lawyers go in tracing the doings of a witness—every movement of his life for days or weeks? While much of this evidence may seem to us irrelevant, it is often of the greatest value in making the diagnosis of a criminal.

Now the sick man has frequently violated some natural law, and in that sense is a criminal. He may deem it disreputable to be sick, and may conceal essential symptoms. Hence the doctor must at times be a detective to search out the cause of disease. If he combine the astuteness of the lawyer, the shrewdness of Sherlock Holmes and the method of Zadig, it may be possible on the first interview to solve the mysteries of many obscure conditions.

He may find that illness has resulted naturally and inevitably from a mode of living certain to bring on serious disorders. When such information is obtained, and the cause of the sickness for which patients consult us is traced back to errors in food or drink, to overwork, or to excesses of various kinds, it is obviously our duty to have such patients understand that if they would prevent a recurrence of similar or more serious troubles leading to structural, incurable, life-shortening disease, their habits must be radically changed. This seems at times difficult so strong is the force of habit.

In most cases of sickness the appetite is more or less disturbed. A patient's statement that his appetite is good, bad or indifferent should some-

times be questioned. It may be wise to draw out specifically what he has eaten or drunk in the last 24 hours. Write down his answers. They may show that his judgment about the quality or quantity of his food and drink was misleading.

I have records which give in hundreds of cases the number of cups of tea or coffee, and the number of alcoholic drinks taken daily, and the number of cigars smoked. Very often when the patient sees in writing the total of his admissions of these points, his surprise equals that of his physician.

On the first interview with a patient it might be wise to learn the routine activities of his entire day, to determine the hours of work, the sanitary condition of the bedroom and the time given to sleep, the amount of food and fresh air taken, the nature of the occupation, and in the case of working people, the conditions as to fresh air, sunlight and so forth under which their work is carried on. The anemia, headache, anorexia, constipation, depression for which the physician is often consulted, may thus be accounted for. Frequently conditions that predispose to tuberculosis will be discovered.

2. All doctors do not have scales in their offices. I should as soon think of practicing medicine without a microscope as without an instrument for determining by weight the gross nutritive changes in patients of all ages. The macroscopic changes in disease should receive as much attention as the microscopic, and the scales are the certain tests of the effect of treatment in many cases, especially in that large class marked by defects in nutrition.

3. In the first interview with the patient few physicians pay adequate attention to the factor of heredity in explaining predisposition to disease and susceptibility to disturbing influences both moral and physical. We should endeavor to determine the degree of responsibility for both physical and moral disorders, which attaches to the ancestry of the individual. "Who did sin, this man or his parents, that he was born blind?" It is not enough to investigate merely the immediate progenitors of a patient—*atavistic tendencies* may go back a thousand generations..

Oliver Wendell Holmes says: "The body in which we cross the isthmus between two oceans is not a private carriage, but an omnibus." In this omnibus are crowded the elements of a diverse ancestry. If it be axiomatic that every disease has its adequate cause, then in so far as the cause is not in the individual, or his environment, it must be in his ancestry. The weaknesses and sins of one's progenitors may leave marks upon descendants that are indelible.

At times hereditary defects can be modified or removed. There are other times when we bear them through life as burdens, infirmities or limitations, constantly reminding us that in certain directions we are by inheritance weighted, weak or unable to accomplish what otherwise might be possible. For some of our individual sins we may be directly responsible and should learn from experience to avoid their repetition.

The physician who is an alienist, a criminologist, or a student of sociology and degeneracy

will find in heredity an explanation of many problems otherwise insoluble. It must be remembered that civilization is only a thin veneer of three or four thousand years upon a background of a hundred thousand years of barbarism and savagery. Scratch through this veneer and you come at once upon savage instincts and brutal tendencies. Ternyson says: "Where is one that—born of a woman—altogether can escape, from the lower world within him—moods of tiger or of ape." The subjects most interesting to the majority of men today suggest our savage ancestry—murder, revenge, war, prizefights, bull fights, dog fights and feats of brute strength.

In the infinitely numerous combinations of ancestral elements which form each individual no two human beings can possibly be exactly alike in physical or mental, healthy or diseased conformation. Every man is thus, by the law of variation, his own standard, must be discovered, so to speak, in his capacities for work and longevity, in his susceptibilities to healthy and diseased activities in his powers of resistance to toxic influences, to disease and death. Though the *average* man is constantly referred to, he has never been seen, does not exist and can never be treated. Even his ideal varies with every physician, and is constantly changing with added experience. The "average man" in sickness is the "average case" for which the writers of textbooks lay down a plan of treatment so often disappointing at the bedside, where we never (even in the most superficial degree) see the "average case," only some special modification of him. The public knows nothing of the foregoing distinction, and is therefore frequently deluded.

We should not be disappointed because we cannot duplicate the marvelous successes of which we read in reputable medical journals, and hear details at medical meetings. Just as each patient differs from every other by name and residence, by disposition and constitution, so he differs in his behavior under sickness and injuries and operations, and in his susceptibility and response to drug action, and every remedial measure that is employed. Until we know our patient thus differentially, we only know him in part, and are not in the fullest sense qualified to treat him. It is the knowledge referred to that will always keep the faithful family doctor firmly enthroned among his household gods.

4. The physician who has neglected the *moral* and *physical* study of his cases may on the first interview fail of their comprehension. That psychology is largely neglected in medical colleges and by physicians in practice is evidenced by the wide-spread belief in Christian Science, mind cure, faith healing and the more recent Emmanuel Church movement. All of these psychical aberrations reflect unfavorably upon the medical profession. The doctor who recognizes the psychical element in his patient on his first interview, and sees a moral element to be dealt with in nearly every case of sickness furnishes few patients for the different cults referred to.

This subject is inadequately treated in textbooks of medical practice. It should be our duty

to promptly recognize the disturbing effect of grief, overwork, worry, anger, remorse, depression, marital coldness or estrangement, upon previously healthy functions. The strain of business worries, of family discord, of social rivalries, of habitual excesses, could be dwelt upon to illustrate what is meant. These factors are too frequently disregarded by the physician in making his diagnosis.

When on the first interview a complete examination has failed to furnish an explanation of the suffering of a nervous patient, the silence, the blushing, the embarrassment which have met the question whether "the patient was happy or unhappy," have proved to be the key which has unlocked a history of neglect, misunderstanding, dyspareunia, sexual excesses, or marital cruelty and estrangement sufficient to destroy the health of the strongest patient.

Often the case has on the first visit shown to be one for moral management. By advice and encouragement, and by insistence upon an adequate amount of nourishment, by the effort to substitute healthful for morbid activities, and by getting the patient into the open air, and to places of entertainment, it has been gratifying to find how much could be done for the class of patients referred to.

If they need but little medicine, yet have great confidence in it, and none in diet, I give them a harmless remedy with instructions that each dose must be taken with a full glass of milk, or other portion of nourishment, and instruct them that if either be neglected it must be the *medicine* and not the food. Thus, it has been found practicable to give an adequate amount of nourishment to patients who otherwise would starve.

The time limit preclude reference to many other phases of a subject fertile in suggestion.

We should on the first interview see more than the cold scientific aspects of our case. It has been truly said that the successful practice of medicine is science touched with emotion. A doctor's life is a divine vocation. Seldom give a hopeless prognosis. God and nature sometimes accomplish what seems impossible.

From the beginning of our professional life to its close we should strive after the knowledge briefly referred to, realizing the relativity of our possible attainments and remembering that "art is long, life short and experience fallacious."—*N. Y. State Jour. of Med.*

WHAT IS REST?

That no consumptive can hope for a cure of his disease without following the most rigid routine with regard to rest is the conclusion of four interesting articles in the *Journal of the Outdoor Life* for June, by Professor Frederic S. Lee of Columbia University, New York, Drs. Lawrason Brown and F. H. Heise of the Adirondack Cottage Sanatorium, Trudeau, N. Y., Dr. Joseph H. Pratt of Boston, and Will M. Ross of Stevens Point, Wis.

Professor Lee, writing on the subject "The Physiology of Exercise and Rest," shows by experiments on dissected frogs the way in which

exercise tires the muscles and, in fact, all the organs of the body. He says:

"There is no known antidote to fatigue, unless it be rest, with all that rest implies. Sleep allows the reparative process of rest to be performed most quickly and completely. A moderate degree of fatigue, or even a considerable degree when not too often incurred, is not detrimental to a healthy body and is even to be advised. The healthy body is provided with great recuperative powers, and does not rapidly succumb to even excessive demands on its energy. But it should be allowed the proper condition for recuperation, and that condition is adequate rest. There is danger when the fatigue of one day's labor is not eliminated before the next day's work is begun. The effects may then be cumulative, the tissues may be in a continued state of depression, and the end may be disastrous."

Drs. Brown and Heise in an article on "Properly Regulated Rest and Exercise in Pulmonary Tuberculosis," hold that the action of the poisonous germs of the disease on the body is very similar to that of over-exercise. The poisonous irritation caused by the germs gives the organs and tissues of the body a double load to carry. They emphasize the importance of rest in the treatment of tuberculosis but also insist that properly regulated exercise is very necessary. They state their conclusions thus:

"Exercise when properly regulated and systematically graded is an important factor in the treatment of pulmonary tuberculosis. Through it the patient is in many cases returned to home and family with lessened chances of future relapse. At the same time part of his earning capacity is restored and he is consequently financially less dependent upon others, relieving him of much worry, expense and hardship."

Dr. Pratt, who was founder of the first Church Tuberculosis Class in the United States in the Emmanuel Church in Boston, claims that in the treatment of tuberculosis absolute rest, often in bed, must be extended over a period of months, before the consumptive should take any exercise. He says, "Prolonged rest in bed out of doors yields better results than any other method of treating pulmonary tuberculosis. Patients will have a better appetite and take more food without discomfort and gain weight and strength faster than patients with active disease who are allowed to exercise. Complications are much less frequent. When used in the incipient stage recovery is more rapid and surer."

Mr. Ross, who is himself a cured consumptive, and a writer of considerable prominence, holds that unless resting becomes a business to the tuberculosis patient, he might as well give up his fight for health. "The period of infection with tuberculosis," he says, "is not a vacation. It is a twenty-four-hour-a-day job. True it is a period of idleness, but one of intelligent, directed idleness. The day's work should consist of rest; rest should be the only business on hand. The light exercise, or hour of reading should be considered as the reward of a good day's work, like the evening of slipped ease to the tired business man at the end of the day. This recreation, however, should be considered only as an incidental result of the patient's work, not the main object."

The West Virginia Medical Journal

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All communications to this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the State. Notices of deaths, removals from the State, changes of location, etc., are requested.

Our readers are requested to send us marked copies of local newspapers containing matters of interest to members of the medical profession. Name of sender should be given.

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Editorial

September 20th, 21st and 22nd has been fixed as the time of the next annual meeting of the State Medical Association. Keep this in mind and prepare for the great event.

If the Journal fails to reach you by the 10th inst., drop us a card. Some members wait for months and then scold. The label at times gets rubbed off *in transitu*. This cannot always be avoided. Every month journals are returned to us from the local postoffice for this reason. Unless in a bundle, packed for one postoffice, we have no means of knowing to whom these belong. Keep your good humor and send us a card.

ANENT THE COMING ASSOCIATION MEETING.

Have you paid your dues for 1911? They should have been paid in January. Those who have no intention of paying should

send us a dollar to pay for the JOURNAL, which but one member has ordered discontinued.

To date we have received just eighty new members since our last annual meeting. This is far in advance of the increase of any former year. If all the old members remain faithful, we will this year pass the 900 mark. The new members are generally the younger men fresh from the colleges, with "the latest ideas," as the people say, but often not knowing exactly how to use them for the benefit of their patients. By mingling with the men of experience, men who may not originally have been so well educated, nor so well grounded in the foundation principles of medicine, but who have accumulated a fine store of practical knowledge—by hearing the discussions in medical societies, and by private conference and conversation, these new men will soon become our most valuable asset. They can now bring many new things from the laboratory, the clinic, and from their hospital experience, especially if they have had the good fortune to serve as hospital interne for a year or two. We older men should give all such a hearty welcome. An exchange of ideas publicly and privately, as already intimated, will prove valuable to both the old and the young and the more of the younger and better educated we can gather into our societies, the more enduring and the more progressive will the societies be.

In this connection we suggest that the younger men can add greatly to their own store of knowledge, as well as contribute to the interest of the society meetings, by engaging actively in society work. We can testify, from not a little personal experience in the preparation of medical papers, that in no other way can a physician so well fix in his mind permanently important truths in medicine, as by the preparation of papers. Interested in a given subject, the essayist reads everything accessible, and this with a view to writing, quoting as occasion requires, he does with extreme care. The knowledge thus gathered is fixed in the mind by the process of committing to paper and the mind holds it indefinitely, perhaps through life, as a valuable part of the garnered store of medical information.

In this connection we desire to repeat our suggestion of last month that no member

wait for an invitation to prepare a paper. We all stand on a level in this matter, and have the same rights. Besides, the secretary cannot possibly know the members well enough to select those who may be both able and willing to contribute papers for our annual meeting. Some invitations may be extended to those personally known, but this is no discrimination against others. Here is an opportunity for the older men to draw from their experience, and the younger from recent teaching, study, and laboratory work, both classes making contribution for the general good. The secretary desires additional papers; and that proper classification may be made in the program, the title should be sent in early. If any one is not ready to give exact title, write the secretary that a paper can be expected from you, and send title as soon as possible after.

The association must prepare to make a good showing at the White Sulphur, as past experience there indicates that we will probably have a number of medical visitors from Maryland and Virginia, physicians who may be taking their vacation at that beautiful resort. *Get busy, then*, and let us have a banner meeting. At least ten men were on the program last year whose papers failed to materialize. Upon these men rests a double responsibility. They should "make good" this year. A responsibility also rests on the men in the lower end of the state. Exert yourselves to have a number of good papers from your region, for we are coming a long distance to visit you, and we will expect you to help along the cause in this way, and have no doubt that you will give a hearty response to this demand.

S. L. J.

THE MURDEROUS FOURTH.

This fatal day is once more upon us. The cry of the innocent will soon go up from our streets, where annually the authorities announce that "the law will be rigidly enforced," and where annually the authorities continue to permit fingers to be blown off, faces to be mutilated, hands to be punctured by germ-laden material, after which a crop of tetanus is ready for the harvest of death. The efforts of the medical profession have done much in the past few years to reduce the number of accidents on our national

birthday anniversary. It is too much to hope that patriotic young America will altogether suppress the annual desire to make a great noise. We used to make some of this noise ourselves, and human nature does not seem to have materially altered in the past fifty years or so since the editor was a boy. But one great change has occurred. We did not in "that elder day" have the giant cracker and some of the other death-dealing instruments of noise. And we are old-fogyish enough to think that these dangerous things are entirely unnecessary to a day of patriotic enjoyment. Boys should have a large degree of liberty, but they should be deprived of the liberty of maiming and killing themselves and others. Here is where the authorities should step in and make it forever impossible for these death-dealing noise-makers to get into the hands of either boys or men. We boys were satisfied with "Jackson crackers," and got out of our beds very early for a day's enjoyment, and went back to them at night very tired, but very happy because we had tortured the old folks and had not mangled any of our little friends. So might it be now, and no sacrifice of patriotism be made, nor any sacrifice in the boy's pleasure.

But we will have maimed, burnt, punctured and torn faces and hands again on the coming Fourth, and what should we physicians do about it? We should at least remember the deadly tetanus germ, and treat every closed wound as if it were full of these germs. Open it freely, remove all foreign material completely, disinfect thoroughly, and keep open by loose gauze dressing. In all punctured wounds, an immunizing dose of tetanus antitoxin serum should be injected. It costs but little; it may save a valuable life. After the development of tetanus but little can be done and the closer in time to the date of the wound the first symptom of tetanus appears, the greater the danger to life. A relative of the writer, while attending her flower garden, stepped on a nail, which produced a wound so trifling that no medical aid was deemed necessary. Six days after, the jaws became stiff. On the eighth day death occurred. Don't neglect a punctured wound, especially when made by a nail or other instrument that has lain long on the earth, even though it seem trivial. Open freely to the bottom and keep open until entirely

healed from the bottom. The tetanus germ cannot live in the air. Its deeds are evil and it loves darkness. Radical preventive treatment is better than three motherless children, as in the case referred to above, or than one childless mother.

S. E. J.

*A LETTER TO A DOCTOR WHO IS ABOUT
TO ENTER THE ROAD WHICH
LEADS TO QUACKERY.*

*By William J. Robinson, M. D., New York.
President of the American Society of Medical
Sociology.*

Dear Doctor—I do not know you. I have never met you. And still I am going to write to you. I do so as a matter of duty. To the question: Am I my brother's keeper? I have always answered: Yes. When I see a young man starting on a wrong path, I try to warn him, to save him, if I can.

You have entered upon the wrong path, and I am sorry for you. And I urge you to turn back while there is yet time. I advise you to turn from the path of quackery, upon which you are, consciously or unconsciously, entering. I advise you to do so, not only for moral and ethical reasons, but because you yourself will in the end be the greatest sufferer. The man who never graduated from a medical college, the man who was never associated with the medical profession, the man who is an out-and-out quack, has no such scruples as you will be tortured by; he cares only for the money, and as long as he makes that he is satisfied. But you will suffer. When you see your professional colleagues turning away from you when you, see yourself avoided by even your personal medical friends, when you see yourself shut out from all medical societies, you will suffer. You may put up a bold front, you may try to make others and yourself believe that you do not care, that you do not give a rap for the approbation of your medical brethren, that their ostracism is nothing to you. But deep down in your soul you will feel that it is not so; you will feel that you are deceiving yourself as well as others; you will pass many sleepless nights, and your pillow will hear many heart-breaking confessions.

How do I know it? I know it because many of the better class of quacks have made these confessions to me. One man who has made a pile of money and who, in spite of his undoubtedly quackish methods, has many excellent qualities and humanitarian inclinations, confessed to me that he would willingly exchange the plaudits of fifty thousand laymen for the approbation of one reputable medical man.

Of course, I know what you will say. You will say that you are knocking the medical profession,

and going to the laity, because the medical profession is narrow, bigoted, commercialized, and so forth. I am even willing to believe that that is your real reason for leaving the profession, and not the fact that in the ordinary ethical practice of your profession you were unable to make a satisfactory living. But, still I would ask you to ask yourself this question: Would I have left the path of regular ethical medicine if in following it I had been making five or ten thousand dollars a year? I fear your answer would be in the negative.

But, assuming that it is so, that the profession is narrow, commercialized, etc., is it not your duty to stay on the inside and fight this narrowness and commercialism, and other abuses which have crept into the profession? Don't tell me that you cannot do it and still remain within the profession. For it is not so. I myself am the proof of it. Nobody has on occasions criticised the shortcomings of our profession more severely than I have. The Critic and Guide was organized for the distinct purpose of criticising the abuses and faults of the medical and pharmaceutical professions. But while some narrow bigots did not like my criticizing, this did not put me out of the pale of the profession. I stayed right in, fought as hard as I knew how, and with the result that it was I, and not the bigots, that carried off the victory. It is not I that became narrower, it is the bigots who became broader—or retired into solitude.

Don't you see that by leaving the profession—for the path you are entering on means essentially this—you render yourself entirely impotent for any good? Even the laity will cease to listen to you as soon as they find out that by the regular profession you are considered a quack. And what's more, when they want a doctor, they will consult a regular physician. Finding yourself forsaken by the profession and by the laity, you may want to turn back to the former, but you may find the portals shut: for our profession is a jealous profession, and is not lenient towards transgressors.

The medical profession, that is, a part of it (for to accuse the entire profession would be wrong), may be narrow and commercialized. No profession can help being effected by the tendencies of our times, by the influence of our social and economic conditions. But a profession that counts among its members a Hippocrates, a Galen, a Harvey, a Servetus, a Vesalius, a Pare, a Maimonides, a Louis, a Trousseau, a Fournier, a Graefe, a Virchow, a Muller, a von Helmholtz, a Gerhardt, a Billroth, an Ehrlich, an Osler and a Jacobi, is a pretty good profession to belong to.

Don't you think so?

Or do you perhaps think that the company of old "Dr." Grindle and "Dr." Gray and "Dr." Tilden and "Prof." Samuels and Mr. McFadden is preferable? If so, I have nothing to say.

Still fraternally yours,

WILLIAM J. ROBINSON.

NATIONAL CONFEDERATION OF STATE
MEDICAL EXAMINING AND LICENSING
BOARDS.

The Twenty-first Annual Convention of the National Confederation of State Medical Examining and Licensing Boards, was called to order at the Congress Hotel, Chicago, Ill., by the President, Dr. Joseph C. Guernsey. Dr. George W. Webster of Chicago, Chairman of the Committee on Arrangements, delivered a cordial address of welcome which was ably responded to by Dr. Lee H. Smith of Buffalo.

The President delivered the annual address, choosing for his subject "Medical Licensure." The report of the Secretary-Treasurer, Dr. Geo. H. Mateson, was read, audited and approved. The report of the Committee on Clinical Instruction by Dr. Henry Beates, Chairman, and that on Materia Medica by Dr. Murray Galt Motter, were read, referred for publication and the committees continued. The report of the Committee on Mr. Flexner's paper published in the proceedings for 1910 was read by Dr. N. P. Colwell. After an extended discussion the report was adopted as read and the committee discharged.

The Symposium on "State Control of Medical Colleges" was discussed from the viewpoints of State, Law, The Medical Colleges, State Medical Examining and Licensing Boards and the Medical Profession. From the viewpoint of the State Charles William Dabney, Ph.D., LL.D., Pres. of the University of Cincinnati, read a paper in which he contended that the State could control and conduct medical colleges more efficiently than corporations and private individuals. From the same viewpoint Mr. Abraham Flexner of the Carnegie Foundation for the Advancement of Teaching, New York City, read a paper on "The Duty of the State in the Control of Medical Colleges," advocating this system. From the viewpoint of the Law, Hon. Charles Alling, Jr., Chicago, read a paper giving his opinion that the courts would uphold the system. Dr. Arthur Dean Bevan, Chicago, discussed the question from the viewpoint of the Medical Colleges, setting forth the advantages of State Control, (a) as regards uniformity of requirements and methods, (b) as giving adequate financial support. From the same viewpoint F. C. Waite, A.M., Ph.D., Cleveland, forcefully and hurriedly pointed out the evils inherent under the present system and expressed the opinion that the spirit of competition and commercialism would be eradicated if the state controlled medical colleges. Dr. Frank Winders, Columbus, O., read a paper in which he contended that with aid rendered by the State, medical education would become more efficient by having all teachers receive a compensation commensurate with their labor, and by having a larger number devote their entire time to teaching than now obtains. From the viewpoint of The State Boards of Medical Examiners, Dr. Edward Cranch, Erie, Pa., declared that the medical boards could more efficiently enforce the laws regulating the practice of medicine and the requirements of the board if medical education were under state control. From the same viewpoint Dr. James A. Duncan, To-

ledo, presented a paper on the subject "If Medical Colleges were under State Control, would the state medical boards be enabled to determine more fully the Standing?" which question he answered in the affirmative. For the Medical Profession Dr. Royal S. Copeland, New York City, said that if medical colleges were under state control, the medical profession would be more uniformly and efficiently educated and trained than by present system. Dr. Horace G. Norton, Trenton, N. J., presented a paper in which he held that since the medical colleges are the source of the medical practitioner upon whom devolve the care and the welfare of the people, they should be under State Control. Special papers on the following subjects were presented: "The Necessity of Establishing a Rational Curriculum for the Medical Degree" Dr. Henry Beates, Philadelphia, "Some Thoughts on the Supervision of Medical Colleges and the Conducting of State Examinations" by Dr. James A. Egan, Springfield, Ill.

The attendance was the greatest in the history of the Confederation, and the enthusiasm which began at the opening continued throughout the session. All papers were earnestly and intelligently discussed, the interest becoming so intense that it was necessary to limit the period of the discussions.

The Oregon State Board of Examiners, the Louisiana State Board of Medical Examiners, (regular), Dr. R. S. Copeland, New York City, Dr. James H. McDonald, Pittsburg, Dr. P. F. Lawrence, Columbus and Dr. C. M. Hazen, Bon Air, Va., were admitted to membership in the Confederation.

The following officers were elected: President, Dr. Charles A. Tuttle, New Haven, Conn.; First Vice President, Dr. James A. Egan, Springfield, Ill.; Second Vice President, Dr. A. B. Brown, New Orleans, La.; Secretary-Treasurer, Dr. George H. Matson, Columbus, Ohio; Executive Council, Dr. N. R. Coleman, Columbus, Ohio, Dr. James A. Duncan, Toledo, Ohio, Dr. Charles H. Cook, Natick, Mass., Dr. Joseph C. Guernsey, Philadelphia, Pa., Dr. W. Scott Nay, Underhill, Vt.

ABDOMINAL SUPPORT IN THE LATER
MONTHS OF PREGNANCY.

The great value of abdominal support in the later months of pregnancy is more thoroughly appreciated today than ever before. The important thing, however, is to secure support that meets a patient's needs without causing discomfort or producing undue pressure over sensitive regions.

Backache and "dragging down" pains are often so severe that a patient, to obtain temporary relief, will not infrequently suffer excessive constriction a. the lesser of two evils. Fortunately this is unnecessary, and the use of the Storm Binder affords effective relief from backache, etc., without the slightest undue or unpleasant pressure. This is attributable to the fact that this Binder has been devised along scientific lines, with painstaking regard to avoiding harmful pressure as well as to securing adequate support. The benefits that come from wearing the Storm

Binder are apparent, therefore, from the first, and no patient who has ever worn one will willingly forego the comfort and relief that can be so easily and pleasantly obtained.—*American Medicine*, April, 1911.

A GOOD BISMUTH PREPARATION.

After an exhaustive study of the chemical and physical properties of bismuth and its compounds, the chemical experts of Parke, Davis & Co. succeeded in perfecting what many physicians consider the most eligible preparation of the kind—Milk of Bismuth, P. D. & Co., a mixture containing the hydrated oxide of bismuth in suspension. The product is stable under all ordinary conditions of temperature and exposure to light and air.

The advantage which Milk of Bismuth, P. D. & Co., possesses over other compounds of the metal is the state of fine subdivision in which the hydrated oxide is presented. This insures its more thorough distribution over the mucous surface of the alimentary canal, upon which it exerts a peculiarly beneficial effect. Its action is not only astringent, but, as some writers have observed, it appears to have a specific effect upon certain lesions, as ulcers, causing them to heal. It is also an antacid and protective, and undoubtedly is mildly antiseptic. Each fluid drachm of Milk of Bismuth, P. D. & Co., represents the bismuth equivalent of 5 grains of the subnitrate.

SUMMER CASES.

Conditions peculiar to the season now with us will present themselves for your consideration and a reference to the fact that Antiphlogistine has proven of particular service in Sunburn, Bee Stings, Insect Bites, Sprains, Bruises, etc., will offer you a ready and satisfactory dressing and is procurable in all drug stores.

In those severe cases of Dermatitis following undue exposure to the sun's ray, Antiphlogistine will quickly reduce the inflammation and the accompanying swelling and pain.

In all cases it should be applied thick and hot and well protected by ample covering.

State News

The recent death of Dr. A. J. Lyons, supt. of the hospital for the insane at Spencer, is deep to be regretted. In the prime of life, exceedingly popular, and a bright future before him, he will be greatly missed. Dr. Lyons was born at Coolville, Athens county, Ohio, on March 12, 1873, and was educated in the public schools of that county and at Starling Medical College, Columbus, and Baltimore Medical College. He first practiced medicine at Ravenswood, W. Va., and later removed to Parkersburg, where he remained until 1901, when he removed to Spencer to become superintendent of the insane asylum. He was not a member of the State Medical Association, as all state medical appointees should be.

* * *

Dr. M. T. Morrison of Sutton will move to Webster Springs, and we learn that his family will follow later. Sutton regrets exceedingly to

lose Dr. Morrison and his family, but will wish them continued prosperity in the new home.

* * *

We regret to note the death of Mrs. Mary B. Kidd, wife of Dr. J. W. Kidd of Burnsville, which occurred on Friday of last week after a lingering illness, at the age of 45 years. She was a most estimable lady and her death is greatly deplored.

* * *

The J. Elwood Lee Company have produced a new form of splint for club-foot from the pattern suggested by Dr. W. P. Megraill of Wheeling, W. Va. This splint is made of two pieces of metal jointed together at the ankle, so as to permit flexion and extension of the foot. The following qualities are claimed for the splint:

Light in weight, easy to apply and extremely simple.

Holds the foot in its proper position, at the same time permits motion.

Can be quickly removed, the foot and leg massaged and the splint reapplied by the nurse or mother.

Is sanitary as it can be quickly and easily cleaned at any time.

If the child becomes fretful it can be removed in order to find the cause, which cannot be done with other forms of splints. See *JOURNAL* for July, 1908.

* * *

Dr. A. M. Sorrell, late of War Eagle, is now located in Baltimore.

* * *

Dr. J. W. Ashby has removed from Wcvaco to Carbon.

* * *

Dr. I. T. Prickett, a veteran member of our Association, has removed from Parkersburg to Pt. Pleasant.

* * *

Dr. H. D. Hatfield is looming up as a Republican candidate for governor. It would look well to have a doctor in this seat of honor, and we know no one who could better fill it than Dr. H.

Society Proceedings

CABELL COUNTY SOCIETY.

HUNTINGTON, W. VA., June 9, 1911.

Editor W. Va., Medical Journal:

The Cabell County Society held its regular meeting at the Hotel Frederick on June 7th. The attendance was very good.

Dr. J. M. Lovett of Huntington read a very interesting paper on "Drugless Therapy in Dropsical Diseases." (This will appear in the *JOURNAL*.)

Dr. H. C. Solter of Huntington and Dr. G. D. Johnson of Kenova were elected to membership.

JAS. R. BLOSS, *Secretary*.

OHIO COUNTY SOCIETY.

May 5th. The society met in regular session, President Fulton in the chair. Dr. Homer S. West in a general way presented the subject of salvarsan, its method of preparation, and the methods of using in the treatment of syphilis. He reported having used the remedy in sixteen cases. He first used it by the intramuscular

route, but severe pain resulted, with marked tumefaction at the point of insertion. He has also used it subcutaneously, but thinks the intravenous route is the best. This method is free from pain and the patient can leave the hospital in a much shorter time. In one of his cases the patient developed a temperature of 101°, but no vomiting occurred. He thinks the rise of temperature was due to the inflammatory process following the intramuscular injection. He reported one case that gave a negative Wassermann reaction at the end of thirty days after the patient had received a subcutaneous injection, followed two weeks later by an intravenous injection.

Dr. J. R. Caldwell reported having used the remedy several times. In one case he used the intramuscular method, in one the subcutaneous method, giving 10 c.c. under each shoulder blade. He now uses the intravenous method in all cases.

Dr. S. L. S. Spragg reported having used the salvarsan subcutaneously in two cases, and Dr. R. U. Drinkard had assisted in its administration in six or seven cases. He regards it as an ideal drug, and does not think that mercury or iodine should be administered after it, but to give the second dose of salvarsan if any luetic symptoms persist.

Dr. E. A. Hildreth III reports having examined the eyes in five cases after the use of the remedy. In all there was a pinkish color of the discs but no diminution of vision. In fact, in four of the cases it was improved. The cases were seen about five days after the injection. The doctor can see no contraindication to the use of the drug in any condition of the eye.

Dr. R. J. Hersey said that he had used the drug in six cases, all by the intramuscular method. The mucous patches cleared up in three to four days, and the skin eruption in from four days to two weeks. There have been no relapses to date.

Dr. W. S. Fulton reports having had sixteen cases on the remedy. Six of these were treated by the intramuscular and the others by the intravenous method. He regards the latter as the only way that should be used, as it is painless and the resulting temperature in so many of the intramuscular cases is eliminated. He advises the use of mercurials and iodides after the injections as an additional safety to the patients, until such time as we know that the new remedy positively cures.

Adjourned.

HERSEY, Secretary.

Reviews

A TREATISE ON DIAGNOSTIC METHODS OF EXAMINATION.—By PROF. DR. HERMANN SAHLI, Director of the Medical Clinic, University of Bern. Edited, with additions, by NATHANIEL BOWDITCH POTTER, M.D., Asst. Professor of Clinical Medicine, College of Physicians and Surgeons, New York. Octavo of 1229 pages, containing 472 illustrations. Philadelphia and London: W. B. Saunders, Company, 1911. Cloth, \$6.50 net; Half Morocco, \$8.00 net.

Recent years have been prolific in the production of books on diagnosis. Da Costa had a long and successful career, and not a few successors

have imitated, if not copied, much of the good work in this book. Sahli, however, whose second American edition is before us, has struck out afresh, and given us a work that in many respects is essentially new. It is exhaustive in its treatment of most of the topics presented, and as this edition is from the fifth German, there has been abundant opportunity for corrections and improvements, both by the learned author and his American editor, by whom many notes have been added that give increased value to the book. Much of the work has been rewritten, e.g., the chapters on hemodynamics and icterus, and much new material has been added throughout the work. It is not too much to say that it now stands unrivalled as a complete, systematic work on diagnostic methods.

INEBRIETY—A Clinical Treatise on the Etiology, Symptomatology, Neurosis, Psychology and Treatment, and the Medico-legal Relations. By T. D. CROTHERS, M.D., *Sup't Walnut Lodge Hospital, Hartford, Conn.* Harvey Pub. Co., Cincinnati, O.

The author of this work has long been known to the profession as a specialist—we may say the leading one—in the treatment of the drink and drug habits. He has also long been an advocate of the theory that inebriety is a disease and not merely a bad habit. This book traces the history of inebriety, and shows that it was regarded as a disease as long ago as the time of Heroditus, although the theory has in modern times been bitterly disputed, and by no means all physicians yet accept it.

The whole subject is treated fully and in a most interesting way, and although we can not at all times agree with the author, we recognize his vast experience, and his high standing as an authority on the subject discussed. The book is a very interesting and valuable contribution to the literature of the subject, so interesting that we have read the entire work, and can commend it to all who are interested in the subject.

INTERNATIONAL CLINICS—A Quarterly of Illustrated Lectures and Original Articles. Edited by H. W. CATTELL, aided by MUSSER, OSLER, BILLINGS, CLARK and others. Vol. II. 21st Series, 1911. J. B. Lippincott Co. \$2.00.

This well known series needs little commendation from us. The papers are by the leading men in the profession and hence up to date. Among the leading papers in this volume may be named "Diseases produced by the bacillus coli communis—etiology, diagnosis and treatment, by Fenton B. Turk; Mobility and malpositions of the heart, by Thos. E. Satterthwaite; The progress of the tuberculosis campaign in Pennsylvania, by Lawrence T. Flick; A method of suspending and fixing the prolapsed uterus, by P. Daniel, F.R.C.S., London; The surgical aspects of typhoid fever, by C. G. Cumston; Some advances in obstetrics, by Laphorn Smith, M.R.C.S. Other papers are by Halstead, Patton, Remington and others.

ANNUAL REPORT OF THE SURG. GEN'L OF THE U. S. PUBLIC HEALTH AND M. H. S. FOR 1910.

This report gives the operations of this government department for the fiscal year, tells of the valuable work done in various parts of the coun-

try, including investigation of typhoid in our own State, and also gives account of the studies in the hygienic laboratory of the department. The last-named work has been made very valuable by the present Surg. Gen'l, and problems in preventive medicine are being constantly investigated. The Report is an interesting and valuable one.

REPORT FROM PATHOLOGICAL DEPARTMENT CENTRAL INDIANA HOSPITAL FOR INSANE.—Vols. 2 and 3.

These volumes represent the valuable pathological work done in this institution, which is under the management of Dr. Geo. F. Edenharter, with Dr. C. C. Manger as Pathologist. The Report indicates that unusual care is shown in the study of cases coming into the hospital, and in fatal cases the pathologist endeavors by post mortem study to evolve lessons of value in the management of the diseases that find their way into the institution. In Vol. 3 is given a clinical summary of many cases that can not fail to be of interest and value to all alienists. The work shown by these Reports gives promise of producing excellent results and we can commend the work to those in charge of our W. Va. hospitals for the insane as worthy of emulation.

TUBERCULOSIS—A disease of the masses, and how to curb it. International Prize Essay by S. ADOLPHUS KNOFF, M.D. 7th Am. edition. For sale by Fred. P. Flori, 16 W. 95th St., N. Y. Paper, 25 cts.

We have had occasion to highly commend this book in a former edition. It is an octavo of 122 pages, freely illustrated, and contains much valuable information for all who are interested in the control of tuberculosis. The fact that the little book is now in its 7th Am. edition, has been issued in 27 foreign editions and in 24 languages is sufficient proof of its superior merit. Get a copy.

Medical Outlook

INTRATRACHEAL INSUFFLATION.—The principle is simple. A catheter, half the size of the caliber of the trachea, is passed through the larynx, down to a point just above the bifurcation of the trachea, and air is pumped through it so as to give a degree of pressure somewhat greater than that of the atmosphere. It circulates through the lungs and escapes along the side of the tube. If the pressure employed is sufficiently great, respiratory movements may cease and the animal continue to live. The air may be mixed with oxygen, or with anesthetic vapor. A foot bellows or a pump driven by a small electric motor is employed.

We are indebted to Elsberg (*Annals of Surgery*, February, 1911) for an apparatus, so compact that it may be transported easily by hand, which places the intracheal insufflation of air, gases and anesthetic with mathematic accuracy, all under the control of an operator. The patients who have been insufflated and anesthetized for operation by this method have done remark-

ably well. Cyanotic patients have their color restored. Anesthesia may be continued for a long time without apparent harm. The patients awoken almost immediately after the insufflation is stopped. There is an entire absence of mucous rattling in the throat during the anesthesia. The ether may be turned off and pure air insufflated at the end of the operation to blow out the ether. Elsberg's apparatus permits the mixing of air, oxygen, and ether vapor in any desired proportion. Cough or pulmonary complications have not been caused by the operation. Post-operative vomiting has been absent.

At first it seemed that this method of anesthesia was indicated alone in operations upon the lungs and thorax, but experience seems to show that it has a wider field, and may be employed in abdominal operations and in operations about the head in which it is desired to keep the anesthetic apparatus away from the field of operation.

It is not difficult to imagine the still larger range of application open to this principle of forcing air and gas into the lungs. Pneumonia, illuminating-gas poisoning, opium poisoning, and many other conditions, in which deficient oxidation threatens life, may in the course of time be brought within the field of Meltzer's beneficent discovery.—J. P. Warbasse in *Am. Jour. of Surgery*.

PHLEGMON IN STOMACH WALL.—Koenig's patient was a woman of 28 whose illness had commenced with high fever, headache and vomiting; typhoid had been assumed at first. After subsidence of the acute symptoms pains in the stomach, independent of intake of food, persisted, with oppression and vomiting at times of brownish yellow masses but there was no blood in the stool and no diarrhea and the gastric chemistry was approximately normal. The appetite remained good but the woman grew constantly thinner, losing over 50 pounds in weight; palpation revealed a soft, transverse, long tumor which slid about under the fingers. The trouble proved to be a suppurative inflammation of the stomach wall, a purulent gastritis, which had passed into a subacute stage. The mucosa was perforated in various places, almost like a sieve, while the serosa showed signs of peritonitis and adhesions were forming. It is the first case on record in which the process was inspected at such an early stage and excision of the lesion restored the patient at once to health. The case shows that even after the phlegmon has emptied itself and the pus has been vomited up, yet the lesion does not necessarily heal but may persist in a subacute form, and progressively debilitate the patient. A gastro-enterostomy would not have mended matters, while resection without preliminary opening up of the stomach proved a complete success, the soft tumor-like mass into which the phlegmonous part had been transformed being readily excised.—*Jour. A. M. A. From Deut. and Med. Wochense, Berlin*.

POTASSIUM PERMANGANATE AS A HEMOSTATIC.—L. Buckle, New York (*Journal A. M. A.*, April 29), reports a case of ex-

cessive hemorrhage in a Jewish child after the rite of circumcision had been performed on the eighth day after birth, in which the ordinary treatment with styptics failed to control the bleeding. The child became so pale and weak from the loss of blood that its parents took it from the hospital to die at home. Having in a former experience observed the good effects of potassium permanganate in powder when applied to persistent capillary oozing from small cuts, Buckle ventured to use it in this case with the result of immediate checking of the bleeding and no recurrence. The action so promptly of the potassium permanganate was a surprise to him, and, while not enthusiastically recommending it for such cases, he thinks the success in this case merits its publication. The child was not a hemophilic for a deep cut in the forehead caused by a fall, three months later, gave no trouble at all and healed well.

SUCCESSFUL DIRECT MASSAGE OF THE HEART AFTER APPARENT DEATH IN ANESTHESIA.—A. T. Jurasz, Konigsburg. *Munch. Medizin. Wochensc.*, January 10, 1911.

While Prof. Payer was performing a resection of the pylorus for carcinoma, the patient who had withstood one hour of chloroform-ether narcosis without trouble, suddenly went into complete collapse—maximum dilatation of the pupils, cessation of respiratory and cardiac action. Trendelenburg posture, artificial respiration, oxygen and hypodermic stimulation failed to restore her. When no signs of life were obtained for five minutes sub-diaphragmatic massage of the flabby heart was begun in combination with the other measures. After two minutes the heart grew firmer and a few cardiac and respiratory movements were noted, but when the massage was stopped complete syncope returned. The massage was resumed and the heart responded after one minute. Gradually the heart began to recover, and all the vital functions slowly returned. The patient recovered from the operation.

Sixty-four cases of heart massage are now on record. Of these 13 (23 per cent.) recovered permanently. Of the three methods, thoracic, transdiaphragmatic and sub-diaphragmatic, the last has been most successful. To obtain results massage must begin within five minutes after the signs of apparent death have taken place.—*Am. Jour. of Surgery*.

BOWEL OBSTRUCTION BY ROUNDWORMS.—J. Whelan, Birmingham, Ala. (*Journal A. M. A.*, October 22), reports a case of fatal obstruction of the bowels by roundworms in the jejunum. It demonstrates the fact, he says, that the roundworm is at least worthy of consideration as an etiologic factor in the production of bowel obstruction in children. It also shows that no cautious surgeon should neglect the statement of an anxious mother that "the baby has worms" in looking for an explanation of the cause of trouble in certain obscure abdominal cases occurring during childhood. Then, perhaps, fewer certificates would be issued giving the cause of death as intestinal paresis superinduced by toxemia. The child in the case reported had been healthy up to within five months of its death. The article is illustrated.

For a somewhat similar case, occurring in the practice of Dr. Venning of Charles Town, see this JOURNAL for August, 1910.

THE SITUATION AS REGARDS SALIVARSAN (606).—W. A. PUSEY, Chicago (*Journal A. M. A.*, January 14), states that indications at present are very strong that we are on the verge of a period of indiscriminate and reckless use of Ehrlich's new remedy 606 or salvarsan, as it is known commercially, that will result in disappointment in that valuable remedy and—what is more important—in damage to many syphilitic patients, chiefly, let us hope, from neglect of established measures of treatment. To cure syphilis was Ehrlich's aim. The new drug was to be a *therapia sterilisans magna*—to destroy by one massive dose of a "parasitotropic" remedy all of the infecting organisms in a syphilitic patient. In the light of even the brief present experience with 606, it may be said with confidence that the agent has failed in this magnificent aim. It is not a *therapia sterilisans magna*; it does not destroy the infection; and it does not rid the syphilitic patient of his syphilis. The belief that salvarsan cures syphilis in man depends on the following considerations: 1. The destruction of the spirochetes. 2. The reversal of the Wassermann reaction. 3. The removal of the clinical manifestations of syphilis. The evidence is becoming increasingly strong that salvarsan does not permanently and completely cause any of these results. It has a striking effect on spirochetes, but the sudden disappearance of spirochetes from lesions is no evidence of an overwhelming attack on the disease. The drug may cause the disappearance of spirochetes from a chancre within twenty-four hours and greatly reduce the number, or cause their disappearance from deeper lesions—but mercury may do the same thing. If one were to take any warning from the accumulated experience of generations in syphilis, it would lead them to expect that the apparent disappearance of the spirochetes was but a lull in the invasion and that they would return. And that is exactly what is coming to light. Disappearing spirochetes are returning, it may be, even at the site of the original lesion, where their disappearance has been regarded as of such significant importance. The most important evidence as to the value of 606 is the effect on the clinical manifestations of syphilis; and here experience indicates great variability. These variations extend from cases which are "refractory" to the drug, and show no effect, to cases in which strikingly good results are seen. As a rule, there is in active early syphilis—the stage at which most would be expected from a remedy that cured—distinct and positive improvement. Sometimes the symptoms entirely disappear—as happens from mercury or even without treatment—but that, even in these cases, no cure is obtained, is shown by the definite tendency to recurrence that the later literature is revealing. Of the dangers of salvarsan we are at least able to speak at present. We do not fully know them. The evidence is large that immediate risk of serious accidents from the remedy are small. But enough is known to show that dangers exist. There is good ground for the belief that a larger

proportion of serious accidents are occurring than would be estimated from the literature. There is great diversity of opinion about technic of efficient administration. Injections in neutral emulsion, in alkaline solution, or mixed with oil, into the subcutaneous tissue, into the muscles, or into the veins, or combinations of these various methods, of administration are succeeding each other. The hope of a *therapia sterilsans magna*—the complete destruction of the spirochetes of syphilis in an infected patient—is practically abandoned, and two or three more injections are being used. And, finally, the recommendation of the use of salvarsan and then mercury, as heretofore, is the last evidence that the new agent is not equal to its proposed mission. It cannot be emphasized too strongly that the situation with 606 is still experimental. Our present experience shows that it does not cure syphilis and that we are not justified in holding out to patients any hope of cure by it, but that it is likely to prove a useful remedy in syphilis, with mercury, however, as before, our chief dependence.

APPENDICITIS.—W. Lowndes Peple, M.D., of Richmond, Va., in an article in *Va. Med. Semimon.*, makes the following very pertinent remarks:—

"Theoretically and intellectually we have mastered the problem of appendicitis. We know just what to do, and, better still, we know just when to do it. But are we following the rules formulated? Have we finished educating the laity in regard to this disease? Why is there still a high mortality if we know what to do and when to do it? In what class of cases is mortality the highest, and how can this be reduced? In what class of cases do complications and sequelae occur? What becomes of the cases not operated upon? These and many other questions crowded in upon me insistently demanding answers.—G. D. L.

THE OPEN-AIR TREATMENT OF POST-OPERATIVE NAUSEA AND VOMITING FROM CHLOROFORM AND ETHER.—Frank L. Barnes, M.D., Trinity, Texas. The subject of post anesthetic nausea and vomiting is one of considerable interest alike to the surgeon, gynecologist and obstetrician. The causes of such vomiting are many, and they vary much in gravity, but in this paper I shall refer only to that type which commonly follows prolonged anesthesia and surgical shock.

The observation here reported has this history: A great many negroes, for whom we have no hospital accommodations, come to my associate, Dr. R. Barnes, and me for operations. Originally we had an operating room and beds in connection with our office but it soon became such a nuisance to have this class of patients continually around the office that we hit upon the expedient of having them carried immediately from the operating room to their boarding places. Out of a great many cases handled in this manner, we have never had a single mishap, or a single bad symptom to follow the practice. We have never known one of these patients to vomit after being carried into the open air, and they are almost never nauseated. The distances from the

operating room to the places to which these patients have been conveyed have varied from a quarter to two and one-half miles.

Immediately upon the completion of the operation, the patient is placed upon a cot, wrapped in blankets, with the face always exposed to the open air, and external heat applied. The cot is then placed in a wagon or hack and driven slowly to the boarding place. If the patient is awake and nauseated when the hack arrives at its destination, we direct that the cot be not carried into the house until the nausea passes off; we also direct that as few attendants as possible be about the patient.

We have frequently observed that when we have been a little slow in getting patients out of the operating room, and they become nauseated as a result, they will immediately become quiet and drop into a peaceful sleep as soon as they are carried into the open and started upon their journey.—*Texas State Jour. of Medicine.*

CANCER OF UTERUS. ITS EARLY DIAGNOSIS.—All physicians may read with profit these words of the late distinguished surgeon, J. Knowsley Thornton:

How is an early diagnosis to be made? Clearly by neglecting no menstrual departure from the normal, however trivial it may at first sight appear, but at once to encourage the patient to accurately describe symptoms, and above all to insist in the most determined manner on a local examination. Here it will be apparent that I as a consultant, appeal for help to the great body of those who are now listening to my remarks, to my professional brethren engaged in general practice. I, in common with those situated as I am, too seldom have an opportunity of diagnosing early, because the majority of the patients come to us too late, when the disease has already advanced nearly or quite beyond the limits of surgical aid. Let me then appeal to all engaged in family practice who listen to me here, and to that larger body who may read my words when reproduced in the medical journals, to sternly cast aside that too great modesty or that tendency to treat as trivial small symptoms, and to at once take alarm about, and carefully investigate, every case in which there is brought to their notice an abnormality in menstruation, or a vaginal discharge of any kind, however trivial. A very grave responsibility lies at the doors of the medical profession for the small progress made in the early diagnosis of uterine cancer and its successful treatment. How constantly is the consultant told: "I mentioned it to my doctor weeks or months ago, but he said, 'Oh, it is nothing; I will send you a little medicine or a little injection' and never even suggested any internal examination, so I did not like to trouble him again till the pain became so bad or the discharge so troublesome, and then he examined me and said I must have special advice at once?" Invaluable weeks or months gone, and then the verdict of the consultant, "It is not a case for operation," which really means "You have come too late," but can not be so candidly expressed, because he must guard the reputation of his professional brother.

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CANCER OF UTERUS.

O. F. Covert, M. D., Moundsville, W. Va.

(Read before Ohio County Medical Society
April, 1911.)

Cancer, like the poor, we have with us always. It affects all ages, all classes and races of people. It even affects the lower animals, and an analogous condition is found in the vegetable kingdom. It is very uncommon in childhood and youth. When life has reached the flood-tide and begun to recede, it reaches its greatest prevalence, and it lessens as the Biblical three-score years and ten are reached.

We know that a carcinoma is a tumor composed of epithelial tissue contained in a connective tissue stroma. We know it may occur in any location in which epithelial tissue is normally found, and sometimes in locations where it is not normal.

We know something of the diagnosis, the life history, the comparative hopelessness of cure, the treatment, the mortality and misery it causes, but of the exact cause, with all our science and progress, we are in absolute ignorance. The cumulative knowledge of our research laboratories as to the etiology of cancer ends where Topsy began, and she "just grewed." We have several theories, the theory of irritation, the embryonal theory, and the parasitic theory, but none of them has progressed beyond the theoretical stage.

Cancer causes many thousand deaths each year, and statistics show that it is decidedly on the increase. The mortality from tuberculosis has been on the decrease, while that

from cancer has been on the increase, until at present the deaths from cancer among women are equal to, if not greater, than those from tuberculosis. The deaths from cancer among women are twice as great as among men; in women one death in seventeen being due to cancer, and in men the ratio is one in thirty-four. It is stated that cancer causes more deaths among women than does parturition. The increased proportion among women is due principally to cancer of the uterus, which causes one-fifth of all cancer mortality, and one-third of the female cancer mortality. This suggests to us the tremendous importance of being able to deal successfully with uterine cancer.

Cancer of the uterus is divided into that of the body and that of the cervix. That of the cervix is divided into squamous-celled, or epithelioma, and cylindrical-celled, or adeno-carcinoma. Eighty-five to ninety per cent. of all cases begin in the cervix, and of these about ninety per cent. are of the squamous-cell variety. My experience has been with this variety. I have a little series of cases to report, so I shall deal with this variety, epithelioma of the cervix.

Diagnosis is always the first and most important essential, and this is doubly true in uterine cancer. Refinement and accuracy in diagnosis are of more importance than a perfected operative technic. Only a few men prepare themselves to do the operative work, while every one who practices medicine should be prepared to make an early diagnosis. Every surgeon has coming to him cases of advanced cancer that have never been so diagnosed, yet they have been under the care of one or more physi-

cians, and taking some sort of treatment. The failure to diagnose properly is partly due to deficient training, but more often I think, to carelessness or pure laziness. Every woman who presents the slightest pelvic abnormality should be subjected to a careful physical examination. If she refuses examination, refuse to treat her. Not only should the physician realize, but women should be taught, that as they approach the menopause every abnormal pelvic symptom is a good reason why they should consult a physician. They should be taught that the diseased ovaries and change of life of which they talk so much, are largely subterfuges of the physician who is unable to make a correct diagnosis. They should know that any change in the ordinary leucorrhœal discharge, either in character, amount or odor, or the finding of an occasional blood stain on the clothing, is a possible sign of cancer.

For the physician, the diagnosis of advanced cervical epithelioma is easy and positive; the only difficulty is in early diagnosis. His first suspicion should be aroused by the history, a changed leucorrhœal discharge, and blood at other than the menstrual period, blood due to touching the cervix, as in sexual connection or the use of the syringe. The earliest sign is the finding on the cervix of papillary nodules, of a bluish color. These break down easily, bleed freely, and contain a soft brain-like substance. They should not be confounded with the nabothian follicles. If the diagnosis is in doubt, and it likely will be, a nodule should be excised for microscopic examination. The report of the pathologist, while not always absolutely correct, is very helpful. One should always recollect the personal element that enters into all microscopic work that he entrusts to some one else. Later there is a development of finger like projections growing laterally and downward along the lines of least resistance, and we have what is known as the cauliflower-cancer. At this time the finger finds a somewhat irregular mass at the upper part of the vagina, shaped like the bottom of a flat turnip. A very little force produces bleeding and brings out a bit of soft, friable, pale tissue. At this time the finger is the most accurate diagnostic instrument, much more accurate than the eye. The touch is so character-

istic, that it seems almost impossible to go wrong. Later the mass sloughs, there is left a dome shaped cavity, covered with sloughing, necrotic tissue, and many nodulations.

At this stage an examination is hardly necessary; the history will usually make the diagnosis. In fact, the diagnosis does not present any great difficulty. The difficulty is in planning and carrying out the proper treatment. And here comes a parting of the ways. The profession is not united as to the best plan of procedure, once the diagnosis is made. Of course, the treatment must vary according to the stage of the disease at which the diagnosis is made. The stages might be classified as the beginning, moderately advanced, and far advanced. The treatment can be broadly classified as palliative and radical. By radical treatment is meant hysterectomy, either vaginal or abdominal, including or not the adnexae, including or not a wide dissection with an attempt to remove lymphatic glands.

Palliative treatment refers to anything that is done short of hysterectomy, such as the use of the curette, the cautery, actual or chemical, the Roentgen ray, radium, and the use of various drugs. One's choice of treatment should not be haphazard, but should be based on reason and experience, his or some one's else. The fundamental reason for choosing the radical operation is the belief of the operator that the disease can be removed in its entirety, for it is well known that if any of the disease remain, either in its original location, or as a metastasis, it will surely recur. Even so a radical operation may be justifiable, because of the temporary relief it may give, and the recurrence would be devoid of the hemorrhage and the foul-smelling discharge.

It goes without proof that if the disease remained purely local, a local operation, as amputation of the cervix would suffice, but all experience demonstrates that the disease does not long remain purely local. The tendency is to transmission into surrounding tissue, and this tendency accelerates as the disease progresses until checked by death.

The transmission is by two methods, either by continuity or metastasis by way of the blood vessels or lymphatics. By continuity there must be a continuous sheet

of cancerous tissue from the original focus to the limits of the invasion. By way of the vessels, there may be normal tissue between the original focus and the point of secondary invasion. Transmission by way of the blood vessels is rare, and when it occurs the case is always too far advanced to justify radical operation. The same statement is probably true of metastasis by way of the lymphatics, but we cannot always know when that has taken place, and it is well to give the patient the benefit of the doubt, as with our present methods all patients not operated on die.

In the great majority of cases, the extension at first is by continuity, the disease first invading the vagina, almost always laterally, then the connective tissue at the base of the broad ligament. This is particularly true of the older cases, in which glandular involvement comes late. In younger cases glandular involvement comes sooner. The body of the uterus and the ovaries are involved late, if at all. In the later progress of the disease, the rectum and bladder are involved, but the hope of cure has gone before this. These facts form the basis on which the surgeon reaches a decision to do a radical operation, and they also form a basis for a rational hope of cure. There can be only one fundamental reason for a surgical operation in any case, and that is a belief, based on knowledge and judgment, that the patient will be benefited.

I know there is a great diversity of opinion among surgeons as to when a radical operation is justifiable and to what extent it should be carried, some delaying to the extent that by the time a diagnosis is made it is always too late, others attempting radical operation even after extensive parametrial involvement. As to the extent of operation there is also a wide diversity of opinion. Dr. Byrne, of Brooklyn, a number of years ago reported nineteen per cent. of cures in about 350 patients, operating on every patient, making no distinction between the operable and inoperable cases, by the local use of the galvano-cautery. At the other extreme we have the teaching and work of Ries and Wertheim, along with others, who practice wide excision of the pelvic tissue, removal of much of the vagina, along with an attempt to remove the lymphatic glands that may

be a probable or possible seat of metastatic foci. Wertheim reports a primary mortality of about twenty-five per cent. in the beginning, which he later reduces to about eight per cent., but a cure in sixty per cent. of cases, operating on fifty per cent. of cases presenting themselves.

For some reason, I think no other surgeon has been quite able to duplicate Wertheim's success. For most operators. I think a golden mean somewhere between these extremes will be found to be attainable. Wertheim states that when he has removed lymphatic glands and found them cancerous, he has almost always had a recurrence in the glands that were not removed.

That seems to be a sufficient reason for not prolonging an already long and difficult operation for the purpose of attempting an impossibility, for it is impossible to surely remove all the glands that may be a possible seat of a metastasis.

As between the vaginal and abdominal route, I think the abdominal preferable, because I do not think enough of the vaginal and parametrial tissue can be removed by the vaginal route. If the abdominal route is chosen, it is desirable to have the ureters identified either by the method of Kelley or by dissection. The ovaries and tubes should be included, not because they are likely to become cancerous, but because one is enabled to make a wider excision of the broad ligaments. As much as possible of the parametrium and the upper part of the vagina should be removed.

The operation is not unduly long, and gives the woman the best chance of immediate and ultimate recovery. This operation should prove successful in from twenty-five to fifty per cent. of cases if undertaken early, but it is absolutely useless and an evidence of lack of judgment to attempt a radical operation after the vault of the vagina has become hardened and the uterus fixed by a cancerous invasion of the parametrium. But many come to us in just this condition. What then? The tendency is to pass them along. But something, much, can be done for them in the way of palliation. Unfortunately, with the laity, an operation is an operation; our skill is measured by our results, and it is a failure if it fails to cure. Compare the results and glory one gets

from removing a normal appendix, with that which comes from doing a palliative operation on a carcinomatous uterus.

Among palliative measures the curette and cautery stand first. The cervix can be amputated with the platinum wire, and the inside of the uterus cauterized as advocated by Byrne, or the sloughing tissue can be first removed with the curette and the stump cauterized. As cauterants we can use the galvano, thermo, or Paquelin cautery, or among chemical agents, chloride of zinc.

The galvano-cautery is undoubtedly the best but not always obtainable. Cauterization should be very thorough, but not to the extent of opening the rectum or bladder. This should be repeated as recurrences appear, until the recurrence is within the abdominal cavity, when our efforts are limited to the alleviation of pain by the use of narcotics.

With radium I have had no experience, with the Roentgen ray not much, and I doubt if any benefit came from its use. A few years ago we heard much of the use of trypsin. I used it in one case, but the patient died.

I have also used acetone. It did not stop the progress of the disease. Whether it had any beneficial effects whatever, I am unable to say. Yet much can be done with palliative treatment; the discharge can be lessened or entirely stopped, pain ameliorated, and life prolonged. According to the report of Byrne the disease can actually be cured in a fair proportion of cases. I have the following series of cases, treated at Reynolds Memorial Hospital recently, to report. They represent to some extent the varying lines of treatment followed, with the results obtained:

Case No. 1. I shall give somewhat in detail, as there are some interesting features connected with it.

The patient came from outside the county, and was sent to me for diagnosis and treatment. She was thirty years old, unmarried, and so far as I could learn had never been pregnant. The history, as I elicited it when she entered the hospital, did not suggest the correct diagnosis. She gave a history of having three or four spells with her stomach during the past three years. Pain began in the stomach or in back, and then passed forward to stomach. Pain lasted about twenty-four hours and she was sore for two or three days afterward. Always vomited, but

vomiting did not relieve the pain. Thinks she had no fever.

Menses began at thirteen, twenty-eight day type, always regular until four months previously, since when they had come too frequently. Menstruation had always been painful and scanty. An examination revealed advanced cervical carcinoma, with involvement of the pelvic tissue. I did a curettage and cauterized with thirty per cent. chloride of zinc solution. She left the hospital in fifteen days, and in fifteen days later she died.

Two other physicians had seen her previously, one two weeks and the other three weeks before she entered the hospital. Their experience illustrates the errors and difficulties of diagnosis. The physician who saw her three weeks before she came to the hospital gives the following case: "She gave me a history of several weeks of suffering from pelvic pain, neuralgia and hemorrhage. She was, of course, much exsanguinated." And upon examination I suspected myocarditis but I was "up against it" so far as making anything like an examination of the uterus, where I knew the cause of her trouble was to be found, as I had no speculum or sound with me. She, however, consented to a digital examination, upon which I found a patulous external os. If I remember correctly, there was no displacement of the uterus, but there was considerable tenderness in one of the ovaries, the left I think. I felt I could hardly venture a diagnosis upon such an imperfect examination, yet I was strongly inclined to believe the diagnosis should be endometritis and the free hemorrhage, which does not often occur in endometritis, with those small tumors, led me to think of fibro-myomata.

From her condition I realized that something would have to be done quickly, and advised the patient to be curetted and at the same time to have the small tumors removed, as I thought the latter were the cause of the bleeding."

The doctor's findings were pretty good, but his deductions were wrong.

The physician who saw her two weeks before she came to the hospital, reports as follows: "She was suffering from dysmenorrhoea. Before coming to me she had been to Dr. — at —, for examination and treatment. I did not make a digital examination the first day, but did three days later. I was unable to use the speculum on account of the extreme tenderness. I made the examination at her home with no assistance and very poor light. The digital examination led me to suspect myomata, and I advised her to go to a hospital, as her condition was growing worse."

This case illustrates the rapidity with which cancer of the cervix progresses in a young woman of thirty, and is unique in that cancer of the cervix in a young unmarried nulliparous woman is exceedingly rare.

Case No. 2. Was a married woman, age forty-three, mother of four children, the youngest age sixteen. In her history she said she was torn at first confinement. Had "falling of womb" and discharge for several years. Has had bloody discharge for six months particularly after sexual intercourse and use of syringe. She had been taking treatment in Wheeling for three

months for womb and bladder trouble, but it was from a man who was not, is not and could not be a member of the Ohio County Medical Society. She then consulted Dr. McGlumphy, of Moundsville, who made a diagnosis of cancer and referred her to me. She was too far advanced to consider radical treatment, so I sent her into the hospital and curetted her and cauterized with chloride of zinc, thirty per cent. She was much relieved for a short time, but the bleeding soon recurred and I again curetted in about two months. The bleeding did not recur, but there was a rapid metastasis to the deep and superficial glands; the rectum and bladder became involved and she died six months after the second operation, about seven months from the time I first saw her and thirteen months after the beginning of the disease. I used the trypsin and amylopsin injections for several weeks on this patient, but I could detect no beneficial results whatever.

Case No. 3. A married woman thirty-eight years of age, seven confinements, the last being twins six years previous. She came from out of town, and the history is not very clear. She had not been well for about a year. She had consulted a physician, but no pelvic examination had been made. She was losing flesh, carried some temperature, and her family suspected tuberculosis. Two days before I saw her she had an alarming hemorrhage from the vagina. An examination revealed advanced cancer of the cervix. She was sent to the hospital, I curetted and used chloride of zinc thirty per cent.

She left the hospital in fifteen days. There was no recurrence of the bleeding or discharge. She died six months later.

Case No. 4. A widow, fifty-eight years of age, seven children. A few weeks before I saw her she had noticed a bloody discharge from the vagina. She consulted a physician who made a diagnosis of cancer, but advised against operation, because of the existence of an organic heart lesion. She then consulted me. I told her I would take chances on an operation. The disease was in its incipency and I thought the case a favorable one for radical operation. She consented to go to the hospital, but changed her mind, said she did not suffer any, maybe it wasn't cancer, and she might get well anyway. In about three months she came back for the operation. I first refused, but later decided to give her the benefit of the doubt and did a pan-hysterectomy. She left the hospital in twenty-eight days. There was a recurrence in a few months.

Ten months after the operation, during my absence, a recto-vaginal fistula formed. Another physician was called who sent her to the hospital to close the opening. On my return I was asked to take the case, but refused unless her physician acknowledged his inability to close the fistula. He did not do so, and in a few days made an abdominal incision, for what purpose I do not know. She then came into my hands, and remained nominally my patient until her death six months later. She lived sixteen months after the hysterectomy was performed, about nineteen months after the first invasion of the disease.

Case No. 5. A married woman fifty-four years of age, six children, was referred to me by

Dr. L. S. Hemen, with diagnosis of cancer of the cervix. She gave a history of having had a bloody discharge from the vagina for about two months.

The disease did not seem far advanced, and hers seemed a favorable case for radical operation, so I did a pan-hysterectomy. She left the hospital in twenty-three days. She died about one year afterward from another trouble, but with no evidence of a recurrence.

Case No. 6. Married woman forty-one years of age. Seven children, the youngest three years old, a forceps delivery. She gave a history of irregular menstruation for about three months, but no pain. She had been under treatment by another physician for about a month. The case looked fairly favorable for radical treatment, although there was a little hardness in the vaginal vault. On January 13, 1910 I did a pan-hysterectomy, including as much of the vagina as possible. She left the hospital in twenty days. Now, fifteen months later, she is still living, but the disease has recurred, and recurred in the scar. I feel that if I had removed a little more of the vagina I might have obtained a permanent cure. She has had the X-ray treatment pretty thoroughly, I have used acetone, have curetted and cauterized the recurrences, but the disease goes on,—and soon the curtain will have gone down on the last of my first series of cases of epithelioma of the cervix uteri.

What has been accomplished? For one thing they formed the basis of this paper. They have stimulated me to review and re-study the entire subject, and I hope will stimulate free discussion. I want to know what our home physicians think and do along this line. Whether the patients received any real benefit from the treatment is possibly open to a difference of opinion, but I worked conscientiously and did the best I could.

In this connection I have an interesting case to report. It is interesting because it so closely simulated epithelioma of the cervix, that several physicians so diagnosed it, and it was operated on palliatively, probably with the thought that it was too far advanced for radical treatment.

I first saw the patient October 19, 1908. She was then forty years old, had had two full term pregnancies and one miscarriage. The youngest child was fourteen years old. She detailed numerous symptoms, but the principal complaint was that she had had almost a constant flow of blood from the vagina for five months. My notes say: "Complete tear of the perineum, uterus drawn to right, extensive laceration of cervix. The everted cervical tissue much reddened, not softened." I did not think it was cancer, still I advised hysterectomy. She refused operation and I saw her no more at that time. About four months later another physician in Moundsville asked me if I knew she had cancer. I told him I did not know

what she had at that time, but at the time I saw her I did not think she had cancer.

She then consulted a surgeon in Wheeling, who did a very thorough curettage and cauterization March 12, 1900. The scrapings were examined by the pathologist at the City Hospital, who reported negatively on the scrapings examined.

The patient reports that the bleeding ceased for about ten days, or while she remained in bed, only to recur when she began going about. She then consulted several physicians and was treated in various ways. In July, 1910, she returned to the surgeon for examination and advice as to operation, but an operation was deemed inadvisable as the condition was thought to be surely cancer.

At about that time she again consulted me and I again advised hysterectomy, but I did not think it was yet cancer. After some time I gained the consent of the family to do a curettage, which was done November 21, 1910. The scrapings were very scanty and so clearly non-cancerous that I did not have a microscopic examination made. The bleeding recurred in a few days and on December 5, 1910 I did a pan-hysterectomy. She left the hospital in twenty days. She has had no recurrence and is gradually regaining her normal general health.

A pathological report by Dr. R. U. Drinkard follows:

Wheeling, W. Va., April 18, 1911.

Dr. Covert,

Moundsville, W. Va.

Dear Doctor:

On examination of the uterus and appendages which you sent me several weeks ago, I find the following conditions:

Macroscopically I find the uterus somewhat enlarged, of a pale color, and it is of a rather boggy or spongy consistency. The enlargement is quite uniform, however, and the os is quite patent.

The cervix, with the exception of its loss of substance, which is apparently due to a curette, is practically normal.

The is nothing remarkable noted about the appendages.

Microscopically I find the mucous membrane, with the exception of slight hyperplasia of the uterine glands, and a slight round cell infiltration, to be practically normal.

There is nothing remarkable about the muscular coat of the uterus, with the exception of its being slightly thickened with some sclerosis of the walls of the blood vessels.

Remarks: Not knowing anything about the clinical history other than the metrorrhagia which you mentioned to me over the phone, I take the case to be one of metrorrhagia myopathica, formerly called apoplexia uteri, endometritis, senilis or preclimacteric metrorrhagia.

Sincerely yours,

R. U. DRINKARD, M.D.,
2345 Chapline St.

SURGERY OF THE TONSIL.

Frank Le Moyne Hupp, A. M., M. D.,
Wheeling, W. Va.

Attending Surgeon to the City Hospital.
First Lieutenant, Medical Reserve
Corps, U. S. Army.

(Read at Ohio County Medical Society—April 3, 1911).

It seems to me that no apology need be made for bringing for your discussion and consideration a subject so important and full of meaning to us all. To be sure, it might have been more fitting and proper to have the theme of tonsillar surgery handled by one of our brothers of the throat specialists. To them I therefore apologize as I bring my tribute of words, and I trust you will receive them as expressing the sentiments of those of us who are frequently obliged to deal radically with diseased conditions of the faucial lymphoidal masses.

The indications for the removal of the tonsil, we are told by Richards, (*New York Medical Record*, Dec. 11, 1909) are: recurring tonsillar abscess or quinsy, recurrent simple tonsillitis, benign tumors and new growths of any kind, when their removal is not prejudicial to life, diseased crypts co-existing with tonsillitis and rheumatism, mouth breathing due to hypertrophy of the tonsils, middle ear inflammation apparently due to enlarged tonsils, impaired nutrition, systematic dyspnoea, and general toxæmia when of tonsillar origin.

At a recent meeting of the New England Pediatric Society Dr. Eugene A. Crockett (*Boston Med. & Surg. Jour.* March 23rd, 1911) read a most interesting and practical paper on "When Shall We Remove Tonsils and What Type of Operation Shall We Do?" In this paper he discusses the very vital question of when to operate and for whom should we advise surgical interference when tonsillar hypertrophy exists. Many times children's tonsils (shall I add like women's ovaries) are removed for insufficient reason and without regarding the operation as a critical one. If one takes the trouble to look over the instrument catalogues for the past few years he can not but observe the rapid increase of new instruments designed to dislodge the faucial tonsil from the throat, and to arrest ton-

sillar hemorrhage. Some of these instruments I have brought here tonight for your inspection, together with the multiplied curved scissors, angular and other murderous knives, punches, cork screws and spiral tenaculi, harpoons with fiendish fish-hook barbs, hooks, elevators and guillotines, all contrived with the diabolic ingenuity of the warriors of old. For what? To remove a little bunch of frequently innocent lymphoid tissue buried in the back of the throat.

Let us first look at the subject of bleeding. The various compressors, hernial pads, and clamps devised to arrest what has too often looked like a fatal hemorrhage, all certainly indicate that this so-called simple operation has become, because of the recently advocated radical technic, one of magnitude and severity, and is often attended with considerable risk, many times jeopardizing the life of the unsuspecting patient, and startling their ignorant and trustful friends. Hear the evidence: A New York banker stopped at the office of a particular friend of mine to have his troublesome tonsils removed before sailing for Europe, which he had hoped to do in several days. With such aseptic precautions as could be observed in an office, and under local anaesthesia, two hypertrophied masses were removed with the Mathieu's guillotine, secondary hemorrhage was profuse, the carotids were tied before evening, and the patient was dead by midnight.

Dr. Packard (*Am. Jour. Med. Sci.* Sep., 1910) records a fatality following the removal of enlarged tonsils and naso-pharyngeal adenoids, and charges the death to the status lymphaticus. Harmon Smith (*St. Louis Laryngoscope* p. 121, 1904) in a paper on alarming hemorrhage following tonsillotomy, collected fifty-four cases from the literature. Six of the cases ended fatally, and as Dr. Lee Cohen has suggested, if all severe hemorrhages and fatalities found their way into the literature, the number tabulated by this observer would be found to represent but a very small proportion of those actually occurring. Chevalier Jackson of Pittsburg has reported six cases of ligation of the external carotid for tonsillar hemorrhage.

Dr. Crockett reports a series of accidents which occurred in the hands of men not used to general surgery, to say nothing of special surgery, and a few occurred in the

hands of experienced operators; two cases of immediately fatal hemorrhage of the throat with death in about two minutes following sharp dissection of the tonsil with a knife; one case of severe hemorrhage in the throat following sharp dissection with scissors, relieved by ligation of the common carotid artery; one case of death from strangulation from inhaled vomited material, the operating physician being unprepared for such an accident, and therefore unable to do a tracheotomy; one case of death due to anaesthesia, possibly a case of enlarged thymus; one case of slow hemorrhage from both tonsils following sharp dissection, partially checked by the use of the Mikulicz tonsil clamp, followed in two days later by hemorrhage into the skin, and pneumonia with death.

Within the past year in Dr. Crockett's clinic in the Massachusetts Charitable Eye & Ear Infirmary, there was one death from hemorrhage, and three cases where it was necessary to ligate the tonsil pillars for the relief of severe hemorrhage, and two cases checked by the tonsil clamp pressure. These cases would have died had they not received proper and prompt surgical attention. Ether pneumonia, followed by empyema, mastoiditis, acute meningitis and death, is the history of one of Dr. Crockett's private cases.

Dr. James E. Newcome of New York, reports a case of fatal hemorrhage from a simple removal of adenoids. (*Am. Jour. Med. Sci.* Nov., 1893.)

Dr. Delevan (*Transactions Am. Laryng. Asso's* for 1892 and *N. Y. Med. Jour.*, Nov. 19, 1892), reports two fatal cases of hemorrhage after removal of adenoids, one of them in his own practice, and one case of death from infection after removal of adenoids at the Presbyterian Hospital Dispensary, N. Y., followed by a malpractice suit. One could go on indefinitely, reporting unfavorable results following tonsil and adenoid surgery; and why do we endeavor to paint so black and discouraging a picture of so simple a surgical procedure? It is to make more emphatic to the members of this society the very vital point made by Dr. Crockett, the fact which may be misunderstood, namely, that any operation in the throat requiring the use of general anaesthesia is too dangerous a procedure for any one to perform who is not thoroughly com-

petent to meet the surgical emergencies which may present themselves. These, as shown by the above list, comprise the ability of the operator to ligate the common carotid, to ligate the tonsil pillars, to do an emergency tracheotomy, and also properly to perform artificial respiration. Unless the attending physician is able to do these things, he is taking a great moral responsibility upon himself when he undertakes to perform any throat operation under anaesthesia, particularly if he adopts the so-called modern technic, using knife, scissors, gouge or punch in order to do a tonsillectomy or complete enucleation. Most observers agree that there is less hemorrhage after tonsillectomy than after tonsillotomy, and that post-operative bleeding comes as a result of injury to the muscular bundles in the anterior and posterior pillars, and to the superior constrictor of the pharynx. As the arteries are either buried in or are external to these muscles, they will not be injured if the muscles escape the knife or guillotine.

Richards has observed (*Med. Record* Dec. 11, '09), that the tonsillar artery, while external to the superior constrictor muscle of the pharynx, is one large stem. In passing through, it subdivides into three or four branches. If, therefore, this muscle is injured, the main stream may be divided and the hemorrhage be great, whereas, if the tonsil is removed without injury to this muscle, only the branches are divided and the hemorrhage is correspondingly less.

It does seem strange, as observed by Doctor Lee Cohen (*The Laryngoscope*, St. Louis, Sep't 1910), that although the ligation of vessels to control hemorrhage has been regularly practiced in the surgery of other parts of the human anatomy since the days of Ambrose Pare, 1545, the procedure has not found favor in tonsillar surgery until recently. Certain it is that the throat men fail to receive the recognition as surgeons from their confreres, the general surgeons, whose aid many have sought in controlling alarming hemorrhage after partial or complete extirpation of the tonsils. This is due, perhaps, to the fact of the employment of such unsurgical, insecure and irksome methods as astringent applications, ice, prolonged pressure, suturing faucial pillars over pads of gauze, torsion, etc. Certainly such methods, lamentably

frequent as we all know they are, can but reflect discredit upon throat work as a whole.

In a series of questions asked a number of leading throat specialists in 1908, out of thirty-six replies to the question: "By what method do you control bleeding?" only nine mentioned the use of hemostatic forceps. Cohen uses the ligature as a routine measure, and insists that in almost every tonsillectomy, even when comparatively little blood is lost, such loss could still be further reduced by tying the bleeding vessels, whether they are large or small. Though in the majority of your tonsil cases ligation may not be necessary, yet alarming hemorrhage occurs often enough that we should always have at hand a long hemostat (Chevalier Jackson's preferred), and a piece of catgut, since these are the only absolutely secure measures for arresting bleeding from an open vessel, whether it is in throat or general surgery.

It is not the purpose of this paper to discuss a technic for the removal of the tonsil in the adult, but in passing I will say that when the indications mentioned in the beginning of this paper present themselves, and where we have ascertained by careful examination that the operation would not be prejudicial to the life of our patient, then under an anaesthetic there should be a complete enucleation. Personally I prefer to detach the offending organ from its bed, separating the anterior and posterior pillars by blunt dissection, continuing the enucleation, using the fingers when possible, and then grasping the tonsil with the forceps, and completing the work with a Mathieu's guillotine, or the large size instrument of Mackenzie. I am *not* in favor of the knife dissection, nor do I think the scissors, or any other sharp cutting instrument has any place in this operation, except to detach the small remaining pedicle.

A word regarding injury of the carotid artery. Dr. Mathews has observed that the tonsil is separated from the carotid by the superior constrictor, styloglossus and stylopharyngeus muscles. Moreover, the artery lies posterior to the muscle, i. e., nearer the vertebral column. The carotid will not be injured by finger dissection or the tonsillotome, but may be by tonsil punches or sharp cutting instruments, particularly if

pressure is being exerted from without. Remember, if pressure is ever made from without, that it should always be in front of the vessels.

There seems to be a great division of opinion with regard to the effect the removal of the tonsil may have on the voice. It has been my privilege to operate on several vocalists, and I can say here without fear of contradiction that the range and volume of the human voice is invariably increased following the operation, provided there has been a complete enucleation with no injury to the pillars.

Richards speaks of accidents other than bleeding, naming injuries to the uvula, the pillars and the palate, mild cellulitis, severe surgical shock, simple infection, deep cervical cellulitis, respiratory embarrassment requiring tracheotomy, torticollis, and alteration of speech and voice where the operation is not properly performed.

While in New York City a few weeks ago, I was invited by my good friend, Dr. Frank S. Mathews, to visit his clinic at the St. Mary's Hospital for children, an institution under the supervision of the Episcopal Church on West 34th St. Dr. Mathews stands out conspicuously as one of the most skillful tonsil and adenoid operators in Greater New York. Eighteen cases received operation that morning, and as the Mathews technic should be familiar to every member of this society, I will let the inventor of this matchless method present the operation in his own words.

(*Annals of Surgery* for December, 1909):

"We use ether as the anaesthetic of choice—under no circumstances chloroform, considering it more dangerous in these cases with their tendency to cyanosis than in the common run of surgical cases. Recall the fact that minor anaesthesia and childhood are no safeguards against the dangers of chloroform. Ether is given with paper cone and without preceding it with nitrous oxide. A child is etherized so quickly that the latter affords no advantages. Etherization is continued two to four minutes, depending on the child's age until a state of primary anaesthesia is reached, but not to the stage of obliteration of pharyngeal or corneal reflexes. The danger of inspiring blood, though slight, is less when reflexes are not impaired. The pa-

tient is placed horizontally on a low table with the head at the end of the table but not hanging over. The operator takes the place of the anaesthetist at the head of the table. A gag is inserted and held by the anaesthetist who controls the head and presses upon the tonsil from without, if desired. If the tonsil is thoroughly enucleated this is of small moment.

"The jaws are gagged just widely enough to admit one or two fingers; wide gagging interferes with the child's breathing. No effort is made to control the movements of the fingers by sight. The whole operation is done by the sense of touch.

"We describe first the removal of the right tonsil. The gag is placed in the left side of the mouth; the index or index and middle fingers of the right hand inserted and their palmar surface applied to the right anterior tonsillar pillar. By several strokes of the finger along the pillar from above downward a plane of cleavage is found and the tips of the fingers felt to enter between the outer fibrous tissue-covered surface of the tonsil and the inner surface of the pharyngeal wall.

"If, as is less frequently the case, the tonsil adheres to the posterior pillar, the palmar surfaces of the fingers are then brought in contact with the exposed surface of the tonsil, and the tonsil forcibly pulled forward, or rotated on its vertical axis, toward the mouth. The adhesions to the posterior pillar separate easily. Next one inserts the finger into the space made by separating the anterior pillar from the tonsil, turns the palmar surface toward the tonsil and brings it in contact with its upper pole. With the finger above the tonsil, and the pillars thoroughly separated from it, the tonsil is pushed inward toward the pharynx, and downward toward the epiglottis, thus stripping it laterally from the pharyngeal wall. The tonsil, now out of its natural bed between the pillars, remains attached only by a band of mucosa at its lower pole. One can now, if he desires, and as we have repeatedly done, tear away this remaining attachment with the fingers; but it is more difficult and time-consuming than the preceding steps of the operation, and consequently we complete the removal by using a Mackenzie tonsillotome of small size and

small aperture. The blade is drawn back, the instrument inserted with the finger over the aperture, and the blade pushed home only when the finger feels that the tonsil has engaged.

"The gag is then as a rule shifted to the right side of the mouth, and the left tonsil enucleated with the fingers of the left hand. Inspection of the tonsil after removal shows a whole tonsil in a capsule of connective tissue. Rarely are any muscle fibres of the pharyngeal wall found attached to it.

"After the tonsils are out, the finger explores the vault of the pharynx and if adenoids are present, they are removed with the curette. We never use the finger or gauze-covered finger to remove growths from Rosenmueller's fossa, because of the certainty of thereby producing traumatism to the lateral pharyngeal wall in the vicinity of the Eustachian prominence, and thereby favoring middle ear complications. The mouth is more widely gagged for the removal of adenoids than for tonsils.

"This operation requires but a couple of minutes and the child is out from the anaesthetic almost immediately."

I wish to present here a pair of tonsils which I removed in a child five years old. Examination will show that there has been an entire enucleation from the bed between the pillars. There was scarcely any bleeding in this case, and the time required for the completion of the work, including the removal of adenoids, was three minutes. I removed these in the presence of Dr. Mathews, and according to the technic detailed. Without hesitation I would indorse this procedure as the operation *par excellence* for children, and the one I shall in the future use.

The subject of the responsibility of the tonsil for tubercular adenitis is entirely too broad and extensive to receive detailed attention in this paper; but some interesting problems are presented here, which I trust will be brought out in the discussion.

For its frequent etiological relationship, Mathews, in the *Annals of Surgery* for December, 1910, points out with emphasis, that pathological conditions are frequent in children in both tonsils and lymph nodes. When the tonsil is inflamed from any cause, the tonsillar nodes at the angle of the jaw are first to enlarge. One familiar

with the early stages of tubercular adenitis in children will agree that in at least ninety per cent. of cases the first nodes to enlarge are these same tonsillar nodes.

We cannot close this paper in a more fitting way than to reiterate and drive home to each and all of you the burning and vitally important words of Crockett: "Do not operate without due deliberation and on definite indications, and during the operation remember the surgical landmarks of the throat, remove the tonsil by careful blunt dissection, and having operated, treat the patient as a serious case for the next three or four days. Do not operate unless you are able to meet the necessary emergencies, which every surgeon must expect to have occasionally. If these rules are observed, the operation will be undertaken with a minimum of bad results, and a maximum of success from the standpoint of the patient and his family, and will not be so generally performed as at present."

I will not trespass further upon your indulgence nor upon the time which promises to be both more pleasantly and more profitably occupied by the discussion.

Discussion—DR. OESTERLING opened the discussion. He prefers blunt instruments to sharp ones and frequently employs the finger to free the tonsil down to its base and completes the enucleation by means of a snare. He thinks hemorrhage is frequently due to injury of the pillars, which does not happen in blunt dissection. As to anesthetics, he prefers ether to chloroform, and says that in some cases, where the anaesthetic is not well tolerated, the dyspnoea disappears after the adenoid vegetations in the naso-pharynx have been cleared by means of a curette. The tonsils can then be removed under far more favorable conditions. After using the curette in the vault, the remnants of adenoid tissue can be removed by means of a piece of sterilized gauze tightly wrapped about the index finger.

DR. KELLY said that he prefers ether vapor as an anesthetic. This is secured with a hand atomizer. This has the advantage that the anesthetic is out of the way, the field of operation clear, and the patient at all times under the control of the anesthetizer. He thinks that the blunt dissection is all right in selected cases of hypertrophied tonsils in children, where the removal is easy, but it is not applicable in all cases. The particular instruments to be used must be determined only after a careful examination of each case, and is largely a matter of individual choice. Good results have been secured by both the dull and the sharp. As to hemorrhage, he thinks that it is more apt to occur after a blunt than a dull dissection, because, when the vessels are torn the inner coat does not retract so well as after cutting. If one knows anatomy well, he can avoid

the pillars of the fauces and the superior constrictor muscle, the cutting of which may cause serious bleeding. This is a most important point. All bleeding points must be located and the hemorrhage stopped with ligatures or other means before the patient leaves the operating table. This is essential. As to the effect of tonsillectomy on the voice he thinks it may be for a time impaired. The hypertrophied tonsil has by some one been said to "act as a sounding board." After its removal the patient may not phonate as well as before, until he learns, by the aid of his ear, to properly use his muscles and correctly modulate the voice. Sometimes this process is slow, and it may be months before a good, full voice is secured.

DR. HILDRETH III. said that tonsillectomy should practically never be done, as there is left a stump that is a constant menace. The complete operation of tonsillectomy eradicates the trouble, root and branch. Finger enucleation is to be preferred as there is less hemorrhage, the vessels being broken and thereby allowing the intima to contract. The operation should always be gone into with all the seriousness and preparation of a major surgical procedure. Complete illumination is absolutely essential, as well as competent assistants to keep the field of operation free from blood. The tone and timber of the voice are always improved by a thorough removal of the tonsils and adenoids. Enlarged tonsils and adenoids should be removed early, as the constant obstruction to respiration is a menace to the health of the child. There is also constant danger of a high palatal arch with malocclusion of the teeth, and also deviation of the nasal septum. Practically 80 per cent. of all cases of deviation of the septum would be avoided if proper attention were paid to the enlargement and disease of the lymphoid masses in the nose and pharynx.

DR. BURNS said that the hemorrhage should be controlled by the use of the Chevalier Jackson forceps. After one tonsil has been completely enucleated the fossa should be filled with a succession of small sponges (rolled) on Kelly clamps; usually three will suffice. These should be removed one at a time and the bleeding points ligated. First the anterior pillar is held forward by a blunt tenaculum, and as each sponge is removed, the bleeding points are caught with the Jackson forceps and tied with catgut. By exerting slight traction on the forceps the catgut will easily slip over its nose, and it can then be tied. The same procedure is followed after the removal of the other tonsil. After apparently all the bleeding points have been ligated, it is well to spread the anterior pillars wide apart by means of the tenacula, so as to be absolutely certain that none remains. In this way only can danger as to further hemorrhage be avoided absolutely.

A small meningocele may resemble a sebaceous cyst. The previous history is important in the diagnosis. A meningocele of this character is present "as long as the patient can remember" and remains about the same size; a cyst begins as a small nodule later on in life and increases in size. —*American Journal of Surgery.*

LOCAL ANESTHESIA IN THROAT OPERATIONS.

Henri Lesieur, M. D., Chicago, Ill.

In *Annales de medecine et chirurgie infantiles* for June 1, is described the technique employed by Paul Laurens, in operations on the tonsils, for securing local anesthesia. This applies whether for incisions, removal of tissues bit by bit, or tonsillectomy with either hot or cold instruments, for patients over fifteen years of age. The steps:

1. Painting the amygdalien surface, the anterior pillar of the fauces and the glosso-pharyngeal furrow, with a ten per cent. solution of cocaine.

2. Intracryptic instillation, with the laryngeal syringe of Simal modified for the purpose, of a two per cent. solution of cocaine.

3. Interstitial instillation of a one per cent. cocaine solution, with the same syringe to which is adapted a very fine Pravaz needle; first in the anterior face across the anterior pillar; second in the superior pole penetrating the pedicle; third in the center of the tonsil directing toward the inferior pole. Employ for each puncture one-third of a cubic centimetre of the solution. Wait until local pallor disappears before operating.

Cornet essayed to obtain anesthesia of the tonsil by the aid of injections of cocaine practiced in the depth of the tonsil at the level of its superior extremity, its middle, and its inferior extremity. The injections were made by means of an ordinary Pravaz syringe. The anesthesia obtained, excellent when one practiced *morcellement* following, has always proved incomplete for amygdalotomy with the cold tonsillotome following the technique of Vacher. This is because under this procedure the soft peritonsillar parts, non-anesthetized, are strongly drawn upon during the constriction and section of the tonsil. It seemed difficult therefore to M. Cornet to obtain complete local anesthesia in this process of amygdalotomy which, while it is painful enough, seemed to him otherwise to be the procedure of choice.

The employment of a ten per cent cocaine solution does not appeal to us as judicious, since there is very little anes-

thetia from any application to the unbroken mucous surface unless so much is applied as to be perilous. Such strong solutions are never safe, and many accidents have been reported from them. When a ten per cent. solution is applied to the throat enough may easily slip down to the stomach to do serious harm.

Stovaine is in many ways superior to cocaine or any of its derivatives for tonsillar work. I have employed the former for some time, especially in Abbott's anethaine, which contains one per cent. of stovaine. This exerts a decided local anesthetic power when applied to the mucous membrane, and it is far safer than its competitors. I usually inject ten drops, diluted with twice its bulk of boiled saline solution, behind the tonsil I wish to remove, then wait five minutes, when I test the sensibility by pricking with the point of a scalpel. It is wiser to cut behind the body and remove it completely, when there will be less danger of hemorrhage and none of recurrence. The full strength of anethaine should be painted over the surface that is to be incised. Eucaine never had much behind it except printers' ink, and has dropped out of sight. The convenience of a really effective and perfectly safe anesthetic like anethaine for office use is great. No other known agent so satisfactorily anesthetizes the parts when circumcision is to be done, as even the prick of the hypodermic needle is enough to demoralize the little patient and seriously interfere with the completion of the operation. I never attempt to do more than apply the anethaine to the subpreputial surface, finding puncture unnecessary. The last use I made of this solution was in a case of furious strangury in a man aged forty-two, with an acute cystitis. I applied a few drops of anethaine on cotton under the prepuce, and left him a small quantity with directions to re-apply as might be needed. He told me the next morning that I could not buy that vial for any sum. The anethaine gave quick relief while we awaited the curative action of arbutin.

In *Montpellier medical* Riche enumerates eighty-five operations made by him under lumbar anesthesia with stovaine. He concludes thus: "Is it necessary that at our epoch, when the strictest asepsis and the progress of operative technique have re-

duced to a minimum the perils of surgical interventions, general anesthesia should remain intangible with its perils and its complications? The problem is not insoluble, and rachianesthesia ought not to disappear because, like rachicocainization, rachistovainization has not held all that is promised."

(Quinine and urea hydrochloride have been used very successfully as a local anesthetic in tonsillectomy. For this operation a large amount of the solution is injected about the tonsil between it and the faucial pillars. This forms an artificial edema about the tonsil which much facilitates its removal. An unlimited amount of solution may be used with impunity, so that a satisfactory anesthesia can be easily secured. Because of its safety both tonsils may be operated on at one sitting. The absence of after-pain is as desirable here as following an operation about the anus.—Editor.)

SKIN ANTISEPSIS.

Randolph John Hersey, M. D., Wheeling,
W. Va.

(Read before the Ohio County Medical Society
April, 1911).

We have learned that we can completely sterilize our instruments and bandage material by boiling in water and by steam under pressure. We do not fear infection of our wounds by the air about us, since we have learned that germs found in it are, generally speaking, non-pathogenic. The sterilization of the field of operation and the hands of the operator is a desire that classical methods have not been able to fully attain, even with the facilities of the well equipped hospital. The methods of Fieberling, Ahlfeld and Mickulickz, which have been universally used to this end, do not sterilize absolutely the skin and hence do not totally eliminate the danger of operative infections.

The germs of the skin are found in the subungual spaces, in the nail furrow, upon the superficial layers of the skin, under the loose cells of the epidermis, and locked up in the skin fat. They find their way into, though sparingly, as Haegler has pointed out, the hair follicles, while in addition they are found almost constantly in the sweat glands. Blumberg showed that superficial wounds of the skin always contain pathogenic bacteria.

Haegler, in his remarkable research

work upon skin disinfection, lays the highest stress upon mechanical cleansing and says:

1. "The superficial fat must be loosened and removed, for the cleansing of the skin with water or watery solutions is hindered as long as the fat is not removed."

2. "The superficial layers of the skin must be loosened, for in the cells themselves or between them lies the germ material; this loosening is principally obtained by the swelling of the cells."

3. "The superficial germ-carrying layers must be removed with some medium, and this latter must be of a sort to thoroughly wash out the furrows and openings of the skin glands."

The best means of removing fat from the skin is by an alkaline soap, for the other substances, such as ether, chloroform, benzine and even alcohol can scarcely be considered because of their evaporating properties. This is especially remarked upon by Fuerbinger. Green soap probably best fulfills the requirements, yet Paul Sarwey and Kocher believe that this is too strong. For the majority of hands the use of ordinary toilet soap seems to fulfill all requirements. The use of flowing water instead of standing water undoubtedly has advantages.

The use of the brush is looked upon by many with misgivings; Schleich especially condemns it. Haegler, however, points out that boiling for ten minutes in a one per cent. soda solution and their preservation in a one per cent. sublimate solution remove all possible danger as regards their bacteria-holding qualities.

Having cleansed the field of operation or the hands most thoroughly with brush and soap, it is very important to energetically rub them with a somewhat coarse, sterile towel, for it has been shown that an extraordinarily large number of particles of loose epidermis may be thus removed, and since it is in these cells that bacteria are mostly found, further argument for this procedure seems unnecessary.

But for all the mechanical disinfection, as has already been said, no matter which method one uses, there remains always a large number of germs, and these are to be diminished by further means.

Fuerbinger introduced the use of alcohol. Much has been said for and against it. We

know now wherein its value lies; not in its germ-killing property, though it stands comparatively high in this. Sixty to seventy per cent. alcohol is greater in bactericidal properties than absolute alcohol. Alcohol's principal role is played in the abstraction of water from the superficial cells, leading to their contraction and thus closing up the openings of the skin glands as showed by Kroenig. The superficial layers of the skin are so hardened by the alcohol that the skin germs are held back or from arising to the surface. This latter fact is particularly remarked by Haegler, Bunn, Paul Sarwey, Fueth and others. The alcohol dissolves the fat and abstracts the water from the skin.

Some stop here with the preparation of operative field and hands, notably Ahlfeld. His principal supporters are Schaeffer and von Herff. Paul Sarwey, Haegler, Kroenig and Fueth have shown by their studies that the hot-water-alcohol method of Ahlfeld for hand disinfection at least, is no better than many others, and a further disinfection should be carried out.

As a means of disinfection for the skin after alcohol, probably bichloride of mercury stands at the top of the list. Bichloride possesses no special penetrating power, but it has the property of working energetically and continuously for some time; it also combines chemically with the cells. For our knowledge of this fact we are indebted to Haegler. It has the disadvantage of irritating some skins. In a great many clinics von Angerer's oxycyanide of mercury has displaced bichloride entirely. It has the advantage of non-toxicity and not injuring instruments.

As far as the hands are concerned in disinfection, a sort of responsibility or conscientiousness of the surgeon is necessary to always protect them from all sorts of contamination. Perhaps this is as good a place as any to remark upon the use of rubber gloves. In my opinion, no greater refinement in technique has been given the surgeon than the introduction of the use of rubber gloves by Friedrich. It goes without saying, however, that the same careful disinfection is to be carried out as if one were to proceed without them.

Walker's rules for disinfection of hands are as follows, and I think are ideal:

Rule 1. "Wash with soap in running hot water five minutes.

Rule 2. Cleanse subungual spaces with not too sharp orange stick.

Rule 3. Wash with soap and sterile brush in running hot water again for five minutes.

Rule 4. Dry and rub the hands and arms with a sterile towel.

Rule 5. Thoroughly brush the hands with seventy per cent. alcohol for three minutes.

Rule 6. Brush the hands in a 1-2000 bichloride solution two minutes and, finally

Rule 7. Pull the operating gloves on out of 1-2000 bichloride solution and wash off their exterior with sterile water."

Exactly the same rules hold for the field of operation with the exception of the use of the brush.

All of this is ideal, but all our sick coming to operation do not come with aseptic fields, and all who do surgery do not possess the, so-called, ideal surroundings. For septic conditions and those demanding hasty surgical intervention, a means of disinfection is desired that will answer the exigencies of the case.

Of late iodine has come much into vogue, and it is upon this phase of the subject I desire particularly to speak.

The late lamented Senn remarked in an article published in 1905, that "as an antiseptic, iodine has not received the attention it merits."

Without going too deeply into the bactericidal properties of iodine, let me briefly quote from Prof. Senn's article some findings made by Kinnaman, working under Senn's direction.

Strength of aqueous solutions of iodine and time necessary to destroy:

1. Actinomyces (Bovis).
 - (a) 1:500 in 15 minutes.
 - (b) 1:300 in 10 minutes.
 - (c) 1:200 in 1 minute.
2. Blastomycosis:
 - 1:500 in 4 minutes.
3. Streptococcus pyogenes:
 - (a) 1:1000 in 30 minutes.
 - (b) 1:500 in 2 minutes.
4. Staphylococcus pyogenes aureus:
 - 1:200 in 5 minutes.
5. Bacillus of anthrax and spores:
 - 1:100 in 10 minutes.

6. Bacillus of tuberculosis:

(a) 1:200 in 60 minutes.

(b) 1:100 in 7 minutes.

7. Bacillus prodigiosus:

1:100 in 10 minutes.

These experiments and their results leave no further doubt that iodine is an invaluable antiseptic for general use in surgery. It will be gleaned from these experiments that the most common and most dangerous microbe with which the surgeon has to contend—the streptococcus pyogenes—is killed in two minutes when exposed to a solution of iodine of one-fifth of one per cent. The staphylococcus pyogenes is more resistant to the action of iodine, but a one-half of one per cent. kills in five minutes. It seems, then, that even a comparatively weak solution of iodine is the most deadly antiseptic for the ordinary pus-producing microbes.

Senn makes the prophetic remark: "There is every reason to believe that it will be given the preference over them (bichloride and carbolic acid) as soon as the profession will give it the extended trial it deserves."

Roux, of Lausanne, first made use of tincture of iodine as an aid in completing his hand disinfection. After disinfecting the hands in the customary manner, he dips the finger tips into the tincture for the purpose of reaching and destroying the germs lodged in the subungual spaces and folds of the finger nails. Mikulicz adopted this practice in 1898 and continued it until his death in 1905.

A few surgeons adopted the use of tincture of iodine as a disinfectant about this time, being led to do so from the various published articles, but only in a somewhat limited manner.

Our attention was called to tincture of iodine by the appearance of Grossich's article in 1908. Grossich is a surgeon in charge of the Municipal Hospital of Fiume, Hungary, a city of about twenty-five thousand inhabitants. His article was entitled, "A New Method of Sterilization of the Skin in Operations." He stated in that article that of between 1,600 and 1,800 who sought his division of the hospital yearly, there were at least 500 to 600 suffering from wounds of one sort or another. He began the use of tincture of iodine on the skin before operation after carrying out

the ordinary method of disinfection, and again used it on the closed wound after suturing, and he was surprised to get in all cases healing *per primam*. Later he began to dry-shave his patients and simply paint the part with the tincture of iodine, repeating it again after closing, and reached the same results, viz, healing *per primam*. Then he began its use on all sorts of wounds, even if they had received no attention for days, and his results were equally surprising. He noticed, however, that the results were better if the wound showed no signs of an already beginning inflammation, such as redness or swelling. It is to be remarked that most of the wounded were sailors or factory workers, persons who from their occupation were far from clean. Later still he used it in the preparation of the operation, as in hydrocele, hernia, etc. Again he noticed that those patients who had received a soap and water scrub-up immediately before the operation and then had iodine applied, did not in all cases have as smooth a healing as those who did not. But when the washing was omitted and the dry-shaves had been resorted to, the healing was uninterrupted. This paradoxical fact was made clear when he examined a small piece of skin removed before the operation microscopically.

As is well known, the superficial layer of the epidermis is not a compact tissue, for small intercellular spaces are recognizable even after hardening with alcohol. Thus after washing with soap and water a loosening of the epidermis took place, and it was this loosening of the cells and the consequent letting free of germs that defeated the iodine in its work.

The microscopical examination of skin treated alone with tincture of iodine, showed that these intercellular spaces and the lymph spaces had imbibed the antiseptic. This fact was not new, but confirmed the findings of others. The tincture of iodine first dissolved the fat, which is always found in the capillary spaces and is from these latter gradually absorbed. Beside this property the iodine possesses a penetrating power, in that it combines with the fatty acids of the skin chemically and the resulting combination is absorbed rapidly. This has been confirmed by Mermer, E. Fisher, Kast and others.

The reason, then, why the skin that had

been washed with soap and water was harder to disinfect is therefore made clear.

Grossich adopted the procedure of having his patients to be operated upon washed and shaved, where possible, the day before, and the parts covered with a sterile dressing, and when they came to operation the day following he applied the tincture of iodine. His procedure was as follows:

1. After the patient was upon the table the operation field was painted with tincture of iodine, with a sponge held in forceps upon which the tincture of iodine was poured, using a 10-12 per cent. tincture.

2. Over the whole body of the patient an abdominal sheet was laid with the opening coinciding with the place of operation.

3. After anesthesia was fully accomplished a second painting of the operation field.

4. After completion of the operation, the row of sutures was again painted and the sterile dressings applied.

At the end of seven days the sutures, which now appeared brown and stiff, were removed. If for any cause the dressings were removed before the seventh day, the row of sutures was again painted.

He could observe no unfavorable symptoms after the use of the iodine, even in cases in which a third of the body had been painted. The skin exfoliated in a thin brown sheet with no abnormal appearance beneath it. He thought the wounds were even better, i. e. less prominent than in other methods of procedure.

Soon after the appearance of Grossich's article came many others with modifications and suggestions. The following are some of those who have contributed to the subject: Bogdan, Zabłudowski, Heusner, Brunn, Papinian, Nast-Kolb, Brewitt, Hesse, Jungengel, Baum Lanz, Papainonou, Schanz, Antelo, Wollheim and many others.

My own experience has been extremely limited—being confined almost entirely to minor surgery, but from my limited experience I must truthfully say that Grossich's procedure of disinfection with fifteen per cent. tincture of iodine is a decided addition to the difficult problem of obtaining asepsis in wound healing. I refrain from the tedious recital of specific cases of application, and trust the discussion will bring out

many points not touched upon in this hurriedly prepared paper.

ETHICAL HINTS.

W. E. Neal, M.D., Huntington, W. Va.

(Read at annual meeting of State Medical Association, Oct., 1910, Huntington.)

The young physician, on entering the field of medicine, is confronted by many difficult problems. And one that gives him much concern is Medical Ethics—a subject concerning which his knowledge is usually vague and incomprehensive.

This is so for two reasons, first, because his training along this line was limited to a very few didactic lectures delivered by one who considered himself more a philosopher than a physician, and was therefore theoretic, and second, because the relation of any physician to the other members of his profession is largely a matter of education by association, plus the sum total of individual character of the physicians within the limits of such association.

It is therefore not difficult to understand how the young man's lofty ideals of professional etiquette are minimized when after a few months of observation he has seen some of the older members of the profession apparently trample these first principles under foot, and each one go about his professional labors as though his rights should be considered unquestionable by all alike, and his duties should consist only of those that are self-imposed. After a few years in practice, however, by coming in contact with his associates at various times and under varying circumstances, he becomes more acquainted with his colleagues and learns better how to interpret their relations to each other. He is better prepared to measure them in point of ability and better qualified to pass judgment from the standpoint of public opinion. A knowledge of these facts, together with a manner of self-control which he acquires after his experience, has taught him that because his older colleagues are a long time out of college does not detract so much from their ability to practice medicine successfully, will no doubt tend to make him less pessimistic in his impressions.

However, things occur from time to time in our professional life that make us

lose faith in certain of our associates. Some one openly denounces your diagnosis in a manner so public that it becomes impossible for you to attempt any explanation without adding fuel to the flames. Another, through the intercession of some of his loyal admirers, elbows into your case and the unappreciative relatives politely show you the door and offer you no other alternative than to go. A third answers the call to see one of your patients, and knowing that the family will stand for it proceeds at once to show you up as an ignoramus, guilty of unpardonable mistakes which would have been disastrous to the patient had he not been called in to correct them just at the critical moment. There are those also who will do nothing openly. They are suave and cordial, yes painfully so, when they meet you, but they carry sharp-edged daggers ever ready to pierce you when it can be done under cover.

There is another class of men who, strange to say, do not always fall short of the mark they set out to attain. They are the men who covet notoriety above all else. They are willing to resort to any means, and disregard any of their friends' welfare, if by so doing they can add another spoke to their wheel of fortune. They are unethical, unscrupulous, and as a rule, if the truth were known, will be found to care very little for the welfare of their patients, so long as there is no danger of their motives being detected.

The fact that such men do occasionally get into our ranks cannot be denied, and that it is to be very much regretted goes without saying. But what can we do? We cannot afford to allow ourselves to be continually wrangling with them, nor can we afford to spend our time discussing with the public their unfair methods. The public is more apt to form a correct judgment of their actions if we let them alone. I believe that if the physician is generally known to be unfair to his fellows and is an acknowledged rascal in the profession he can be more effectively whipped by ignoring him, or by paying as little attention to him as possible, than by making a half-way public exposure of his methods which, although generally acknowledged to be dishonorable, could not be proven so by all the courts in the world. Some one has expressed this idea in these words, "If a

man talks about you, put him on your payroll," and it will prove itself almost every time, because the more you talk about a man of this type the more he seems to be pursued by a certain class of followers.

The effect of quibbles and quarrels is to lower the public's estimate of our standard. Professional medicine should be broad in every sense of the word. And the educational qualifications of our graduates are sufficient to make it so, provided morality and personal integrity could be measured up to the same standard. Not only should our standard be high, but every effort should be made to keep it so. Whenever we indulge the public in its whims and fancies, and entertain their promiscuous criticisms of fellow practitioners, giving our consent to their charges by word or by silence, as is so often done, we engage in a practice that can in no way add to their respect for us, but, on the other hand, will tend to destroy that reliance which the confiding public is wont to place in us. It is not pleasant for a physician to hear one of his *would-be* friends say that a neighboring physician should have made unkind remarks about him, discrediting his ability or charging him with wilful neglect in the care of some particular case, although he may be aware that this criticism is being exaggerated by the carrier. If he be not careful, knowing there is some good reason for believing that this physician did criticize him without cause, he will be provoked to make some remark that will light the flame which may forever remain a barrier between them.

The profession should keep itself above the plane of common gossip and show to the public that the education of the average physician is too liberal to tolerate without protest petty personal criticism, which, though not intended to work hardship, does, however, often excite antagonism among men who would otherwise be good friends.

It is an easy matter to speak kindly of your competitor and it does not in any way draw upon your bank account, but on the other hand, it replenishes your store of generosity and enables you to see more of the better side of mankind. If you know your competitor to be less strongly fortified than yourself along some particular line, you should not try to make capital of

it, for human nature is so much the same that sooner or later he will have just cause to retaliate, and when he does you have no right to object.

After all, as some one has said, to be an ethical practitioner is to be a gentleman. As a man is in his social and business relations, so will he be in the profession. The more he applies the golden rule, the more consistent will be his conduct towards his competitor. Every man seeks to become known in his profession. It is only a question of how he attains notoriety that places upon his name the stamp of fairness or rascality in the minds of his associates. To have attained a ripe age in the legitimate practice of medicine, implies a knowledge of human understanding not to be gained through the medium of any other profession, and commands a degree of respect and admiration well earned through a life of application and self sacrifice. But whenever a man chooses to pursue the "almighty dollar" to the extent of disregarding morality, honor and professional integrity, his reward will be deprived of that contentment which can be developed only through a career guided by the principles of honesty and fair dealing applied alike to his associates and to his patients.

With the spirit of commercialism so well grounded in our profession, we must admit, that to attain the heights above which mediocrity must pause, means a continuous fight, but unless the battle is fought out on neutral ground with weapons unconcealed, the victory is very apt to be a disappointment.

As I said in the beginning, a few years of practice places a man in a position to appreciate his relations to his fellow practitioners. He learns to give and take. He endeavors to seek out the reasonable side of man's nature and to compromise the little difficulties that occasionally come up among us in spite of our efforts to measure out the square deal. I do not doubt that most of us have at some time been guilty of professional errors, I myself freely confess the guilt, but as we acquire a better understanding of these things and become more proficient in our knowledge of human understanding, the question of right and wrong must determine for us whether this experience shall be applied in a manner that will elevate professional standard and

write our names among the standard-bearers, or whether it shall be used for self aggrandizement to the exclusion of the rights of every other associate physician in our locality.

Breach of professional etiquette does not consist of little discourtesies done by accident or through carelessness. We are always glad to overlook and forget the errors of our fellows, if they are in no way prompted by jealousy or malice. But we cannot have a goodly share of respect for the man who agrees with us in consultation and who before getting away from the patient's home, makes it a point to destroy the family's confidence in us by some crooked underhand fault-finding. I do not contend, however, that any man should have so little self respect as to allow his reputation to be attacked by such methods without retaliation, but I do think such retaliation should be administered in deed and not in word; when those who understand the circumstances will stamp approval on his course, and there will be no hastily spoken words to be used as weapons with which to fight him on future occasions.

One thing we can do; we can be frank with each other. Whether in commendation or criticism we will more nearly maintain our self respect. If we govern our actions in accordance with the principle that one usually finds in the other fellow, just about what his conduct towards the other fellow deserves, we will be forced to the conclusion that if we would associate with gentlemen, we ourselves must be such.

THE DECHLORINATION CURE

Drugless Therapy for Dropsical Diseases

J. M. Lovett, M.D., Huntington, W. Va.

(Read before the Cabell Co. Medical Society,
June 7, 1911.)

The advance in medicine is largely through proven theories that have inception, culture and development in fertile minds, and when experimental proofs have demonstrated the truth of theories, from that moment internal medicine rests on a solid foundation, and rapid progress is noted.

The dissemination of a common good is

quick when once the light of truth is thrown on the scene. The discovery thus redounds to the everlasting good of mankind, and stamps the originator as a benefactor to the human race. No more enduring monument could be erected to their memory, for long after they have played their part in life's drama their works will live on. All honors are due these painstaking, conscientious and careful physicians, and their praises should be sounded and re-echoed down the ages, for they have contributed to the comfort, happiness, and the prolongation of life of countless millions of the human family.

The names of Jenner, Pasteur and Roux, and others shine brightly in the galaxy of fame, and the world is better by their having lived in it. Now, at this period of our progress, may we not enroll the name of Widal on the honor roll? He has shown us, through a series of experiments, that common salt (or sodium chloride), is the injurious element in many cases of nephritis, particularly those of the edematous type. Dropsy is due to the fact that, when the kidneys are diseased they are impermeable to the passage of salt through them, and as a result the salt accumulates in the system, and salt being a hygroscopic substance requires water to keep it in solution, and this water it abstracts from the tissues giving rise to the pathological condition known as edema.

In proportion as the functions of the kidneys are impaired as excreting organs, just in that proportion will salt accumulate in the system. So long as the output of salt equals the intake, no edema will appear. A series of experiments have been carried on in proof that chloride of sodium is a poison, in a sense, to sufferers from Bright's disease, which we note as follows:

An experimental edema was induced in persons with epithelial nephritis. Ten grams of salt were given daily for a number of days and edema appeared. The salt was given in excess of the power of elimination by the kidneys. The salt was stopped and the edema vanished. Patient taking milk, proved injurious on the addition of salt. A liberal supply of fats, carbohydrates, and proteids was substituted and without salt, and the edema disappeared,

proving again conclusively that the injurious element is salt.

The following report by Levy in *Jour. A. M. A.* 2-5, 1911, substantially supports the experiments as noted by Widal. The importance of the subject is such that I will quote what he says in detail. He mentions two rebellious cases of parenchymatous nephritis that had treatment for six months without any improvement from the dropsy, but when the patients were placed upon a mixed and salt-poor diet, one of the patients getting not more than two or three grams of salt daily, improvement resulted. At first the kidneys were impermeable to the elimination of salt, but soon they began to recuperate and to eliminate more and more salt, the water passing off enough to keep the salt in solution. In all about 300 grams were eliminated, and by the end of two months the dropsy had vanished, and the patient had lost 66 pounds in weight. In commenting on these cases, he remarks that had the quantity of salt been doubled, the dropsy would have been uninfluenced. The result not only emphasizes the importance of a salt-poor diet, but a persistence in the treatment to accomplish results. Levy further notes that dropsy from heart disease is more rapidly removed than it is in kidney disease, and suggests that cirrhosis would be similarly benefited.

Anyhow the triad, (heart, kidneys and liver) with their diseases having dropsy as a symptom, all are regularly better on a milk diet than any other. The advantage claimed for milk is its poorness in salt, and the bacterial flora of the intestines is diminished on a milk diet, therefore there is less risk of autointoxication. While a salt-free diet is more particularly indicated in a nephritis with edema, it is probably wise to take the precaution to avoid salt in any form of nephritis, for we never know how soon one type of nephritis may complicate the other.

In fact edema, though often slight, will be found when we look for it even in unsuspected cases when patients give other symptoms of Brightism. The imprint of the spectacle at the root of the nose will indicate an edema when search is made for this symptom. This symptom is easily elicited without the patient's knowledge (which is desirable), providing, of course, the subject wears glasses. The difference in

the patient's weight on a salt-free diet and the weight when edema appears when salt is allowed, is known as the hydration tolerance. The absolute proof that salt is prejudicial to nephritic patients, should prove of incalculable benefit to sufferers from Bright's disease, and the same when fully recognized and acted upon in a systematic, regular, and persistent manner, (for anything less will court failure), will achieve wonderful results.

Now with this advanced knowledge, does it not seem reasonable to predict, that if individuals with hereditary tendency to Bright's disease take the precaution to steer clear of common salt in their diet, except what occurs normally in foods such as milk, they could put off indefinitely the development of the major symptom of Bright's disease, or if the disease is already present, modify it in some, prevent further progress in others, and in not a few cases contribute to actual cure. We owe it to dropsical sufferers to impress upon them fully the importance of withholding salt in their diet, particularly as a condiment. These directions are easily given and just as easily lived up to.

All that is necessary is to have the patient's hearty co-operation, and benefits are sure to follow. Let us as physicians disseminate thoroughly this proven fact. Dieulafoy wisely says, that the key to the whole situation is not what passes through the kidneys, but what does not pass. In disease of the kidneys, the elements of depuration do not pass in proper quantities, and the more extensive the disease the greater is the accumulation of waste with the accompanying major symptoms of Bright's disease.

Therefore let us observe the danger signals and seek to avoid further development as much as possible. It is not albumen in the urine alone that signals danger, for disease of the kidneys may be severe and no albumen present, excepting traces at times; conversely albumen may be present for years without other symptoms. The remarks I here make as to the significance of albumen are hardly necessary to a body of medical men in the present age, but no less authority than the discoverer of the disease that carries his name, tripped in his diagnosis in the case of a medical man who passed albu-

men for forty-three years but remained free from Bright's disease, though Doctor Bright, whom he consulted thirty years before, predicted early death. In view of the experience of this early investigator whose memory we delight to honor, I am impressed that a simple reference to this as a reminder is altogether proper. The temptation is strong to enter upon a fuller exposition of the symptomatology of nephritis, but we would be digressing too far from the subject.

The aphorism, that "what is one man's meat is another man's poison," aptly applies to common salt. The very opposite of the contention of the paper as to sodium chloride, obtains in acute gastro-enteritis of children, in excessive hemorrhages, and in toxic states, as in appendicitis (pus cases). In many of the conditions here enumerated, normal salt solution is often a life saver.

Our rule should be to interdict salt in any disease in which dropsy enters as a symptom. The dechlorination cure of Bright's disease has a very promising future, and as the years pass it will more and more come into prominence.

Correspondence

NOTES ON PRESIDENT MURPHY'S ADDRESS.

Editor W. Va., Medical Journal:

Dr. Murphy's address before the American Medical Association at Los Angeles is a very interesting document in many ways. It is gratifying to see medical societies outgrowing the traditional custom of having a president's address consist either of a dissertation on some technical subject or a choice assortment of refined English words in a rhetorical display. Dr. Murphy could, no doubt, have produced either one, but instead he chose to make his address a review of the Association's affairs. That he has made a close study of them is quite evident, both from the scope and thoroughness of his address. He has rendered the Association an excellent service by placing before its members a very readable digest of all things in which the Association is or should be interested. But of greater importance is perhaps the fact that, by familiarizing himself with these things during

his incubation period as "president-elect," he is in an excellent position to preside over the affairs of the Association during the present year. The practice to elect a president a year in advance of his time of service which the American Medical Association adopted some years ago from the British Medical Association, is certainly an excellent one and one which state associations would do well to copy.

Dr. Murphy's address is full of facts and advice. While we may differ with him in some of his suggestions, most of them are very good, and as far as his facts are concerned they are all more or less true.

It is quite interesting to note that one of his very first suggestions is to inaugurate the delivery of lectures and demonstrations to the public as part of the program of the annual meetings of the American Medical Association. This has been a feature of the West Virginia Association now for a number of years. At the Parkersburg meeting of 1902 President Aschman advised it. It was inaugurated the very next year at our meeting in Charleston, and has continued ever since. Every one of these lectures has proved to be a valuable contribution to general literature, and they have done a great amount of good.

Dr. Murphy devotes considerable space to the discussion of how to increase membership, and much of what he says certainly applies to state associations as well. He emphasizes the truth that if an association is to grow, it must be actively doing for its members in many and diverse ways. "If a membership in the Association is only a paper asset, a dollar due will be collected with difficulty. * * If, on the other hand, periodicals are distributed, courses of study are furnished and medical defense is instituted, etc., the annual dues of five dollars are less than the profession will be willing and anxious to pay." This is precisely what some of us have been preaching in our state association, urging the necessity to hold out to our members some material inducements. The following quotation from the report of the committee on medical defense at our last meeting is apropos: "To be sure, to you and to me the scientific ethical and social benefits are sufficient inducements to be members and to contribute all in our power to the progress of our association. But it appears there

are an equal number of physicians in the state to whom these attractions are insufficient. I look, therefore, upon the adoption of a plan of malpractice defense to prove our greatest organizing factor. The large number of state associations that have been operating a plan of medical defense for some years consider it one of their most valuable assets. Of course, all new inducements require time before their effect upon membership can become evident, and they can not replace the need of activity on the part of the members in general and the officers in particular. We must all do something to make the benefits of the association known and clearly understood among all the physicians in the state."

I believe Dr. Murphy is a little too emphatic when he states that nothing whatever has been done by the profession to enlighten the public on medical matters. A great deal has been done along this line in recent years and the results of it are in evidence. Take, for instance, the subject of tuberculosis. Not only has the medical profession done much to disseminate the facts about this disease, but the public has readily absorbed them and profited by this education, and it is generally believed that there has been a material reduction of the mortality in consequence. The same is true, though to a lesser extent, of many other diseases, thanks to the publication in the monthly and weekly magazines and the daily papers of a large number of excellently written articles by physicians individually and by medical societies. Of the latter we may single out the Medical and Surgical Faculty, the State Medical Association of our sister state, Maryland, as one which has done excellent work through the Baltimore papers. It is true, however, that much remains to be done in this matter, and the task is worthy of the efforts of the American Medical Association. Dr. Murphy beautifully expresses the reason for this when he says: "The first and all pervading idea of our medical heritage is the public—the people—and concretely the patient. The latter is the center of the medical universe, around which all our works revolve and toward which all our efforts tend."

Space will not permit to even touch on all the interesting subjects in this encyclopedic address. We rejoice with Dr. Murphy in

the substantial reduction in the number of medical schools in this country during the last few years, thanks to the works of the Council on Medical Education, and we agree with him when he says that "the mission of the university medical department is not primarily the training of original investigators, but of educating physicians for the practice of medicine, i. e., who can apply the scientific knowledge to the patient, who is the hub of medical education." What he says about irregularities among physicians should be read by every physician.

The letter by Senator Robert L. Owen given by Dr. Murphy in full contains many interesting statements. We fancy that Senator Owen is more familiar with "physical culture" literature of a certain brand than with the literature of scientific medicine, but we can forgive anything in a man who is doing such excellent work in behalf of the creation of a Department of Public Health. His suggestion that physicians be retained as lawyers are, and paid for advising people how to keep well will appeal to many of us.

A commendable feature of President Murphy's address is the credit he generously gives to those to whom credit is due for good work done, frequently giving their names. Thus, Evans, Simmons, Bevan, McCormack, Blackburn, et al., come in for a due share of praise.

W. W. GOLDEN, M. D.

Elkins, W. Va.

LETTER FORM VIENNA.

Vienna, July 7, 1911.

Editor W. Va. Medical Journal:

It is most remarkable that a doctor will spend three months in Vienna—a city second only to Paris as a storehouse of art treasures, and see nothing but the inside of the Krankenhaus. This institution, all absorbing to medical men, was founded in the seventeenth century as a poor house, but was not converted into a hospital until 1784, almost one hundred years later, and when the first clinical work was done here they had but ten medical beds, and later a surgical department was developed with ten beds. From this has grown the present institution with its 2,300 beds and enormous outpatient departments. In the second eye

clinic alone they see twenty-three thousand new patients yearly, and in the first eye clinic over seven thousand, making a total of over thirty thousand new patients yearly. The ear clinic has over fifteen thousand new patients annually.

The science of otology has been practically rewritten during the past few years, and nearly all this advanced work has at least started here, in fact, most of it has been done here.

Politzer is known as the father of modern otology, and the men who have made the recent studies of the labyrinth were formerly his assistants. Prof. Alexander, who now holds the chair of otology at the Polyclinic, Ruttin, Borany and Neuman. The most active and the most beloved teacher of otology in Vienna today is Ruttin, who is now one of Prof. Urbantschitz's assistants. He was for years an assistant of Politzer's, not only in the clinic, but also in his private practice. Recently I saw him make a diagnosis of a temporal lobe abscess in a child, and within nine minutes from the time he made his primary incision he had completed a radical mastoid operation and exposed and opened the temporal forssa, and the pus was flowing from the abscess. Whilst I have never advocated rapid operating, we are forced to admire the man whose technique is so perfect and whose anatomical knowledge so accurate that he can work thus expeditiously.

Of course, I confine my work to my special branches, and I am convinced from the observations of my friends who are interested in these branches, as well as my own, that the teaching here in ophthalmology and otology is equal to the best done in this line anywhere in the world. I think that this is preeminently true of otology, from the elementary courses in clinical diagnosis to the most advanced work on cranial complications. In diseases of the eye I think the same can be said with equal emphasis of the operative and the external disease courses. Refraction, I think, is better taught at home and in London. The courses in ophthalmoscopy and other branches are about the same as elsewhere, although the vast amount of ma-

terial gives to teachers here a greater number of rare cases than in many other places.

I do not regard the nose and throat work outside of the courses given by Hirsch (who has no superior as a teacher) equal to the work being done at home. Hirsch has probably done more to simplify the operation on hypophysis tumors than any one else, and his mortality has been less than that of any other operator. In this connection I might add that I was much pleased to hear a teacher say that if he had a brain tumor that was operable, he would go to Cushing or Baltimore.

Several times I visited Prof. Frank's surgical clinic and watched him administer an anesthetic. He uses the old form of Esmarch inhaler (the very large one) and pours some of Billroth's mixture on the gauze, having the patient hold the inhaler about four inches above his face and count, gradually bringing the inhaler closer. In all the cases where I saw it administered, the chest and abdomen were bared and close attention paid to respiration, but no heed was given to the patient unless he ceased counting, excepting to pour more anaesthetic on the mask occasionally. I saw it administered to children and to the aged with the most satisfactory results in all but one case, an alcoholic, when they had to hold the mask and the patient, when the stage of excitement was reached. Prof. Frank tells me that he has used this method in all cases, valvular cardiac conditions included, excepting fatty degeneration, for about five years. I have his article on the subject from which I will be very glad to translate an excerpt for the Journal if ye editor so desires.

When I left home my medical friends were much interested in salvarsan or "606." I was much surprised to find it so seldom administered here in the eye and ear clinics, the clinicians usually giving mercury to the syphilitic patients with positive Wasserman. To my query why this is the case, I was told in the eye clinic that in luetic iritis, etc., mercury was so satisfactory that there was no need for a change, and that in the case of keratitis and nerve diseases sal-

varsan had proven absolutely of no avail in their hands, and that they could not understand the literature on the subject. In the ear clinic the same is true, at least one case of labyrinth deafness being attributed to the new remedy. I visited the skin clinic and watched its administration to eight patients. The technique was very simple, the patient being placed on the table and a ligature placed around the arm (which is surgically cleansed). The solution being prepared, a hollow needle is inserted into the vein, a sample of blood collected for another Wasserman, the ligature removed, and the tube connected with the needle and the solution administered. In the eight cases the surgeon only missed the vein one time and then he at once used the other arm (both arms are always prepared). The technique was so simple, no anaesthetic being used and only one patient whimpered at the introduction of the needle. The entire procedure consumed less than one-half hour, the solution and all preparations made excepting the patient arms, which had been previously made ready. Their method is to give the first dose as soon as a diagnosis is made and a second one in fourteen days, always using the intravenous method, the intra-muscular one being regarded as dangerous.

I visited Steinhof, which they claim here, is the largest pavilion system insane asylum in the world. This institution, which at the time of my visit had thirty-three hundred patients, comprises three asylums combined under one administration, viz.: An asylum for patients whose disorder promises to be curable; an asylum in which patients of incurable disorder are cared for, and "The Sanatorium" for wealthy patients. The three consist of sixty pavilions, and a police station house, a porters' lodge, a telephone exchange, a church that cost over \$100,000, a theatre and dancing hall, a kitchen with a chef and thirty assistants, an electric railway for distributing the food, by which I was informed the entire distribution to all the pavilions could be made in eleven minutes. They have their water and light plants, slaughter house, ice plant, laundry, and

what all the medical institutions here have, an anatomical building, as a rule an autopsy being held upon each patient who dies. They have three hundred and ten acres of ground nicely situated upon one of the nearby hills and affording a beautiful view of Vienna and the Danube as far east as Hungary. They have a staff of twenty-one physicians with four hundred and fifty-two attendant nurses.

This magnificent institution was completed in 1907 and has, I suppose, every modern requirement for the scientific treatment of these poor unfortunates, but as far as I was able to judge they were no more up-to-date nor had any better results than we have in the West Virginia asylum, the only institution of the kind with which I have any acquaintance.

T. W. MOORE.

Selections

EARLY DIAGNOSIS OF UTERINE CANCER.

A. C. Hendrick, M. D.

(The early diagnosis of cancer of the uterus is one of the most important functions of the family physician, according to Hendrick, for it is to him the patient usually appeals for relief, hence it is his bounden duty by every means available to make the diagnosis if possible.)

There are three sites for uterine cancer.

1. The vaginal portion from the vaginal vault to external os.
2. The cervical portion from the external to the internal os.
3. The uterine body from the internal os to the tubal orifices.

Now, cancer of the uterus develops in its mucous membrane, or immediately under the mucous membrane of its elements. That is, the glands of the cervix or the body. This classification is important because, not only the clinical picture of the cancer but the methods of diagnosis are quite different, depending on the starting point and extension of the disease.

There are certain symptoms which one may designate by the name of prodromes of uterine cancer. These are:

1. Bleeding in coitus—due either to en-

gorgement or friction. It is very common, and often the first symptom noted in cancer of the cervix, though it may occur in vascular erosion, endometritis or polyps. It is always a suspicious sign.

2. Metrorrhagia—after the menopause; that is, some months after the menopause. This symptom may occur in fibroids and polypoid disease, but it is most often due to cancer. Irregular hemorrhages before the menopause are not so suspicious, but we must bear in mind the age incidence.

3. A sero-sanguinous discharge resembling greasy dish-water or beef brine occurs in the very early stages of cancer of the cervix and is rare in other conditions. This modified cervical discharge is characteristic.

Clinical Diagnosis—The clinical diagnosis of uterine cancer depends upon two factors:

1. The presence of a neoplasm, either proliferation or infiltration.

2. Its degeneration. This leads to the characteristic friability of the tissue which is of great diagnostic value. This friability is recognized by the finger or the sound. This property of breaking up into small pieces under pressure of the finger is very characteristic, and the only other tissues, perhaps, showing it is a necrosing fibroid.

The great tendency to bleed is understood when one recalls the histological structure. Hence, bleeding is characteristic of all three varieties of uterine cancer. But one finds hemorrhages in erosions, endometritis, chronic metritis and polyps, although less, so that diagnosis cannot be based on bleeding alone. When both features of cancer are present, namely, neoplasm and degeneration, the diagnosis is easy, but if only one of these is present difficulty arises. For example, there may be only proliferation, then inspection with speculum aids, while any infiltration is found by both methods.

Cancer of the vaginal portion may be seen and felt through the speculum in the Sims posture, whilst palpation of body cancer may require dilatation.

Vaginal Portion—Cancer here is the most easily diagnosed of all sites.

1. If of the polypoid variety its surface is reddish in color and friable; that is,

easily broken or crumbled down by finger or sound.

2. If of the flat kind, any bulging above the surface is suspicious.

3. If of the infiltrating kind, a nodule is felt cartilaginous in consistence and altering the shape of the vaginal portion. If, however, the mucous membrane over the lump is intact then there is trouble, though the surface of the nodule may be purple in color and spotted by yellow pits due to the cancer nests.

4. Ulcerating cancers are easily spotted. The jagged fissures with soapy secretion, or reddish in color, with moderate induration, are quite characteristic, but often the microscope has to decide.

Differential Diagnosis—The polypoid variety from:

1. Papillary tuberculosis may be made by careful inspection, finding the millet seed nodules or tubercle in the neighborhood. For example, the tubes, peritoneum or a focus in other organs.

2. From mucous polyps. Inspection shows the surface mucous membrane intact, and the sound shows that they originate in the cervix.

3. Cervical fibroid with the pedicle is distinguished by its intact mucous membrane and nonfriability, unless gangrenous.

4. Follicular hypertrophy of the vaginal surface. Here the surface is not rough, the tumor is not friable, and it is covered by intact mucous membrane through which the follicles may be seen.

5. Condylomata acuminata. Here there is only a papillary surface with thick epithelium, no ulceration or infiltration. The color is a whitish red. Further condylomata may be found also in the vagina or vulva.

Infiltrating Variety—The differential diagnosis from:

1. Inflammatory infections — metritis colli, but inflammation usually affects the whole vaginal portion uniformly. The consistency is not so hard, the mucous membrane is intact and follicles are seen. For example, a case in hospital the microscope decided.

Flat Cancerous Ulcerations—Flat cancerous ulcerations have to be distinguished from:

1. Erosions, if developed upon a hard inflammatory base, or associated with

ectropion, or the surface becomes rough on account of thick papillary erosions. Inspection decides; an erosion surrounds the external os evenly and has a glistening shiny appearance and bright red color, as it is covered by columnar epithelium, whilst a cancer is duller in color and rougher, even if ulceration is quite superficial. The erosion has no sharp border, but merges gradually into the squamous epithelium of the vaginal portion—outline irregular and pits of follicular ulcers are often seen on the surface. But if the erosion has lost its epithelium the microscope decides.

2. Simple ulcers: Due to prolapse or a pessary or cauterization or croupous processes, lack induration and at the borders healing is often seen.

3. A tubercular ulcer is similar to cancer, but is very rare. It surrounds the external os. Its edges are undermined, the floor is granular but not indurated, yellow miliary tubercles may be seen. Also the disease is found elsewhere or the microscope shows a tubercle structure.

4. Chancroids (soft sore): Are usually small sores, becoming larger by confluence, have elevated borders, the floor has a croupous membrane but is not indurated. Ulcers are multiple and contact ulcers are found. Also ulcers on the vagina or vulva.

5. Syphilitic Ulcers:

(a) Initial lesion.

(b) Degenerative papule.

(c) Gumma.

Degenerative papule is a solitary indurated and shallow ulcer, with indistinct border and dirty copper red color, with greasy exudate on its floor. The anterior lip is the favorite site.

6. Condylomata lata, or papulous ulcers, are elevated slightly and covered by a yellowish debris. They are multiple and other papules may be found on the vulva.

7. Gummata—are rare. The ulcers are elliptical, well-defined, shallow, and the floor covered by a pus-like exudate, which on separation leaves bleeding granulations. It is situated usually to one side of the external os, and extends by serpiginous border. One may demonstrate the lesion elsewhere, also the Wasserman reaction or the presence of spirochaete may be shown.

Diagnosis of Cervical Cancer—This is more difficult, especially if the os is closed, but otherwise when the os is patulous. Then

ulceration, the absence of epithelium and especially friability on scraping with the curette is diagnostic.

Infiltrating Cancer—Here diagnosis depends on change in shape of the cervix and its consistency. The surface becomes distended on one side, perhaps, and the canal displaced. Its consistency is cartilaginous. If infiltration is high up in the cervix a rectal examination may help, but the best plan is to remove a piece of tissue with the curette and examine histologically, or even to curette the body as well as the cervix and *vice versa*.

Differential Diagnosis—1. Metritis or endocervicitis, but here the condition is uniform and the mucous membrane is intact.

2. Follicular hypertrophy, but here the mucous membrane is intact and the follicles shining through may be punctured.

3. Interstitial myomata are more rounded; that is, better outlined and surrounded by soft tissue, while cancer owing to inflammatory reaction is not. Ulceration favors cancer.

4. Chronic cervical catarrh, in old females. Here the mucous membrane feels rough, uneven and nodular owing to the granular depression and the surrounding fibrosis, but the mucous membrane is intact and the curette gets no tissue. The microscope decides.

Cancer of the Uterine Body—Cancer occurs here about one-fifteenth as often as in the cervix, but is very important to diagnose, since most corporeal cancers arise after the menopause. Hence, there are two important signs:

1. Hemorrhages.

2. Simpson's pains, regular labor-like pains, lasting several hours and recurring at definite times of the day.

But there are no characteristic bi-manual palpatory findings in cancer of the body. The size of the uterus may be normal or even atrophic. Later it may resemble a fibroid or metritis uterus. Diagnosis is made by exploring the cavity.

1. By the sound which distinguishes from retained decidua or fungous endometritis; by presence of hard nodules or depressions when cancer is present. If the interior seems smooth cancer may be excluded, but if there are irregularities of the surface the microscope is necessary. The microscope is the proper method of diag-

nosing early cancer of the body. Digital exploration may be employed if the os is open plus curettage, but if the cervix is closed curettage is employed, and if negative digital exploration is then used, but the latter is more dangerous, besides palpation is not so sure as the microscope.

Differential Diagnosis—If the curette is used the microscope decides; if a digital exploration then one has to distinguish from:

1. Adenomyoma.
2. Sarcoma.
3. Degenerating fibroid.
4. Mucous polyps.
5. Remains of abortions.
6. Chronic Metritis.

But cancer is distinguished by the two signs of neoplasm and degeneration.

Although corporeal cancer occurs only about one-fifteenth as often as the other varieties, still it is more insidious in its mode of onset. It is more frequent in spinsters and in barren wives than in multipara. This corresponds with the clinical experience that it is frequently associated with fibroids, and fibroids are a result of the barren or the celibate state. It is interesting to note that cancer of the body of the uterus has been found to follow double ovariectomy, and since this is practiced occasionally for bleeding fibroids near the menopause is worth remembering.

Again, sub-mucous fibroids are often associated with changes in the endometrium which not only cause excessive bleeding, but set up also inflammatory conditions, giving rise to salpingitis, leucorrhoea, etc., but also render the mucous membrane more susceptible to cancer.

Bland-Sutton (*Burghard's System of Surgery*, Vol. 4, p. 52) states that in patients submitted to hysterectomy for fibroids, over the age of fifty years, about ten per cent. will be found to have cancer of the corporeal endometrium.

Hence, one may sum up the early diagnosis of uterine cancer by stating that:

1. The family history is important in discovering a predisposition.
2. The personal history is important in deciding a predisposition. For example, cervical cancer is almost exclusively a disease of women who have borne children, or at least been pregnant. Hence, there seems good reason to suppose that injuries and their sequelae are predisposing factors.

Again, corporeal cancer is chiefly the disease of spinsters and barren wives, and these are the patients who suffer from endometritis and fibroids.

3. Chronic irritations are important etiological factors. For example, lacerations in multipara, fibroids and endometritis in multipara.

4. The warning or prodromes are:

1. The red flag of metrorrhagia after the menopause and the Simpson pains in corporeal cancer.

2. The unusual discharge in cervical cancer.

3. The bleeding after coitus in the vaginal cavity.—*Canada Lancet*.

THE TONSIL QUESTION

A Review of Recent Literature.

Wm. B. Chamberlain, M.D., St. Louis,
Mo.

The question of the advisability of removing diseased tonsils seems to have been definitely settled. The method of removing them of late has claimed no little attention, as is shown by a perusal of the more recent literature. For years the operation of tonsillotomy, *i. e.*, the removal of the part projecting beyond the faucial pillars, was the operation of universal choice; but of late this older operation seems likely to be supplanted by the more modern and to us more surgical operation of tonsillectomy. This change in attitude seems to spring from satisfactory and logical reasons.

Tonsils may be pathological simply from their size alone, interfering with respiration, deglutition and the proper aeration of the tympanic cavity. Such tonsils are seen most frequently in children, where they are usually associated with marked increase in the adenoid tissue or Lucshka's tonsil. They occur less frequently in adults. But it is not always the hypertrophied tonsil which carries with it the greatest menace to health and danger to the individual. Often the imbedded and densely adherent tonsil is the tonsil of greater danger. It is the portal of entry of bacteria of all sorts, especially the tubercle bacillus, as has been shown by the investigations of Wood, Ravenel and others.

The tonsil is bounded fore and aft by the pillars of the fauces and externally by a dense fibrous capsule which rests upon the superior constrictor of the pharynx. The crypts are eight to twenty in number. They open on the internal and superior faces and pass for the most part to the capsule.

Why should the older and simpler operation of tonsillotomy give way to the more recent and infinitely more difficult operation of tonsillectomy? The operation of tonsillotomy is incomplete. We might liken it to an appendectomy in which only the distal part of the appendix is removed. Recurrences of inflammatory attacks following such an operation are common, so that patients have grown skeptical in regard to the benefits derived from the operation, while operators have grown more guarded in their promises as to ultimate cure. If the tonsil is large and not adherent to either pillar it might be possible to remove it in its entirety, gland including crypts and capsule, with the tonsillotome. But such a tonsil is a *rara avis*. The infinitely greater number, as the result of one or several attacks of inflammation, are adherent in varying degree to one or both pillars. The part projecting beyond the pillars constitutes but one-eighth to one-half of the entire gland. It may, in the quiescent state following an attack of tonsillitis, not project beyond the pillars at all. In such cases the tonsillotome would remove but a small part of the diseased gland—it might fail to remove even a small portion. With seven-eighths to one-half of the tonsil remaining *in situ* after tonsillotomy it is little wonder that patients suffer from recurring attacks of tonsillitis following operation. The surface becomes sealed over with bands of cicatricial tissue and the patient, according to Jackson, is more disposed to attacks than before.

Tonsillectomy, like tonsillotomy, can be performed under general or local anaesthesia. Under local, the tonsils are first painted with pure cocaine dissolved in adrenalin until superficial sensation is abolished. A few drops of a one per cent. cocaine solution, to the drachm of which five to ten drops of adrenalin have been added, is then injected outside the capsule by plunging a special long hypo. needle through the pillars. Anaesthesia and anaemia are complete almost immediately.

For general anaesthesia ether is safest and should be the anaesthetic of choice, notwithstanding its disadvantages of nausea and increased flow of saliva and mucus. The mouth should be held open by a suitable gag. The operation may be performed with the head on the side or hanging over the end of the table in the Rose position, while the operator sits facing the top of the patient's head. My own preference is for this position. The tonsil is seized on its anterior surface and some traction exerted. This will give one an idea of the true size of the gland and will also differentiate the anterior pillar. By means of scissors, straight or curved, an incision is made through the overlying mucous membrane just inside the pillar until the glistening white capsule comes thoroughly into view. By means of scissors, or largely by blunt dissection, the tonsil is now freed from its lateral and superior adhesions until it is attached externally by a narrow pedicle covering its lower two-thirds. While the tonsil is drawn well into the throat this pedicle is then severed by knife, scissors, tonsillotome or snare. The snare possesses the advantage of following close outside the capsule and causing less hemorrhage. Jackson condemns its use on the grounds of there being greater danger of secondary hemorrhage, but the snare seems to be gaining in favor with an increasing number of operators.

The chief objections to the complete enucleation are the difficulties attending the operation and the greater danger of hemorrhage. That the operation is difficult cannot be denied. This, however, can hardly be urged as an objection, if the necessity of removing the entire gland is truly appreciated. It should remove the operation from the hands of the ill-prepared and incompetent and place it in the category of operations requiring special skill and training. Such an operation requires first of all a good operator, second a good assistant and preferably adequate hospital facilities. The danger of hemorrhage has been too little appreciated in tonsil surgery. Any operator attempting to do such work should expect an occasional hemorrhage and be prepared to cope with it. Most operators are now agreed that the danger is fully as great in the one case as in the other. In tonsillectomy the point of safety lies in

keeping close to the capsule and in not encroaching upon or lacerating surrounding tissue.

Conclusions.

I. Tonsillotomy may give relief in certain cases, but tonsillectomy offers the greatest promise of cure.

II. There is no greater danger of hemorrhage in tonsillectomy than in tonsillotomy. There is always danger of hemorrhage in any tonsil operation.

III. Any method is a good one so long as it aims at complete removal. The choice of method is largely a question of individual skill or preference.—*Interstate Med. Journal.*

MANAGING PATIENTS.

C. N. Johnson, M.A., D.D.S., Chicago, Ill., in the *Dental Era*.

[Although this article is written by a dentist for dentists, it applies equally to physicians. One only has to substitute the name and work of the doctor for that of the dentist to make it a practical sermon to the medical man.]

The Management of Children.

To be successful in the management of children means a great deal in the maintenance of a satisfactory and permanent practice. The children of today make the patients of a few years hence and if a practitioner has the tact and patience to control children from the time they first come to him till they grow to years of accountability he can then have a class of practice built upon the lines of his own choosing and of a character to harmonize best with his individual preference. There is nothing more interesting in life than to watch the development of a child and study the various manifestations of character-building as exemplified in their attitude towards one with whom they are brought into as close relationship as the dentist. Child study is always instructive, and it is doubly so when conducted from the point of view of a professional association. The dentist should early aim to understand his little patients, to gain their confidence and enlist their sympathy with whatever he attempts to accomplish for them. If he really loves children and always treats them in a frank and cordial man-

ner, he will in turn receive at their hands a reciprocal attachment which eventually will prove one of the greatest inspirations to high professional endeavor. The implicit confidence of a child is no small thing to attain, and he who has this is not altogether bereft of satisfaction in the conduct of his affairs.

The first thing to learn in the management of children is not to deceive them. We should aim to avoid giving pain to a child whenever possible; but if it is found necessary to inflict pain in an operation, the child should never be promised that there will be no pain. The magnitude of the hurt must, of course, not be exaggerated in advance. In fact, it is best, ordinarily, to make light of it and place the best possible construction on it. It is usually well to say to the child that the dentist can not always tell precisely whether an operation will hurt or not, but that if it does hurt a little, the child may be sure that the dentist will be very careful about it and not hurt in the slightest degree more than is necessary. But to promise that it shall not hurt, and thereby gain the little patient's consent to an operation which in the nature of it must give pain, is an abominable subterfuge which reacts on the dentist and raises a suspicion in the child's mind which subsequent years are powerless to efface. Different children require different methods to manage them, and with some especially obstinate and unreasonable children it may at times be necessary to employ force in accomplishing the end, but ordinarily a little tact will win the day. With most children an adroit appeal to their manhood or womanhood will work marvels. The child-mind is wonderfully susceptible to praise and encouragement, and a word which touches their pride will go far towards nerving them up to an operation.

No attitude should ever be taken towards a child except one of extreme kindness. Even if it become necessary to coerce a child into an operation, it should be done in the kindest manner, and never with a display of temper; and if an issue has arisen whereby the child has been compelled to submit against his will, the dentist should take great pains to soothe his feelings subsequently by a kindly encouraging interest in his welfare that the child will leave the office without harboring

any resentment. It is sometimes astonishing how a stubborn child will yield to a gentle reasoning and a cordial show of kindness immediately following a contention in which the dentist has come out master of the situation. Kindness is very soothing under these circumstances, and it also proves to the child that, after all, the dentist is a good friend, and if he does hurt, it is only because of necessity and solely for the patient's good.

But it is best, if possible, to avoid giving much pain to children. Usually palliative measures are preferable whenever they can be made effective, particularly till the little patient has grown accustomed to the dentist and has been led up by a skillful system of management to the point where a reasonable amount of pain will be tolerated without protest. The first visit of a child to the office is usually a momentous occasion, and except the most urgent necessity no pain should ever be given at this time. The child, if timid, should be entertained in such a way that so far as the personal element is concerned there is no fear. It is frequently well to make the first examination without putting the little tot in the chair, and if the child is very young, it is usually best to have the mother or nurse hold it in her lap. Then when the first mere glance is had something complimentary should be said, and if the child is not too timid he should pat the little round cheek in a friendly way, and the ice is broken once for all so far as that child is concerned. The gentle touch of the human hand has a wonderful effect on a child, and a demonstrated tenderness on the part of the dentist at this first visit influences largely his subsequent success with the little patient.

It is sometimes marvelous what children will bear in the way of pain without protest if perfect confidence has been established and an appeal is made to their pride. A case in point is worth recording as illustrative of what may be accomplished with an apparently wayward child by a little tact. A lady walked into the writer's office one day leading a crying child. The little girl was in the saddest distress imaginable, and the mother was out of sorts and irritated by the evident contention over the visit. Said the mother: "Doctor, I don't know whether you can do anything with

this child or not; but she has worn us all out with the toothache, I have finally forced her to come and see if you can stop the pain. She is the most wayward child I ever saw, and I am utterly exhausted with her."

I saw at a glance that the case between the mother and the child was in its acute stage, and that counter-irritation was not indicated for either. I approached the little girl, and said, gently: "Well, dearie, let me see what the trouble is." Instantly she dropped her mother's hand and looked up at me with such an expression of relief and confidence on that tearful little face of hers that I said: "Why bless my heart, you and I are not going to have any difficulty, are we?"

"Well," the mother snapped out impetuously, "if you can manage her, you are the first one I ever saw who could. She's the —"

But I stopped her with a gesture, and asked her if she had some shopping to do or anything to occupy her for the next half-hour. She was quick-witted enough to take the hint, and I soon had the little girl to myself in the office. The moment the mother was out of the room the tears began to dry and sobbing to cease, and in a very few minutes the little patient was perched up in the chair showing me the tooth that ached. She was one of those delicate, sensitive, high-strung little creatures, susceptible to kindly treatment, but instantly rebellious against anything harsh, and, unfortunately, mother and child did not understand each other. I treated her with utmost tenderness and managed to relieve the pain with little discomfort. By the time the mother returned she was the brightest little midget imaginable, and the mother said: "Dear me, I guess you have hypnotized her. I never saw her take to anyone like that before." I told her that all the hypnotism I had used on the child was kindness, and I even ventured to suggest that she experiment on her little daughter in the same way and watch the result.

It became necessary to have many sittings with the child subsequently, and as her teeth were extremely sensitive, some of these sittings were painful, but never at any time did I hear a word of protest from her, nor was she ever reluctant to take the

chair. I have seen her sit through an operation when at times the tears would course down her cheeks, and my only answer upon expressing sympathy for her was a bright smile bursting through the tears. What a wondrous mentality there is wrapped up in a sensitive child, and what a sacred trust it is for those to whom the care of such children is committed that they study carefully the myriad main-springs of motive behind every act and thereby learn to bring out the best there is in this tiny "bundle of possibilities."

To the dentist it is given to accomplish great good with such children on account of the close relationship existing between patient and practitioner; and no man can make a careful and continued observation of child-life in this connection without thereby being made vastly better himself. The results will repay a thousand times for the effort.

MEDICAL BRIEF.

AN INDIAN MOTHER'S ADVICE—The following address of an Aztec mother to her adolescent daughter is beautiful and one of the most powerful documents in the interest of moral prophylaxis it has even been our good fortune to read. Every mother of a daughter might, with much profit, repeat this simple Aztec mother's plea for purity and womanliness. It could not but strengthen female virtue. Organizations engaged in moral uplift movements would do well to incorporate this in their literature.

"Remember that nine months I bore you in my womb, that you were born and brought up in my arms. I placed you in your cradle, and in my lap and with my milk I nursed you. This I tell you, in order that you may know that I and your father are the source of your being; it is we who now instruct you. See that you receive our words and treasure them in your breast. Take care that your garments are such as are decent and proper; and observe that you do not adorn yourself with much finery, since this is a mark of vanity and folly. As little becoming is it, that your dress shall be very mean, ragged or dirty; since rags are a mark of the low, and of those who are held in contempt. * * * See, my daughter, that you never paint your face or stain it or your lips with colors, in order to appear well; since this is a mark of vile and unchaste women. Paints and colorings are things which bad women use—the immodest, who have lost all shame and even sense, who are like fools and drunkards and are called *rameras* (prostitutes). * * * Only one thing remains to be said and I have done. If God shall give you life, if you shall continue some years upon the earth, see that you guard yourself carefully, that no stain come upon you; should you forfeit your chastity and afterwards be asked in marriage and should marry anyone, you will never be for-

unate nor have true love—he will always remember that you were not a virgin, and this will be a cause of great affliction and distress; you will never be at peace for your husband will always be suspicious of you. O, my dearly beloved daughter, if you shall live upon the earth see that no more than one man approaches you and observe what I tell you as a strict command. When it shall please God that you receive a husband and you are placed under his authority, be free from arrogance, see that you do not neglect him, nor allow your heart to be in opposition to him. Be not disrespectful to him. Beware, that in no time or place you commit the treason against him called adultery. See that you give no favor to another; since this, my dear and much beloved daughter, is to fall into a pit without bottom, from which there will be no escape. According to the custom of the world, if it shall be known, for this crime they will kill you, they will throw you into the street, for an example to all the people, where your head will be crushed and dragged upon the ground. From this will arise a stain and dishonor upon our ancestors, the nobles and senators from whom we are descended. You will tarnish their illustrious fame and their glory, by the filthiness and impurity of your sin. You will likewise lose your reputation, your nobility and honor of birth: your name will be forgotten and abhorred. Of you it will be said: that you are buried in the dust of your sins."—*Am. Jour. of Dermatology.*

JUST KEEP ON KEEPIN' ON.

If the day looks kinder gloomy,
And your chances kinder slim;

If the situation's puzzlin',

And the prospect awful grim,
And perplexities keep pressin'
Till all hope is nearly gone,

Just bristle up and grit your teeth,
And keep on keepin' on.

Fuming never wins a fight,
And frettin' never pays;

There ain't no good in broodin' in
These pessimistic ways.

Smile just kinder cheerfully,

When hope is nearly gone,
And bristle up and grit your teeth,
And keep on keepin' on.

There ain't no use in growlin',
And grumblin' all the time;

When music's ringin' everywhere,
And everything's a rhyme.

Just keep on smilin' cheerfully,
If hope is nearly gone,

And bristle up and grit your teeth,
And keep on keepin' on.

—*Optimist*

The West Virginia Medical Journal

S. L. JEPSON, A.M., Sc.D., M.D., *Editor.*

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All communications to this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the State. Notices of deaths, removals from the State, changes of location, etc., are requested.

Our readers are requested to send us marked copies of local newspapers containing matters of interest to members of the medical profession. Name of sender should be given.

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It will be satisfactory to all concerned if authors will have their contributions typewritten before submitting them for publication. The expense is small to the author—the satisfaction is great to the editor and printer.

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Editorial

PROGRESS IN PREVENTIVE MEDICINE.

We have before us a Bulletin issued by the *Postal Life Insurance Co.*, that contains many facts worthy of serious consideration. It opens with the statement that, with the present death rate from preventable causes, over six million American lives will be needlessly lost during the next ten years. It has been estimated,—since our vital statistics are unfortunately very far from complete—that in 1909 deaths occurred as follows from the causes named, largely preventable: Tuberculosis, 126,744; pneumonia, 88,703; accident, 85,261; cancer, 67,962; typhoid fever, 19,417; diphtheria and croup, 18,711; making a total of 406,798. It has also been estimated that in the coming ten years the total loss from these causes will reach 4,687,351. These estimates are based on our last census reports from the "registration area," that is, a limited part of our country in which statistics approximately correct have been collected.

The following figures indicate the changes in mortality since 1880 from the diseases named above: Under 20 years, a decrease of 17.9 per cent.; 20-30, a decrease of 11.8 per cent.; 30-40, a decrease of 2.3 per cent.; 40-50, an increase of 13.2 per cent.; 50-60, an increase of 29.2 per cent.; over 60, an increase of 26.4 per cent. Since 1880 cancer has increased in the registration area from 3.6 to 7.4 deaths in 100,000, or 40 per cent. These figures are believed to be nearly accurate, since they correspond quite closely with the increase as reported in Massachusetts, whose vital statistics are correctly reported. They agree also with the consensus of opinion as frequently expressed by writers in our medical journals in recent years. Some recognition must be taken of the fact that the profession is learning to diagnose cancer more accurately than formerly, and that the statistics of this and other diseases are now more nearly full and correct. But these facts cannot blind our eyes to the unwelcome truth that this painful, distressing and fatal disease is on the increase, and at a rate which, if unchecked by discovery as to its cause or by improved methods of treatment, will at no distant day outstrip tuberculosis in mortality.

"Both medical and statistical evidence of the strongest character forces the belief, that a lowered bodily resistance which invites pneumonia, apoplexy, kidney disease, heart disease, etc., accounts for the facility with which cancer invades and conquers the human organism." say the authors of this bulletin, and they add: "The stress of our rapid and complex existence, together with excesses or other errors in eating and drinking, are the largest factors in breaking down the resistance to cancer and other affections peculiar to middle and old age."

Although generally regarded as a non-preventable disease, cancer has long been considered as in a measure due to local irritation of some sort; and Crile and others have recently emphasized the importance of removing every local blemish that might by future injury take on a malignant character, such as moles, warts, and other excrescences. Cancer of the uterus occurs frequently after laceration of the cervix; cancer of the mouth in those who smoke to ex-

cess; cancer of the breast is believed to result from injuries inflicted by the nursing infant; cancer of the stomach occurs frequently in those who have suffered from milder gastric diseases. All these convey valuable hints as to proper prophylactic measures.

Then we can so change our manner of living as to insure the best general health, and keep the powers of resistance up to the highest point. In this we may possibly in a measure overcome a hereditary influence which, although it may not be great, still exists, as shown in a family of which we have knowledge, in which the father died of epithelioma of the face, one daughter from cancer of the uterus and another from cancer of the breast.

The document before us shows also a remarkable increase in the mortality from what are called degenerative diseases, namely, affections of the heart, blood vessels, etc. This increase is no less than 104 per cent since 1880. Statistics gathered from a number of sources agree in showing this increase. This also is in accordance with the common observation of experienced practitioners. The rate of increase in those of various ages is as follows: Below 20 years, 17 per cent.; 20-30, 33 per cent.; 30-40, 32 per cent.; 40-50, 60 per cent.; over 60, 92 per cent. Arterial changes have received much study in recent years, and many suggestions have been made in the way of the prevention or the favorable modification of arteriosclerosis. If cancer is in any measure aggravated by modern methods of living, how much more are cardiac and arterial diseases. Our high-pressure living, too rich eating and drinking, the mad rush for wealth, the strain of business, the excitement of competition for social equality or pre-eminence, make constant and heavy demands upon brain, nerve and artery. Hence the many reports of persons "found dead in bed," or "died from heart failure," or "died from apoplexy," persons by no means old and whose lives might have been greatly prolonged by correct living. That the conditions referred to might be largely remedied is well known to every well informed physician. Wordsworth's "plain living and high thinking" would in time bring about an improvement, and would certainly pre-

vent the injurious changes going on in the systems of those who are living what we know as "fast lives." As our writers suggest, "temperance in all things, mental poise, courage, and the avoidance of hysterical unrest and needless overstrain in meeting the complexities of existence" are required, if we would live out the time that we may reasonably claim as our own in this world. Any other kind of living is nothing short of suicide.

But the look-out is not all gloomy. The figures before us indicate that in the past thirty years there has been a reduction of 48 per cent. in the death rate from that dread destroyer, tuberculosis. We may claim this splendid result as a direct triumph of preventive medicine. Physicians have been persistent in fighting this disease, and at a personal sacrifice of their own interests have waged a crusade against it, educating the people in the principles of prevention—the care of the patient, of the family, of the premises, and giving instruction as to diet, exercise, rest, sleeping, until the average intelligent person well understands how the tubercular patient should conduct himself so as to prolong his own life and free those near and dear to him from danger of infection.

There is a reduction also in the typhoid fever mortality, in the state of Massachusetts of 63.3 per cent., and in the registration area of 41.9 per cent. since 1880. In the same period the death rate from diphtheria has fallen 80 per cent. This is of course chiefly due to the very general use of antitoxin, the discovery of which is the direct result of animal experimentation, against which so many highly sensitive and "refined" people make such outcry, preferring diphtheria deaths to damage to worthless dogs. The mortality from infantile diseases has also greatly diminished, but space is not permitted in which to enlarge on this subject.

On the whole we may be well pleased with the triumphs of preventive medicine, "the medicine of the future;" but we must not rest satisfied until pneumonia, cancer, and the few other diseases which have thus far baffled our efforts to control them, are brought under subjection. When this object is accomplished we may adopt the Chinese plan, and take pay for

keeping the people well instead of making them so.
S. L. J.

MEDICAL DEFENSE.

From the Washington County, (Pa.) Bulletin we learn that seventeen state societies now give their members protection against malpractice suits for one dollar a year. The Iowa society is one of these. From the Iowa Society Journal we gather some figures that should be interesting to our members, not all of whom seem satisfied to pay the extra dollar that insures protection, and that may save them hundreds of dollars. The plan has been in operation in that state for several years. Here is a report of the causes for which suits have been entered, the nature of which, by no means always surgical, plainly indicates that none of us are free from liability to attack by this species of blackmail:

Conspiracy to have plaintiff declared insane	1
Fracture of arm.....	8
Fracture of leg.....	6
Appendicitis—sponge case.....	1
Appendicitis—malpractice in operation	1
Appendicitis — exploratory opening---	1
Childbirth, alleged failure to attend-after alleged agreement to do so: child died (separate actions by father and mother).....	2
Hand crushed, alleged improper treatment	1
Eye, alleged improper treatment.....	1
Infection, childbirth.....	2
Medical treatment of child.....	1
Abortion, improper after-treatment...	1
Stomach trouble, alleged improper treatment and failure to treat.....	1
Anesthetic, death under.....	1
Improper diagnosis of broken ribs....	1
Improper diagnosis of diphtheria.....	1
Removal of uterus, alleged negligence, incision of the bladder.....	1
X-Ray burn.....	1
Infection following amputation.....	1
Alleged improper treatment of scald..	1
Removal of adenoids.....	1
Alleged improper abdominal incision..	1
Total amount of damage claimed in all cases to date \$372,489.00.	

It is a noteworthy fact that in not

a single case was judgment recovered. This seems to indicate that the plan of defense instituted by the various societies is an effective one.

In the state society of New York the results have been no less satisfactory, as appears from the following statement: In New York from 1900 to 1910, 258 cases came before the society; 138 were tried, none lost, one appealed and not a dollar damages paid.

Those who pay their dues to our state association receive the same defense as is afforded in Iowa and New York. Fortunately no case has yet arisen by which to test the matter in West Virginia, but the result, it may confidently be predicted, will be equally satisfactory when the test is made, as it is sure to be sooner or later. Some time ago, as we learn from the Washington County Bulletin, a member of the Pennsylvania Society allowed his membership to lapse by neglect to pay his dues within the prescribed time. Soon after he was sued for malpractice, when he at once resumed his membership, but was informed that this would not give him protection, as the suit was entered at a time when he was not a legal member of the society. We look for this very thing to happen in this state. It is now too late for any member to save himself this year, but the fact here stated should be a warning to every member, and should insure the payment of next year's dues in the month of January, which is necessary in order to secure the society's aid in defense.

These facts are given here and now, in view of the probability that the question of defense by the association will be brought before the house of delegates at our coming meeting. If so, we suggest the propriety of referring the matter to the general meeting, that every member may have the opportunity of expressing his views.
S. L. J.

THE LOS ANGELES MEETING

Dr. Hupp, who never forgets the Journal in his absence, writes us from the Los Angeles meeting that "hospitality, the like of which has never been known in medical annals or elsewhere, has been accorded the association here, for which the thanks and

appreciation of the delegates and others attending this great convention were tendered to the Chamber of Commerce and the members of the California and Los Angeles Medical Societies. In point of hospitality all previous meetings were surpassed." When in a bunch the doctors are the best people in the world, and it is a subject of constant surprise to us, that nearly a half of all West Virginia physicians have not yet learned this fact. How they can remain outside the society and remain happy is a mystery to the editor, and he has had forty years experience among the brethren on the inside.

Dr. Hupp is also enthusiastic over the choice of Dr. Jacobi as president, and says: "He was elected with an enthusiasm that made glad the hearts of his myriad of friends and former students. I naturally supported him, as he was my old teacher." Sorry we impecunious fellows could not be there to join in the general rejoicing and good fellowship.

THANK YOU.

On behalf of the untold number of general practitioners who treat fractures, we desire to thank a surgeon for his condescension in permitting us the privilege. Dr. Galloway, orthopedic surgeon to Winnipeg hospital and lecturer on orthopedic surgery, Manitoba Medical College, in a recent paper draws these conclusions the last of which inspires our thanks.

CONCLUSIONS.

"As usual, the truth lies between extremes; the aid of the knife in treating fractures should be welcomed when it is necessary, but it is usually unnecessary.

More or less frequent disaster will certainly follow anything approaching the routine adoption of operative methods.

Radiography is useful and often indispensable for exact diagnosis, but often misleading as a means of passing judgment on the practical results of treatment.

The general practitioner should not be disturbed by the ridiculous statement sometimes made in surgical discussions in recent years, that only the operating surgeon is competent to deal with fractures."

Which reminds us of a remark in a paper by a Boston specialist, that "the sooner labor is looked upon as a pathological process the better, and one demanding the

presence of the surgeon." If such nonsense is encouraged the g. p. will soon vanish from sight.

IS IT COMING?

The California State Board of Health recently passed the following:

"BE IT RESOLVED, That the California State Board of Health declares that beginning January 1, 1911, syphilis and gonococcus infections shall be reportable and shall be placed on the list of communicable diseases which local boards of health and health officers are required to report to the secretary, it being provided, however, that until further action by this board, physicians may report the facts concerning these diseases by office numbers, instead of the names of patients.

"BE IT FURTHER RESOLVED, That this board officially calls the attention of the citizens of California to the contagious and infectious nature of these diseases and requests their co-operation in combating them by every available means—educational, sanitary, medical, social and moral."

And here is another recent expression:

At a recent meeting of the Medical Society of the County of New York it was formally moved and seconded that cases of venereal disease should be classified among those which are reported to the Board of Health. The motion was put and carried.

Our editorial on cholera seems to have been quite apropos, since, in spite of the vigilance of the New York health officials, a death has occurred from this disease as far inland as Auburn, N. Y. Quite a number of deaths have occurred on several vessels from Italy, and at the New York quarantine station. All health officials should inform themselves thoroughly, as we may yet find the disease spreading westward.

We welcome the appearance of the Journal of the Iowa State Association and have no doubt as to its future success.

The Journal of Gastro-enterology is another new venture, published as a quarterly in Philadelphia. Both of these Journals would present a better appearance with heavier and colored cover pages.

To Members:

A few more papers needed to complete program. Time is growing short. Please send me title, or notify me at once that you expect to have a paper.

A. P. BUTT, Sec'y, Davis.

REPORTING OF TUBERCULOSIS

Reported in 25 States—No Provision in 28.

Reporting of living cases of tuberculosis is now required by law or health regulation in 25 states, while in 28 states and territories, no provision whatever is made for keeping record of cases of this infectious disease, according to a statement published to-day by the National Association for the Study and Prevention of Tuberculosis in its official organ, the *Journal of the Outdoor Life* for June.

Connecticut, District of Columbia, Kansas, Maine, Maryland, Michigan, Mississippi, New Jersey, New York, Rhode Island and Vermont, are placed in the honor class as having laws which provide specifically for the reporting of tuberculosis and which make provision for the proper registration of living cases of this disease. In fourteen other states, laws or regulations of the state boards of health require that tuberculosis be reported simply as one of a list of infectious diseases. These states are: Alabama, California, Indiana, Iowa, Massachusetts, Minnesota, Nebraska, North Dakota, Oregon, Pennsylvania, Tennessee, Utah, Washington and Wisconsin.

The following 28 states and territories have no provision whatever for the reporting or registration of tuberculosis cases:—Arizona, Alaska, Arkansas, Colorado, Delaware, Florida, Georgia, Hawaii, Idaho, Illinois, Kentucky, Louisiana, Missouri, Montana, Nevada, New Hampshire, New Mexico, North Carolina, Ohio, Oklahoma, Philippine Islands, Porto Rico, South Carolina, South Dakota, Texas, Virginia, West Virginia and Wyoming.

Several cities in non-registration states, as for instance, Chicago, Cleveland, St. Louis and New Orleans, have local ordinances requiring that tuberculosis be reported. In all, there are about 100 cities in the United States which have ordinances of this nature.

The National Association insists that the first requisite for a comprehensive campaign for the elimination of tuberculosis in a state or city is a well-enforced law requiring that every living case of tuberculosis be reported to the health authorities.

(We are glad to add Wheeling to the list of cities that require the reporting of tuberculosis. —EDITOR.)

TWO FACTS REGARDING VACCINATION. In the *Philadelphia Public Ledger*, May 21, is a letter from Dr. W. W. Keen, in which he presents some facts regarding vaccination against small-pox and typhoid fever. What he states regarding small-pox and vaccination is worth quoting. "One of my old students at the Jefferson Medical College, Dr. Victor G. Heiser, is in charge of the sanitation of the whole of the Philippine Islands. He has accomplished there a work which can be favorably compared with that of Colonel Gorgas on the isthmus. When in this city about eighteen months ago he told me that in seven provinces in and around Manila there were annually about 6,000 deaths from small-pox, which would mean 25,000 to 30,000 cases every year.

But in the twelve months following the completion of the vaccination of all the population, there was not a single death from small-pox in the same provinces. Could there be a better demonstration of its value as a preventive? Moreover, he stated that in over 5,000,000 vaccinations in the Philippines, in spite of their frequent neglect of the slight sores which are necessarily produced by the operation, and of the uncleanly habits of a large number of the inhabitants, not one single death occurred, the finest record of any similar wholesale vaccination in the world. In your issue for May 7, also, in the first page of the Magazine Section in Professor Turner's paper on the 'Abolition of Slavery in Pennsylvania,' are published facsimiles of some advertisements which appeared in Philadelphia before the days of vaccination. Among them is one which to-day would be utterly absurd. It reads 'Lately imported from Antigua (as though they were cigars or coffee) and to be sold . . . a parcel of likely negro women and girls from 13 to 21 years of age, who have all had the small-pox.' Such an advertisement at the present day would be unthinkable. It added to the value of a slave in those days to have had small-pox. To-day nobody thinks of any one ever being liable to small-pox, except those who neglect vaccination. I commend this experience of Dr. Heiser in the Philippines and this advertisement from your paper to the attention of our antivaccination friends."

State News

PRESIDENTIAL APPOINTMENTS.

Public Address:—Dr. R. E. Venning.

Oration on Medicine—Dr. Charles O'Grady, Charleston.

Oration on Surgery—Dr. S. M. Mason, Clarksburg.

COMMITTEE ON TUBERCULOSIS.

C. O. Henry, chairman, Fairmont; G. A. MacQueen, Charleston; Fleming Howell, Clarksburg; Harriet B. Jones, Wheeling; J. E. Robins, Claremont; W. H. Yeakley, Keyser.

COMMITTEE ON PUBLIC POLICY AND LEGISLATION.

First District—J. W. McDonald, chairman, Fairmont; A. O. Flowers, Clarksburg.

Second District—S. S. Wade, Morgantown; A. L. Grubb, Berkeley Springs.

Third District—M. V. Godbey, Charleston; Edward Cummings, Hinton.

Fourth District—Rollo Camden, Parkersburg; A. S. Grimm, St. Marys.

Fifth District—T. W. Moore, Huntington; Wm. C. McGuire, Huntington.

Dr. Thomas H. West, of Keyser, aged 72 years, died suddenly July 12th, at noon hour, of heart disease. He was actively engaged in the practice of his profession up until last night. He was born at Swanton, Md., and following the Civil war, in which he served the Confederacy, he located here and has been an active physician all these years.

He was noted and beloved for his philanthropic work, as he devoted a great portion of his time to ministering to the poor. However, he accumulated valuable property. He is survived by a wife and four daughters—Mrs. Alice Smith, Fairmont, W. Va.; Mrs. C. J. Webb, Johnstown, Pa.; and Mrs. W. C. Kinsey and Mrs. Harry Markwood, of this city. Two sisters, Mrs. Sadie Farrell and Mrs. Ellen Farrell, live at Johnstown, Pa.

* * *

Dr. W. H. McLain, for the past four years the Health Commissioner of Wheeling, and the most efficient the city has ever had, was recently reappointed for another term of two years.

* * *

The following physicians of West Virginia were in attendance at the recent Los Angeles meeting of the American Medical Association: J. Howard Anderson, Marytown, Harry M. Campbell, Parkersburg, O. O. Cooper, Hinton, Byron W. Eakin, Carlisle, J. H. Fox, Hinton, F. K. Oates, Martinsburg, H. E. Oesterling, Wheeling, James Putney, Charleston, Frank Le Moyne Hupp, Wheeling, W. W. Tompkins, Charleston.

* * *

We recently greatly enjoyed a short visit from Dr. R. E. Venning of Charles Town. The doctor is a leading surgeon of the east end and deeply interested in the State Association. We are glad to announce that he is to deliver the public address at our White Sulphur meeting.

* * *

Dr. C. A. Wingerter and Dr. W. W. Golden have been appointed to the State Board of Health. Such appointments reflect credit on the appointing power. The Governor should always select from the membership of the State Association in making medical appointments. Not all members of the present board are in the Association.

* * *

Dr. C. A. Barlow of Benwood, succeeds the late Dr. Lyons as Superintendent of the Spencer Asylum. The doctor is a member of our Association—as his predecessor was not. He was an active member of the last legislature, and has the intelligence and snap to make a good executive, which we hope he will prove to be. However, as we believe in rewarding those who have "made good" in the public service, we think our honored Governor should have rewarded Dr. Bloss with this appointment, since he has been a diligent student of insanity in the W. Va. Asylum, and has, on a number of occasions, given to the profession valuable information in papers read before the State Association.

* * *

Dr. W. A. Quimby, the electrical specialist of Wheeling, has recently spent a week or two with his brother, Dr. A. J. Quimby, now an instructor in electro-therapeutics in the Post-Graduate School of New York.

* * *

Dr. T. W. Moore of Huntington, has arrived home after several months of post-graduate work, principally in Vienna. He sailed from Hamburg July 20th.

Dr. P. S. Keim of Elk Garden has recently returned home from Philadelphia where he has been engaged in post-graduate work. Dr. Cowerd had charge of his practice in his absence.

* * *

Dr. Irvin Hardy has sold his interest in the Allegheny Heights Hospital, at Davis, to Dr. A. P. Butt, who has recently associated with himself in the conduct of the institution, Dr. W. B. Sager of Woodstock, Va. and Dr. J. V. Jordan of Kingston, Ontario.

* * *

Dr. Hardy of Davis, is taking a vacation at Atlantic City. Dr. T. Jud McBee of Enkins has recently returned from the same popular resort.

* * *

Dr. Maxwell of Coketon, is off on a vacation. No one more than the country doctor needs it.

* * *

Dr. Hoffman of Thomas, recently met with an accident in being thrown from his horse.

* * *

Dr. W. P. Megrail of Wheeling, our medical inventor has recently devised an axis-traction handle for obstetric forceps, which is pictured and described in the A. M. A. Journal of Nov. 26th.

* * *

Dr. F. L. Hupp of Wheeling, after attending the late meeting of the Am. Med. Assn., returned by way of Yellowstone Park and will spend the remainder of his vacation on Lake George, N. Y. The doctor evidently believes in the doctrine of the old darkey that "dere's no use to kill yourself to keep yourself."

Society Proceedings

CABELL COUNTY SOCIETY.

HUNTINGTON, W. VA., JULY, 19, 1911.

There was a meeting of this society held in the Hotel Frederick on the evening of the 13th. There was a good attendance and while we had no paper, there were a number of very interesting case reports.

The applications of two physicians for membership were presented to the society.

Fraternally yours,

J. A. Bloss, Sec'y.

EASTERN PAN HANDLE SOCIETY

Dr. Howard Osburn was the ideal host Wednesday, July 12th, at his handsome country home, "St. John's" near Rippon, of about 35 physicians and surgeons, mostly members of the Tri-County Medical Association of the Eastern Panhandle. In addition to the customary business of the meeting the guests were served with an elegant dinner and the function lasted from 1 to 5:30 o'clock. The local members returned home greatly pleased with the meeting. Dr. W. T. Henshaw, who is president of the Association, presided at the deliberations.

The following program was presented: "The Surgical Treatment of Prolapse of the Uterus." Dr. J. M. Hundley, Baltimore.: "Treatment of

Summer Diarrhoea in Children," Dr. H. G. Tonkin, Martinsburg, W. Va.; "Some Recent Advances in Diagnosis and Treatment," Dr. Walter Cox, Winchester, Va.

Dr. A. C. Albin of Charles Town, and Dr. Grubb of Morgan county, were elected delegates to the State Medical Association which is to meet at White Sulphur Springs, in September. Visitors were present from Winchester, Baltimore and other places. The next meeting will be held in Martinsburg on the first Wednesday in September.

A. B. EAGLE, Sec'y.

FAYETTE SOCIETY MEETING

The June meeting was held in the assembly room of the Dungen Hotel, at Thurmond on the evening of the 6th.

An unusually good attendance was sufficient evidence of the popularity of the bi-monthly meetings and every one is boosting. Envyitis, the new disease first described by Dr. W. Dan Williams, and made public at one of our meetings some years ago, has been entirely eliminated. Not even its most common symptom, "Hammer Arm," can be felt or distinguished anywhere. The motto of the society adopted on the introduction of that disease, and read as follows: "We believe in courtesy, friendship and honest competition," is sufficient to cement the medical profession of this county, and have a solid working force of the live doctors who are proud of their calling. Let everyone work for a larger membership that our showing before the State Medical will be better than ever.

The meeting was called together by the president, Dr. Weaden. Papers were read by Drs. Eakin, Deputy and Elliot. Dr. Eakin's paper on the "Treatment of Various Diseases of Children" was well prepared. Dr. Dupuy contributed something new on Hygiene as found in the mining region. The paper was original and gave cold facts from which conclusions were easily drawn. The doctor was kind enough to diverge from the closely hewn lines of medical papers, and carried a vein of humor that was well received.

The papers were discussed at length by the members present, and the conclusion from the subjects discussed is that we will continue to lose the same per cent. of babies as ever.

The delegates elected to the State Association are Drs. Elliott, Price and Lemon. These delegates request the members to write them at their earliest convenience their attitude toward the Medical Defense Fund.

The date for the September meeting will be announced later owing to the state meeting taking up the first part of the month. The program is as follows:

- Arthritis.....Dr. Grose
- Displacement of the Uterus....Dr. Goodman
- Shock.....Dr. Hartley
- Proper Treatment of Emptying the Pre-mature Uterus.....Dr. Gilman R. Davis
- Common Affections of the Eye.....

Dr. P. A. Haley of Charleston
Fayette and Kanawha Journal.

Reviews

PRACTICAL CYSTOSCOPY—Practical Cystoscopy and the Diagnosis of Surgical Diseases of the Bladder. By PAUL M. PILCHER, M. D., Consulting Surgeon to the Eastern Long Island Hospital. Octavo of 398 pages, with 233 illustrations, 29 in colors. Philadelphia and London. W. B. Saunders Company, 1911. Cloth, \$5.50 net.

The average physician labors under the impression that cystoscopy is for the specialist; that its technic is difficult and complicated, making it of impracticable utility in every day work. The purpose of the author of this book is to dissipate that impression by making clear that the technic is extremely simple in the majority of cases, and that any practitioner who can successfully pass a sound into the bladder, can make a cystoscopic examination. He rightfully urges a more general adoption of this means of precision in our diagnostic efforts in the fruitful pathological field of the genito-urinary system.

The book gives a clear and full description of the instruments used, entering into the minutest detail of how to properly employ them.

The opening chapter upon "The indications for cystoscopy" in itself makes the work worth while. It is full of profitable suggestion, and in the dozen pages in which the general and special indications for the use of the instruments are given, there are also found valuable information and helpful hints which will assist in solving the diagnostic problems of this particular region.

The chapters devoted to the "Use of the instruments" and the "Preparation of the patient for examination" are equally important and profitable.

When to complete instructions concerning the when and the how of cystoscopy, it is appreciated, that there has been added a thorough consideration of the disease from a diagnostic standpoint, of the bladder, prostate, ureter and kidneys, the great merit of the book is more perfectly realized.

R.

WHAT TO EAT AND WHY—By DR. G. CARROLL SMITH, M.D., of Boston, Mass., Octavo of 310 pages. Philadelphia and London. W. B. Saunders Company. 1911. Cloth, \$2.50 net.

Dr. Smith has succeeded in writing a most useful manual for the practitioner of medicine. To give an idea of the scope of the book, it might be well to mention first what it does not contain. There are no receipts or directions for the preparation of foods, nor is there much concerning the chemistry of foods. The title might well have been "Special Dietetics." Each of the most important diseases is discussed and the diet suitable for the disease is given, together with the reasons that determine the selection of that particular diet. So that the clinician, in order to prescribe a diet for a patient, has only to turn to the disease from which his patient is suffering, and he will find precise directions for the dietetic therapy.

The book is evidently the expression of long practical experience and careful study of cases at

first hand, as well as of the literature bearing on the subject. That the most recent views are given, may be inferred from the fact that there are references to journal articles as late as May, 1910. The style is dogmatic, but not offensively so; indeed the dogmatism is to be commended, and is refreshing when contrasted with the vague generalities to which we have become accustomed in most medical books. The essential facts are clearly set forth, and one does not have to wade through a mass of verbiage to obtain the desired information.

Since the book is so distinctly the expression of individual opinion and practice, it is easy to find statements at variance with the views of other writers on the subject. But these differences do not impair the general usefulness of the book.

An example of originality is found in the argument for the use of alcohol by the active business men under stress and strain.

In conclusion, we heartily commend the book to the medical profession. J. T. T.

GONORRHEA IN THE MALE—By ABR'AM L. WOLBARST, M. D., *Consulting Genito-Urinary Surgeon Central Islip State Hospital, Visiting Genito-Urinary Surgeon People's Hospital, West Side Dispensary, etc. Pub's The International Jour. of Surgery, Co.*

This is a very excellent little book, and one that should be in the library of every physician, whether he is doing genito-urinary work or not. The parts devoted to the pathology of gonorrhoea, and the anatomy of the genito-urinary organs are particularly well written. The diagnosis and treatment of gonorrhoea and its complications are dealt with very thoroughly and along lines that are very rational. The book can be commended as a safe and reliable guide. J. E. B.

PLASTER OF PARIS AND HOW TO USE IT

—By MARTIN W. WARE, M.D., *Adjunct Attending Surgeon, Mount Sinai Hospital; Surgeon to the Good Samaritan Dispensary; Instructor of Surgery in the New York Post-Graduate School.* Second edition, revised and enlarged. Price, cloth, square form \$1.25. De Luxe leather \$2.50. Surgery Publishing Co., New York.

This is a very handy working manual for those using plaster dressings. It is a concise, instructive and useful booklet. The author, from his hospital connections at Mt. Sinai and the Good Samaritan, has certainly had the advantage of large experience.

A TEXT BOOK OF MEDICAL DIAGNOSIS

—By JAMES M. ANDERS, M. D., *Professor of the Theory and Practice of Medicine and of Clinical Medicine, and L. NAPOLEON BOSTON, M. D., Adjunct Professor of Medicine, Medico-Chirurgical College, Philadelphia.* Octavo of 1195 pages, with 443 illustrations, 17 in colors. Philadelphia and London: W. B. Saunders Company, 1911. Cloth, \$6.00 net; Half Morocco, \$7.50 net.

This work by Drs. Anders and Boston is more comprehensive than its title would indicate. It

is in reality a text book on the practice of medicine, which omits any reference to prognosis or treatment. Etiology, pathology, clinical course, laboratory findings, symptomatology and complications are all treated under the headings of the various diseases. Illustrative cases and an abundance of pertinent illustrations aid the general purpose of the book.

There is a veritable mine of information in the volume, and its best value lies in that fact; but it helps very little in supplying what is most necessary for the skilful diagnostician, to-wit: broad vision, lucid thinking, power of exclusion and discriminating judgment.

Information, however great, may be valueless, if we have not learned to wield it rightly. During the past ten years half a dozen books on medical diagnosis have attained more or less success in teaching *right thinking* in medicine. This work is not one of them. The section of nervous diseases, comprising about two hundred pages, is by Dr. T. H. Weisenburg, and is in some respects the most helpful in the whole work. W.

A MANUAL OF DISEASES OF INFANTS AND CHILDREN—By JOHN RUHRAH, M. D., *Clinical Professor of Diseases of Children, College of Physicians and Surgeons, Baltimore.* Third Revised Edition. 12mo volume of 534 pages, fully illustrated. Philadelphia and London: W. B. Saunders Company, 1911. Flexible leather, \$2.50 net.

This manual is invaluable to the medical student, and this third edition is improved so as to make it more of a help to the busy practitioner.

The chapters on the acute infectious diseases have been revised and are very complete with many illustrations.

The new chapters are on methods of examining sick children, food intoxications, examination of heart and examination of nervous system.

The chapter on therapeutics for infants and children, with formulae for the common skin diseases, and table of doses for children at different ages, is especially helpful.

Throughout the book references to the literature are given. G.

Medical Outlook

THE WOMAN PHYSICIAN—DR. SOPHIA BRUNSON of St. Matthews, S. C., in the *TEXAS MED. JOUR.* for July 1911, makes an earnest plea for the rights of women in medicine and other professions. She says: "As a matter of fact, most women prefer the quietude of home, and it is well that they do. But there are many who do not, and again others who are compelled to support themselves. They are not suited by nature for housekeepers, teachers nor dressmakers. Their talents and tastes lead them to desire different fields of activity. Some prefer law, some dentistry, some medicine and so on. They are endowed by nature with capacity that promises success. Then when a woman finds herself thus endowed, should she be denied the privilege of following the bent of her mind simply because she is a woman? She had no voice in the creating and equipping of herself. She did not bestow

upon herself the mental qualities which held her to seek a sphere of action in the more public walks of life. That was the work of her Creator, and it indicates his purpose in equipping her. We repeat that endowment points to sphere, and when the Creator gives to a particular woman a particular endowment which fits her for successful work in a particular profession, and her taste and ambition incline her to choose that profession, why should sex stand in her way?

G. L. D.

A LEAD SHOT IN APPENDIX—ARTHUR N. COLLINS, M.D., of Austin, Minn., contributes to the *JOUR. MINN. STATE ASSN.*, an article with the above caption. The following is an abstract. Young man at 21 consulted doctor for "stomach trouble" of one year's standing. Had abdominal cramps, referred to pit of the stomach. Attacks varied from an hour to a week in duration. No nausea or vomiting and had good appetite. Slight tenderness in epigastric region, slightly more in right iliac region. Four weeks later was sent to hospital for operation. Appendix contained a small bird shot, (No. 4 or 5), about midway of the length of the organ. Appendix 3½ inches long and showed no pathological signs sufficient to attract attention. Recovery uneventful. The writer calls attention to the marked reflex stomach symptoms which entirely disappeared after the operation.

G. D. L.

ABSENCE OF APPENDIX AND GALL BLADDER—ARTHUR A. LAW, M.D., of Minneapolis reports two interesting cases in *JOUR. STATE MED. ASSN.*, July 1, 1911. The first case is that of a Norwegian, age 35, who gives history of a severe attack of appendicitis ten years previous and another six years ago. The last attack laid him up six weeks. Repeated acute attacks since with pain and tenderness at McBurney's point, which has been tender nearly all the time. The present attack was attended with vomiting and colicky pains in right lower abdomen. A diagnosis of appendicitis and probable perforation of appendix and obstruction of bowel. On operation, bloody fluid free in peritoneal cavity. Cecum congested, old adhesions closely binding down cecum. No appendix was found, either ordinary or retroperitoneal. The only evidence of one was a small area of scar tissue with a very slight pouting of cecal wall at right of appendix. The ileum was collapsed and sharply flexed on itself, twelve inches from large intestine. Four inches further it was flexed again and again, eight inches from that and there was complete obstruction. Adhesions removed, gut straightened and uninterrupted recovery. In this case the appendix must have been retroperitoneal sloughed and discharged into the bowel.

The second case was a man aged 41, who having been operated on for gall stones was found to have no gall bladder, the common and hepatic ducts much distended and containing a large non-fasciculated gall stone. Recovery complete.

G. D. L.

SURGICAL TREATMENT OF INDIGESTION—J. E. RAWLS, A.B., M.D., Suffolk, Va.,

in the *VIRGINIA MED. SEMI-MONTHLY*, July 7, 1911. The term indigestion is used in its broadest sense covering all the gastric disturbances to which mankind is heir. This paper emphasizes as causes of "stomach trouble" *peptic ulcer, gastric cancer, gall-stones, and chronic appendicitis*. They all simulate each other in gastric symptoms. If diagnosis is made in time surgery can give relief and effect a cure. Rawls make the following pertinent remarks: "The tremendous responsibility of the proper care of this class of cases lies principally at the general practitioner's door, for it is to him the poor victims first go for help. Further, all honor and credit to the general practitioner who, in time, conscientiously does all in his power toward arriving at a true diagnosis and instituting the proper course of treatment. In doing this we will many times save the expense of elixirs, of lactated pepsin and other patent stomach specifics for indigestion, and relieve the unfortunate victim of years of untold sufferings—of a miserable existence."

G. D. L.

CARE AFTER CONFINEMENT—About one-fifth of all the women who consult physicians on account of a disease peculiar to their sex, do so because of retrodisplacement of the uterus, in the vast majority of cases, the result of child-bearing. This common cause of female ailment is also amenable to proper management and as a chronic affection, could be banished from medical practice. Every woman after confinement should be subjected to two examinations to determine the position of the uterus; one at the end of three weeks, when she begins to walk, and the other at the end of the puerperium, six weeks after delivery. If a displacement is discovered at the first examination, it can be cured in a certain proportion of cases, by the knee-chest position twice a day. If it persists at the end of six weeks, a pessary with Swedish exercises and massage for a couple of months will cure an additional number. If, in spite of this treatment, the uterus does not stay in position without support, the operative treatment is in order, with a permanent cure in prospect before the nervous strength is impaired or local congestive changes of a permanent character have time to develop.—*Hirst, in Cleveland Med. Jour.*

CARDIAC MASSAGE—A case of resuscitation by subdiaphragmatic cardiac massage in a patient in a state of collapse during operation and under artificial respiration is reported by C. H. FRAZIER, Philadelphia (*Journal A. M. A.*, May 20). While the majority of cases in which this procedure has been resorted to have been those of chloroform syncope, as in the case reported, it has been recommended when the syncope is the result of drowning or asphyxia and in cases when the suspension of function is due to simple exhaustion or injury. Perhaps the most important practical consideration is the method. Shall the heart be massaged directly through a thoracoplastic opening or shall the subdiaphragmatic route be followed? The best results seem to be obtained by the latter. In sixteen cases of the latter there were ten positive results; in twenty-

four of the thoracic route there only seven are recorded, and in the six cases by trans-diaphragmatic route there were no resuscitations. In one case reported by Rehn, in which the sub-diaphragmatic massage and Sylvester's method of artificial respiration failed, the diaphragm was open and the heart massaged directly. The result was almost instantaneous on the heart and respiration, but two hours later the patient again collapsed and could not be resuscitated. This was attributed by Rehn to a pneumothorax due to tearing the pleura in opening the diaphragm.

A PROMISING AGENT IN HAY FEVER.

DR. J. E. ALBERTS, of The Hague, has directed attention to his new combination for the treatment of vasomotor rhinitis. This is called anesthesone cream, and it contains 1 to 20,000 adenaline chloride and 10% of pure amido-ethylbenzoate.

Applied to the mucous membrane of the nares, Anesthesone Cream has a persistent anesthetic effect which affords marke relief in hay fever. As para-amido ethyl-benzoate is only slightly soluble in aqueous fluids, its anesthetic action is prolonged. It does not have the poisonous effect of cocaine upon the protoplasmic element of cells, nor does it depress the heart. Furthermore, there is no tendency to "habit" acquirement.

The preparation came into considerable use during the hay fever season of last year, the consensus of opinion being that it affords a very practical and satisfactory means of relief from symptoms due to hyperesthesia of the nasal mucous membrane, and without ill effects—an important consideration. The fact that the relief continues for several hours in some cases is worth remembering, in view of the fleeting effect of most local anesthetics.

Anesthesone Cream is supplied in a collapsible tube with an elongated nozzle to facilitate its application to the nasal mucosa, a portion of the cream about the size of a pea being applied three or four times a day, as may be necessary. It is marketed by Parke, Davis & Co.,

NERVE STORMS OF WOMEN.

The nervous crisis of women, which detract so much from their usefulness and happiness, owe their origin, in a vast majority of cases, to irregular or suspended functions of the generative organs, and whilst frequently the correcting of the latter will result in the disappearance of the former, in some instances these remote manifestations of ovarian or uterine disorders may be continued over such a long period that they become fixed nervous wrongs and remain even after abatement of the initial abnormality.

Every physician knows the potent influence irregularity of the female generative organs has on the higher centres and fully realizes the importance of seeking the underlying cause.

By reason of wide deviations from right modes of living, ovarian and uterine disorders are far more frequently met with to-day than formerly, and physicians are devoting much of their efforts to a clearer understanding of the functions peculiar to women. Judiciously chosen therapeutic

measures will do much to aid in restoring these suffering women to a well ordered life, particularly if dietary and hygienic regimes of a higher plane are instituted.

Inasmuch as it is usually the demand for relief from the genital vagaries of this class of patients that sends them to the physician, it becomes necessary at once to offer relief for this phase of the diseased condition. As a rule, the needs are for nerve soothing and soporific agents. For this purpose Neurosine has proven a most efficient combination, and is being largely used. Just as soon as control over the mental manifestations of the ovarian or uterine disease is attained, treatment, directed against the latter, must be instituted. As a rule there will be found interference with the menstrual function. To correct this, no more valuable product than Dio-viburnia is at the physician's command. It is a combination of well chosen drugs which have a correcting predilection for ovarian and uterine tissues, and in conjunction with Neurosine, will serve to bring the patient back to normal vigor, the one correcting irregularities of the functions peculiar to women while the other controls the nervous storms which arise as a result of the primary disease.

Miscellany

RULES FOR DEALING WITH THE FLY NUISANCE.

Keep the flies away from the sick, especially those ill with contagious diseases. Kill every fly that strays into the sick room. His body is covered with disease germs.

Do not allow decaying material of any sort to accumulate on or near your premises.

All refuse which tends in any way toward fermentation, such as bedding, straw, paper waste and vegetable matter, should be disposed of or covered with lime or kerosene oil.

Screen all food.

Keep all receptacles for garbage carefully covered and the cans cleaned or sprinkled with oil or lime.

Keep all stable manure in vault or pit, screened or sprinkled with lime, oil or other cheap preparation.

Cover food after meal; burn or bury all table refuse.

Screen all food exposed for sale.

Screen all windows and doors, especially the kitchen and dining room.

Don't forget, if you see flies, their breeding place is in nearby filth. It may be behind the door under the table or in the cuspidor.

If there is no dirt and filth there will be no flies.

If there is a nuisance in the neighborhood write at once to the health department.

Burn pyrethrum powder to drive flies out of the house.

Use two teaspoonfuls of formaldehyde to a pint of water exposed in saucers throughout the house.

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WHEELING, W. VA., SEPT., 1911

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MALPOSITIONS OF THE LIVER.

Report of a Successful Case of Complete Left Transposition with Complications of Gall Stones, Obstructive Jaundice, and Pregnancy.

Frank LeMoyné Hupp, A.M., M.D.

First Lieutenant Army Reserve Corps
U. S. A. Attending Surgeon to the
City Hospital, Wheeling W. Va.

(Read at the October, 1910, meeting of the West Virginia State Medical Association.)

Compared with what we ought to be, I sometimes think with Willis James, (*American Magazine*, November, 1907), we are only half awake, our fires are damped, and our draughts are choked, and we energize far below the maximum; or stating the thing broadly, we are often surprised and unprepared when we run across some strange anomaly in the field of medicine and surgery.

The writer has more than once been all but lost in the morbid anatomy quagmires of the supraumbilical belt, through dismal swamp adhesions, and the confusing pitfalls arising from a prolonged angio-cholecystitis or cholelithiasis, but we had never been brought face to face with a dilemma involving anatomical anomalies and complications of so important a character, where two lives were at stake with the usual guide posts and landmarks wanting.

Our experience has brought us in contact with some interesting conditions about

the liver and bile passages. We well remember a case referred by Dr. Giffin, of St. Clairsville, O., for surgical treatment, when there was downward displacement of the liver, and the gall bladder occupied the right iliac fossa, the size of a cocoanut and contained over five hundred stones, the largest one about the size of a walnut.

Another case of a woman in the fourth month of pregnancy, a patient of Dr. Riggs, of Cameron, emaciated, choleric and septic, with an atrophic upward displacement of the liver and a contracted gall bladder, all but inaccessible for purposes of drainage. Both made good recoveries, the latter delivered of a healthy child at term.

Anatomy of Liver—With your memory refreshed as to the normal lay of the liver, (as described by Deaver and Ashhurst), you will be better able to appreciate the displacements we are about to outline, and their importance when complicated with pathological conditions. "The liver fills the right hypochondriac region, and extends through the epigastrium to the left hypochondriac region to a distance of from one to two and a half inches beyond the left border of the sternum. It may reach the left mammary line. The liver extends as high as a transverse line drawn through the lower end of the gladiolus (the mesosternum), or the base of the ensiform cartilage. The upper surface of the left lobe is on this same level (the fifth intercostal space), but the right lobe is a trifle higher and is said to reach the lower border of the fifth rib. Since the position of the liver varies slightly with that of the body, and with the movements of the

diaphragm, these outlines are only approximately correct. The lower surface of the right lobe of the liver posteriorly is opposite the spine of the eleventh dorsal vertebra, and in the midaxillary line is at the costal margin; between the midaxillary line and the right semilunar line the thin anterior margin of the liver projects about one-half of an inch below the costal margin, and crosses the median line of the body in a line drawn from the ninth right, to the eighth left costal cartilage. The gall bladder lies beneath the ninth right costal cartilage in the semilunar line, at the outer border of right rectus muscle."

Downward Displacement of Liver—The Mayos in writing of this condition have this to say: "Hepatoptosis, or a liver movable in a downward direction, is much more common than has been thought. Einhorn has called particular attention to the frequency of this form of displacement. Extreme mobility is occasionally seen, in which the entire liver descends into the pelvis, or may be rolled about the abdomen. A movable liver with an overhanging corset lobe is sometimes mistaken for a movable right kidney, tumor of the colon, pylorus, gall bladder, or pancreas; careful palpation will show the sharp edge of the liver, which can be bent sufficiently upon itself to give a distinct sensation, as it slips by, and will obviate this mistake."

Binnie tells us that partial ptosis means that a portion of the liver is more or less pushed away or snared off from the rest of the organ as a result of error in dress (tight lacing) or of some disease. Riedel's tongue-shaped lobe, so common in cholelithiasis, is a form of partial ptosis.

The lamented Carl Beck makes the interesting observation that transposition of the viscera was known to Aristotle 350 years before Christ. The Greek philosopher regarded this exceptional condition as a punishment inflicted by the gods. But the first authentic cases were reported at the time of Moliere, when among others, transposition of the viscera occurred in Her Majesty, Maria of Medici, the Queen of France.

To learn that patients with gall stones complicating left transposition of the liver and bile passages are rare, one need only consult the literature. The writer has

found three cases in addition to his own.

While in Boston in September of this year, we had the pleasure of standing beside that fearless operator and unexcelled teacher, Dr. Maurice H. Richardson—perhaps no other American operator has had a more varied experience in the surgery of the upper abdomen—Dr. Richardson told the writer it had never been his privilege to see a case of gall stones complicating a liver displacement. Dr. John B. Deaver, whose wide experience in gall bladder surgery is known to you all, in a personal interview less than two weeks ago, said that he had never met with this anomaly.

Dr. Frank Billings, of Chicago, has kindly sent us a report of his case and because of its great interest, it will be given in full.

Dr. Billings' Case. Case 1. "P. H., aged sixty-four, married, a German, was a retired brewer. He enjoyed good health all his life. He received a gunshot wound of the left shoulder during the War of the Rebellion, from which he recovered. His father died of typhoid fever, and mother of cholera. Of three brothers, one died of a gunshot wound during the war, and one of consumption. The patient has always used tobacco and alcoholics to excess. His present illness began suddenly in the fall of 1895. He was seized with severe colicky pains in the epigastrium, without nausea or vomiting; a chill followed by fever occurred, and the next day there was slight jaundice. Morphine was required to allay the pain. Two more attacks, similar in nature, occurred within the next two weeks, in all of which there was slight jaundice, chill and fever. In November, 1898, he was suddenly seized, after a hearty dinner, with a severe colicky pain referred to the epigastrium and radiated in every direction, accompanied with nausea, chill and fever, at irregular periods and with varying degrees of severity from that time until he entered the hospital. Jaundice was a marked feature of this attack. On examination the apex beat of the heart cannot be seen or felt. The heart dullness begins on the left sternal border and extends across the sternum to the right nipple line. The base extends along the border of the third rib, from the right mammary line to the third cartilage on the left. The heart-sounds are clear, but heard loudest to the right of the sternum. A hard, tumor like mass is plainly felt at the costal margin at the tenth left cartilage. From this mass an organ with a sharp border can be easily felt extending to the right under the costal margin until it is lost in the back. A similar organ with a sharp border, can be felt from the mass toward the right, across the epigastrium, and ends at the ninth right costal cartilage. The whole mass lying under the right costal margin, moves downward with inspiration. Above, on the right, per-

cussion dullness begins at the sixth rib, mammary line, and continues unbroken around the chest behind to the eighth rib, in front to the sternal dullness, and below to the costal margin. At the tenth left cartilage a deep notch can be felt under the edge of the mass. The lower right chest, below the sixth rib and to the right of the parasternal line, gives a tympanitic percussion-note, which extends a considerable distance below the costal margin. Palpation fails to reveal any organ under the right costal arch except the mass described as extending from the left side into the right epigastric zone. With sodium bicarbonate and tartaric acid powders, the stomach, distended with gas, occupied the right hypochondriac and epigastric regions. The colon was not distended with gas, and hence its position was not accurately noted. The urine gave a specific gravity of 1,020; contained no albumin and no sugar. Bile was present in large amount, and a few bile stained hyalin casts were found.

A diagnosis of gall stones obstructing the gall ducts with angiocholitis was made. *Situs viscerum inversus* was recognized in the patient for the first time. He had been examined many times by different physicians abroad and at home without this anomaly being discovered, and because of the displacement the tumor in the left hypochondrium was mistaken for carcinoma, and by one physician acute yellow atrophy of the liver was diagnosed, because the liver could not be palpated on the right side. It was noted that the patient was right handed. The desperate nature of the disease was recognized and the friends were informed that surgery alone could possibly afford relief.

Dr. Christian Fenger, to whom the case was referred, concurred in the diagnosis, and on November 22, 1899, he operated at the Passavant Memorial Hospital, Chicago. The operation revealed a large stone in the cystic duct. The cystic, hepatic, and common ducts were much dilated. The anomaly of transposition of the organs was verified. The patient died of angiocholitis on the fourth day after operation. An autopsy was not obtained.

Case No. 2. Dr. Carl Beck, of New York, reports the following interesting case of transposed viscera, with cholelithiasis, relieved by a left-sided cholecystostomy:

A married woman, thirty-nine years of age, born in America, who had six children, all well, gives a favorable family history. The patient had always been well up to her 25th year, when she began to suffer from severe headaches followed

by vomiting and chills. These attacks have become much more frequent during the last four years. From that period cough was often also noticed. Sometimes there was a pain, colicky in character, in the left lumbar region. Jaundice was never present. She was left handed and there was an appreciable difference in the size of the two arms, the left being larger. Percussion revealed an absence of the usual dullness over the left precordial area, the apex was in the right sixth intercostal space and in the mammary line. The liver was palpated on the left, its margin overlapping the rib arch to the extent of fully one and one-half inches. The patient suffered with gastric symptoms and these were attributable to a left floating kidney, and a nephropexy was done without relief of the pain. Some days later after repeated examination a resistance was recognized over the outer margin of the *left* rectus muscle at the free border of the ribs. Exploratory incision was made, disclosing the presence of cholelithiasis. The anatomical relations of the abdominal viscera as far as could be made out were completely transposed, the liver situated in the left hypochondrium. The fundus distended with four large stones was buried below the anterior margin of the liver, which made difficult the recognition of the true state of affairs until the abdomen was opened. The patient's recovery was uninterrupted.

Case III. Dr. William J. Mayo of Rochester, Minn., in Keen's Surgery and in a personal communication to the writer, has written of a case of gall stones complicating complete transposition of the liver, receiving operation.

Case IV. Author's patient. Courteously referred by Dr. Hutchison of Cameron, W. Va. Mrs. S. C., Valley of Virginia parentage, married seven years. A brother died of cerebro-spinal meningitis. Mother and father alive and healthy. No history of typhoid or lues. Is right handed. Menstruation commenced at the age of 15½ and has always been normal. First child still-born, difficult labor, five years ago. Second child, aged three, normal labor. Has suffered periodically with attacks of indigestion and stomach trouble for over four years. And during this time has experienced colicky pains in the epigastrium especially after any disturbance of digestion or from overeating; and with these symptoms a mild toxemia, malaise, chilly sensations and nausea without jaundice. These symptoms continued at irregular intervals until May, 1909, when she developed a severe attack of biliary pain and continued very miserable until July, at which time she became jaundiced. During the following fall and winter she experienced recurring pain, varying in intensity; her skin continued icteric and she lost steadily in weight, from one hundred and fifty to one hundred and twelve pounds. The stools had lost their characteristic color and were of a light clay or putty shade. The temperature had not been elevated until the development of cholangitis; it then would often rise to 101° in the afternoon.

Despite the complicating feature of

utero-gestation, her physician, Dr. Hutchison, wisely recognizing the probable approach of a fatal septic angiocholecystitis, either before, or as has been observed, soon following his patient's delivery, advised surgical intervention, and she was brought to the writer's service of the City Hospital, May 1, 1910.

On admission the following note was made. Patient is emaciated, anemic, deeply jaundiced, and is evidently four and a half months pregnant. Tenderness and pain over the entire epigastrium, radiating more to the left. No undue pain over Mayo-Robson's point. Palpation demonstrated the sharp edge of the liver in the left epigastrium near the free border of the ribs. There seemed to be no fixation or restriction of either side of the chest, no tumor was palpable on either side. The closed-fist pressure of Jordan-Lloyd elicited pain over the entire supraumbilical belt. The precordial area and apex beat were somewhat to the right of the usual situation.

Percussion demonstrated a decided diminution of the normal hepatic area in the right mammary line, but as the condition of misplacement which later developed on opening the abdomen was not for a moment suspected, no significance was attached to this observation. Had the preoperative wisdom of Billings been exhibited at this stage of the examination, perhaps the planning of the incision might have been changed. But the gravid uterus and consequent upward displacement of the gas-bearing viscera should excuse this oversight. The examination was made with the patient in the recumbent position. Urine presented profound ocular manifestations of bile. Temperature on admission was $100\frac{1}{2}^{\circ}$, pulse 102, respiration shallow, painful, and thirty to the minute. The usual calcium lactate treatment was ordered in large doses, and patient prepared for operation.

Operation. May 3rd, assisted by my colleagues Drs. Bullard and Andrew Wilson. Ether narcosis with the usual preliminary hypodermic of morphine and atropia. Edebohl's rubber pillow was placed under the loins.

The incision was made over the right rectus. The site usually occupied by the gall bladder was exposed, and after the liberating of some cobweb omental adhesions and a diligent search for the viscus made, visions of acute yellow atrophy, and its dire consequence came into the writer's mind as the fruitless search was continued. Further exploration revealed the liver completely transposed to the left side. Not wishing to make a second independent incision in the abdomen, the right rectus was bisected and some fibers of the left muscle. With strong lateral retraction of this flap and the admission of a flood of light, the contracted gall bladder was located and exposed well to the left side, and high up. The liberation of a lot of adhesions made it possible to drag the offending organ to a position where it could be safely opened. Two large stones were removed from the cystic duct, each about the size and shape of a nutmeg. One occupied the first part of the duct

while the second could only be removed after splitting the cystic duct up to a point where it enters the common duct. It was firmly adherent and exerting obliterative pressure on the common duct. Immediately on the removal of stone number two there was a gush of bile. A careful search was made for other stones in the hepatic and common ducts, but none were found. A gauze wrapped tube was carried through the open gall bladder into the cystic duct. A cigarette wick was placed down to the sutured cystic duct to provide for leakage, and the abdomen closed about the point of exit of the tube. The rectus muscle was sutured in the usual way.

The patient made an afebrile convalescence. Fifteen ounces of dark inoffensive bile poured from the tube the first twenty-four hours. She left for home nineteen days after the operation with wound about healed and jaundice fast disappearing.

She was delivered by Dr. Hutchison of a girl baby September 25th and has since been in excellent health.

Comment—Beck has emphatically demonstrated the importance of the use of the diagnostic X-rays in these cases, but the toxemic, emaciated, and weakened condition of our patient was responsible for its omission.

I regret to say that no laboratory diagnosis was made aside from a careful urine analysis, by Dr. Thornton, the pathologist to the hospital, yet the vital importance of a blood count and particularly coagulation time must be familiar to you all. The normal coagulation time is from two to four minutes, while in a jaundiced subject it may require eight to ten minutes before clotting is completed.

The tuberculin test, while not always indicated, is sometimes important. In determining the etiology of the jaundice it should be remembered that enlarged lymph glands have been known to press upon the gall passages. In the same way one must remember that in these icteric patients the finding of the spirocheta pallida, a response to the Wasserman reaction, or the eliciting of a luetic history might obviate the necessity of an incision. Positive findings of this sort would immediately arouse suspicion as to the existence of a hepatic gumma with jaundice and pain due to pressure. Such a case was reported by Dr. Billings, operated on by Dr. Christian Fenger, and later recovered completely after the exhibition of heroic antisyphilitic measures.

A word with regard to this woman's paroxysms of pain. Probably the tissues

of the gall bladder, as described by Stockton, became more susceptible to irritation, just as patients who are victims of chronic appendicitis, tonsillitis or bronchitis, may experience a reignition of the smouldering trouble through the development of disorders of nutrition just referred to. For, mark you, there could not possibly have been any migratory effort on the part of these offending calculi because of their impacted and adherent state. Indeed after a time there seemed to be an uninterrupted succession of painful attacks that soon became intolerable.

When one is called to the bedside of a patient who, on questioning, gives a history of a number of attacks of subhepatic pain, when the sufferer has complained almost constantly of indigestion and this right-sided distress, when beneath the edge of the ribs there is found a pear-shaped tumor partaking of the liver's movements, whether jaundice be present or not, we do not consider such a picture the nature of a clinical dilemma. It is probably a calculous cholecystitis, a condition for harmless, simple, definitely curative and radical operation. This picture may possibly be modified for a while by medical treatment—eliminative salines, olive oil, salicylate of soda, some mineral water resort; but it will most certainly recur and will not be cured by temporizing. What occurs in such cases (Lejars) is simply the repetition of what we see daily in salpingitis and appendicitis; procrastination until icterus appears or a life-threatening toxemia alters the prognosis; with ducts blocked, cholemia and sepsis confronting us, we have transformed by delay a simple and harmless procedure to one of risk and uncertainty, an expedition of relief and pleasure has perhaps ultimately been brought face to face with a tragedy. With the condition under discussion the decision is *not* so promptly made when the sufferer is looking forward to the birth of a child, where a most careful physical examination reveals the entire absence of the characteristic flat note on percussing the hepatic area, an absence of tumor, the pain transposed to the left, yet withal the picture of a woman manifestly the victim of some bile-duct obstruction.

Gall Stones Complicating Pregnancy—It is not within the province of this paper

to consider the subject of gall stones during pregnancy and the puerperium; but should any members of this society be further interested, the writer would refer them to an excellent and exhaustive paper read by Peterson, of Ann Arbor, before the American Gynecological Society in Washington, D. C., May, 1910, and appearing in the July, 1910, number of "*Surgery, Gynecology and Obstetrics*."

Child-bearing, no doubt, exerts a very powerful influence on the production of gall stones; and according to Schroeder, who compiled very extensive statistics of the disease in Germany, Austria and Switzerland, 90 per cent of the females who suffered from this condition had borne children.

We have been told by Peterson that anything favoring the retention of bile within the gall bladder is undoubtedly a factor in the formation of calculi. It has been shown experimentally that infection follows obstruction, and infection of bile favors the formation of calculi. It can readily be seen that the enlarging pregnant uterus is only too apt to encroach upon the bile passages, thus interfering with the onward flow of bile. This is undoubtedly favored by the limitation of the movements of the diaphragm during pregnancy, by the lack of exercise only too common in the pregnant state, and constipation with which the parturient woman is affected. On the other hand, Byford, of Chicago, has said that undoubtedly a great many women have gall stones, and perhaps in most cases instead of the gall stones originating from pregnancy, they were old instances of people who had been known to have had indigestion and whose cases had not been diagnosed. Many of these had had gall stones for a long time, and pregnancy was merely the cause of the first recognizable symptoms.

Chances of Abortion Following Cholecystotomy—Certainly the fact that a woman is pregnant should be no bar to her receiving operative relief from so serious a condition as obstructive gall stones whether there be a *situs viscerum inversus* or not. In the cases reported by Dr. Reuben Peterson, which were subjected to a radical interference during the different months of pregnancy, nine patients went to full term,

three aborted, one died before the uterus was emptied, and in seven no statements were made of the progress of the pregnancy after operation. It is fair to assume, however, writes Dr. Peterson, that this was an oversight on the part of the reporters, it being taken for granted that as this was not mentioned, the patient went to full term. If this be true we have sixteen patients where the pregnancies were not interrupted, against three who aborted. In the light of this knowledge and our own experience, including two safe deliveries, it may be safely inferred that pregnancy is no more liable to be interrupted after cholecystotomy than after other abdominal operations.

The question of danger to the mother is of far greater moment because of the marked disturbance of elimination in the face of a more or less severe toxemia. Hence the imperative importance of a skilled anesthesia and as speedy an operation as is consistent with the gravity of the situation.

Diagnosis—Considering the subject of displacements and deformities in diseases of the gall bladder and gall ducts, Musser collected about eighty cases up to May, 1903. He speaks of the importance of considering displacements and deformities because of the many pathological conditions of the ducts they may give rise to, making a differential diagnosis most difficult. Musser believes that displacements are leading etiological factors in biliary affections. One can readily see how a gall stone colic may be simulated by an obstruction of the ducts due to kinking from displacement, or how the anomalous position of the liver lobes may give rise to a tumefaction the size and shape of the gall bladder. It will be seen that in Billings' case the tumor was mistaken for a carcinoma. Adopting Musser's suggestion certain things are to be considered under the head of diagnosis in displacements, namely, general morphology is suggestive, clinical course, females, history of trauma or abdominal disease, diathesis, long duration, recurrent attacks of pain, transient jaundice, bilious vomiting, symptoms of pressure on other organs, neurasthenia, gastro-enteroptosis, absence of fever except in a few cases.

The physical examination is naturally very important. Note the exactness with

which Dr. Billings recognized an entire absence of anything suggesting the liver on the right side of his patient, and how he discovered the transposed organ before the abdomen was opened. In percussing a displaced liver the dull area would remind the clinician of the size, shape, consistence and mobility of the liver, along with the eliciting of a tympanitic or pulmonary note over the liver's normal area. Let it be here remembered that the percussing should be done in the upright as well as in the recumbent posture.

With regard to deformities, it should be remembered that Riedel's lobe, the tongue-like processes and corset liver may any or all be coincident with cholecystitis, cholangitis, cholelithiasis, gastro-enteroptosis and carcinoma.

Deciding to Operate—As conservative an internist as Musser has somewhere said that the question of operative interference must be decided not alone by laboratory investigation, but by clinical sense. If the patient is sick today, sicker the next day, and a little more toxic and septic each day, pregnant or not pregnant, with viscera transposed or normal, an operation should be done, in spite of the absence of leucocytosis. The matter is one of degree of illness and in each case the clinical acumen of the physician must stand in some service.

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Be at war with your vices, at peace with your neighbors, and let every new year find you a better man.—*Ben Franklin*.

THE PSYCHOTHERAPEUTIC VALUE OF PSYCHOANALYSIS

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Definition of Psychoanalysis. Psychoanalysis denoting the observation and registration of an individual's thought and feelings, either conscious or subconscious, has been a part of the armamentarium of physicians trained in psychiatry for a long time. Without it, in fact, many of the advances in that department of medicine could not have been accomplished and we would still be satisfied with roughly conceived disease types instead of the finer subdivisions individualistic analyses are giving us. "Study the patient as well as the disease" is a trite saying, yet psychoanalysis regarded curiously as something new only means the carrying out of this advice in the psychologic sphere.

Why Psychoanalysis is Necessary. Nevertheless it is new in many of its present trends, due to shifting interpretations and a desire to cure as well as to understand such patients for whom psychoanalysis is necessary. This desire is justifiable, for probably the most badly-treated patients whom physicians deal with are those grouped under the psychoneuroses. This is sometimes due to lack of patience and time, or to a failure to understand the patient's psychic state, but is more often the result of the inherent limitations of the patient, especially those of age, environment, and general state of culture. It is this class of sick who need psychoanalysis, those who have phobias, obsessions, psychic inadequacy accompanied by unreasoning dread, or who show extreme lability, suggestibility, and emotionality.

Reasons Freud's Opinions Have Attracted Attention. When therefore, after ten years of effort, Freud at last stimulated the medical world to notice his hypotheses concerning the origin, interpretation and cure of the psychoneuroses, based as they were upon a physiological and not a pathological conception, and ignoring that betenoir of science, heredity, psychoanalysis became a word of routine use. By some it was, therefore wrongly assumed to be

the prerogative of Freudians, and to imply only an analysis which helped to corroborate his opinions.

Sexuality—the Basis of Freud's Views. In the first place, the prominence given to sexuality in his writings has produced a closer analysis of psychic sexuality. As this instinct looms so largely in the life of human beings, it is a natural expectation to find among the unstable all kind of curious sexual histories. The difficulty of separating the psychogenetic from the acquired factors of sexuality, and especially of distinguishing their effort, has not, however, been overcome though Freudians often assume this in their conclusions. Likewise do they refuse to consider other vestigial instincts as possible factors.

Summary of Freud's Hypotheses.—Freud claimed to have found that sexual experiences were mentally stored up from the earliest years without our being conscious of it. More than this, all of us are compelled to ignore and suppress the sexual instinct in us which exists from birth, as evidenced from infancy by love for touching, thumb-sucking, tickling, etc. If painful memories or emotions become attached to these sublimated experiences, the individual obtains relief by conversion, physical symptoms giving relief with some abnormal mental attitudes with others. In this way arise the psychoneurotic states. Conversely, therefore, if through psychoanalysis we trace back the memories of our patient, we furnish an outlet for these suppressed emotions, and in this way relieve the burdened mind.

Advances in Psychoanalysis as a Result. These memories are generally submerged so that the patient is unconscious of them, and only by delving beneath the surface either with the help of hypnosis or with hypnoidization, which is practically the passivity of the first stage of hypnosis, can we probe the mind of the psychoneurotic. The appreciation of the importance of submerged or hidden memories stimulated the desire for other avenues to lead to them, whence arises our use of association word tests and our appreciation of the values of dreams in psychoanalysis. For all of this Freud must be given credit, no matter how we disagree with some of his opinions.

Association Tests. We employ a list

of one hundred or more words embracing as many varied objects and environmental factors as possible. Using a chronometer or ordinary stop watch, a patient is asked to give us the first idea which comes to him as a result of the word spoken to him. His answer, as well as the time it takes him to do so, is registered. Most words are responded to quickly at about the same interval, which is called the reaction time. At certain words we find he fails to answer or does so very slowly, which delay may lapse into the next word. Studying these results at our leisure we discover there is a definite change in reaction with certain words associated with each other. These words represent associated ideas such as money, bank, fortune in one case, or wife, love, honor in another, etc. We in this way ferret out emotional factors at work disquieting to the patient through associations which the words represent.

Dreams. Dreams have always been of interest to humanity and have been variously interpreted. Physicians have long appreciated their importance in somnambulism and with the abnormal acts of epileptics and hysterics as the result of "dream-states." Only through Freud have we come, however, to realize their importance in fear states, and their influence upon normal life. They are not mental phantasies according to him, but are logical condensations of our wishes or experiences often clothed in symbolical language. Protecting sleep by stilling the activity of unconscious mental processes that otherwise would disturb it, he attempts to show that they mostly represent the fulfillment of our wishes or the consummation of our desires, or the completion of our tasks, satisfying our minds for the nonce and promoting sleep. Many dreams, it is true, represent merely actual incidents, indeed every dream contains this factor; but it is not the ground work of the dream. But as Havelock Ellis has shown, we are unpartisan in our sleep and the type of dreams described by Freud are not the only ones which occur. The most trivial, as well as the most important incident of our life, may be the content of our dreams often associated symbolically without such fixity of purpose of our subconscious minds as expressed by Freud's hypothesis.

He who will take the time to study and analyze the dreams of his patients, will often find them a great help in his analyses. He will learn with Freud to separate the manifest content from the latent content, and utilize the latter in the interpretation of his psychoneurotic patients. Children often have only a manifest content, revealed by fears in the day time, the result of ghost stories, improper religious instruction, etc. If not counteracted, these children when older, with developed association processes, are particularly liable to symbolic dreams which influence the production of hysteric and psychoasthenic symptoms. Psychic education in earlier years, if universally undertaken with such children, will do much to decrease the development of abnormal traits in them and materially lessen the number of psychogenous patients..

The fear dreams of adults are often really states of "angoisse" due to physical discomfort from cardiac, asthmatic or vasomotor diseases. The fear is not, therefore, in such cases the result of an actual dream, a fact which can often be elicited upon close analysis.

Meaning of Sexuality. Freud asks that it be not forgotten that sexual means love in the sense in which he employs it. The consideration of this subject in any phase has always produced resentment and disgust with some, and this has certainly been the case with many able critics who cannot ignore this aspect of the question and consider by itself the mental mechanism delved into in an analysis with Freudian principles. On the other hand, Freud's illustrative cases as well as those of his disciples do deal to a great extent with sensual memories, whether conscious or submerged, the result of their labors leading to their epigrammatic conclusion that all psychoneurotic states are the result of unsatisfied love.

An Illustrative Analysis. Elsewhere I have reviewed the whole problem¹ and presented a few case records showing the significance of submerged emotions not sexual in origin and which answers to Freud's principles of mechanism, but not to his sexuality views. The following sketch is a condensation of my notes upon a patient analyzed after Freud's methods, my pur-

pose being to show that his conclusions are not infallible, this patient's history being particularly interesting from the various sexual factors present.

The subject of this sketch is aged twenty-six, and is a girl of a vivacious, happy disposition who has always been popular for this reason. Her previous medical history is very ordinary. Of good stock without any definite hereditary taint, she has had no severe illness except typhoid fever about six years ago. For the last few months, she has steadily lost weight and has been alternating between sleeplessness and troubled sleep with vivid dreams of her mother (who died three years ago). Her father was operated on for prostatitis the past summer, and the worry incident to this she thinks contributed to her present state. She is also compelled to supervise the household, being the oldest sister at home, and feels that if she had some definite duty in life, she would be better for it. She is ambitious for large things and accomplishes nothing, she avers. An examination revealed a female about 20 pounds under weight, with exaggerated reflexes and muscular irritability. Outside of a simple anemia, nothing abnormal was found of an organic nature. She complained bitterly of a severe pain of a boring nature at the left temple, but a thorough ocular and otitic examination revealed nothing. This is accompanied by a "drag at the back of her head," and she has become irritable and depressed and subject to spells of crying. I do not believe it of much moment to detail at length the many hours I spent with her to elicit the following facts, a few verbally and willingly after I had interpreted some of her thoughts for her.

1. She is discontented with life at present, most of her former girl friends being now married. She, like most girls, has had offers in marriage. One man, whom her family several years ago would have been glad to see her marry, still writes her constantly from a distant city, but she will only wed a very rich man of known family unless she falls in love, which has never yet been the case. Whenever a man becomes very friendly she always analyzes him closely, and that does make for love.

2. She has never had many thoughts concerning sensual things, but like most or all girls, knows of these matters. She has dreamed of love and of men but never in a sensual way. Lately she has had curious dreams of children born to people who were not married to each other.

3. Some years ago she had a severe shock which unnerved her for some time, due to going with her mother to a gynecologist who asked her to be in the room when he examined her mother. While she had heard of such examinations and knew of their necessity, being required (a young girl) to be present was a severe shock to her.

(I was recently called to treat a young child for hysterical spells brought on through accidentally witnessing a child-birth

while visiting a neighbor. This I cite here to emphasize the importance of this emotional factor.)

4. Going over her childhood memories, I find nothing of significance except that when she was about eleven, a boy cousin played with her and other girl friends, whom the other girls complained of being too free, but she had not personally known of anything of that kind.

5. Perhaps most important of all is her father's condition as finally elicited. Since his operation, he probably has had local irritation with much erethism. She and her sister have heard him mutter about sexual things; he has been careless in covering himself properly at home, and she had a dream of seeing him exposed. He has talked much about one of his nurses whom he blames for arousing him. A servant in their home also told them of an attempt he made to kiss her. That her father, now over seventy years of age, should be this way, was hard for her to bear. But in addition she fears for herself and would lock her door lest he would wander into her room at night.

6. Recently her dreams are filled with fears and she awakens startled and frightened and quite often bathed in sweat. The feeling of something pursuing her, the sight of a snake (but only the body), the introduction into her dreams of strange men and keeping them away from her, dreams of riding animals, are particularly significant. Small wonder was it, therefore, that awake she feels tired, harassed, wishing to get away from everything.

Some of her dreams illustrate vividly her mental processes and even show, I believe, the attempts made by her to subconsciously dislodge the fear and its origin and convert it symbolically into something else. Let me give some of her dreams in her own language.

A. "It seems impossible to do anything I want—to catch a train, to find my clothes to pack, to close my doors and lock them, to keep out a strange man (either a tramp, burglar or some intruder—at times becoming father.). I awaken with all my blood in my feet and burning all over."

This dream succeeded a day upon which, in answer to her telegram, her brother came to discuss with her the conditions at home. Either something must be done with her father or they must arrange for going away as she could not stand it. This dream represents, therefore, nothing but her thoughts of leaving and of her fear that her father might abuse her.

B. "Dreamed of riding a horse which, docile

at first, turned around and tried to bite my hand, whereupon I turned it into a horse, and when it turned upon me, I threw it over and tried closing the door on it. It would not close. Had a hard time escaping. Constant fear. The horse turned next into a man."

Here we find the same fear symbolically expressed. This patient had, as a child, a fear of being struck and hurt by a horse due to her mother's admonitions about going out. The conversion of horse into house, and next into a man, illustrates the vivid effort her mind was making to get away from the cause of her fear and to repress the worst part of it, that it was her father. It is true one cannot exclude the possibility of her having been impressed by horses when a child after Freud's interpretation—but the above explanation is to me more logical.

C. "Dreamed that I was married to a man whom I detested. He resembled Z— (an author whom she had met and whose physical appearance was not the happiest). I had my room in charge of a French maid who attended to my gowns and I had them galore. My husband (?) came through the hall to come to my room and I ran from door to door trying to lock them, but couldn't succeed. (I have had this dream of trying to lock doors more times than I can remember). In a very theatrical manner, I remember telling the maid that if he attempted to come in she must choke him, and I can see her trying it, but not succeeding and he draws a revolver. I had a sword, which I extract from one of the numerous cupboards and tell her to cut off his arm which holds the revolver—(reads more tragic than it really seemed)."

She had been thinking a great deal lately of the question of marriage and probing herself as to whether she should accept one of her suitors and get away from her present intolerable home conditions. The first part of this dream represents the fulfillment of this wish, and associated with it being the vision of a man she had refused and whom, because he was rich, (hence the second sentence of the dream) her family has wished her to marry. She has seen Z— and disliked him, hence the association. In the next part of the dream we find the same idea of getting away from her home conditions, her dream-husband and father becoming fused into the same person (condensation). She had been to a theatre that afternoon when a sword and a revolver scene appeared,

which explains also the latter part of her dream. Here again we need not follow Freud and Jung in believing that whenever women dream of manly figures, daggers, swords and revolvers that we have sexual symbols.

D. "G. & I are trying to find M—'s home in Washington and I find it right close to a boarding house, and we are disappointed in it (second or third dream of that sort). Am shocked to see how bad baby looks—in fact he has turned into one of my former Sunday School pupils."

Her sister M. lives in Washington, D. C., and she had been considering visiting her. Had been there once and had not liked it because her sister had not married rich and lived differently to what she had been accustomed to at home. The association in conjunction with her present thoughts on marriage is self evident.

E. "I was staying at a hotel in Atlantic City, a burglar tries to enter the room, it is daylight or dark, I am dressing for dinner, I run off and leave him in possession, then a confused jumble of running to find a policeman, the hunt for burglar, his escape, my anger because no one seems to try to do anything to help."

The same fear and its conversion into an ordinary burglar. Scene at Atlantic City where, at my suggestion, her father is to go with his nurse.

This young lady presents, therefore, fear and dread to the point of delirium due to actual environmental influences which have not only compelled her to consider actual sexual conditions, but which have also tended to uproot her love and respect for her surviving parent. To me they seem sufficient to account for her sickness, and while her fear and anxiety were secondary to a psycho-sexual complex which colored her dream life accordingly, it was not a personal psycho-sexual repression, and therefore not expressive of any fulfillment of a wish or of repressed sexual desire.

We find in her dreams a direct connection with antecedent, psychical events, and need not go farther than the actual fears and beliefs constantly present with her as a result of her father's illness to account for all the phenomena present. An ego-centric character, displacement, condensation and dramatization are readily appar-

ent. But there is no repression in the sense of repressed sexual desires. Symbols supposed to represent a sexual content and therefore the fulfillment of a wish, as "riding a horse which, docile at first, turned round and tried to bite my hand, etc.," are interesting in this connection because they are the result of sexual fear that her father, in his present mental state, might even attempt to rape his own daughter, that one certainly need not try to connect them with earlier or infantile thought. Psychological repression and craving are plainly present, but it was a craving for a change in environmental conditions, and there certainly in the same way was an intrapsychic conflict, her desire for relief from it showing itself in the dream of being married to a man whom she detested.

Her dreams concerning children born out of wedlock it seems to me could be explained in the same way, i. e. as having a connection with her father's condition and her thoughts and emotions upon this basis. This is as plausible as tracing it to her disappointment at not being married, or her inability to love and a consequent erotic chain of ideas. It seems to me that in all interpretations of the symbols of dreams we find various interpretations which will hold, according to personal convictions entertained before we sit down to interpret them. For the essential basis of our personality is "affectivity," and the present-day animated discussions concerning individualistic psychology reveal how many writers are influenced by their emotions in forming their ideas and conclusions.

The stereotypy of Miss S's dream imagery is obviously the result of the emotional factors at play which, obsessive in character, are reproduced in her dreams in various symbols. The affective disturbance resulting from the visit to the gynecologist need not be taken into account in connection with her recent *Angst* except tending to show a neuropathic vulnerability and representing an emotional factor not considered by our pelvic surgeons.

In conclusion, the father recovered his normal balance, and the subject of this sketch slowly did also and is today entirely well again, plainly as a result of the re-

covery of her father, rather than from her having freely unburdened herself to me.

1. Mayer. The present status of the Psychoneuroses and of Psychotherapy. N. Y. Medical Journal Dec. 10th. 1910.

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GLAUCOMA.

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This disease has been defined as increased intra ocular pressure, plus the cause and result of such pressure; otherwise an increased inflow with a decreased outflow (Von Grafe.) Priestly Smith was the originator of the first definition and it leaves much to be desired. You all know the outward manifestations of glaucoma, its effects upon the ocular structures and functions, but the limits of its therapy are powerfully apparent. The real cause of this disease is still marked by obscurity and is still in the realm of imagination. The ophthalmologist of to-day, with his instruments of precision, has labored until recently as much in darkness as did his predecessors in regard to the etiology of this disease fifty years ago, but the most recent observations no doubt tend to remove that haze and the accepted theory of to-day is, that changes in the sympathetic nervous system is a great factor in the production of this grave malady. Some of our ablest authorities of to-day now define glaucoma as a disease of the sympathetic nervous system, producing increased ocular tension.

Glaucoma may be congenital or acquired, primary or secondary to some other disease, acute or chronic inflammatory, or simple. It is always a progressive disease, robbing its victim of the greatest of God's given senses, his sight. It is a disease of advanced life; the liability of females is greater than males; ratio six to four. At the age of 65 the liability to an attack of glaucoma is four times as great as at 45, and is one hundred times as great as at 15. The liability of the old to this disease is thought by Priestly Smith to be due to the growth of the lens. When we con-

sider that the cornea attains its maximum at the fifth year and the globe its full size at the 20th year, the lens continues to grow from youth to old age. During the period from 25 to 65 the lens adds one-tenth to its diameter and one-third to its volume; the lens, in pressing against the ciliary process, causes the base of the iris to encroach on the filtration angle, and thus excretion of the aqueous humor is hindered. Small eyes are especially liable to glaucoma; heredity plays an important role here as elsewhere, especially when associated with congenital smallness of the globe. Certain races seem more susceptible to this disease, it frequently occurring among Jews, Hindus, Egyptians, and Brazilian negroes. Mydriatics play a most important part in the production of glaucoma; such drugs as atropine, scopolamine, homatropine, daturine and cocaine causing a glaucomatous condition in eyes previously presenting no signs. When the filtration angle in an eye is already small the folding and quickening of the iris cause a closure of the canal of Petit in front of the iris and prevents a communication with the canal of Schlemm, thus producing glaucoma.

Another frequent cause may be traced to exposure, bronchitis, rhinitis, hepatitis, constipation, all of which are conditions in which the venous system is engorged. It is a very common experience that a glaucomatous patient feels better and eyes look brighter after the intestinal tract has been cleaned. Loss of sleep, worry, grief, anxiety are most important factors to be reckoned with in the production of glaucoma. There are numbers of cases of glaucoma that are due to the diseases of the blood vessels, and last but not least, recent observations indicate conclusively that irritation of the cervical sympathetic nervous system is a factor in the production of glaucoma. Laquer has observed that in connection with the exciting causes of mild attacks in the so-called premonitory stage of glaucoma, there is present a series of phenomena, such as cold, hunger, fatigue, fright, anger, and that these phenomena are associated with dilatation of the pupil, and the conditions under which these premonitory attacks disappear are warmth, food, sleep, acting in exactly

the reverse manner, producing a contraction of pupil.

Pathology. The pathological findings in glaucoma take place in the ocular structures themselves, in the intra-ocular contents, the vitreous, aqueous, and the cervical portion of the sympathetic. The anatomic changes in glaucomatous eyes are the result of increased tension. In acute inflammatory glaucoma, the uveal tract is the seat of the inflammatory oedema; a cloudiness of the cornea occurs; iris discolored and swollen. In response to pressure by the vitreous the lens moves forward, decreasing the depth of anterior chamber, swelling of the ciliary process resulting in approximation of the base of the iris to the periphery of the cornea. The compression of the ciliary nerve causes a loss of sensation in the cornea and dilatation of the pupil with paralysis of the iris. The pain of glaucoma comes from compression of the nerve filaments in the iris. The retina suffers from increased intra-ocular tension, the first effect being an obstruction to the entrance of arterial blood and to the exit of venous blood. The retina shows the effect of increased tension by its disturbance of function or atrophy. The optic nerve is swollen and edematous in the early stages of acute glaucoma, but it eventually becomes deeply excavated.

The composition of the aqueous is altered, it is denser, and the strong feature is the great increase of albumen due to vascular disturbances. A fluid which is loaded with albumen can only be excreted slowly and with great difficulty.

Ophthalmoscopic Appearance. The head of the nerve is excavated, the arteries are smaller than normal, and the veins are greatly distended.

For the convenience of description glaucoma may be divided into simple glaucoma, acute inflammatory glaucoma, chronic glaucoma, hemorrhagic glaucoma, and absolute glaucoma. We will first take up the simplest form of the disease, *simple glaucoma*. The simplest form of the disease is so insidious in its onset and so destructive in its work that it is not always discoverable until the signs of glaucoma are more manifest. These generally occur in patients from 35 to 95 years old.

The patient complains of the vision feeling foggy at times, to-day normal, to-morrow the vision will be 20/40 to 20/60; little pain, if any, but merely a feeling of heaviness around the eye. Tension at this time is variable, normal at one time and slightly increased at the next examination. The anterior chamber may appear of normal depth and the pupil responsive to light. One eye may be affected, in which case the corresponding pupil will be slightly larger than its fellow. So far as the symptoms referable at the front portion of the eye are concerned, it is impossible to make a diagnosis. The examiner must depend entirely upon the finding of the perimeter and ophthalmoscope.

Acute Inflammatory Glaucoma. Although this disease may appear suddenly, this is rare; it is generally a rule that certain premonitory signs are known to have been present. They are often overlooked or disregarded by the patient, but are generally elicited by the examiner's questioning. A patient who is about to be subject to an outbreak of glaucoma has usually had days of misty or foggy vision, he will inform you that he has noticed a halo around the lamp for sometime, more especially marked when he has had an arduous day at the office and is inclined to be tired and weary. He may have been obliged to change his glasses a little more often than a man in middle life should. These symptoms may appear from time to time; the intervals between them may shorten, and the condition known as simple glaucoma may develop, or inflammatory symptoms may arise and one have then acute glaucoma. The exciting cause of the outbreak may be excessive fatigue, fright, hemorrhage or shocking news. Whatever the case, the patient is struck down like a thief in the night, with the most excruciating, sickening pain in and around the eye; the sight rapidly diminishes and may be entirely lost in 24 hours in the malignant type of the disease. The conjunctiva and lids are swollen, the eye is intensely red at the cornea-scleral junction; the anterior chamber is shallow and the cornea is insensible to touch; and the eyeball shows symptoms of plus 2 to plus 3. The patient is feverish and restless, with sometimes a mild delirium from the intensity of the pain, with

more or less nausea and vomiting, pain being such a prominent symptom that the ordinary physician may think he is dealing with a case of iritis, and most unfortunate is he whose diagnosis is this, as it generally results in the loss of the eye for the patient. The diagnosis of acute and inflammatory glaucoma can be made with the finger; the increased tension should be evident to any physician capable of the intelligent use of the sense of touch. If the media are clear, the ophthalmoscope may or may not show the characteristic cupping of the optic nerve; in some cases the vision is lost so rapidly that blindness ensues before the excavation at the optic nerve appears. This form of glaucoma usually yields to a properly executed iridectomy; if this fail, a resort may be had to a sclerotomy; this failing, excision of the sympathetic is practised.

Hemorrhagic Glaucoma. Intra-ocular hemorrhages occur in glaucoma; they may appear late or early in the history of the disease. The same symptoms appear as in the other forms, only added to these are hemorrhages that take place in the retina, making it more irremedial disease.

Treatment. Sclerotomy is the operation indicated in this form of glaucoma, as we generally have a detachment of retina to contend with. Myotics, such as eserine and pilocarpine are used advantageously after operation.

Chronic Inflammatory Glaucoma. This form of the disease is generally distinguished from the acute variety by the constant presence of the characteristic symptoms, which during the periodic exacerbations become more marked; it presents prodromal symptoms. After a time the glaucomatous crises appear at shorter and shorter intervals. At this stage of the disease the eye remains hard, and the tension is greatly increased, plus 2 or plus 3; the cornea steamy and opaque; the iris ceases to react to light; the pupils become widely dilated; the anterior chamber is shallow, pain of a less or greater severity is a constant symptom. At intervals the steamingness of the cornea disappears, permitting an ophthalmoscopic examination to be made. This shows the retinal veins to be dilated; the arteries are narrowed and pulsating, either spontaneously or on slight pressure, and the head of the optic nerve is excavated. There is progressive

reduction in vision and the disease finally ends in complete blindness; pain, even after blindness ensues, compels the patient to seek relief, the treatment being iridectomy.

The treatment of the other forms of glaucoma may be divided into operative and non-operative; the non-operative may be divided into constitutional and local; the constitutional measures pursued are rest from worry and business cares, moderation in eating and drinking, regulation of the bowels, and avoidance of any cause that predisposes toward this condition. The salicylates and iodides should be administered if rheumatism or gout is suspected; locally the instillation of eserine and pilocarpine has been found extremely valuable; eserine sulphate is used in the strength of grain 1 to 3 drams of distilled water, while pilocarpine is used from one-fourth to one-half grain to two drams of distilled water. In normal eyes the instillation of myotics or mydriatics in the eye produces no appreciable alteration in tension; but if there is any pathological condition of the iris or anterior chamber, their improper application is productive of very harmful results. The use of atropine in the eye predisposes to glaucoma; where the anterior chamber is shallow it will cause an increase in tension, and will precipitate an attack of primary glaucoma, which may be abated and tension reduced to normal by the instillation of a myotic. Myotics are invaluable in the prodromal stages of glaucoma, and will aid in cutting short an attack in the absence of structural or organic changes in the iris. Unfortunately the great number of cases are seen when further developed, and myotics can only be used in conjunction with operative measures. Morphine is used extensively in the treatment of the pain in glaucoma. It has a myotic effect in the eye, producing a contraction of the pupil and is therefore a most valuable adjunct. The operative methods now in vogue are used in the order named: 1st, Iridectomy; 2d, Paracentesis; 3d, Sclerotomy; 4th, Removal of the ganglion of the cervical sympathetic.

Iridectomy for the relief of glaucoma was first performed by Von Graefe in 1856, and it has for its object the opening of the filtration angle of the anterior chamber. Paracentesis of the anterior chamber is em-

ployed only as an emergency operation and only affords temporary relief, as the tension becomes high again as the fluid accumulates.

Sclerotomy: In this operation an incision is made through the sclerotic coat; if incision is made in front of the iris it is called anterior sclerotomy, and if made behind the ciliary body it is called posterior sclerotomy.

Hancock's Operation. This operation is in great vogue with the profession for the relief of tension. The eyeball is seized with forceps and rotated inward and an ordinary cataract knife is inserted in the posterior part of the sclerotic coat between the external rectus and inferior rectus muscles; the knife blade is completely buried, piercing the vitreous; the knife is turned before withdrawing, allowing some of the vitreous to escape. Four cases of acute inflammatory glaucoma are reported with this operation, which relieved tension and pain in the eyes with eventually a complete recovery.

Sympathectomy. This operation is for the excision of the superior ganglion of the cervical sympathetic; this has been shown by Jonesco to reduce tension and to induce a marked contraction of the pupil. He also states that attacks of headache and other symptoms of irritated glaucoma are prevented. The ganglion may be reached by an incision over the anterior border of the sterno-mastoid muscle. The sheath of the carotid vessels should be either opened or pulled to one side, and the ganglion will be exposed behind it, after which its incision may be easily accomplished by means of scissors. According to statistics on this subject, this operation has not been wholly successful. Tachycardia, exophthalmos and death have been reported as sequelae. In regard to the diagnosis of glaucoma from a general practitioner's standpoint, I think that there is only one condition that will in any way bother him, and that is iritis; very similar in nature and yet vastly different.

I think that if the following points are taken into consideration there will be no necessity of making a mistake. In glaucoma the pupil is dilated, while in iritis it is generally contracted; in glaucoma the patient is usually in middle life and in iritis the patient is generally under 45 years of age; in glaucoma the tension is increased

either intermittently or permanently, while in iritis the tension is generally normal or it may be slightly increased at the height of the disease; in glaucoma the anterior chamber is shallow, while in iritis the anterior chamber is generally normal; in glaucoma the cornea is insensible to touch, while in iritis the cornea is sensible to touch, the ophthalmoscopic findings in glaucoma show excavation of the head of optic nerve and pulsation of retinal arteries, while in iritis the ophthalmoscope can not be used with any degree of satisfaction on account of the cloudiness of the media. Now the causes of glaucoma may be due to closure of the iris angle, trauma, intra-ocular growths, and certain conditions of the blood and blood vessels, while the chief causes of iritis are syphilis, rheumatism, gonorrhoea and traumatic injuries. I think that an intelligent diagnosis can be made of glaucoma if we keep in mind the intense neuralgic pain, the dilated pupil and the feeling of stony hardness of the eye on palpation.

18 Cobb Building.

DISPLACEMENTS OF THE UTERUS

Harriet B. Jones, M.D., Wheeling, W. Va.

The uterus is one of the most movable parts of the body. It may be pushed upwards, backwards, sideways, and pulled down without pain, returning to its normal position because of its elastic surroundings. It is affected by the position the woman takes; anteverted in the knee-chest position, retroverted in the dorsal position and normal when erect. These things must be considered when examining a woman, and for this reason I nearly always examine a woman when standing when the symptoms indicate retro-displacement or prolapsus.

Suspended as the uterus is between the broad ligaments, and responding to every force brought to bear upon it, it is not always in the same position, but may be considered normal with fundus forward and cervix pointing toward the rectum, and any force from abdominal viscera on the posterior surface will increase the anteversion. I do not believe any ante-displacement is abnormal except where there is flexion. The anteversion depends on the amount of

urine in the bladder. If very full the uterus may be turned backwards. If the rectum is packed with feces it may seem to be abnormally anteverted.

Frequency of Displacements. Of the last 150 cases examined I found only 64 cases who referred their symptoms to the uterus, less than one-half of the cases. Among the 64 the following conditions were found. Married, 48; single, 16; normal position, 39; Abnormal position, 25.

	Mar.	Sin.	Sten- osis	End- ome- tritis	Pain
Normal Pos.	39	11	8	13	16
Retroflexion	5	--	3	3	3
Retroversion	11	11	5	6	5
Anteflexion	3	3	3	--	3
Prolapsus	6	6	--	6	--

Of the 25 displacements 17 were married and 8 single. Stenosis was found in less than one-fourth. Endometritis in three-fifths. Pain in less than one-half. We find in the normal positions about the same average of stenosis and pain, with less endometritis. In prolapsus pain is rarely found.

Symptoms. Most patients, aside from pain, complain of a discomfort, bearing down, fullness, a feeling as if everything would drop out, backache, pain down the thighs, distress in walking, leucorrhoea and pain during menstruation. I find stenosis always causes pain during menstruation, and if long continued will set up endometritis, by retaining the normal secretions. If endometritis exists there is pain and distress between periods..

It is in retro-displacements and in latero-displacements we find the patient complaining more of distress and bearing down when walking. If associated with prolapse the distress is greater. Latero-displacement is usually found in connection with tumors or adhesions, and was not present in any of my 64 cases, as they were displacements pure and simple. However, I have found such a condition occasionally in a very flabby uterus which would fall in any direction.

There are undoubted retro-versions that are normal, when the vagina is very short posteriorly and which cause no symptoms whatever.

In prolapsus there is no pain, the discomfort being rather a sense of dragging, and

the distress caused by the mass between the thighs being rubbed and exposed, developing ulcer. Cystitis is a frequent accompaniment of this condition.

In retro-displacements the patient is tired all the time, has a dragging sensation, suffers from constipation which aggravates the trouble, prolonged menstruation, frequent urination, leucorrhoea, sterility and reflex symptoms. There is pain in the back and sacrum, headache, and sometimes adhesions.

Constipation may be the cause of the retro-displacement, and where I find it, I either have the patient return after she has thoroughly emptied her bowels or use an enema and then examine her again. This will sometimes alter the whole aspect, and I have been surprised to find the uterus in normal position on a second visit. In retro-displacements the cervix may be pushed up behind the symphysis and the anterior wall of the vagina seems shortened. There may be also a displacement of the tubes and ovaries to the floor of the pelvis, and the bladder wall inverted. Retro-displacements may be congenital, acquired by a woman lying on her back during confinement, accidental falling or lifting heavy weights, by constipation, or relaxation of weakened ligaments due to poor general health or fatigue by overwork.

Prolapsus I rarely find in single women, and such cases are usually found in very fat women with a tremendous abdominal pressure. In married women there is usually a very relaxed vagina or a lacerated perineum. I have found prolapsus from the cervix appearing at the ostium vaginae, to the uterus entirely outside the vagina, with the inverted vagina containing bladder and rectum until I could not hold the mass in my two hands.

Treatment. Anteversions do not need treatment. Anteflexions cannot be relieved by pessaries. When stenosis exists, I dilate and introduce a stem pessary which I have my patient wear for three menstrual periods. This gives complete relief and I have had to repeat the operation but twice in all the years of my practice. I have never had to make an incision of the posterior wall of the cervix, but have found the os so rigid I have made nicks with a knife, cutting the rigid band in several places and inserting a

stem pessary. It always relieves the dysmenorrhoea and in some cases the sterility.

In one case a woman had been married twice, seven years to one husband and five years to the other. She had very severe dysmenorrhoea. I dilated and she had two children. Another case was married seven years and after dilation had a child. In some of these cases the uterus is small and infantile. The wearing of the stem pessary has caused the uterus to develop and in one case after several years of married life a child was born. The presence of the stem seems to stimulate and the uterus develops into a normal uterus. I have not, in a single case, found an undeveloped uterus except in anteflexions or anteversions, and I have seen quite a number of them.

There are cases of retro-displacement that cause no symptoms whatever and need no treatment. Others where the symptoms are directly local and depend on the displacement; great relief will follow the replacement and in some cases the wearing of a pessary. In one case a woman lifted a tub from the floor to a sink and felt something give way. She called me the next day. I found the uterus practically upside down. I put her in the knee-chest position and pushed the uterus into ante-version. It was caught under the promontory of the sacrum and went back with a thud. She has been well ever since.

In recent displacements where the uterus would not remain in normal position after being replaced, I have found after the pessary was worn for a year that the uterus remained in a normal position.

In a retro-displacement of long standing where it is out of the question for the patient to have an operation done, and the uterus can be replaced but will not remain in place, I use a Hodge-Smith pessary. I am very particular that it be not too large and that the patient is not conscious of wearing it. If too long or too large it will cause discomfort. If too small it will not do any good. I instruct my patient to come back in three months and have it taken out, or to take it out herself and leave it out for a few days and then put it in again. If a patient does this, there is no excuse for the terrible stories told of pessaries imbedded in the vagina and cutting into adjacent organs.

The uterus can often be held in a normal position in this way, and treatment can be given for the endometritis with the pessary remaining in position.

In retro-displacements of married women with a gaping vaginal outlet, with cystocele and rectocele, there are many cases where pessaries cannot be worn at all. It is best to examine such a patient while standing, to realize the full extent of the displacement. In such cases an operation on the vaginal outlet ought of course to be done, and a pessary worn afterwards may be of great benefit, but more often a second operation is necessary to put the uterus in position and retain it there.

Some persons think, when artificial supports are used to retain the uterus in position, thereby relieving the supporting ligaments and tissues of their normal functions, that it weakens them. I do not, but think it gives them a chance to regain their tone. Of course I do not overlook constitutional treatment in such cases. Pessaries will not always hold a uterus in normal position even when the uterus can be replaced, but will relieve the dragging and give relief to the weary ligaments. If pregnancy takes place I remove the pessary after two months.

In all retro-displacements I direct my patient to frequently take the knee-chest position and keep her bowels free, explaining to her the importance of both.

I must confess I have not had great success with packs, for unless the pack is renewed and kept in all the time giving continual support, it is practically useless. I do not see the advantage of a pack put in once or twice a week and kept in for twelve hours, unless for depletion, and the remainder of the time the uterus remaining in its abnormal position. The pack must fill the vagina and be put in very tight or it will not stay in place. It soon makes the vagina sore and will not be tolerated. I use the packs for depletion after placing a pessary. The uterus is held in position and a small pack is all that is necessary. Hot douches can be used every day where necessary, with the pessary in place. After a pessary is worn and depletion is continued for some time without very great benefit, I advise suspension, fixation, shortening of the ligaments or such operation as I think best

suited for the case; in a woman in the child bearing period, suspension or shortening of the ligaments, in a woman past the child-bearing period, fixation.

There are only two displacements that need concern us very much. Retro-displacements and prolapsus. For prolapsus, where the woman will not submit to an operation and a pessary can be worn, I use one of two kinds. Some women can wear one and some the other. One is a ring of solid soft rubber, which cannot get out of place if it will stay in at all. The other is a hollow glass ball, very light and smooth. If the vagina is not too relaxed, one of these is worn with much comfort and will stay in. If greatly relaxed nothing will stay in, and I advise an operation as the only hope of relief. If the woman is above 65 I try the pessaries and only advise an operation if they will not stay in. I have at the present time no less than ten women wearing, with great comfort, one of the two pessaries named. If the woman is young I not only advise but urge an operation, for I think it a great pity for a woman to be probably tied to a pessary for twenty-five or thirty years. But suppose she will not agree to an operation, what will you do about it? Some physicians make a great hue and cry against pessaries. I wonder what they do with the patients who will not be operated on, and I am sure they have them just as I do. I have not had a single case in which a bad result has followed the use of a pessary, and I have had dozens of patients who have been greatly benefited.

The patients on whom I have operated have shown most gratifying results.

I will only take time to cite two cases which have been of sufficiently long standing to show they are without doubt successful. I reported the first case to our Ohio County Medical Society soon after operation, but was discouraged by one of our surgeons who said I need not count on its being a success for he had a case that in three months was as bad as ever. I then determined never to report a case until sufficient time had elapsed to be sure it is an undoubted success. This particular case being the worst I have ever seen, and on which I operated more than two years ago, with success far beyond my expectations, I cite in detail.

Mrs. B. 56. Passed menopause five years. 2 children, youngest 12 years, from the birth of which she dated her trouble. She said something came down and she had tried pessaries, bands and rags to keep it up, but could not, and was miserable all the time. I examined her standing and found a mass I could not hold in my two hands. I examined her lying, and the mass remained outside. My finger in the rectum would pass down into a rectocele the full length of my finger. The cystocele was about half the length. The rectum came out the anus when the bowels moved as big as a good sized orange. The uterus was entirely outside the body with the cervix under the urethral opening. It was three times the size it ought to be. Lacerated cervix with a large ulcer. The cervix very large. It could be replaced but would not stay even when she was lying down. She was a very large boned, fat woman, with a capacious pelvis. The inverted vagina looked like leather. I put her in bed, and reduced the congestion with douches. I first curetted, then amputated the cervix. I waited two weeks and did ventro-fixation and operated on the anterior vagina wall, denuding a very large elongated strip, closing it with buried catgut suture and using catgut to bring the mucous membrane together.

I then had a serious proposition on my hands, to get rid of the mass of leathery material behind. I dissected away a mass the size of the palm of my hand, high up the posterior vagina, then brought the parts together with apparently a perfect perineum and vaginal outlet with the vagina narrowed to normal

Why did I not do all the operations at one time? Because the uterus was so large, by rest in bed it was greatly reduced before the ventro-fixation was done. The repair of the perineum was done after the ventro-fixation, so that with the uterus in place I could tell exactly how long the vagina ought to be, and ran no risk of shortening the vagina causing traction when the uterus would be drawn up for fixation. Today, after two years, the cervix can scarcely be reached with the woman standing on her feet, and the vagina, perineum and vaginal outlet are normal with no cystocele, no rectocele and the woman in perfect health.

I am conservative when it comes to operations, but in comparatively young woman my experience has taught me that it will save valuable time to advise operation where the uterus will not remain in position, and the woman is uncomfortable without a support and must wear one the remainder of her life.

Such cases, by doing one of the operations for holding the uterus in position, show gratifying results and from nervous

wrecks the patients become healthy women.

As to the kind of operation to be done to get the best result, that must be left to the judgment of the surgeon. All have their advocates, and none are infallible. I will only take time to cite one case in which suspension was done.

Miss C. Age 37. I have known her since she was twenty-one. She has always had retroflexion, dysmenorrhoea and endometritis. She suffered for a week before and after periods. She had no ovarian trouble. Always more or less miserable on her feet, exceedingly nervous and irritable with a worried look almost constantly on her face. I curetted and put in a suitable pessary which gave some relief. She would take the pessary out from time to time, but was more miserable without it. I finally persuaded her to have suspension. That was done over two years ago with the most happy result. She is relieved of her miserable backache and her pains before, during and after menstruation. She looks younger, weighs more and her disposition has undergone such a change her friends remark it and are rejoiced. She has no backache and does not get tired when on her feet. In her case the result has been most gratifying.

I believe many women who are miserable wrecks from this cause, may be relieved and I no longer temporize in these cases, but after a fair length of time advise an operation that will give them permanent relief.

Discussion—DR. KEEVER, asked to open the discussion, said that ventral fixation is very unsatisfactory, and apt to cause future trouble of various kinds; intestines may get caught under the ligaments. If pregnancy occur, disaster may follow. He nearly lost one patient after this operation, she becoming pregnant. The bladder, half filled, was extruded in front of uterus during labor, the uterus pushing it down. He was, with difficulty, able to empty the bladder, and the case terminated favorably. As to pessaries, he does not use them. He had removed one or more of these supports that were deeply buried in the tissues of the vagina.

DR. HILDRETH II. had witnessed and assisted in the operation for procidentia reported by Dr. Jones. He was quite sure that most operators would have performed hysterectomy, but a good result was obtained by Dr. Jones.

DR. FULTON said he did not favor the use of pessaries. With the modern asepsis and improved technic he thought surgery preferable to temporizing with pessaries. He failed to see why the doctor had made a two stage operation in the case reported. Ventral suspension is to be condemned; as is also the Alexander operation. He preferred the Gilliam operation, which he described.

DR. COVERT inquired how the doctor determined that stenosis existed in the cases of malposition

reported. Flexion certainly causes occlusion of the cervical canal. Retroversion does not prevent conception. Reported a case of this kind, the patient becoming pregnant three times, the retroversion recurring each time after confinement. Cases of malposition are rarely cured by pessary. Formerly used them, but ceased when he got near a hospital where other treatment could be pursued. He approved of fixation of the uterus after the removal of the tubes, if necessary.

DR. OGDEN held that good results do sometimes follow the application of pessaries. Some patients refuse operation, and in such cases their use becomes imperative. Good results are rare after abdominal fixation. Approves of the Gilliam operation.

DR. JONES, closing, said that she operates slowly and hence preferred to do the two-stage operation to keeping the patient too long under anesthesia. Besides, the uterus was enormously large, and after the first operation it has time to become smaller, the treatment reducing the size. It was, therefore, more easily supported. Suspension was often followed by pregnancy with no bad result, which occurs only in exceptional cases. As to pessaries, she often finds them useful, and where an operation is refused, they often palliate the symptoms.

A SOCIETY JOURNAL vs. ANNUAL TRANSACTIONS.

C. A. Wingerter, M.D., LL.D., Wheeling, W. Va.

(Read at Annual Meeting Am. Med. Editors' Association, St. Louis, June 1910)

Let me express the matter to be determined: By which method will the purpose intended by the publication of transactions best be attained?

This brings us at once to a consideration of the purposes intended. I take these to be four, *i. e.*, to bring a record of the doings of the society to four classes of persons:

1. The active members present at the meeting.

2. The members who did not attend the meeting.

3. Eligible persons who are not sufficiently interested in the purposes of the society to become members, but whom it is desirable to secure as members.

4. Persons still in the womb of the future, for whom the transactions may have an historical interest.

A very short study of human psychology will show that the first three purposes outlined are best attained by the publication of a society journal, and the fourth probably

a little more conveniently attained by a bound volume of transactions.

1. Members present—to refresh their memories and to permit them at their leisure to digest what they saw and did and heard.

2. Absent members—to bring the transactions to their attention and awaken interest in the society.

3. Prospective members—to stir up an interest sufficient to prompt them to become members.

4. Posterity.

We are so constituted as human beings that *it is difficult to concentrate very long on one subject* of interest—we are ever seeking new incidents of interest. The proverb that "variety is the spice of life" has expressed this truth. Now, the society journal incites a freshened interest periodically as the bound volume could never do. When the bound volume is put aside after its first advent it is practically "done for" as an old dead thing; but the journal comes as a new, living and enticing object of interest, tending again and again to strengthen the mental associations, to deepen more and more the brain paths that unite our interests with the societies' interests. The "follow-up system" of the advertisers and its success is sufficient proof that the members who were present at the meeting, the absent members, and prospective members are most effectively touched by the journal method.

Again, *living things interest us more than dead ones*. Nay, no man can have any interest in a dead thing except it reflects an interest on the living. We would not make post-mortems if they would not aid or please the living; the "dry-as-dust" historian, the geologist, the paleontologist and their whole ilk are ever seeing an interest to living men in what they study. Even the interest of a funeral centers really about the mourners and not about the corpse.

The society journal comes instinct with life; it breathes the atmosphere of to-day, and even if the articles it brings from the past meeting are "dead ones," it galvanizes them into a temporary vitality. The bound volume is a sarcophagus, to which we will give a decent respect before we bury it away, and that will be done as quickly as propriety and our interest in living personalities will permit.

The Roman, Horace, told us, what the world knew long before his time, that *it is best to mingle the useful with the pleasant—"utile dulci."* The French cook could tell us the same thing, and so could the kindergarten teacher and the Sunday school superintendent taking his class to a picnic. Now, there is very little of "dulci" about the bound volume, in spite of its usefulness. But the journal, like the clever housewife, precedes the substantial entree with some relish of editorial matter, and seasons it with social items and follows it with dessert in the form of book reviews, and the reader smacks his lips, feels sure he will not suffer indigestion, and resolves to be on time for dinner again to-morrow. The bound-volume method suggests the placing before the diner a whole barbecued beef, and telling him to eat his fill while it is hot, as he must feed on that single beef the rest of the year. We hear him exclaim: "It is good, I know; but, great heaven, this is too much of a good thing! Can't I have a little bit at a time? Remember the Frenchman's tale of 'too much partridge.'" "

Akin to this principle that we like the pleasant wedded to the useful, is the fact that *convenience of handling* the journal makes it more desirable than the bulky bound volume. Many times we must sit in trains and trolleys or other waiting places, and we instinctively thrust a journal into our pockets against the dragging hours. The bound volume has too small a chance of being lugged along on these occasions, and very often on just such occasions is our best reading done, because of our freedom from the detraction of the telephone and the door bell.

We are no small creatures, we belong to the gregarious class of animals. We instinctively love the human touch that reaches into our intimate every day feelings. The coming and goings of our friends and acquaintances, from which we can surmise their joys and hopes and ambitions and disappointments, have their perennial interest for us. The personal columns in the journal carry interest to us, whether we are active or only prospective members of a society, whether we had attended the meeting or were absent, and this interest is again reflected to all things in the journal to a greater or less degree. Although we are

reasoning animals, we generally use our reason only to find justification for the decisions already made or about to be made at the bar of feeling. The journal touches the emotional side of our nature pleasantly a varied score of times to the once that the bound volume rouses our latent loyalty to the society, and soothes our complacent vanity at being enshrined in its pages.

Two or more compelling interests are more effective than one. To the worth of an article published in the bound volume and to the personality of the writer, the publication in a journal permits the addition of the compelling interest attaching to seasonableness; an article on infant feeding may be presented at the beginning of the summer, an essay on respiratory diseases during the pneumonia season, and so further.

All the foregoing traits in our human nature, with other some, such as our tendency to vanity, our capability of friendship and loyalty, are potent arguments in favor of publishing the transactions through a periodical journal, rather than by means of a bound annual volume. The only one argument speaking for the latter is the convenience of the future historian, who is interested only in the dry minutes and the superannuated papers of a past generation. If he is so lacking in traits of our common human nature as to have no interest in the personal chit-chat about the men of past days, I think we may well disregard his convenience, and if he have such a laudable and humanizing interest, then, even for him, the journal method of publishing would be most satisfactory, and the method by bound volume would lose the only argument I have been able to find that speaks in its favor.

TREATMENT OF SUMMER DIARRHEA OF CHILDREN.

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W. Va.

(Read at the July Meeting of Eastern Panhandle Medical Society.)

The problem of summer diarrhea of infants and children is one which the warm months bring to the physician. Dentition, heat, improper diet, nervous derangement,

taking cold, and bacteria have each been considered as causes. The germ theory at present seems well supported. In view of the different theories held by eminent authorities and from personal experience, it seems to me that there is truth in each, thus; dentition, a physiological process, may become deranged and produce a pathological condition; heat, by lowering vital resistance or by producing decomposition of food or causing great thirst which is satisfied with food, instead of water, may become an active factor. Improper food can hardly fail in provoking increased peristalsis of the stomach and bowels. If the surroundings are filthy and bacteria enter the stomach and intestines and there find conditions favorable for their growth and development, it is reasonable to suppose that nature will make an effort to expel the offending matter. So, in our present state of knowledge it seems impossible to say that there is any one cause, but rather that summer diarrhea may be produced by several different factors, and in any case it may be difficult to differentiate the existing agent, as perhaps all the factors working together produce the result. But if any one is more potent than others, I believe it would be filth, and in the case of infants cleanliness is all important.

From my own experience in the past, and the knowledge gained from the recorded experiences of others, my plan of treatment for the summer will be according to the following summary:

1. Hygienic.
2. Evacuative.
3. Therapeutic, namely opium, bismuth, antiseptic solutions, chalk mixture, boiled water, stimulants and inunctions.

The hygienic management of infants is of the utmost importance, and every true physician will give every mother who seeks his advice in regard to the care of those entrusted to her, full instructions in regard to the following points:

1. Pure air to breathe.
2. Proper diet at regular intervals.
3. Plenty of water which has been boiled, to drink.
4. A clean bottle, if bottle-fed, each time the child takes its bottle.

5. Absolute cleanliness of person and surroundings.
6. A chance for the nervous system to develop without being over excited.

If every infant could be kept under such favorable conditions, the resistance of the vital organism would be such that if a few germs were introduced into its body the conditions for their growth and development would be so unfavorable that they would perish instead of flourishing and causing the illness and perhaps death of the infant. The conditions are too often the reverse of all this. The air is filthy, the food given improper in kind and amount, and no water at all; the bottle and clothing are not kept clean; the infant is tossed and tumbled and handed around and carried out into the hot sun; and is it any wonder that it gets sick?

When called to a case I nearly always begin treatment by giving something to evacuate the alimentary canal, either a mixture of aromatic syrup of rhubarb, castor oil, glycerine, or from one-tenth to one-half grain of calomel every hour until there is good effect from it. Stomach washing combined with injections of pure water into the bowels I consider a good plan. With the latter I usually combine liquor antisepticus, U. S. P. If there is pain I give paregoric in doses according to age and condition. Notwithstanding all that has been said against it, I believe opium is one of our most valuable therapeutic agents in the treatment of summer diarrhea. After getting some effect from the preceding I frequently follow with this:

℞ Bismuth Subnitrat̄is-----drachm i
 Syrupi Rhei Aromatici--drachm ii
 Liquoris Antiseptici-----drachm vi
 Misturae Cretae-----oz. i

Sig. One drachm for a child one year old every 3 hours.

When a child has diarrhea I do not believe in the administration of milk in any form as food. I know how hard it is to convince the average mother that the child will not die if she does not keep up a continual stream of milk running down its throat, but I believe the results are better when we insist upon giving rice water, barley water, Mellin's food prepared with water, a little brandy

and plenty of boiled water to drink. Inunctions have rendered me excellent service not only by their cooling and supporting qualities, but the friction caused by rubbing the oil, lard, vaseline, coca butter, or whatever is used helps to keep the blood to the surface and prevents excessive internal congestion.

PAIN IN TORTICOLLIS

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Cause. The pain in the neck and arm must not be mistaken for the cause of a torticollis; it is a secondary phenomenon and due to the constant dragging and pulling of the muscular attachments during the movements of the violent torticollis. It must not be forgotten that inhibition of movement, when accomplished by contraction of the muscles antagonistic to that movement, is as provocative of this type of pain as is the movement itself. Hence part of the pain is produced by the patient's own efforts to prevent movements which were inconvenient and likely to draw attention to herself. This mechanism, of course, is not entirely conscious in the full sense, it being more teleological than analytic. This, of course, is perfectly normal, very few of us being able without practice to conceive or put into action a series of muscles except in the performance of some act which has not for its object the muscular contraction itself.

The treatment, of course, must, not be directed to the painful spot; anodyne: only harm in directing further attention to it. Rational psychotherapy must be directed to the cause of the movement: or if that cannot be ascertained, then psychomotor exercises must be employed to prevent the tic which is the cause of the pain. Exactly the same reasoning applies to the writer's and other occupational dyskinesias, which the author has studied. (See further comment in *Monthly Cyclop.* July, '11, etc., and *N. Y. Med. Jour.* August)

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Selections

TREATMENT OF TUBERCULOSIS.

Lawrence F. Flick, M. D., Philadelphia.

A few general principles can safely be laid down for the treatment of tuberculosis and these may be followed out in practically every case. *First*, the diet should be carefully fitted to the capacity of the individual to digest and assimilate it. In amount, it should not exceed what is necessary for the demands of the organism for fighting the disease and for storing away a little surplus. The food which will give the largest return with the least labor should be selected, but care should be taken that in the selection of this food, no idiosyncrasy of the individual be permitted to defeat the object sought after. For most people, milk and eggs with one meal of solid food a day, give the basis of a correct diet for a tuberculous subject, but occasionally one meets an individual with idiosyncrasies which militate against such a basis of diet. The much used term of "forced feeding," must never be construed to mean stuffing, but should be interpreted to mean that the patient takes the selected diet against his inclinations if necessary and under the force of his own will, rather than through craving for the food. Misinterpretation of the meaning of forced feeding has led to much mischief in the treatment of tuberculosis and has been responsible for a great many failures.

The *second* principle is that drugs may be used advantageously for putting a function of the organism into a physiological condition, or for aiding an organ of the body which is crippled in its functions, but should never be used for any other purpose. To give drugs because somebody else has used them, without understanding what they may accomplish or how they may accomplish it is bad practice. It is better to give no remedies at all than to use remedies which one does not fully understand.

Third—Climate has no specific value in the treatment of tuberculosis. Change of scene and environment may be of use in cases in which the mental attitude is bad, but only in so far as it corrects the mental attitude. The best place in which to treat

a case of tuberculosis is that in which the individual to be treated can get the greatest amount of happiness, the best food, the best hygienic conditions and most comforts of life for the smallest amount of money and with the least worry. For most people, this is in the home or at least within easy distance of relatives and friends.

Fourth—People of weak character, people living under bad domestic conditions which cannot be corrected, and people who cannot command the attention and service necessary for their treatment at home should be moved into a sanatorium. Perfect discipline and strict compliance with the rules laid down by the physician are essential for success in the treatment of tuberculosis, and where the individual is so weak in character that he will not carry out the treatment, in both spirit and letter, success cannot be attained except through the influence of others who understand something of the treatment. This influence can only be obtained in a sanatorium. To try to do the best one can with a patient under bad sanitary conditions and without proper supervision and attendance is foolish, because it always ends in failure.

Fifth—Restoration to physical health is not synonymous with cure in tuberculosis, and treatment of the disease cannot be safely stopped when physical health has been recovered. A disregard of this principle leads to more failures in the treatment of tuberculosis than any one thing. So long as the patient looks ill and feels ill, it is relatively easy to secure his co-operation and the co-operation of his friends, but when he begins to feel well and to look well to his relatives and friends, co-operation often ceases, and the patient takes himself into his own hands or places himself under the direction of his family. It takes years to recover from tuberculosis, under the most favorable conditions, and the physician who commits himself to the idea that a tuberculosis patient has recovered in a few months because he has regained the appearances of health, is apt to experience an humiliation later on, if he lives long enough, in seeing his patient transferred to an undertaker. No case, however well, should ever be reported as cured. It is much safer to use the term "disease arrested," and to look upon every case as liable to a recrudescence of the disease.

Sixth—Whilst rest and exercise are both useful in the treatment of tuberculosis when properly used, rest should always be used where there is doubt, because it can do no harm and exercise can. In the acute stage of tuberculosis, absolute rest should be insisted upon, and it should be maintained until all acute symptoms have passed off, even if it takes a year for this to occur. In fact, time cannot be considered in the treatment of tuberculosis. However long it may take to bring about recovery, one must be reconciled, because haste is almost certain to lead to fatal errors. Impatience to get about and to be doing something is frequently the cause of prolongation of the disease, because every time the patient gets into a fair condition he becomes active and has a relapse, going back to a little worse condition than he started from the time before. To recover from such a relapse takes months, and valuable time is frittered away without any real progress being made. The physician must be firm in his insistence on absolute rest until he is fully convinced that exercise may be taken with safety and profit. When exercise is begun, it should be under the supervision and control of the physician.

Seventh—Stimulants, depressants and opiates should be avoided, unless there is a very specific, peremptory reason for using them. When used, they should be prescribed in the smallest quantities possible and never left to the discretion of the patient or the judgment of a nurse. Alcohol may be used advantageously in certain complications of tuberculosis, but in the hands of most men it is more likely to do harm than to do good. Tobacco should not be used except, perhaps, after dinner, and then only by patients who are in good physical condition and who have a strong, vigorous heart action. The more skilful the physician becomes in the treatment of tuberculosis, the less opium will he use. The experienced and competent physician can get along without the drug, except perhaps in a few cases during the last few days of life, especially when there is a laryngeal complication.

Eighth—Fresh air is essential to the correct treatment of tuberculosis. This does not mean that the patient must be frozen to death in winter, but merely that there must be avoidance of breathing the same air

twice. The ideal life is in the open air, because then it is physically impossible for any of the air which has been exhaled to come back to the patient. Satisfactory conditions for a proper change of air can, however, be produced in a room even with a comfortable temperature by having the windows open on two sides of the room. In winter, heat in a room aids ventilation and is of benefit. Unfortunately, it is very expensive to heat a room with the windows open, and most people must content themselves with a cold ventilated room for sleeping purposes, at least, if they are to have ventilation at all. An economical way is to have the patient sleep in a room without heat, and eat and dress in a room which is heated and fairly well ventilated. Drafts need not be regarded in arranging for the ventilation of a room as they can do no harm when the patient is properly clad and properly covered while in bed, and are really essential to a proper change of air. It is by movement that the air cleanses itself of its impurities, and it is only when the air in the room moves rapidly and the warm, polluted, expired air gets away from the patient quickly that the patient avoids re-breathing the air which he has exhaled.

Ninth—Tuberculin, bacterin and sera have a value in the treatment of tuberculosis, but should always be used cautiously, and unless well understood had better not be used at all. Tuberculins need to be used with greater caution than bacterins and sera, because their abuse is fraught with greater danger. One must always keep in mind when using these substances that the injury that may come from their improper use may be very far-reaching and irreparable, and that in the long run it may be safer to go on without using them. All of them should be started in small dosages and unless the physician feels secure in his position should be continued in small dosages. It is not practicable to guide their use by the opsonic index and the physician must, therefore, learn to use them in an empirical way. A very safe and useful way of getting serum treatment for a patient is by putting on fly-blisters and absorbing the serum from the blister. This gives the patient his own serum and is followed by excellent results.

Tenth—Excretory functions of the patient should be kept active in order that the

poisons generated by the micro-organisms which are infesting him may be kept out of the system, and also in order that the debris and used-up substances which probably give a good pabulum for the growth of micro-organisms may be kept as low in the organism as possible. It is quite probable that most of the disease-producing organisms grow on the dead tissue in our bodies rather than on the living tissue, and that just in proportion as we have dead tissue and used-up material circulating in our blood and in the juices of our bodies, micro-organisms find good soil for their growth. The skin which is the largest eliminatory organ of the body, should be kept clean and active, and for this reason should receive daily ablutions and frequent scrubs with soap and hot water. The bowels should be kept flushed out preferably with Epsom salts. The kidneys are usually well flushed out by the liquid diet. Nothing should be used for aperient purposes which can in any way congest or irritate the intra-abdominal organs. Next to Epsom salts castor oil is the best drug at our command for cleaning out the bowels in tuberculosis.

In the matter of alleviating pain and quietude of every kind, the physician should resort more to mental influence than to drugs. With most people a little reassurance is all that is necessary. There are a great many fugitive pains in tuberculosis which grow with dwelling upon them, and which can be relieved promptly by an assurance from the physician that they have no evil import. Pain which is due to an inflammatory condition, such as occurs in pleurisy, can best be relieved by putting the part at rest. Cough and nervousness can usually be controlled by rest and by the will power of the patient when properly brought into play. Frequently, the remedy which is needed for all of these complaints dependent upon the nervous system is absolute rest in bed, and when it is needed, it should be resorted to without hesitation and without compromise.

Finally, the physician must know how much tuberculosis his patient has, and what the complications are. Tuberculosis begins first as an uncomplicated disease, but rarely comes to the attention of the physician as such. Usually the patient consults the physician when the first serious complica-

tion has set in and consults him for the complication, rather than for the tuberculosis process itself. The complications which most frequently bring the tuberculosis subject to the physician are colds, grippe, pneumonia, pleurisy, hemorrhage, inanition and various forms of gastric disturbances. Most of these complications, at least those of an acute form, are self-limiting, provided the patient is put at rest and his organism is given a chance to recover itself. They are misleading, however, when first encountered and may give the physician a very erroneous idea of the amount of tuberculosis process which is going on. One should be very careful, therefore, about giving an opinion as to the tuberculous involvement when he first sees a case in an acute condition. On the other hand, one must also be on his guard against being misled in the other direction into an idea that there is not much tuberculosis in the case when the acute conditions have passed off. Every case should be carefully studied physically and should be charted with an analysis of all the pathological conditions and functional disturbances, so that as far as possible, a clear-cut idea may be formed of how much tuberculous process there really is. The prognosis of a case and the plan of treatment hinge largely upon the amount of tuberculous involvement. Patient, persevering effort in studying a case will enable any physician of fair training to reach satisfactory conclusions in these matters, and when he cannot reach them, he should, by all means, call for assistance before he goes on with the treatment of his case. Nothing is more foolish than for a physician to try to treat a case blindly, for when he does it, he invariably fails in obtaining results and ends in confusion. It will no longer do for the physician to ease his conscience by saying to himself that he is doing as much for his patient as anyone else could do, and that he is, after all, dealing with a disease in which favorable results are unattainable. As good results can nowadays be obtained in the treatment of tuberculosis as in any disease with which the medical profession has to deal, and when the physician does not obtain good results, it is because he does not possess the knowledge and skill necessary for obtaining such results. Often it is not so much the want of knowledge and skill as the want

of honest application of them. It takes time to study a case of tuberculosis well enough to be able to treat it well and it requires painstaking work. The physician must recognize this and he must also recognize that the time and pains which are necessary can only be given for a commensurate fee and he must have the courage to charge the fee which is necessary to be able to do the work. He need not see his patient often, usually not more often than once in two weeks, and sometimes not more often than once in a month, but when he does see him, he must study him carefully, and give him the best that he has. If he has made his first study of the case thoroughly and has kept the proper record of it, the time and labor required for subsequent visits are much less, but at every visit, he should go over his case thoroughly enough to be able to determine definitely whether any complications have occurred, or any new developments have taken place in the interim between the visits. With this kind of treatment and supervision, the physician who is willing to give it will find in tuberculosis a remunerative and satisfying field of labor.—*Interstate Medical Journal, February.*

PROFESSIONAL FELLOWSHIP.

C. E. Linton, M.D., Medaryville, Ind.

"Behold how good and how pleasant it is for brethren to dwell together in unity."
 "Be kindly affectionate one to another with brotherly love."
 "If it be possible, as much as lieth in you live peaceably with all men."

In quoting these lines from the Holy Bible I will offer no apology but beg to say that ever since beginning the practice of medicine I have been repeatedly impressed with the lack of true fellowship among physicians. Have you ever stopped to ask yourself the question, "Why?" Were you ever in a community where the medical men were all on a friendly footing, where they would drop in and visit each other daily or weekly as we see merchants, bankers, druggists and men engaged in other lines doing? Isn't it a fact that the laity can tell you, in almost every town or village, of the animosity which exists between the physicians residing there, and usually, alas, there is too strenuous or unfair rivalry among

the men so situated, and though they may, if called on, assist each other in an emergency, it is done in a half-hearted manner, evident possibly even to the laity.

Why should this condition exist? Are there not enough trials, temptations and troubles in our daily lives to tend toward making us hard and cold toward all the rest of mankind, without nurturing a feeling of jealousy, envy or spite against a brother physician? Do you not realize that we are dwarfing our minds, steeping ourselves into the mire of degradation, and lowering the standard of our high calling in the eyes of a gossip-loving, scandal-bearing public, causing us to lose many of the great enjoyments that this life could furnish? If one expects to be held by the profession or the public at anything near like the estimate he has privately laid on himself, he must be willing to concede that there are other physicians who have equal ability and attainments, if not a greater, than he himself.

A good physician is one who is good to us, and a bad physician is one who doesn't do what we want him to do.

If we expect to get friendly greetings and help during our needs, we must be ready and willing to give our aid when needed, and should be the one to go more than half-way, if necessary, with the smiles and sunshine. We are too apt to nurse the recollection of a wrong, and often fail to give any credit for kind deeds. How can we expect the laity to respect the medical profession when we do not prove that we are worthy of that respect?

Some physicians will say: "I do not speak ill of any brother practitioner." Ah, yes; but do you ever speak any words of praise for him? Do you ever give him credit for doing any difficult operations, or concede him to be a man with as much skill as yourself? Why not? Are you afraid that any commendation of yours will detract from his prestige? Are you egotistic? No. On the contrary the more glory that any medical man achieves, or the more rapid progress of medicine, must also uplift your own reputation. Build up the respect of the laity for the medical profession; then the greater will their respect be for you if you prove yourself a worthy member of that profession.

Try to say something kind about some

physician toward whom you have not shown a kindly spirit, and see if he won't at once begin to have a friendly feeling toward you, and will possibly reciprocate in kind.

The laity, who have been only too eager to carry your criticism and harsh words to him, will now for the novelty alone, in hearing you speak kind words, carry them just as eagerly to him likewise, and very soon indeed you will find a friend, a man like yourself who is now ashamed of the petty jealousies of the past, who, like you, has been striving day and night, through winter and summer, in all conditions of weather to make a few dollars that he might feed his family, pay his bills, perhaps educate his sons or daughters, or lay aside something for the proverbial rainy day. Why here is a man after all who is not nearly so bad a fellow as you thought and is merely a fellow laborer, suffering all the trials and vexations of a doctor's life, and isn't it strange that you never realized before what a bright and accommodating fellow he was, and now he is always ready and willing to assist you in your operative work, visit your patients during your absence or illness, and you may rest assured that he will speak no words of condemnation of you to your patients to gain them for his own, unless you have been violating the golden rule yourself. "Do unto others as you would have them do unto you." Then speak well of your professional brother, and all of your praise for him will simply be as a staff to help you up higher in the estimation of all true men and women.

Let us try to realize, my dear brothers, that this life is simply what we make it, and we may as well compare our professional environment to that of looking into a pool of clear water; smile and you will get the smile back; but if you snarl, and snap, and scowl, these will surely be reflected back at you greatly magnified. Which do you prefer, gentlemen? Remember that if you sow deceit, jealousy, envy and malice, you cannot expect to reap sunshine, goodness, and a clean, wholesome feeling.

Now, my brothers, let us join and help each other along life's rugged pathway. Let us be men of sterling worth, men of brave hearts and working hands, men of truth, of purity, of nobility. Let us be too honorable to stoop to aught that is mean or

base, too honorable for petty selfishness, or little-minded envy, too honorable to say an unkind word or do an unkind act. Let us be noble, large-hearted, upright gentlemen in the midst of this world of deceit and sin, Let us pride ourselves on a better manhood, thinking higher thoughts, doing kind deeds, speaking kind words, and living clean, wholesome lives, so that when the time comes for us to pass into "that mysterious realm where each shall take his chamber in the silent halls of death, we shall go not like the quarry slave at night, scourged to his dungeon, but sustained and soothed by an unflinching trust, approach the grave like one who wraps the drapery of his couch about him and lies down to pleasant dreams."—*The Journal of Indiana State Medical Society.*

THE MAKING OF A SURGEON.

George W. Guthrie, Wilkes-Barre, Pa. (*Journal A. M. A.*, January 28), asks if the question of special fitness should not be raised in the appointments of hospital staffs by the management of such institutions. At present the reasons that actuate them are various. Sometimes they are political and sometimes from the desire to have as large a force as possible and to make frequent changes. The question of special ability is rarely raised. All over the country there are men acting as surgeons for hospitals that never do any surgery elsewhere and never go away to learn from real surgeons how the work should be done. The notoriety obtained by successful surgeons captivates them and they neglect the consideration of the triumphs of internal medicine and still greater need of skillful physicians. He gives the reply of a number of the leading surgeons of the country as to the qualifications needed for surgeons, received in answers to letters addressed to them, and then from these he draws his conclusions as to the essentials. First, the man. Some men are not fitted by nature for the work, and nature's equipment for surgical work is to be considered. The surgeon must be a handy man and must be mentally fitted to weigh all the evidence and come to the correct conclusions in his diagnoses. He must be a normal man, mentally and physically, healthy, tireless and conscientious. The golden rule is nowhere more applicable than in surgery. As to his educational requirements the curricula of the best medical colleges leave little to be asked by the thorough student in the present state of our knowledge. After graduation the question arises, Is he then prepared for the work of a surgeon? A term of one or two years in a general hospital giving a wide experience in medical and surgical work under the direction of competent chiefs is requisite, and many eminent authorities urge that, in

addition to this hospital practice, several years in private practice is necessary, as the conditions are very different in private practice and in hospital practice. But before he should undertake important operations the opinions of those competent to judge, which are practically in agreement in the letters quoted, insist on a period of preparation as assistant to a good surgeon or surgeons. Were surgery nothing more than a trade the apprenticeship would have to extend over several years; but surgery is more than that. Finally several of the eminent men quoted make it a point that the surgeon should observe the work of his fellow surgeons. Those who have acted on this advice know what the benefits of such a course are.

STATE BOARD STATISTICS FOR 1910—Statistics based on the examinations by state licensing boards (*The Journal A. M. A.*, May 27), show that 7,004 candidates representing 127 medical colleges, were examined during 1910, with 18.4 per cent, of failures. There were 5,678 candidates examined who graduated during the last five years; of which number 14.9 per cent. failed. Of the 973 who graduated previous to 1906, 29.1 per cent. failed. Non-graduates were examined in four states, the total being 353, with 45.6 per cent. of failures. Of the 330 candidates licensed in Tennessee during the year, 142 or nearly half, were non-graduates. Of the 4,440 candidates who graduated in 1910, 3,875, or about 87.5 per cent., took examinations for license during the year, and of this number 2,670, or 68.9 per cent. were examined in the state wherein their colleges were located, showing that any state allowing low-grade colleges to exist is itself the chief recipient of the poorly-trained output. The colleges of Illinois furnished 826 candidates, with 13.6 per cent. of failures. Pennsylvania furnished 671, with 7.3 per cent. of failures. The failure percentage for New York colleges was 7.9; for Maryland colleges, 20.1; for Tennessee colleges, 29.8; while for the Mississippi college it was 52.2 per cent.

All states, except New Mexico, require an examination of every applicant unless the candidate already holds a license from some other state.

During 1910 altogether 7,552 physicians received licenses—5,712 by examination, 138 under exemption clauses and 1,502 through reciprocity. Of these the 4,749 who were, during the last four years licensed under the reciprocity provision, 1,071, or over 22.6 per cent, received their original licenses in Illinois, the two next highest figures being 462 in New York and 381 in Iowa.

Often, in talking with some noted doctor, I have remembered the saying of my old uncle, Prof. George B. Wood: "Show me a man who says drugs are of no value in the treatment of disease, and I will show you a man who does not know how to use them." Based on forty years' experience were these words; confirmed by forty years more of experience have they been in a second generation.—H. C. Wood, M. D.

The West Virginia Medical Journal

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All communications to this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the State. Notices of deaths, removals from the State, changes of location, etc., are requested.

Our readers are requested to send us marked copies of local newspapers containing matters of interest to members of the medical profession. Name of sender should be given.

CONTRIBUTIONS TYPEWRITTEN.

It will be satisfactory to all concerned if authors will have their contributions typewritten before submitting them for publication. The expense is small to the author—the satisfaction is great to the editor and printer.

ADVERTISEMENTS.

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Advertisements of proprietary medicines must be accompanied with formulae. Rate cards sent on application.

REMITTANCES

Should be made by check, draft, money or express order or registered letter to Dr. S. L. Jepson, Ch'n of Pub. Com., 81 Twelfth Street, Wheeling, W. Va.

Editorial

THE CHIEF EXECUTIVE AND THE PUBLIC WEAL.

One of the most extraordinary receptions that was ever tendered a public official in this or any other country was the banquet given by the Medical Club of Philadelphia on the 4th of May of this year to President Taft. Perhaps the Quaker City's *Public Ledger* was right in its editorial comment when it said that no greater demonstration has marked his career as President of the United States than this banquet tendered as a fitting tribute for humanitarian endeavors while Secretary of War, and since as Chief Executive. Certainly, no other President has been so honored by the medical profession; and no other President has so honored the physicians of the United States. But it must be said also, that no other President has been brought into contact with physicians and their altruistic work in so many ways, has had such a keen

appreciation through a practical knowledge of what medical science has done and is doing, for no other President has had the opportunities for personal observation of the results of scientific sanitation that President Taft had in the Philippines, in Cuba, in Porto Rico and in the Canal Zone, as Secretary of War.

That our Chief Executive possesses a wide knowledge of affairs medical, an unusual and no uncertain grasp on the science of medicine and its never-ceasing benefits to mankind, witness that wonderful message transmitted to the Senate and House of Representatives; a document which deserves publication and republication in every lay journal of our land, as well as the right to appear in flaming type in the accredited medical magazines of every land, not only as pointed out by the *Boston Journal*, for its summary of the history and results of the pure food and drug act, but for its clear and critical statement and analysis of fact and argument in the case. Here it is:

TO THE SENATE AND HOUSE OF REPRESENTATIVES:

"Your attention is respectfully called to the necessity of passing at this session an amendment to the food and drug act of June 30, 1906, which will supplement existing law and prevent the shipment in interstate and foreign commerce and the manufacture and sale within the Territories and the District of Columbia of worthless nostrums labelled with misstatements of fact as to their physiological action — misstatements false and misleading even in the knowledge of those who make them.

"On June 30, 1906, after an agitation of twenty years, the food and drugs act, passed by the Fifty-ninth Congress, received the approval of the President and became law. The purpose of the measure was two-fold—first, to prevent the adulteration of foods and drugs within the jurisdiction of the Federal Government, and, second, to prevent any false labelling of foods and drugs that will deceive the people into the belief that they are securing other than that for which they ask and which they have the right to get.

"The law was received with general satisfaction and has been vigorously enforced. More than 2,000 cases have been prepared for criminal prosecution against the shippers of adulterated or misbranded foods and drugs, and seizures have been made of more than 700 shipments of such articles. More than two-thirds of these cases have been begun since March 4, 1909. Of the criminal cases, more than 800 have terminated favorably to the Government, and of the shipments seized, more than 450 have been condemned and either re-labelled or destroyed. In every case in which the food seized was deleterious to

health, it was destroyed. A large number of cases are now pending.

"The Supreme Court has held in a recent decision (United States vs. O. A. Johnson, opinion May 29, 1911) that the food and drugs act does not cover the knowingly false labelling of nostrums as to curative effect or physiological action, and that inquiry under this salutary statute does not by its terms extend in any case to the inefficacy of medicines to work in cures claimed for them on the labels. It follows that, without fear of punishment under the law, unscrupulous persons, knowing the medicines to have no curative or remedial value for the diseases for which they indicate them, may ship in interstate commerce medicines composed of substances possessing any slight physiological action and labelled as cures for diseases which, in the present state of science, are recognized as incurable.

"An evil which menaces the general health of the people strikes at the life of the nation. In my opinion the sale of dangerously adulterated drugs, or the sale of drugs under knowingly false claims as to their effect in disease, constitutes such an evil and warrants me in calling the matter to the attention of the Congress.

"Fraudulent misrepresentations of the curative value of nostrums not only operate to defraud purchasers, but are a distinct menace to the public health. There are none so credulous as sufferers from disease. The need is urgent for legislation which will prevent the raising of false hopes for speedy cures of serious ailments by misstatements of fact as to worthless mixtures on which the sick will rely while their diseases progress unchecked.

"At the time the food and drug act was passed, there were current in commerce literally thousands of dangerous frauds labelled as cures for every case of epilepsy, consumption and all lung diseases, cures for kidney, liver and malarial troubles, cures for diabetes, cures for tumor and cancer, cures for all forms of heart disease; in fact, cures for all the ills known at the present day.

"The labels of many of these so-called cures indicated their use for diseases of children. They were not only utterly useless in the treatment of the diseases, but in many cases were positively injurious. If a title of these statements had been true, no one with access to the remedies which bore them need have died from any cause other than accident or old age.

"Unfortunately the statements were not true. The shameful fact is that those who deal in such preparations know they are deceiving credulous and ignorant unfortunates who suffer from some of the greatest ills to which the flesh of this day is subject. No physician of standing in his profession, no matter to what school of medicine he may belong, entertains the slightest idea that any of these preparations will work the wonders promised on the labels.

"Prior to the recent decision of the Supreme Court the officers charged with the enforcement of the law regarded false and misleading statements concerning the curative value of nostrums as misbranding, and there was a general acquiescence in this view by the proprietors of the

nostrums. Many pretended cures, in consequence, were withdrawn from the market, and the proprietors of many other alleged cures eliminated false and extravagant claims from their labels, either voluntarily or under the stimulus of prosecution. Nearly one hundred criminal prosecutions on this charge were concluded in the Federal Courts by pleas of guilty and the imposition of fines. More than 150 cases of the same nature involving some of the rankest frauds by which the American people were ever deceived are pending now, and must be dismissed.

"I fear, if no remedial legislation be granted at this session, that the good which has already been accomplished in regard to these nostrums will be undone, and the people of the country will be deprived of a powerful safeguard against dangerous fraud. Of course, as pointed out by the Supreme Court, any attempt to legislate against mere expressions of opinion would be abortive; nevertheless, if knowingly false misstatements of fact as to the effect of the preparations be provided against, the greater part of the evil will be subject to control.

"The statute can be easily amended to include the evil I have described. I recommend that this be done at once as a matter of emergency."

At the recent meeting of the American Medical Association at Los Angeles, this message aroused the greatest interest and was the subject of the widest discussion, from every point of observation.

In the House of Delegates the writer saw not less than three resolutions which had been prepared by various members, each eager to have the expression of gratitude to the Chief Executive emanate from his own state, and West Virginia's delegate must confess a weakness along this line. The Association, however, on June 28th, unanimously:

"Resolved, That in the name of the medical profession and people of the United States, the House of Delegates of the American Medical Association extends its cordial thanks to President Taft for the magnificent fight he is making for pure food and drugs and for the creation of a bureau or department of health to insure the same protection to the health and lives of the people that the Agricultural Department is so properly and ably giving to domestic animals and crops."

No time was lost in the transmission by wire of this message to Washington. The medical profession should feel and know that the present occupant of the White House is in thorough sympathy with the plans for increased federal activity for better public health.

It is certainly pleasant to reflect that Taft's message has already begun to bear fruit, for Representative Richardson, of Alabama has prepared and submitted the following amendment to the pure food and drug law:

"That the term 'misbranded' as used herein shall apply to all drugs or articles of food or articles which enter into the composition of food, the package or label of which shall bear any statement, design or device regarding such article, or the ingredients or substances contained therein which shall be false or misleading in any particular, or if the compounder or vendor thereof is not authorized under the law of the state or community where the article is compounded or sold and also where it is offered for sale to practise medicine and pharmacy; or if it bear a label or be mentioned in advertisements, posters, circulars, or otherwise containing description of symptoms of disease to be read or intended to be read by the laity, thus producing or intending to produce a false suspicion of the existence of these diseases in their own bodies; or if it be a drug offered for sale to the laity, directly, or indirectly, which contains any habit-forming or deleterious ingredients; or if any false or misleading statements are made concerning its physiological, therapeutic or nutritive quality, either on the labels or in the advertisements, posters or circulars of any kind connected with it, which deceive or tend to deceive, and which threaten health and life by creating a false expectation of cure, or any false or worthless statement, which shall deceive or tend to deceive the purchaser, in regard to the curative properties of the article."

Let us entertain the hope that more public men, the law makers of the land, may be brought to know and appreciate the facts, thoroughly familiar to physicians, and which have been so ably set forth, with emphasis by that greatest of medical scholars, Prof. William H. Welch, who said:

"Public hygiene and preventive medicine have acquired an economic and social significance among the organized forces of civilization but little appreciated by the general public, or by legislators and administrative officers of government. They occupy a field quite apart from systems and schools of medical practice.

"The health of the people is the greatest asset of the nation and should be the first consideration of governments."

F. LEM. H.

"THE PREVENTION OF SEXUAL DISEASES."

"*The Critic and Guide*," Dr. W. J. Robinson, editor, honors us by giving wide circulation to our review of Vecki's book with the above title. The editor says he "likes such reviews;" but since he takes up two

pages in replying to us, we may be permitted to question the depth of his affection. Because of its freedom from technicality and plainness of speech, we thought Vecki's book intended for the laity. When Dr. R. says that "a good part of the medical profession is just as much in need of instruction in sexual matters as is the layman," he underrates the intelligence at least of *our* medical acquaintances.

We must admit that, in common with Sir James Simpson, M.D., Sir Grainger Stewart, M.D., Dr. D. Hays Agnew, Dr. Samuel Alexander (dec'd) and Drs. W. H. Thompson of N. Y., Howard Kelly of Baltimore, Sir Alexander Simpson, M. D. and a host of other physicians whose fame even Dr. R. will scarcely question, we hold to the old Bible teaching that unchastity is wrong, and is very apt to bring its own punishment, and deservedly so. If this be tenth century teaching, as Dr. R. claims, it was also first century teaching and of the Great Physician himself, and it will be the twenty-fifth century teaching.

If we were in error in saying that Dr. R. (quoting his own words) "would not put an end to prostitution if he could," we apologize, but fail to see how he mends matters by adding the words, "under present social conditions." How would he change our social conditions so as to make him willing to say good bye to prostitution?

Dr. R. thinks we are "silly" in suggesting that Vecki choose a man to write the introduction to a second edition "whose views accord with American rather than Parisian ideas," and then claims that "all the great ideas, the great thought-movements" originate in Paris or other foreign spot. Exaggerated silliness this, surely! What are the Parisian ideas on sexual matters, is the point. The whole world knows, and America does not care to adopt them. It seems that Dr. R. does.

Dr. Vecki and Dr. Robinson teach that sexual continence is injurious. Dr. R. claims that his position as a specialist in sexual diseases gives him superior information on this point. He will not accept the opinion of the Brussels International Congress, the Am. Assn. of Sanitary and Moral Prophylaxis, the Am. Med. Assn., many State Societies, filled as all are with ven-

ereal specialists. Nor will he accept the opinion of Sir Wm. Gowers, a neurologist of world-fame, who would certainly be consulted for nervous troubles (which, if any disease could, might come from continence). Perhaps the opinion of the renowned Parisian venereal specialist, Fournier, will better satisfy the doctor. Here it is: "Referring to the so-called dangers of continence, *I do not know them, and have never observed them.*" And the views of another specialist, Prince A. Morrow, are entitled to his consideration: "In my own experience I have never been consulted for the supposed harmful effects of continence in any case in which the symptoms could not be traced to some other cause."

Dr. Robinson is a prolific and able writer and generally stands for the best in the profession, but we regard him as radically wrong in some of his views on sexual matters, and his teachings are not such as tend to purify the social atmosphere or lead young men to right living. Like Elbert Hubbard, he is tickled with the sharpness of his own pen, and his writings sometimes cause one to recall the retort of the English statesman, Gladstone, in reply to his noted rival, Lord Beaconsfield: "My distinguished friend is inebriated with the exuberance of his own verbosity."

S. L. J.

HO! FOR WHITE SULPHUR SPRINGS!

We have received from the secretary some account of his efforts in preparing a program for the coming meeting of the State Association. For some reason the members have been backward in promising papers early in the season. The result has been to tax the secretary with extra efforts in search for papers in sufficient numbers to assure a full program. But his efforts have been crowned with unusual success, and the result is a full program of papers, many from men who have not been before heard from, and not a few from the men who have always shown an interest in our annual meetings. If the members turn out in force, prepared to discuss the subjects presented, the meeting is bound to be one of the best in the Association's history. The White Sulphur is an ideal place in which to

hold a meeting. There are no outside attractions to draw the members away from the meeting-place, absolute quiet reigns, the cool mountain air is conducive to clear thinking, and all who have not yet visited the famous Springs should embrace this opportunity of seeing this delightful spot under such pleasant circumstances and in such delightful company.

The secretary sends this little note, which we print in this connection. The program will be sent to the members in a few days: *To the Editor.*

A few comments on the program may not be out of place.

I. It is easy to criticize, but difficult to arrange, a program. The severest criticism of last year was from a gentleman from whom we failed to get any aid whatever.

II. It has been impossible to get papers promised sufficiently early. The consequence was, that we kept on asking for them, and recently they came in such numbers that the program has grown to a size not at first expected. But the JOURNAL can make room for all, and as usual some who have promised will fail to perform.

III. An earnest effort has been made to get new names on the program. Some appear, but many familiar names will be seen. These men have been solicited to write after waiting as long as possible for others. But for the help so kindly given by the old stand-bys our program would be rather short.

IV. We sometimes hear criticism concerning invitations extended to men from other states. A program is like a meal—something to please all. The presence of these men adds much to the interest of a meeting, and a number of our members have asked for them.

Our hearty thanks are hereby extended to all who have so kindly helped with the program.

A. P. BUTT, *Secretary.*

Davis, W. Va., Aug. 20, 1911.

State News

Dr. John W. Hyer, of Big Otter, Clay Co., died on the 11th of August.

* * *

Dr. J. E. Offner of Fairmont a few weeks since met with an accident with his automobile, which turned turtle and bruised the doctor considerably.

We regret to announce the death of Mr. Jas. D. Hoff of West Milford, the husband of Dr. Susan D. Hoff, a practitioner of that place.

* * *

Dr. Robert J. Reed and family of Wheeling, after touring the N. W. lakes, returned home *via* Georgian Bay, Toronto, Montreal, Lakes Champlaine and George, the Hudson and New York.

* * *

As will be seen from our advertising columns Dr. Butt has purchased Allegheny Heights Hospital at Davis, of which is now the sole owner. He has employed two assistants, and is prepared to treat any cases that may be sent to the institution. We wish him success. He deserves it.

* * *

Dr. Irwin Hardy, until recently associated with Dr. Butt in the hospital at Davis, has removed to Morgantown. He and Dr. McBee, late of Elkins, where he was the efficient secretary of the Tri-County Society, have purchased the City Hospital in Morgantown, which they expect to remodel and enlarge as occasion demands. Both are men of character and standing and as the hospital is free to all physicians as a place for the treatment of their cases, the institution should meet with success. We bespeak for the new management the patronage of the near-by profession.

* * *

We are glad to learn that Doddridge Co. Society has been reorganized. It has lived "at a poor dying rate" for some time. We hope for it a more active existence. A report of the organization is in another column. Our readers, like to hear such news. Preston also, we learn, is awaking from its long sleep. Preston has too many good men to lie still very long.

* * *

Dr. W. S. Fulton and family of Wheeling are spending a few weeks at Atlantic City.

* * *

Dr. J. G. Walden, lately removed to our thriving suburb of Warwood, has been elected to the town's first Council, of which our former fellow citizen, Dr. J. W. Abercrombie, is the presiding officer as mayor.

We are pained to announce the death, on August 27th, of Mrs. Ethel, wife of Dr. Andrew Wilson, of Wheeling. Mrs. Wilson was born and educated in Canada. She chose nursing as her profession and received her training in one of the leading hospitals of New York City. After serving for some time in a Brooklyn hospital, she was called to Wheeling to take charge of the City Hospital as superintendent, in which position she served for several years with great tact and efficiency. In 1906 she was married to Dr. Wilson, one of the visiting staff of physicians. A son was lost in early infancy, and a daughter of two and a half years survives her mother. Mrs. Wilson was a modest and gentle spirit, who compelled the esteem of all who knew her, and her death excites the warmest sympathy of a host of friends for the stricken husband and daughter.

STATE BOARD OF HEALTH.

The last meeting of the Board convened at

Charleston July 10th. Seventy applicants for licensure appeared. Of these 59 were successful and 11 failed to meet the requirements of the examiners. Of the failures one was from each of these schools: Lincoln Medical College, Eclectic Medical College, Louisville and Hospital Medical College, University Medical College, Batimore Medical College, Baltimore University Medical College, Baltimore College of P. & S., Maryland Medical College, and Detroit Homeo. Medical College., and three were from the University of Louisville. Those who passed are as follows: E. B. Gerlach, O. Miami Med. Col, Proctorville, O.; W. H. Triplett, Baltimore Med. Col., Richmond, W. Va.; J. M. Quinn, Baltimore Med. Col., Hinton, W. Va.; G. B. Marshall, Baltimore Med. Col., Bradford, Pa.; P. C. Showalter, Baltimore Med. Col., Clarksburg, W. Va.; F. H. Ikirt, Baltimore Med. Co., E. Liverpool, O.; E. S. Hamilton, Col. P. & S. (Balt.), Fayetteville, W. Va.; W. T. Gocke, Col. P. & S. (Balt.), Piedmont, W. Va.; J. B. Makin, Col. P. & S. (Balt.), Pt. Pleasant, N. J.; G. A. Seymour, Col. P. & S. (Balt.), Elizabeth, N. J.; Paul Rider, Col. P. & S. (Balt.), Tunnelton, W. Va.; C. V. Gautier, Col. P. & S. (Balt.), Huntington, W. Va.; A. C. Hall, Col. P. & S. (Balt.), Buckhannon, W. Va.; A. L. Lawson, Col. P. & S. (Balt.), Weston, W. Va.; K. H. Triplett, Col. P. & S. (Balt.), Buckhannon, W. Va.; F. H. Brown, Col. P. & S. (Balt.), Craigsville, W. Va.; J. W. Mankin, Col. P. & S. (Balt.), Thurmond, W. Va.; W. C. Corns, Cleveland, Pulte Ironton, O. T. H. Becker, Jefferson Med. Col. Bluefield, W. Va.; J. W. Gilmore, Jefferson Med. Col., St. Cloud, W. Va.; C. P. Burke, Jefferson Med. Col., Waynesburg, Pa.; F. O. Marple, 1, Eclectic Med. Col., Rowlesburg, W. Va.; H. S. Monroe, 1, Eclectic Med. Col., Wheeling, W. Va.; J. W. Ruckman, 1, Eclectic Med. Col., Captina, W. Va.; A. L. Coffield, 1, Eclectic Med. Col., Proctor, W. Va.; D. W. Richmond, 1, Eclectic Med. Col., Silver Hill, W. Va.; S. J. Daniel, Univ. of Louisville, Marshes, W. Va.; H. C. Blair, Univ. of Louisville, Harrisville, W. Va.; W. M. Dickerson, Univ. of Louisville, Radnor, O.; M. E. Caldwell, Univ. of Louisville, Wills, W. Va. J. H. Ferguson, Univ. of Louisville, Cottageville, W. Va.; J. G. Rogers, Univ. of Louisville, Smithville, W. Va.; R. O. Milbee, Univ. of Louisville, Charleston, W. Va.; J. E. Hatfield, Univ. of Louisville, Burch, W. Va.; Ross Dodson, Univ. of Louisville, Spencer, W. Va.; F. S. Richmond, Univ. of Louisville, New Richmond, W. Va.; C. W. Umbarger, Univ. of Louisville, Summerville, W. Va.; A. F. Haynes, Univ. of Louisville, Huntington, W. Va.; S. P. Walker, Md. Med. Col., Oceana, W. Va.; W. Withers, Md. Med. Col., Glenwood, W. Va.; F. L. McNeer, Md. Med. Col., Green Sul. Springs, W. Va.; P. L. Gray, Md. Med. Col., Elizabeth, W. Va.; W. B. Wilson, Md. Med. Col., Baltimore, Md.; W. B. Young, Md. Med. Col., Falling Springs, W. Va.; Claude Martin, Md. Med. Col., Clarksburg, W. Va.; C. J. Nawrath, Md. Med. Col., Union, N. J.; Otto Fisher, Univ. of Md., Strausburg, Va.; O. L. Hamilton, Col. of Med., Bluefield, W. Va.; M. McCahill, Univ. of Pitts., Pittsburg, Pa.; A. T. Henrici, Univ. of Pitts., Pittsburg, Pa.; W. P. Sammons, Univ. of Pitts-

burg, Cameron, W. Va.; N. S. Reed, Univ. of Pittsburg, Woodville, Pa.; R. H. Eanes, Med. Col. of Va., Kingston, W. Va.; G. C. Corder, Med. Col. of Va., Flemington, W. Va.; E. W. Smoot, Ky. School of Med., Madison, W. Va.; L. C. McCoy, 2, Am. School of Ost., Hagerstown, Md.; D. C. Nye, 2, Am. School of Ost., Chauncey, O.; A. D. Dunn, Chattanooga Med. Col., Cashmere, W. Va.; B. B. Wheeler, Louisville Med. Col., McKendree, W. Va.

(1) Eclectic. (2) Osteopath. (3) Homeopath.

Below are part of the questions embraced in the examination:

Anatomy and Embryology. 1. Name the bony prominences of the elbow and ligaments of the elbow joint. 2. Give articulations of the first cervical vertebra. 3. Where is the spleen and what are its uses? 4. Describe the two principal arteries of the forearm and tell how they form the palmar arches. 5. Of what does a vertebra consist? Name the processes and tell what their object is. 6. Describe the stomach. 7. Give brief description of facial nerve. 8. Name the muscle of the shoulder and arm. 9. Name the sutures and fontanelles in fetal head. 10. Give difference in fetal and adult heart.

A. R. WARDEN.

Materia Medica and Therapeutics. 1. What is materia medica? What is pharmacy? 2. What is opium, give its derivatives and dose of each? 3. Give composition of Dover's powder; Fowler's solution; Lugol's solution. 4. Give five principal emetics, dose of each and method of administering. 5. Name five intestinal antiseptics. 6. Give physiological action of urotropin, its dose and method of administering. 7. What is a specific in medicine? Give examples and make therapeutic application. 8. Define anesthesia, give examples of general and local anesthetics. 9. Define pyrexia and hyperpyrexia. How would you meet these conditions? 10. What are the therapeutic indications in intestinal hemorrhage in typhoid fever?

L. S. BROCK.

Chemistry and Medical Jurisprudence. 1. Define chemistry. 2. How many elements are there? How represented? 3. Give symbols of gold, silver, iron, lead, arsenic, potassium, mercury, calcium and sodium. 4. Name elementary substances used in their pure state in medicine. 5. Define qualitative and quantitative analysis, with example of each. 6. What are mineral waters? Name three. 7. Define and illustrate an acid, base and salt. 8. What is a poison? Illustrate. 9. What are evidences of death by drowning? 10. Evidences of rape?

JOHN L. DICKEY.

Physiology and Histology. 1. Mention briefly chemical and physical changes in the air and the blood caused by respiration. 2. Discuss sleep theories, naming three hypotheses. 3. Discuss the origin, function and fate of the red blood corpuscles. 4. State in percentage ratio of weight of blood to that of body. What percentage of loss may be borne? 5. Define systolic, diastolic and mean arterial pressure. How determined? 6. Define enzymes and discuss briefly their ac-

tion. 7. Define protein, carbo-hydrate and fat. Estimate nutritive value. 8. What is bile? Discuss physiological importance. 9. Describe histology of a transverse section of the spinal cord at the cervical enlargement. 10. Discuss the histological structures of the blood.

C. W. HALTERMAN.

Practice of Medicine and Pediatrics. 1. To what class of diseases does cholera belong? Give treatment and name important complications. 2. Give the prognosis and treatment in a case of Aortic Regurgitation with general Arteriosclerosis. 3. Give treatment of Acute Endocarditis. 4. Give causes, symptoms, physical diagnosis and treatment of acute Croupous Pneumonia. 2. Describe causes, tests, symptoms and treatment of typhoid fever. 6. Diagnosis and treatment of Pleuritic effusion. 7. Diagnose, treat and give the cause of Cholera Infantum. 8. Write a prescription for modification of cow's milk for a child three months old. 9. What are the causes of convulsions in infants and children? 10. Give causes and treatment of summer diarrhoea.

H. M. RYMER.

Surgery. 1. Give the methods of controlling hemorrhage. 2. Mention the uses of iodine in modern surgery. 3. Differentiate fracture of the surgical neck of humerus from fracture of anatomical neck of humerus. 4. Diagnose and treat Carbuncle. 5. Give treatment of Shock. 6. Give symptoms and treatment of Cholelithiasis. 7. Diagnose and treat Colles fracture. 8. Give symptoms and treatment of Erysipelas. 9. Give symptoms and treatment of prostatic abscess. 10. Give symptoms and treatment of Strangulated inguinal hernia. M. V. GOBBEY

Obstetrics and Gynecology. 1. What is the Placenta? From what it is formed? What is its structure and what are its functions? 2. Name the bones, straits and divisions of the obstetric pelvis. 3. What are the diameters of the pelvic outlet? How is it bounded? 4. Describe the fontanels and their diagnostic uses. 5. What are the signs of pregnancy probable, doubtful and certain. 6. Interstitial nephritis in a pregnant woman, how would you treat? 7. Name the diseases of the endometrium and state their effects in pregnancy. 8. Define miscarriage, abortion and premature labor. 9. Describe Crede's method for the delivery of the placenta. 10. What care does the mother require after labor. Define the nurse's duties.

A. N. FRAME.

Bacteriology and Hygiene. 1. Classify bacteria and give example of each. 2. Name the bacteria frequently found in soil, water, milk and air. 3. What are toxins and antitoxins? Give example of latter. 4. What is meant by phagocytosis? 5. Describe Sterilization and Antiseptics. 6. How would you prepare specimen (Diphtheria) to be sent to a laboratory for examination? 7. Describe pure water; how would you render it wholesome when contaminated? 8. Describe the location of well or spring in relation to privy vault or stable. 9. Describe the Hygiene of a Tubercular patient. 10. Give causes of air con-

tamination of school room and proper ventilation of same.

J. E. ROBINS.

Special Practice. Give the symptoms of infantile spastic paralysis. 2. Differentiate between epileptic and hysteroid seizures. 3. Name the causes and dangers of otorrhea. 4. In what acute disease is the ear most commonly involved, and, as a rule, what part of the general structure of the ear is first attacked? 5. Name the conjunctival diseases due to micro-organisms. 6. Name four causes of iritis, and note the subjective and objective symptoms. 7. In nephritis where does the effusion of serum first appear? In cirrhosis of the liver, where? In cardiac diseases, where? 8. State the diagnostic value of a blood examination in chlorosis; appendicitis; trichinosis. 9. Give cause, symptoms, pathology and treatment for laryngismus stridulus. 10. Give symptoms and treatment for nasal polypi. R. E. VICKERS.

Society Proceedings

THE CABELL COUNTY SOCIETY

HUNTINGTON, W. VA., AUGUST 14TH, 1911.

A meeting of this Society was held in the Hotel Frederick on the evening of August 10th. There was an attendance of 23 of our members.

The guest of the evening was Dr. J. W. Kincaide of Catlettsburg Ky. Dr Kincaide honored us with a very interesting and instructive paper on "The Duty of the Federal, State, and Municipal Governments in the Prevention of Tuberculosis."

The following physicians were elected to membership; Drs. J. C. Geiger, R. H. Dunn and E. B. Gerlach, all of Huntington.

After the business was ended luncheon was served in the Cafe.

Fraternally yours,
JAMES R. BLOSS, Sec'y.

MERCER COUNTY SOCIETY

BLUEFIELD, W. VA., AUGUST 2D, 1911.

The Mercer Medical Society held a social meeting at the beautiful home of Dr. Isiah Bee at Princeton, W. Va., July 21st, at which there were about forty physicians present, also a number of ladies. Dr. Bee being our first president and the oldest physician in the county, it was a rare treat to be there. We had everything that was good to eat and some good talks from Drs. J. B. Kirk, Zed Bee, Dr. Carr of New Hope and Samuel Holroyd. Dr Carr being our next oldest physician in the county, says this was his first time to be able to attend and he was so pleased that he wanted to become a member. We welcome him.

We are indebted to the Princeton and Athens doctors for a most pleasant evening, we want to round up all the physicians in the county before another year. With regards and best wishes for the Journal.

Fraternally,
B. F. CORNETT, Sec'y.

TYLER COUNTY SOCIETY.

SISTERSVILLE, W. VA., AUGUST 19TH, 1911.

Our County Medical Association has, for over a year, assumed an attitude of extreme apathy.

However our esteemed colleague and councillor, Dr. A. S. Grimm, of St. Marys, came up and insisted that we get together again. A hurried call was sent out, and on Aug. 19th, 2:30 P. M., at the office of Dr. G. B. West, a meeting was held. Present, Drs. G. B. West, president, G. W. Shriver, vice-president, V. H. Dye, secretary, Geo. A. Jennings, all of Sistersville, M. M. Reppard of Middlebourne, and John Bennett of Friendly.

Meeting called to order by president. Motion made and carried to elect new officers for the remaining part of the year 1911.

Whereupon the following were duly elected: Dr. Geo. A. Jennings, president; Dr. M. M. Reppard, vice-president, and Dr. Geo. W. Shriver, secretary-treasurer. The president then appointed Drs. V. H. Dye and John Bennett as delegates to the State convention at White Sulphur Springs, September 20th.

Secretary was instructed to make a strong appeal to each physician in the county to affiliate with our County Society, and to be present with their dues at the next meeting, September 15, 1911, and each to do his utmost to make our Society a success.

Those present, and in arrears with dues, who paid: Dr. Geo. A. Jennings, Dr. John Bennett, Dr. Geo. W. Shriver. Upon motion meeting adjourned to meet September 16, 1911.

GEO. W. SHRIVER, Sec'y.

DODDRIDGE COUNTY SOCIETY.

BLANDVILLE, W. VA., Aug. 28, 1911.

Dr. Jepson, Wheeling, W. Va.

DEAR DOCTOR:—There are two forces in the medical profession constantly struggling for supremacy. One of those forces is ethical the other unethical. The one conducive to the welfare of the public, the other the reverse; the one in accord with the great plan of God, the other not. Upon the one side or the other of these two forces all medical men array themselves. I know of no stronger support to the former of these forces than the Medical Society. Thus realizing this fact the Doddridge County Medical, which was organized two years ago, but which had become inactive due to the small number of members and distance of those members apart, was reorganized in August, the following officers being elected:

President, Dr. A. Poole.

Vice President, Dr. G. D. Lind.

Secretary and Treasurer, Dr. C. L. Pearcy.

Delegate to State Medical Assn., Dr. A. M. McGovern.

Alternate, Dr. W. L. McLain, who has been a practitioner for a large number of years, was elected a member of the society, as was also Dr. Lind.

The next regular meeting will be held at West Union in September, at which time papers will be read by Dr. Lind on Feeding in Typhoid Fever and by Dr. A. Poole on Dysentery.

Very truly yours,

DR. C. L. PEARCY, Sec'y.

Reviews

DIAGNOSTIC AND THERAPEUTIC TECHNIC. By ALBERT S. MORROW, M.D., *Adjunct Professor of Surgery, New York Polyclinic.* Octavo of 850 pages, with 815 original line drawings. Philadelphia and London: W. B. Saunders Company, 1911. Cloth, \$5.00 net.

The younger Morrow did well to affectionately dedicate so good a work to his worthy father, Prince A. Morrow, M.D. The homage of his profound respect and filial love worthily bestowed.

Dedicated to a man honored and revered alike by the layman and profession in America, because of the fearless and scientific manner in which he has handled that very difficult subject, the great black plague.

In the volume before us Dr. Albert S. Morrow has successfully brought and arranged in a manner easily accessible for reference a large number of procedures employed in diagnosis and treatment. While the book has been given the comprehensive title "*Diagnostic and Therapeutic technic*," the broad scope of the work can best be appreciated by consulting the table of contents of its twenty chapters. The administration of general anaesthetics; local anaesthesia; sphygmomanometry; transfusion of blood; infusion of physiological salt solution; hypodermic and intramuscular injection of drugs; Bier's treatment collection and presentation of pathological material; explanatory punctures; aspirations; the nose, ear, larynx, esophagus, stomach, rectum and colon, urethra and prostate, bladder, kidneys and ureters, and the generative organs.

While some of the methods herein detailed belong to the domain of the specialist, the majority are the everyday practical procedures which the hospital interne or the man in general practice may be called upon at any time to perform.

As Dr. Morrow has observed in his prefatory chapter, text books of the present day, treating exhaustively as they do of the larger problems of medicine and surgery, must of necessity, if they are to be kept within reasonable limits, omit or else describe in a most condensed and desultory manner these important minor procedures.

The plan of the work comprises first, a description of certain general diagnostic and therapeutic methods, and second, a description of those measures employed in the diagnosis and treatment of the disease affecting special organs of the body. Covering the entire field of medicine as it does along the lines indicated by the title, this work of Dr. Morrow's should, in the nature of a *vade mecum*, be most welcome to both the student of medicine and those on the firing line of our craft.

FRANK LEMOYNE HUPP.

HIERONYMUS FRACASTOR'S SYPHILIS. FROM THE ORIGINAL LATIN. A Translation in prose of Fracastor's immortal poem, printed on hand-made imported paper; Library binding. Crown octavo. The Philmar Company, Medical Publishers, Fidelity Building, St. Louis, Mo. Price \$2.00.

The author of the poem of which this is a translation was an eminent physician and philosopher of Italy, born in 1483. The poem was pub-

lished in 1546. As syphilis was very prevalent in the early part of the 16th century, the author had abundant opportunities of studying it. The translation is in prose but in very poetical language, making delightful reading. Many mythological allusions are introduced. The author was the first to name the disease. Syphilus, a shepherd of King Alcithous, was first attacked by it, on account of having profaned the sacred altars by rendering divine honors to the king instead of to the god Sirius. The name of the disease has since changed only in the spelling. The author had not discovered the etiology of the disease, and says "patients were attacked without having exposed themselves to the least chance of contagion;" and beyond the Atlantic "it occurs spontaneously." * * * The mysterious agent from which it originates must be contained in the air." He pictures the symptoms accurately: "Horrible ulcers covering the limbs, denuding the bones, eating the lips and penetrating the throat; * * * crusts on the surface, swollen bones become a prey to caries; his nose is eaten by a malignant ulcer," etc. Is it any wonder that the author exclaims: "Unfortunates! Night which pours sweet repose upon all nature, has no charms for them, for sleep has fled from their eyes. For them Aurora comes without attractions, for day, like night, recalls their pains. * * * Flower of youth, the brilliance of health, the vigor of the soul, all these wither under the pressure of an unpitiful disease."

Among the many remedies suggested, mercury, strange to say, stands at the head. Fumigations with cinabar (sulphid of mercury) are spoken of, and the author adds: "As a fact, the action of mercury on the scourge is marvelous." Again: "At the beginning mercury was associated with lard." The cure with mercury, although "disgusting," is "at this price." "Very soon you will feel the ferments dissolve themselves in your mouth in a disgusting flow of saliva, and the virus will evacuate itself at your feet in rivers of saliva."

The translator should omit the "but" in these: "How can it be doubted *but* that the air, etc." (page 16); and "No one doubts *but* that it will return" (page 20).

The book is beautifully written, beautifully printed on handsome paper, well bound, and owing to its history full of interest. S. L. I.

HANDBOOK OF SUGGESTIVE THERAPEUTICS AND APPLIED HYPNOTISM. A Manual of Practical Psychotherapy, designed especially for the General Practitioner of Medicine and Surgery. By HENRY S. MUNRO, M.D., Omaha, Nebraska. Third Edition, revised and enlarged. St. Louis, C. V. Mosby Co. Price \$4.00.

This is an octavo of 400 pages written by a man who has had much practical experience in the application of suggestive therapeutics, and any one who reads this book must confess that the author has had success with this form of treatment. In a former review we took occasion to say that, while the volume contained much of value and practical interest, it lacked scientific accuracy. This edition is an improvement on former editions. Several chapters have been added,

the views of Freud, which have caused so much excitement, are given consideration, and the author evidently keeps himself in touch with the latest ideas bearing on the themes discussed. Although too much attention is still given in the book to hypnotism, which is not accorded a prominent place in treatment by psychotheraputists of greatest standing, yet this book can be commended as highly interesting and valuable to those desiring to make use of suggestion in their daily practice. Just now the subject seems somewhat over done.

S. L. J.

Medical Outlook

SCARLET RED OINTMENT—DR. J. S. DAVIS of Johns-Hopkins Hospital in *ANNALS OF SURGERY*, advises the following method of using this new preparation.

"Cleanse the wound thoroughly with boric or salt solution and dry. Peroxide of hydrogen may be used before the boric solution if the granulations are unhealthy. The free use of nitrate of silver stick is advised to keep down exuberant granulations. Tincture of iodine, U. S. P. strength may follow the silver nitrate or be used on alternating days, and is a powerful and rapid method of cleansing granulations.

The strength of the scarlet red ointment ordinarily used is 8 per cent., and it should be alternated every 24 to 48 hours with some bland ointment. By applying a weaker ointment, say 4 per cent., it can be used over longer periods without danger of the severe irritation which occasionally occurs.

The most satisfactory method of applying the ointment is as follows: Anoint the skin surrounding the defect with some bland ointment up to about one centimeter of the wound edge, as this prevents possible irritation. Then spread the scarlet red ointment in a thin layer on perforated old linen and apply to the wound, either along the edges or over the whole surface. A light dressing of sterile gauze secured by a bandage completes the procedure.

I have applied the scarlet red ointment to a number of wounds and then exposed them to the air and sunlight. The healing is very rapid and the drying out of the surface is most noticeable.

It is safe to use a 4 per cent. scarlet red ointment on partial skin grafts of all kinds 48 hours after grafting, and there is rapid stimulation of the wound edges and also of the grafts themselves.

In second degree burns the ointment can be used immediately after the blisters have been cut away. In third degree burns it is best to wait until the granulations have started.

For a time after healing, the newly formed skin has a tendency to be dry and somewhat scaly, but this is easily overcome by the application of olive oil or vaseline."

TREATMENT OF RHUS POISONING—DR. GARDNER in *Medical Record*, praises the lead and opium treatment, but in a modified form. He

uses a solution of boric acid 10 grs. in 1 oz. of distilled water as a base, lead acetate grs. 5 and liquor morphinae sulphat. His directions are as follows: After the initial cleansing of the affected parts with a 1:40 solution of carbolic acid and any good laundry soap, water is not again to be used during the treatment. If for any reason the affected parts have to be cleansed, carbolized oil is to be used, applied on absorbent cotton. Apply the improved lead and morphine lotion on antiseptic gauze, and on parts not convenient to bandage apply the lotion and dust with eamphorated stearate of zinc. This dusting powder is not only soothing, but helps to control the oozing, thereby preventing the spread of the rash. At bedtime advise the patient to wear loose cotton gloves, if for any reason the hands cannot be bandaged. This last measure will often prevent the spreading of the rash to the eyes and genital organs.

Internally the author uses small doses of aconite and gelsemium for the fever and nervous disturbance, and calomel, ipecac and bicarbonate of sodium, following the latter with a glass of water before breakfast. The author sometimes adds to the same quantity of Epsom salts an equal amount of cream of tartar. Of course if these quantities cause the bowels to move too freely, reduce the amount so that the patient will have two or three good movements a day.

The author states that in a practice of over twenty-five years in a part of the United States where poison ivy rash is very common he has met with few cases that the treatment as outlined has not speedily and almost painlessly cured.—*Therapeutic Gazette*.

INFECTIOUS DIARRHEA IN INFANTS. TREATMENT OF—The author reports a series of 32 cases of infectious diarrhea treated with colon irrigations of 3 per cent. silver nitrate, with favorable results. Before using this solution it is advisable, he says, to clean the rectum and as much of the colon as possible by irrigating with sterile water, continuing until the water comes back clear. A pint of the silver solution is then allowed to run in and the tube withdrawn. Some of the solution is expelled, but no attempt is made to recover the entire amount used. In adults there is considerable pain after such an injection, but none of the younger patients showed any marked evidence of discomfort. Should discomfort occur, an opium suppository will control it.

For the first few hours after a treatment the movements are usually worse than before, but within twenty-four hours in the favorable cases improvement begins, the blood in the infant's stools being greatly decreased or absent. In the next twenty-four hours the pus disappears. The movements are less frequent, and, provided the patient can be given food, the stools soon begin to assume their normal appearance. Some patients require a second, or even a third treatment, on succeeding or alternate days, to bring about a completely favorable result. If no benefit is derived from three injections, further irrigations are not likely to be of any help.—M. SMITH, *Boston Medical and Surgical Jour.*

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PRESIDENT'S ADDRESS.

C. A. Wingerter, A.M., M.D., LL.D.,
Wheeling, W. Va.

*(Annual Meeting State Medical Association,
White Sulphur Springs, September, 1911.)*

My first word to you must be one of thanks for the fine privilege you have accorded me in making it possible for me to stand thus before you and address you in the capacity of your presiding officer. It is the most splendid gift in your power to bestow, and any man would be unworthy of it who did not feel his soul singing out with exultation within him on finding himself selected for this high honor. He would moreover, in some fashion, be lacking of due comprehension if his heart did not fail him and falter within him at the thought of the responsibilities and duties involved.

I confess to both a feeling of pride and triumph of which I am not ashamed, but which I shall always deeply cherish in memory, and to a chastening feeling of failure and unfitness which I shall strive to wipe out in the future by loyal and earnest service to the noble purpose of our Association.

I have not been able to do during my administration all the things I had promised myself to try when you elected me a year ago. In the exuberance of my enthusiasm I did not foresee the obstacles which the quick fleeting of time and the dull hindrance of space would interpose to thwart me, but I can affirm honestly that my purpose never died within me, and is still intent to help complete under future administrations projects that could

not be put through during my own. Robert Louis Stevenson has truly said that it is no ignoble epitaph to write above a man's grave:

"Here lies one who meant well,
Tried a little, failed much."

In simple justice you must award me this meagre meed of praise at the close of my administrative life. For the opportunity of trying, even a little, I have you all to thank, and I do it most deeply and earnestly from the innermost core of my grateful heart.

"Beggard that I am, I am even poor in thanks, but I thank you."

We, who are here assembled together, are the representatives of the medical profession of West Virginia. It will not be amiss for us to be sure that we appreciate to the full the true meaning of these facts. What is West Virginia? It is admitted by all to be one of the richest states in the great union of commonwealths known as the United States. Our riches have been lavished upon us by the bounteous hand of the Creator. Spread out upon the fruitful surface of the earth or locked deep within its bosom are the riches of field and forest, of mine and mountain. Railroads are growing apace, cities are springing up as if by magic and waxing great as if by witchcraft; factories and furnaces, mills and marts, are multiplying before our eyes. We are the very heart of a region and period of material development that is notable even in our wonderful America. Our population is increasing in marvelous

fashion. Here every avocation finds itself supplying a need and finding promise of flourishing. And so the profession of medicine, long here, has new possibilities, new duties, new hopes, new responsibilities, that it must face fairly and squarely, on which it cannot have too much light cast, and about which it cannot meditate too long nor too earnestly.

The medical profession is unique among the professions in this, that it ministers directly to the physical needs of men. The same cannot be said of the Church, nor of the law, nor of teaching, nor engineering, nor journalism, nor other professions. We stand alone in our position, with one foot in heaven and the other on earth. We belong to the professions which are characterized by ideals above the sordid, and yet we must touch the physical needs of men, even as does the grocer, the butcher the clothier, the builder, the furnisher and all their ilk. We must be high-minded and low-backed; we must be hard-hearted and soft-hearted. It is a most difficult role and we must not be too hard upon our brother physician who sometimes fails in its adequate fulfillment. We may be pardoned if we make boast that, all things considered, our profession has measured up well to its difficult task, through many centuries and in spite of fascinating temptations. The world pays us the tribute involved in the acknowledgement that of all the vocations that have to do with man's physical needs, ours is the only one that has ever and always taken into account the need of the purchaser.

The butcher will not cut the price of meat to the poor man, nor will the grocer. Go to the merchant, select clothing or furniture, and ask him for the poor man's price. He will tell you that the price is the same to all, rich or poor alike. There is no poor man's rate on the railroad nor in the big hotel. The builder or the landlord will not take your need into account. Nor will it be taken into account by anyone whose vocation it is to minister to your physical wants, except by the doctor. He alone rises above the sordid standard of a dollar for a dollar's worth. The canny Scotchman who said, "You get nothing for nothing and damned little

for six-pence," was not thinking of the Doctor of the Bonny Brier Bush. Many a noble doctor has given much of the best that was in him for "nothing;" many and many a time for no more than six-pence has he sacrificed time and comfort and health, and even life itself.

Such has been the spirit of our profession for many centuries and in many lands. Is that spirit to endure in this bustling, hustling State of West Virginia? The native inhabitants, after having lived along with greater or less comfort for many generations, are awakening to the possibilities of material development and of the money that comes in its train. From North and South and East and West, newcomers, led by the lure of riches, have sought our State as the most promising field for building up their material prosperity. These newcomers are filled with the modern spirit of money-getting, and preach by word and example the doctrine of the new religion of the age, whose chief dogmas are, "Get the Money," and "Might is Right." The adherents to these dogmas are found in all ranks of life, from the gutter-boy in the streets of a great city to the statesman in the executive chair of a great nation. Of course, the street gamine defines the doctrine in terms simpler than the subtle euphemism of the statesman, but it is the same belief. Two examples will make my meaning clear. I quote first from a graphic life-history of one of the gunmen, the Apaches of New York, "Johnny Spanish":

"Spanish was about seventeen when he began making an East Side stir. He did not yearn to be respectable. He had borne witness to the hardworking respectability of his father and mother, and remembered nothing as having come from it more than aching muscles and empty pockets. Their clothes were poor, their house was poor, their table poor. Why should he fret himself with ideals of the respectable? Work? It didn't pay.

"Nor did the lesson of the hour train him in self-restraint. All over New York City, in Fifth Avenue, at the Five Points, the single cry was, "Get the money!" The rich were never called upon to explain

their prosperity. The poor were forever being asked to give some legal reason for their poverty. Two men in a magistrate's office are fined ten dollars each. One pays and walks free; the other doesn't and goes to the Island. Spanish sees and hears and understands. "Ah!" cries he, "that boob went to the Island not for what he did, but for not having ten bones!" And the lesson of that thunderous murmur—reaching from the Battery to King's Bridge—of "Get the Money!" rushes upon him and he makes up his mind to heed it. Also, there are uncounted scores like Spanish, and other uncounted scores with better coats than his, who are hearing and seeing and reasoning in similar fashion."

"Get the money," says Johnny Spanish, "no matter how, for if you get it, you're 'IT.'" Might is Right.

Now let us look to those in high places. I quote from *The Principles of International Law*, by Professor T. J. Lawrence, of Cambridge and Chicago, to show you what principle guides the chancelleries of great nations:

"The doctrine of equality is becoming obsolete and must be superseded by the doctrine that a Primacy with regard to some important matters is vested in the foremost powers of the civilized world. Europe is working around again to the old notion of a common superior, not indeed a Pope or an Emperor, but a Committee, a body of representatives of her leading states. On the American continent a similar primacy, though hardly of so pronounced a character (as that of the six "Great Powers of Europe), seems to be vested in the United States."

The Primacy of Great Nations, the Primacy of Power, when put into plain English, means the Right of Might, and this is the new principle to be adopted, we are told. If we can obtain the sources of physical power, if we can prevail over our weaker fellow-men, the fact of our success excuses everything; the old principle that right should prevail is pronounced obsolete, and is to be discarded.

Is our great profession in any danger of being imbued with this fast-growing modern principle? For answer let me quote a paragraph from the President's

address read at the last annual meeting of a Medical Society of the Middle West:

"I have come to the conclusion that a man can be too honest and conscientious in the practice of medicine, both with his patients and his confreres, for his own financial good.

"At one time, the wife of my preceptor, who was a very strong woman mentally, gave me this advice: "Treat every man as a rascal until you find out differently." While I have not followed this teaching perhaps as much as I should have done, I am satisfied it is good advice. By this you do not have to show every man that you mistrust him, but you do need to be on your guard; and not place it within his power to do you an injury should he become so disposed. What a great and glorious old world this would be in which to live, if every man practiced the Golden Rule. But they do not do it, the millennium is not here and will not be here during our time, so in the meantime I think it good practice to put into effect the Golden Rule as paraphrased by that honest old character and horse trader, David Harum, "do unto others as others would do unto you, but be sure and do it first."

This teaching may not be strictly biblical or orthodox, but it is good sound sense, and if followed will be worth dollars and cents to you."

"Trust no man;" "Get others into your power; do others as they would like to do you, and do them first." This is quite in accord with the new ethics, with the spirit of the times. Shall we adopt it or shall we not? It seems to me the question is worthy of our most serious consideration.

Man must have an ideal in his mind with which to test realities. Shall we keep our faith in the old ideals, or shall they be discarded for new ones? Shall we cling to the old ideal of altruism, which bade us think first of the welfare of the patient and of our duty to him; or shall we take hold of the ideal of egotism, thinking first of our own interest? Shall we adopt the gospel of mere getting on, crying out, "Each for himself, and the devil take the hindmost?"

When the thing is put thus fairly and squarely before us, the profession of West Virginia is in accord, and will keep fast its hold to the noble ideals of our forbears. The only excuse for discussing the matter now is that we may put ourselves on guard against the insidious false doctrines of the age, which may win our careless minds and hearts in unguarded moments.

Even as the earth ceaselessly swings through space, bringing to us day and night, spring, summer, autumn and winter, seasons and centuries, so does the intellectual world, revolving about the stable sun of truth, have its days of clear knowledge and its nights of bewildering doubt, its seasons of springtime hopefulness, of summer fruitfulness, of autumn doubtful haze, its winter of dreary pessimism. The ages come and go; spans of wisdom and scepticism, and calm and restlessness, pass and come again. We cannot change the moral seasons of the centuries. We must live in our age, in the life that is material, whatever kind it is, but we must be separate from it and above it in the life that is of the spirit. Its doubts would envelope us, its luxuries enervate us, its cynicism harden us, its theories bewilder us, and its seductions lay hold on us, if we did not strive to understand them and beware. Every age has its slogans, good or bad, which are dinned into the ears so incessantly that men may accept them through sheer weariness if energetic vigilance is not maintained.

The slogans of this present age are "progress" and "efficiency." The man in the street is pleased if you call him "a progressive," or if you say that he is efficient, but he deems it a mortal affront to be called "reactionary" or "medieval." Words are hypnotic in their power, and have ever been. Many a working man who does not fear physical violence is kept from working by the lash of the word "scab." And many a man is won to espouse a cause by the fact that it is dubbed "progressive." And yet the idea of mere progress is a timid and weak idea, for it simply means going on with no definite good in sight. The refrain of a popular song brings out the absurdity of it all, "We Don't Know Where We're

Going, But We're on the Way." Worst of all, the mere progressive cannot stop until he selects a goal; and then he ceases to be progressive. A distinguished public man recently aptly characterized the two most ridiculous figures of all history,—products of our age. I mean the pure Progressive and the pure Conservative, known in American parlance as "the Standpatter." He said, "A Standpatter is a man who has stopped and can't start again, while a Progressive is one who has started and cannot stop." Getting on is not enough; we must be getting on in the right direction. It is better to be jogging along slowly on foot in the proper road than to be moving with lightning-like speed in the wrong direction. Before any right progress can be made, some direction must be fixed; there must be some definiteness about the goal.

It is the part of wisdom then for the profession to pause from time to time to consult its compass and its map. Is there any reason to change our ideals, we may ask. Are we keeping them in sight? In the foggy vapours of an age of vagueness, we may easily be lead astray by a will-o-the-wisp; we may for a time lose sight of our goal; our ideal may escape us. The strong and evident thing to do under such circumstances is to restore our ideal or to reform it.

Up to this time we have kept our ideal of the true physician. The Progressives in the profession are clamoring for us to change it. When we ask them what ideal we shall take instead, they have no answer at all, or they offer us the ideal of pure commercialism, with the slogan, "Get the money." Up to this present time we have rejected, and rightly so. But it is permissible for us to ask ourselves if the changing times have a right to demand of us to change our standard, to reform it. It can only have that right if our standard was wrong before.

We must beware of the imbecile argument sometimes offered, that a creed or principle may be right in one age but not right in another. We may hear it said that a certain ideal was worthy in the fifteenth century but is out of date in the twentieth. Not so, however. A creed, a dogma, a principle of ethics that is true and right at all, in any age, is true and

right in every age. A philosophy that is true at 10 o'clock in the morning is true at 10 o'clock at night; a view of the universe that was true on Monday is also true on Saturday; and a code of ethics that was right in one age is right in any other age; if it was true in an era of saddle-bags, it is true in an era of automobiles; if it was right in an age of general practitioners, it is likewise right in an age of specialists.

The foundation stones in the code of ethics of our profession have been justice and mercy, both attributes of the Divinity, both eternal principles that endure "from everlasting to everlasting." The false philosophies of a materialistic age may tempt us to forsake these principles as obsolete, as fossilized, as medieval. The new doctrines of the primacy of power may entice us with all the allurements of ease, and pleasure and physical well-being, but the old foundations will still stand, even though we should pull from off them the noble superstructure that our forefathers in the profession have been building during the centuries. But we have no thought of destroying the great temple of professional character that has been passed on to us as a precious heritage. We shall stand fast where we are, holding to the eternal verities that have never failed us, knowing that this age of vague and shifting and uncertain ideals will soon pass away. The Golden Rule shall be our Rule in the future, even as it was in past. It is hard in any age for a whole profession to live by the Golden Rule, but our guild has done it. But sheer heroism is needed to live up to that Rule in an age like ours, when we are beset on all sides by new theories and philosophies and codes of ethics that are each one built upon some ancient vice. The New Ethic Code of Success is built upon the ancient vice of selfishness; the New Theory of the Primacy of Power is built upon the ancient vice of cowardice; the New Philosophy of Progress is erected upon the old vice of fear,—a fear of the past. Gilbert Chesterton has voiced admirably the thought I would express, when he tells us the modern mind is forced towards the future by a certain sense of fatigue, not unmixed with terror, with

which it regards the past. It is propelled towards the coming time; it is, in the exact words of the popular phrase, knocked into the middle of next week. And the goad which drives it on thus eagerly is not an affectation for futurity. Futurity does not exist, because it is still future. Rather it is a fear of the past; a fear not merely of the evil in the past, but of the good in the past also. The brain breaks down under the unbearable virtue of mankind. There have been so many flaming faiths that we cannot hold; so many harsh heroisms that we cannot imitate; so many great efforts of monumental building or of military glory which seem to us at once sublime and pathetic. The future is a refuge from the fierce competition of our forefathers. The older generation, not the younger, is knocking at our door. It is agreeable to escape, as Henley said, into the Street of By-and-Bye, where stands the Hostelry of Never. It is pleasant to play with children, especially unborn children. The future is a blank wall on which every man can write his own name as large as he likes; the past I find already covered with illegible scribbles, such as Plato, Isaiah, Shakespeare, Michael Angelo, Napoleon. I can make the future as narrow as myself; the past is obliged to be as broad and turbulent as humanity. And the upshot of this modern attitude is really this; that men invent new ideals because they dare not attempt old ideals. They look forward with enthusiasm, because they are afraid to look back. Let us pick up our courage and be not afraid to look back to the past. Too many roads that men have traveled are marked by splendid but unfinished cities and temples, begun with enthusiasm, but finally abandoned because of fatigue or fickleness or mental laziness, or the desire for "progress" and variety and new but vain philosophies. In many spheres of human thought and effort men are led astray until their errors have waxed so strong and great that a revolution is needed to set things right again. And history teaches us that every revolution is a restoration. The very word revolution tells us that, for it means a turning of the wheel backward for a new beginning. It is the proud boast of our great profession that for a thousand years

we have continued to work at our flaming temple of professional character, keeping Justice and Mercy for our cornerstones, using the Golden Rule for the measure of every stone admitted to the superstructure, rejecting commercialism and selfishness and graft as fit only for the rubbish-heap.

It is peculiarly fitting that we should at this meeting renew our professions of faith in our old ideals; because this meeting-place—"The Old White"—is sacred ground for the State Medical Association of West Virginia. A quarter of a century ago the founders of this society, the pioneers of the organized profession of our State, few in numbers, but steadfast in the old traditions and firm in the faith transmitted from our ancestry, in this place dedicated us, their posterity, to the ancient ideals. This meeting should be to us like a Home-Coming. The spirits of our forbears may well hover about this region, whispering to us "Noblesse oblige." Noble blood and race involve duties.

"From the future you must hew
Noble lives that will not shame
What you have of noble name."

And now, having taken up our old ideals with a new enthusiasm, it behooves us to discuss some of the practical steps that lie immediately before us in the road of professional advancement towards the fullness and perfection of our goal. We must, first of all, make our ranks more numerous and more compact. At our last meeting, looking towards this end, we inaugurated a system of medical defense. It has had a year of trial. The report of the committee on medical defense will give you the results of this first year's experiment. Perhaps the truth should be told that it was not taken up by the rank and file with the enthusiasm and good will which should be given to every worthy project decided upon by a majority of the Association. In advance of the report of this committee, whether favorable or not, I would most earnestly urge that the medical defense feature be continued and that the delegates and members attending the meeting return to their homes prepared to urge upon all

their constituent societies an enthusiastic co-operation with the administration, looking towards the successful permanence of this feature.

I would earnestly suggest, likewise, that the matter of incorporation be fully discussed, not only by the House of Delegates, but at the general meetings of the Association. Last year incorporation was urged by the retiring President and the Committee on the President's address favored it in a blanket recommendation. The present administration, however, not having specific instructions to that end, hesitated to proceed with the incorporation, especially in view of the fact that the attorney of the Association, in a written opinion, advised against incorporating. Justice to the incoming officers demands that the responsibility for this important step be carried frankly by the Association, if it is desired to proceed with this step against the attorney's advice.

Another matter which, it seems to me, is ripe for full and serious discussion at this meeting, is the matter of inaugurating district societies throughout the state. With very few exceptions, the county societies are in a flourishing condition, evincing a growing spirit of organization and an increasing enthusiasm. Their work, however, is done in a sort of isolation that has in it no tendency to increase markedly the bond of fellowship with the profession outside the individual counties. We have depended in the past upon the annual meetings of the State Society for the nurturing of this state-wide esprit de corps. The growth of our population and the consequent increase in the general membership of the profession; the increased facilities for assembling together are reasons enough for now taking this step. I would, therefore, recommend that the district councillors be formally instructed to organize district societies in their respective fields of work. The human nature which we all hold in common is always at work within us and it will undoubtedly be a potent factor in the success of the district societies since we all are moved by the common and laudable desire to extend the field of our influence and the circle of our acquaintance. As the interest in the district

societies grows, success will come, and these two factors will react upon the county society, awakening the pride and loyalty of the men in the local societies, who will naturally desire to see their organization becoming a power and influence in the district. The meetings of the district societies should probably be held three or four times a year, depending upon the local conditions.

It would be ungracious in me if I were to close without congratulating the Association upon the great part it took in securing from the legislature an appropriation for a tuberculosis sanatorium. Your Committees on Tuberculosis and Public Policy and Legislation joined forces with committees from the State Board of Health, the State Board of Trade, the West Virginia Fraternal Association and the West Virginia Anti-Tuberculosis League. The efforts of these united committees, working harmoniously and energetically in one great Joint Committee, were crowned with splendid success. The bill formulated and urged by them went to the House of Delegates of the State Legislature, was advanced to its third reading immediately, was then forwarded to the Senate, advanced to its third reading in that body, and again passed without a dissenting vote. Two important facts should be noted in this triumph, fraught with fine lessons for us. The first lesson is derived from the campaign of education which preceded the introduction of this bill. For that campaign our profession deserves the lion's share of praise. Its success should be an inspiration for us as we view the work of legislation still waiting to be done, such as the enlarging of the powers and financial resources of the State Board of Health, and the promotion of higher standards of medical education and requirements. The second lesson taught us is the old lesson of the value of united effort. By joining our forces with the other societies in whom we had aroused an interest in the great tuberculosis problem, our united might became practically irresistible. The medical profession has never fostered any but worthy causes. With harmony in our own ranks, with whole-hearted and energetic efforts to enlighten the people, with a conciliatory

spirit and a willing co-operation given to the new forces we have ourselves evoked, we can move forward compactly towards any laudable goal we fix, and the prejudice of the legislator, the indifference or defiance of the venal journalist, the arrogance of the charlatan, and the ignorance of "the man in the street" would go down before our coming like the grass beneath the feet of a marching army.

I have almost done. I crave your further attention, however, long enough to remind you that we have had in our State for several years a society which should have at least our moral support and is deserving of our practical co-operation and financial aid. I refer to the West Virginia Society of Social Hygiene, which has been in existence for several years, contains in its roster the names of many of the foremost leaders in that field of work, where the moral uplifting of the young is the incentive of endeavor. Its aim is to offer the remedy of enlightenment as a preventive against the ravages of the Black Plague. Sex-education, begun in childhood, continued through adolescence, and perfected in married life is the effective method it offers for the extermination of the evil of venereal diseases. The men who compose this society believe that the "seven-folded veil of prudery and false modesty" must be rent in twain; that the "holy silence" on matters of sex must be broken. In their opinion, the home through the father and mother, the Church through its leaders, the medical profession through its earnest men, and the forces of education through the schools must meet this problem out in the open, face to face, before it will be solved. One of its methods consists in the wide distribution of circulars, illustrative of the dangers of venereal contamination, and demonstrative of the urgency of this vital question. Another method is to arrange, wherever practicable, for public meetings, at which addresses will be delivered by competent speakers. It is entirely in line with the ideal of our guild for us to co-operate heartily with this splendid organization, and I would earnestly recommend that a committee on Social Hygiene be appointed to work in conjunction with the West

Virginia Society of Social Hygiene for the attainment of its special purposes, that a formal resolution endorsing the society and its work be passed at the general meeting, and that the House of Delegates set aside a sum to be designated for the furtherance of the work of this committee.

Another recommendation I beg to make with all earnestness is a change in our organic law that will make every secretary of a county or component society a member of the House of Delegates by the very fact of his office. Our law now provides for what might be called a delegate-at-large. I think this delegate should always be the county secretary. We all realize that the county secretary is the most important member in the component society. He is the high-water mark of effort and interest. No local society is ever better than its secretary, and often the general membership is incapable of reaching up to that mark. This vitally essential character of the fitness which the office of county secretary predicates, should, I think, be recognized by providing that the men who make or mar the component societies should be members of the body which guides the fortunes of the State organization builded out of the local associations.

There are other matters which have suggested themselves to me as worthy of notice in this address to you—matters important enough to be taken up. Some of them, however, are already assured of your attention because the program of this meeting notes that they will be discussed in papers before the general meeting. Moreover, I have felt that your Committee on the President's address would find it easier to deliberate upon a few recommendations than upon a great number. I trust that these I have felt so bold as to make may meet with your approbation; if they do not, I shall still have the satisfaction of knowing that they will be accorded your respectful consideration and will be passed upon with open minds and their discussion concluded with practical common-sense and wisdom.

It is not necessary nor, in my opinion, even desirable that the meetings which we are about to begin should be wanting

in mental conflict. We wish for a liv society, and that means one whose members have opinions and are earnest enough and brave enough to contend for them with animation and open challenge and even angry conviction. The harmony that comes after a brave and honest discussion is the true and fruitful harmony that secures united action of worthy opponents, imbued deeply with that laudable human element which rejoices to see the genuine prevail against the plausible, that element which rejoices that even its enemies are alive. Let us fight with savage sincerity for our honest opinions and then warmly grasp the hand of our fellow in exultation if he has succeeded in advancing reasons that were better than ours and obliged us to strike our flag before his.

I have been told that several of the component societies will be represented here by delegates who come with challenges to fling. I hope it is so. God speed them. Let them with human voice and hearty manner, with real and ancient emotion advocate their cause whatever it be. If there are commands of God, then there must be rights of man. Let us all contend for our rights as we see them with the best of the human nature that is in us. Let us all bring to these meetings our accumulated emotions, our piled up and passionate experiences. Taut and tingling with vitality at a hundred points, sensitive almost to madness, if needs must be; with savage healthy-mindedness let it be said of each one of us that his voice was never silent through fear and his spear never broken save in honorable conflict. If we begin this session in such a brave and truly manlike spirit, these meetings at "the Old White" will be memorable for their fruitfulness. And fruit we must bear if our Association is to live and count for anything at all. There have been many great and wise and noble teachers of mankind recorded in the pages of history. No matter how much their teachings may have differed on many points, there was one towering and flaming likeness that touched them all. Each and everyone of them has cursed the barren fig-tree. Let not this universal curse of the ancient wisdom of the world fall upon us.

REGARDING THE TREND OF MODERN PSYCHIATRY.

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The recognition of mental aberration is as old as the human race, and its protean manifestations have been ascribed to many factors. At one period the person was possessed of the devil and at another it was considered a visitation from God. The afflicted one was either anathematized or considered a saint, according to the prevalent belief.

From the time that the insane were kept in chains and dungeons to the present day, when modern and humane care and treatment are afforded the mentally sick, is not a very long step.

1. *The Advent of Modern Psychiatry.* It was during the last decade of the eighteenth and the dawn of the nineteenth century that epoch-making changes took place in the management of the insane and the foundation of modern psychiatry was laid. The first of the modern hospitals for the insane dates from the time Chiarugi took charge of the asylum of St. Boniface in Florence (1788). About the same period, Pinel in France and William Tuke in England effected a complete transformation of the treatment of the insane. The echo of the tremendous upheaval which occurred one hundred year ago, when the shackles were struck from the insane and they were placed in hospitals to be treated as human beings suffering from a mental disease, is reflected in our present system of caring for the mentally afflicted in modern institutions. This might be spoken of as the "Humanitarian Period," for there was comparatively little done in the way of scientific investigation.

2. *The Present Day Psychiatry.*—The study of mental pathology to-day embraces practically every field of medicine

and is one far-reaching in its effect on the individual as well as on the entire human economy. The subject must be approached from the clinical, anatomic-pathologic, psychologic, sociologic and biologic viewpoint, a correlation of all facts bearing on the case must be attained before a complete and satisfactory opinion is formed. As Farrar expressed it, the methods of to-day center around the "psychotic individual" more so than the "individual psychosis."

The symptomatology of mental diseases naturally received first attention. The names of Hecker, Kahlbaum, Maynert, Krafft-Ebing and later of Kraepelin and Weinicke, are well known in the field of clinical psychiatry. Kraepelin's classification has received almost universal recognition, and has been the means, either for good or ill, of at least affording some element of order from a heterogeneous mass of facts. Coincident and of equal importance with the advances made in the clinical field have been the results attained from the study of pathological material. The observations of Bayle in 1822 on general paresis, and of Calmeil in 1826, who pointed out the meningeal changes as being one of the most constant lesions in paresis, marks the beginning of real advance in brain pathology.

The finer staining technique of the nervous system is of quite recent date and is principally the result of the work of Exner, who discovered the Osmic acid method of staining nerve fibres. Since then a host of other observers have added a wealth of facts to our knowledge of the finer anatomy of the central nervous system. Weigert's methods of staining the myelin sheath, the glia, and the elastic tissue have served to demonstrate many important changes in the nervous system. The cellular stain of Nissl, the Marchi method of staining degenerated fibres, and the more recent work of Alzheimer in his studies of arterio-sclerosis of the cortical vessels, have been of special significance.

In this country the work of Van Gieson, Berkley, Farrar, Meyer, Southard, Hoch and many others has added much that is of value in cerebral pathology. It is not within the scope of these brief remarks to more than touch upon this field of psychiatry. During the past decade or two

greater advances have been made in this domain of medicine than probably in any other.

3. *The Prevalence of Insanity.*—To one not in close touch with the insane, the prevalence of insanity is an unknown quantity. The average physician sees possibly one or two cases of mental disturbance a year, so that it is almost impossible for him to judge of the total number of patients coming under observation. The Federal Census for 1904 enumerated 150,151 insane and 14,347 feeble-minded in institutions, a total of 164,488.

The Federal Census for 1910, recently compiled, but not published, gives 184,123 insane and 20,199 feeble-minded, a total of 204,322, showing an increase during the past six years of insane and feeble-minded in the United States amounting to 39,824, or over 6,000 cases a year admitted to hospitals for the insane. The number of commitments to insane asylums during the year 1904 was 49,622, and during the year 1910 was 59,628, an increase of 10,006, or 20.2 per cent. This enumeration does not include the insane and feeble-minded in almshouses, penal institutions, or those outside of any asylum. These figures deal with the entire country, and I am sure represent a very conservative estimate. It might be of interest to glance for a moment at one concrete example where the figures are fairly accurate. In the State of New York there are now 32,657 insane persons in hospitals. This is about one in every 200 of the adult population. In 1860 the total number of insane in the State was 16,006; in 1910 it was 32,657, an increase of 104 per cent. The population of the State has increased in the same time 52 per cent.

That the cost of maintaining the insane is becoming a serious economic question is evidenced by the fact that for 1910 New York spent over five and a half million dollars, and for the past ten years the State has expended over fifty-four million dollars in the care of the insane. To come nearer home, your sister State, Maryland, last year appropriated \$600,000 for new buildings for the insane and maintenance amounting to over \$300,000 for one year only. The number of insane and feeble-minded in Maryland during 1910 amounted

to 3,861, while for 1909 there were 3,616 an increase for the year of 245. During the past ten years there has been an increase of 1,334 insane and feeble-minded in the State, county and private institutions.

At first glance this increase seems appalling, but when we consider the fact that it represents not necessarily an actual increase of the insane, but an accumulation of patients in State hospitals, that the life of the patients under modern care and treatment has been prolonged at least ten years, and that the increase of the defective and degenerate class keeps pace with, but does not exceed the increase in the population, we are comforted a bit. In the special report of the Census Bureau for 1904 on the insane and feeble-minded we find this statement:

"Although it seems impossible to determine definitely whether insanity is increasing or not from the percentages of admissions and discharges, deaths and transfers for a single year, the numerical excess of admissions over discharges, deaths and transfers during 1904, when compared with the increase in number of insane in hospitals during the past thirteen years, indicates that the accumulation of insane in hospitals is probably progressing at least as rapidly as ever before."

4. *State versus County Care.*—The care and treatment of insane persons in properly organized medical institutions, until after the middle of the nineteenth century, were not carried out very extensively in this country. Of the present State hospitals, only twenty were established previous to 1850. After that progress was more rapid, and on December 31, 1903, the United States Census tabulations showed that there were in all 328 institutions for the insane throughout the states and territories. Of these 226 were public and 102 private. The number of State hospitals was 148 and, during the five years that have since passed, this number has no doubt increased. State care and State supervision are gradually taking the place of local provisions for the insane, and wherever this has been accomplished, greater attention to the medical needs of the cases has invariably followed. The unenlightened and merely

custodial methods of the past, and the great expense and difficulties which attend such a rapid development as has occurred, continue, however, to influence the present standards and rate of progress. In fact, the public has not yet grasped the facts clearly enough to have learned to demand for the insane much more protection from abuse and gross privation. Only a comparatively few persons have given sufficient attention to the subject to gain an intelligent insight into the conditions from which the inmates of the institutions really suffer and as to what should be done to bring about cure, amelioration and prevention. The consequence is that the representations made to legislatures and administrative boards in regard to the value and needs of the medical features of the work too frequently fail to prove sufficiently clear and convincing to overcome the ignorance and indifference which prevail so generally. The lack of knowledge and skill concerning mental disorders which the public tolerates in general physicians and nurses, and the consequent neglect of so many cases in the early stages; the almost total lack of provision for the temporary care of insane persons previous to their commitment, or for their safe return to ordinary life after their discharge; the delays and injurious irritations which result from legal methods based on groundless fears for the liberties of persons of sound mind; the inadequate return which people are willing to pay well for at the inferior grades of private institutions; the neglect of preventive measures; and the enormous aggregations of insane persons which are being accumulated in single institutions without sufficient regard to the effect on individuals, all furnish evidence that the public has not yet clearly grasped the known facts relating to mental disease or to the best methods of dealing with it. So much progress, however, has been made that, were it not for the obvious need of further improvements, it would be easier to speak only words of congratulation and praise.

In recent years more tangible provision for classification may be seen in special buildings for the study of the new cases and for the treatment of the more acute conditions, which have been added at many

institutions, in special wards or buildings for general hospital purposes equipped for the treatment of those suffering from acute physical illness and surgical conditions, and in infirmaries for the extremely feeble and bed-fast. Special examination and treatment features, such as suitably equipped examination rooms attached to wards, surgical operating rooms, medical bath rooms, laboratories and other features needed for medical ends, have now become recognized essentials of every well-equipped State hospital. For the better personal care and nursing of the patients, training schools for nurses have been established at the institutions, and there is good reason to believe that ere long systematic training of every attendant employed will be an established custom. The employment and amusement of patients, which have heretofore been developed largely with a view to utilitarian ends or to sociability, are now being applied more definitely as a treatment measure for the individual case. A good start has been made in this in some places. Even in the management of the dietary and in the administration of medicine, changes have been made from the traditional asylum methods to others more adapted to supply medical needs of the individual case.

It must not be assumed that because a condition is protracted it must necessarily be incurable. Of those discharged recovered, 25 per cent have been under treatment for a year. In New York, during five years, 47 per cent of the cases admitted to the State hospitals were restored to their homes recovered or improved sufficiently to be considered suitable to be at large. Thus nearly half the cases responded to remedial measures, enough, surely, to justify the efforts which have been made to emphasize and develop the medical features of the institutions. The principal needs of a large proportion of the remainder are also clearly medical. Many of them are, in every sense of the word, sick. They are afflicted with organic diseases of the nervous system, of the blood vessels, or of the internal organs, or they are in the last stages of senile decay. A large number are brought to the institutions merely to receive the medical and nursing attention given to the incurably

sible incision, then carefully cleansed by the use of a soft nail brush or gauze pad, liquid antiseptic soap and sterile water, followed by alcohol. After this a compress wet with 1-5000 bichloride is applied, covered with oiled silk or other protective and secured by a bandage. This is undisturbed until the next day. After the patient is under the anesthetic, the compress is removed and the part is treated to a second cleansing with antiseptic soap, gauze pad and sterile water, followed by dilute alcohol; the solution of iodine is then applied and allowed to dry on the skin. Naturally in emergency cases much of the treatment preliminary to the use of the iodine solution will have to be omitted.

The solution of iodine used for the hands may be made up with dilute alcohol or prepared according to the following formula: Iodine 2.5 gm., potassium or sodium iodide 5.5 gm., water 250 c. c. This gives a 1-1000 solution, which can readily be diluted to the desired strength. In a long series of cases in which the iodine solution has been used as described, the results from a clinical point of view have been excellent, and it is easy to conclude that as a chemical agent for at least the partial sterilization of the skin iodine is the most satisfactory substance we possess. It must not be forgotten that this, the most harmless of antiseptics, and its compound iodoform are active agents, and as such should be used carefully. Under certain conditions they are very toxic. The pyogenic membrane lining an abscess cavity seems to be practically immune. Patients suffering from septic infection will tolerate more than the usual amounts administered. The feeble and aged are often susceptible. Iodoform irritation on the exterior of the body usually takes the shape of a severe dermatitis, not any worse, however, in character than that occasionally produced by the use of a bichloride compress on a sensitive skin.

My conclusions are that iodine is the antiseptic *par excellence* for the skin of the hands and operation site. The solution of iodine is easily prepared and is stable. It does not coagulate albumin or form inert compounds with the tissue. It is of more value in many ways than either carbolic acid or bichloride of mercury and not nearly so poisonous."

Later, I wrote a paper entitled "Aseptic Operative Technique," for the Hot Springs meeting of the Mississippi Valley Medical Association, held Nov. 8, 1906. This article was published in the *Therapeutic Gazette*, May 15, 1907. From it I quote the following: "Prior to major operative procedure of any sort I prefer to give the patient a few days at least of preliminary treatment, including a carefully regulated diet, purgatives and rest in bed. The intestinal tract is in a measure freed of excretory products, intestinal indigestion with its putrefactive and gas-forming concomitants is temporarily held in abeyance, and the individual who may be accustomed to the most active habits becomes habituated to life abed. As the eliminative power of the skin when in a normal state of efficiency is great, considerable attention should be bestowed on that organ; skin friction, soap and a hot tub or shower bath. Eczematous conditions of the skin as a rule should be a bar to operative procedure in the affected region. I usually give the patient a quite light or liquid diet the day before the operation, no food of any sort the day of the operation unless the patient's vitality is below par, when some form of liquid nourishment is administered to within two or three hours of the anesthetic time. All other factors being equal, the smallest amount of food and feces we have in the gastrointestinal tract at this time the better for the patient. As I usually begin operating about 2:30 P. M., the patient has by that time had ample opportunity to get results from the routine of fasting and the administration of purgatives.

The evening of the day before the operation a soap poultice is applied to the operation site and vicinity; this remains for two or three hours, when the part is carefully shaved, then washed with liquid antiseptic soap and warm water, followed by alcohol, to remove the residue of soap. During the cleansing process, care is taken not to produce abrasions, a soft brush or preferably a gauze pad being used to scrub the skin. In this preliminary skin cleansing a careful aseptic technique should be maintained. A sterile gauze dressing is applied and retained in place by a bandage. As containers for the solutions used in cleansing the skin

site, flasks with rubber stoppers and glass tubing are used. This insures a small, steady stream that can be stopped or started at the right time and directed to the desired spot.

A purgative of some sort is given the evening of the preparation and a saline early the next morning. This is followed in two hours by a soap-suds enema if necessary, and later by saline enemas until they return clear. The bichlorid compress is not used for the reason that it macerates the epithelium and diminishes the regenerative powers of the skin. The dry dressing is as a rule undisturbed until after the anesthetic has been started, when the final cleansing of the skin is done. Precisely the same technique is observed as in the preliminary cleansing, with the addition of a one-per-cent solution of iodine, which follows the alcohol and is allowed to dry on the skin. The patient is covered by a sterile fenestrated sheet; the operation area is outlined by sterile towels and loosely covered until the operation is begun. It is an easy matter to overdo in our attempt at asepsis. Over-zealous scrubbing, too much energy expended in this direction, will defeat the end aimed at. Naturally in emergency cases the preliminary cleansing will have to be omitted. The solution of iodine may be made up with dilute alcohol or in accordance with the appended formula: Iodine 2.5 gm., potassium or sodium iodid 5.5 gm.; water 250 c. c. This gives a 1-100 solution, which can readily be diluted to any desired strength by the addition of water.

Granted that the attainment of absolute asepsis of the skin is about as impossible as squaring the circle, it yet behooves us to try to reduce the bacteria to the smallest possible number to each square inch of surface. In the preparation of the operation site one needs to have an intelligent appreciation of the possibilities of skin infection and the consequences of the same. As the complete sterilization of the skin with our present crudeness and limitations of science is a futile impossibility, we have to make the best use of the opportunities at hand. The value of the iodine solution as a germicidal agent for streptococci and staphylococci has been bacteriologically proven beyond a doubt; clinically this method has been productive of the happiest

sort of results, and it is easy to conclude that as a chemical agent for at least the partial sterilization of the skin iodine is the most satisfactory substance we at present possess.

For purposes of mere mechanical cleansing of many of the mucous membranes of the body prior to operation I have the parts copiously flushed with physiologic saline solution. Urinary antiseptics are used to improve the sanitary condition of the urinary tract. A dilute solution (1 to 1,000 of iodine is used to irrigate the vagina and uterus. The cleansing of the vagina is a subject often neglected. A careless sort of douche is given, and the part is said to be clean. Every part of the vaginal wall should be carefully cleansed with liquid antiseptic soap, hot water and a thorough scrubbing with a gauze pad. Especial attention should be paid to the space just behind the cervix, where discharges are prone to accumulate and entirely escape the average douche. Alcohol causes too much burning for use on the mucous membrane even of the vagina. The soap should be removed by free use of warm water; thereafter the dilute iodine solution should follow."

In conclusion I said that bichlorid of mercury, as ordinarily employed, is useless and engenders a false sense of security.

That the bugaboos of prolonged scrubbing of hands and arms with rough brushes and the reckless use of strong bichlorid solutions favor rather than diminish the chances of infection in the long run.

That the iodine solution is comparatively non-toxic and highly antiseptic.

Laboratory experiments have conclusively proved that as a germicide a 1-500 solution of iodine will do in five minutes what it takes a 1-1000 solution of bichloride half an hour to accomplish.

In November, 1906, I published a paper in *American Medicine* entitled "Iodine and Some of Its Uses in Surgical Work." I quote in part: "Roux first made use of tincture of iodine in hand disinfection, using it for the finger-tips to penetrate the subungual spaces and the nail folds. Von Mikulicz used it in the same way and Senn uses it for that purpose, introducing it around these crevices with a nail brush. For several months past I have used a one-half of one per cent alcoholic solution for

purposes of hand disinfection preliminary to operative work in all cases in which rubber gloves were not worn. The same solution is made use of in the preparation of the site of the operation incision. I wear rubber gloves as a routine measure in operative work, but in a certain number of these cases gloves are undesirable. Again in an occasional septic case a glove may be punctured or torn and the operator feels the need of some reliable antiseptic for his own sake as well as for the protection of his future patients. The use of this solution simplifies the technic and saves time. First thorough scrubbing with nail brush, green soap, and running hot water, going over the hands in a systematic and methodic manner, taking each part in turn, and always following the same order so as to skip no part. I pay particular attention to the nail folds, subungual spaces, and the skin between the fingers. Short clipped nails should be cleaned with a good heavy metal nail file, the hands scrubbed again, washing off the soap in running hot water. Remove the residue of the soap with a 70 per cent solution of alcohol, immerse in iodine solution for five minutes, rinse in sterile water. The light brown stain can be removed by washing in dilute ammonia water after operation, or if left alone it will soon disappear.

The results clinically of this method have been superb. In a long series of cases no infection attributed to the hands has occurred.

In conclusion I would say that iodine constitutes a near approach to a perfect antiseptic in that it is nontoxic in effective strength, being one-fourth as poisonous as mercuric chloride though many more times valuable as a germicide. It does not coagulate albumin or form inert compounds with the tissues. It possesses great penetrating power, is easily prepared and is stable.

A solution of iodine is the most practical chemical agent we have for the sterilization of the skin."

In a paper entitled the Conservative Surgery of Arms and Legs, published in the Journal of the American Medical Association, May 11, 1901, by myself, I said: "Scrub from, not toward, the wound, be careful not to allow soap, water or other solutions to run into the wound while the limb is being cleansed. Turpentine, gaso-

line, benzine or soap and water followed by alcohol or ether are all effective and their varying use is only a matter of choice. Lastly I apply to the limb 0.5 per cent. iodine solution. I irrigate the wound thoroughly with hot normal salt solution."

"I have discontinued the use of peroxide of hydrogen and have never used a bichlorid of mercury solution in the irrigation of wounds. I am satisfied that both promote rather than decrease wound secretion. Warm normal salt solution is a good mechanical cleanser and is non-irritating to the tissues. A weak solution of iodine is possessed of a maximum bactericidal power with a minimum toxic and irritant effect. It not only has a destructive effect on pus germs, but to a great extent will seal the ends of the lymphatic and blood vessels against the absorption of septic material."

In the fall of 1907 I visited Munich and at the clinic of Doederlein, who succeeded Von Winckel, I saw that iodine was being used. I mentioned it in my letters to the WEST VIRGINIA MEDICAL JOURNAL. These letters were published in installments and this part was not published in the JOURNAL until June, 1908. I quote in part: "In the preparation before the operation, full strength tincture of iodine on the skin a short time previous to incision. This is followed by a semi-liquid mixture containing rubber, carefully spread on the skin by means of a roller, after which a small electrically-driven fan is held near to facilitate drying.

So far as I know I was the first to make use of iodine solution as a routine in the preparation of the operation site, having used it continuously since early in the year 1905. At first I followed soap, water and alcohol with the iodine, but later modified it to the extent of doing away with the bichlorid compress altogether. Either the skin was cleansed thoroughly the evening before operation with soap, hot water, gauze and sponge, then again alcohol, then a dry dressing was applied. After the anesthetic was begun, the skin was gone over with pure grain alcohol, and followed by the iodine solution. I had charge of a large charity clinic at the Sheltering Arms Hospital and made use of iodine in all my cases.

Last year I began a fractional method by giving the skin several successive paintings when dry with iodine solution.

As chairman of a committee appointed for the purpose of securing uniformity in the operating room technique of the Charleston General Hospital, I compiled a series of rules for the operating nurses, and these were published in the *WEST VIRGINIA MEDICAL JOURNAL*, January, 1911. To summarize part of these rules, I will say that physical cleanliness of the part proposed for surgical attack is secured by the plentiful use of razor, soap, gauze or cotton sponges, hot sterile water followed by alcohol. Later the iodine solution is applied as soon as the skin is dry. Early next morning it is repainted and after the anesthetic is begun there is a final painting of the skin with tincture of iodine in alcohol in elective cases. In emergency, where only one application can be made, the full strength tincture is used. I have infrequently seen a fine vesicular eruption of the skin follow the use of iodine as a disinfectant.

MELAENA NEONATORUM.

Its Causative Factors.

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Melaena neonatorum, while a rare condition, is one to which considerable interest attaches because of its extremely high mortality and the great obscurity surrounding its etiology. Melaena belongs to the rarest among the affections of the new born. It is impossible to estimate its frequency with any degree of accuracy on account of the great divergence in the different statistical compilations. The extremes range from 1 in 500 to 1 in 2,500 cases, the average being about 1 in 1,500 cases. The condition cannot be regarded as a substantive disease, but merely as a symptom of various pathological changes and processes.

The idiopathic form arises suddenly without any prodromal symptoms. The hemorrhage may take place a few hours after birth, but it is most frequent on the second day. After the seventh day it is extremely rare. As extremes, Genrich reports a case as having occurred on the 18th day, and Kundrath one on the 20th day post partum.

In addition to the apparently idiopathic form of melaena, there is another form

which is secondary to certain general diseases, notably septic infection and syphilis. In these constitutional diseases it is a part of the phenomena of a hemorrhagic tendency which appears also in other organs. Lues hemorrhagica is now generally believed to be due to a combination of syphilis and sepsis. In these conditions the hemorrhagic discharges make their appearance later, as a rule, than in the other form.

The condition has been ascribed to asphyxia in some instances, but asphyxia is comparatively common, while melaena is very rare; moreover melaena occurs in infants that have not suffered from asphyxia at birth, therefore, in those cases in which asphyxia is followed by melaena, some auxiliary factor must exist which increases its influence.

Pomoroski believes lesions of the vasomotor centers to be often the primary cause of hyperaemia and hemorrhage in the lungs, stomach and duodenum and to ulceration in the duodenum by corrosion on the part of the digestive juices. Unskilled and rough handling of the child's body in breech presentations has been cited as another cause.

Melaena in the presence of embryotic defects of the heart and large blood vessels has been reported by Nieberding. Melaena has also been connected with hemophilia and heredity by some authors (Rilliet and Barthez), but the general opinion seems to be that their ground is not well taken. Obstruction to the portal circulation, (arising in disease of the liver, and usually due to syphilis), has been offered as another explanation.

"According to the autopsy reports the etiologic significance is most positive in two processes; circulatory obstruction in the corresponding vascular region and superficial ulceration." (C. Kelley). The former on account of the radical changes taking place in the circulation at birth, seems more probable.

"To suppose the presence of deep ulcerative processes in the gastro-intestinal canal appears to be justified according to some autopsy reports." (Binz and Rembold). According to others this is not the case.

"Upon removal of the hemorrhagic intestinal contents post mortem the mucous membrane appears more or less strongly

injected. (C. Keller). However, after prolonged loss of blood, all the internal organs, the intestines included, may appear pale and anemic. It has been suggested that under these conditions the hemorrhage may have occurred by diapedesis. In numerous cases intra-mucous and submucous extravasations of blood have been found, also erosions and ulcerations, particularly in the stomach and duodenum. These are said to resemble closely the ulcerated conditions found in these structures in adults. A case of annular ulceration in the lower portion of the oesophagus has been reported by Henoeh. Keller believes these ulcerations to be the main source of hemorrhage in this disease, though he admits that there are authentic "reports of multiple ulceration in the gastro-intestinal canal, without malaena or any evidence of hemorrhage in the intestinal contents." He therefore concludes that while ulcerations may be the cause of malaena they are not necessarily so.

Concerning the cause and development of these ulcers nothing definite is known. We are dependent mainly on assumption and hypothesis.

"It is due to blood stasis, perhaps under the influence of a fatty degeneration of the vascular walls which at first causes extravasation of blood. The mucous membrane in the corresponding area thereupon loses its vital resistance to the digestive power of the gastric juice, necrobiosis occurs and thus it is destroyed." (Kundrath).

It is still an open question whether or not embolism of the gastric and intestinal arteries may occur in the new born. Landis says: "The occlusion of small branches often plays an important rôle in the pathogenesis of ulcerations which are peculiar to certain cases of malaena." Keller regards this as "exceedingly doubtful if not impossible."

Some authors believe that the ulcerated condition above referred to takes place during the intra-uterine period. Keller believes "that the principal instigator, hemorrhagic infiltration, may have already occurred intra-partum, and that the corrosive effect of the gastric juice requires but little time."

Thus we have briefly and in a very general way stated the views of various author-

ities on the causative factors of the subject under discussion. I wish to add another which, however, cannot be considered as a cause *per se*, but which might in the presence of other conditions be the determining factor, that is the initial cleansing bath given to the new born. The infantile body has been accustomed to a very warm environment during the intra-uterine period; therefore it must receive a shock on being exposed in a nude state to the atmosphere of a room which is not usually too warm, and where it is possibly subjected to draughts of air that are still less warm, especially if the season be winter; and then to be subjected to a prolonged bath with soap and water, with the consequent radiation of heat and chilling of the body surface, must undoubtedly be very depressing. It is not uncommon to see the child emerge from the bath with the surface of the body cold, the lips, hands, and feet blue, and in the case of infants that are not robust, a general cyanosis may be present which will sometimes last for two or three hours despite all efforts to equalize the circulation by external application of heat. While in this state, with the external vascular system in a condition of comparative inactivity, the child's internal organs are in a state of engorgement and over-full of blood. At the same time the circulation is undergoing those radical changes which must take place at this time if the child is to survive. The foramen ovale is making an effort to close, and nature should now begin the obliteration of the ductus arteriosus and venosus. This obviously will be impeded by the presence of the excessive amount of blood the internal organs are called upon to manage under these circumstances.

If there be any of the conditions present favoring the occurrence of hemorrhages from the gastro-intestinal tract, as set forth by the various authorities on the subject, the tendency will be greatly augmented by the conditions which I have just set forth. I have seen in my own private practice two cases of melaena and possibly a third in which the child's body was unduly exposed to the chilling influences of the bath and cold air, and while I am well aware that so few cases prove nothing, I believe that the theory is well founded. I therefore, for this reason and for others, dispense with

the bath immediately after delivery, and order the child's body to be only greased, preferably with olive oil if it is at hand, and the grease removed by friction with a soft cloth, the child to be dressed or warmly wrapped, and the face and head then washed with soap and water, reserving the bathing of the body until the next day.

Patek has a paper on the Serum Treatment of Hemophilia in the *Wisconsin Medical Journal* which is interesting in connection with Dr. Holland's paper, although the two diseases may not be closely allied. We here give his conclusions:

1. The etiology of the disease is still enshrouded in mystery.
2. In blood serum there is probably contained a clotting ferment or substance—either present in the circulating blood or released during a hemorrhage—which, in part at any rate, is responsible for the phenomena of coagulation.
3. In hemophiliacs this clotting ferment or other substance is either absent, deficient, or in some manner held in abeyance.
4. Human or animal blood serum, applied either locally, subcutaneously, or intravenously, may have styptic action during a hemorrhage.
5. Any commercial specific serum may be used in an emergency, but because of the danger of anaphylaxis when alien serum is employed, human serum is the substance of choice.
6. In view of the danger of surgical intervention in those predisposed to bleeding—more especially in hemophiliacs and in those who are chronic cases—the proven value of a prophylactic injection of serum prior to operation should make it obligatory upon surgeons to seek out those cases in every instance and consider carefully the propriety of giving them this adequate protection against accident.
7. Subcutaneous injection is sufficient and the preferable method in most cases. For massive hemorrhages transfusion should be employed—both to compensate for the loss and with the hope of checking further bleeding.

Thus it would appear that the possibility that in normal blood serum (human and animal) we have means of favorably influencing various blood dyscrasias and of effecting the course of generalized infectious processes is not a vain dream. The good results in hemophilia, in indicated cases preparatory to operation, in eclampsia, in a reported case of desperate puerperal streptococemia, and the encouraging results of subcutaneous treatment in tuberculosis, make us aware that we are face to face with, and approaching the solution of problems of the greatest magnitude. How large a factor normal human serum will play in the future therapy of these problems remains speculative; but there are reasons for believing that the advance in this field from the experimental to the stage of successful accomplishment is a realization not far distant.

In line with the above suggestions are the following, from Lespinasse and Fisher in *Surgery, Gynecology and Obstetrics* for January, 1911, in a paper on the Treatment of Hemorrhage of the New-born:

1. Direct transfusion of blood is the ideal treatment for hemorrhage of the new born; it meets and overcomes in an ideal manner the three chief indications—hemorrhage, anemia and infection.
2. Transfusion checks the hemorrhage at once.
3. Transfusion cures the acute anemia.
4. Direct transfusion of blood fills the baby's veins with a plasma that is more resistant to infections than the original plasma.
5. In the cases without syphilitic taint, direct transfusion of blood is an absolute specific.
6. Direct transfusion is best performed early, but it is never too late, and the operation should be tried in every case before the child dies.

—EDITOR.

REMARKS ON PELLAGRA Report of Two Cases.

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The diagnosis of pellagra is not often made in West Virginia. That the disease is caused by poverty conjoined with hardships is very clear to my mind, and that the skin lesions are aggravated in hot weather is natural. It is also natural that the skin lesions do not appear upon the more resisting or more lively surfaces of children. Pellagra, like oedema, is not a disease but the result of disease, a marantic condition similar to that ending typhoid fever, or certain other exhausting diseases.

No intelligent doctor thinks appendicitis a new disease. Doubtless pellagra has been, and is existing in some of our badly kept "Poor Farms." A rose can be called by any other name, but it is yet a rose.

As this is the laboratory age, it was and is natural that the causation of the disease should be sought by technical methods, especially as it is considered to be a new disease. Accordingly Doctor Lavinder, who, for a short time sat under my teaching before the name pellagra became common, has been diligently seeking the causation.

The so-called disease, Hook Worm, rewards its paid students in more than one way, but it strikes me that pellagra

is a disease calling for larder and not laboratory investigations. But the word larder is not to suggest any prejudice against the meal barrel. On the contrary, it is the absence of southern meal that is aiding in the causation of the disease in the Southern negroes, whose carbohydrate food it was until they were deprived of it by the great Civil war which brought so many hardships.

Most fortunately for the south it was the negro and not the best of the carbohydrates which was confiscated. The poet is yet to arise to sing of half of the virtues of *Southern* corn meal, *water ground*.

Lombroso and other Italian scientists, because they found the disease among certain poor Italians who ate spoiled meal, concluded that spoiled meal was the cause. They most probably confounded coincidence with consequence.

Dr. A. Caccini, in an able article in the *Medical Record* for March 11, 1911, stated that there were 100,000 registered cases of pellagra in Italy, and 50,000 in Roumania. This is a high index, showing the defective food supply, and unsanitary conditions existing in those two countries.

The germ theory would seem to be untenable from the fact that more women than men are affected by the disease, and germs do not usually respect genders. During menstrual life woman is, for many days each month, in a semi-pathological condition, or she is drained by pregnancy. In the meantime she works, and the peasant woman does the work which the man usually does in the United States, consequently food deprivations sooner impair the health of woman.

From the few statistics before me the negro race is an exception to the rule that women are much more liable to the disease.

In 1910 there were in the Alabama State hospital for the insane 29 negro men and 20 negro women with pellagra. But it is claimed that the negro race will be virtually extinct by the time of the twenty-first century. The Jews seem to be remarkably exempt from the disease. Of all people they are the most

particular concerning diet and poverty. As to the cotton seed oil theory of causation, the Italians do not eat such oil.

Case I. White man, age about forty; native of Kentucky, railroad section worker, married. Diet for the most part of baking powder biscuit, stewed Irish potatoes, "sowbelly," and wretched coffee. Gave a confused history of eruption upon the hands in 1910.

A lesion appeared on this patient which is not usually recorded. The skin upon the under surface of his penis was eroded like the skin upon his hands. This shows how difficult it sometimes is to give a complete definition. One branch of the definition of this disease is, that it is attended by an erythema upon the parts exposed to the sun. The eruption upon the backs of the fingers and hands were typical of American pellagra, which is more destructive to the skin. The red band continued upon the outer side of the arms half way to the elbow. Markings on the face were exceedingly slight and no discoloration was to be seen on the neck or elsewhere, except that on a large bald spot on the top of the head the skin was rough and dark, but not sore or cracked.

He was under observation for the greater portion of the month of May last, during which time, without our knowledge, he went to a C. & O. railroad hospital where he spent a week.

It is not probable that a diagnosis of pellagra was made in that institution, or it is probable that as a matter of interest he would have been longer detained. However, he probably told the railroad surgeon what he told us at the first presentation, that "a doctor had put some ointment upon his hands which took all of the skin off."

He died at the end of the month from an exhausting diarrhoea, which could not be controlled with large and frequently repeated doses of opium, camphor and tannin.

Case II. White woman, age 78, American. Food such as is obtainable from a coal company store, which is not bountiful nor varied. A year ago she had an eruption on the feet or ankles which the doctor called erysipelas. This spring her hands showed the eruption of pellagra, but with sore mouth, and great feebleness of mind, there are no other symptoms. Sometimes she has diarrhoea. The tongue is smooth, but as a diagnostic point I do not give this much weight. Yet this criterion is relied on by the Italian physicians. This old woman eats much salt, which may so strengthen the gastric juice that, if she has the disease, its more extensive ravages are kept in abeyance.

Usually in the disease there is much or complete absence of hydrochloric acid, and the best treatment is abundant chloride of sodium, muriated tincture of iron and sulphide of calcium, all of which aid the nutritive processes. We in America do not consider the price of salt, it is so cheap, but in Italy the government derives considerable revenue from

its taxation. At one time the Italians, or many of them, decided to spite the government by not buying its salt. It was noted that when they boycotted salt pellagra became so extensive that the government had to send out commissioners to furnish free salt. After this was done, and other measures of sanitation instituted, the disease rapidly declined.

Pellagra more particularly makes its appearance in the spring because it is at that time, in the cases of the poor, that "wintering" shows its effects. Spring is the test of vitality, the season for eruptive diseases, etc.

TWO CASES OF PELLAGRA.

B. B. Wheeler, M.D., McKendree W., Va., Supt. Miners' Hospital.

Case 1, referred by Dr. Groome, Glendale, W. Va. Mrs. H., age 35, admitted to hospital June 17, 1910, married 17 years, has four children, specific history negative, general health has been very good until the present trouble, which began or was noticed about April or May, 1910. First noticed a diarrhoea and skin eruption on hands and a pruritus of anus and vulva. The patient on admission was very emaciated, had a rough scaly eruption on hands, complained of pain in abdomen, a diarrhoea, insomnia, anorexia and an increased flow of saliva, lips sore and fissured in corner of mouth. Complained bitterly of the pruritus, and said had not been able to sleep since about the first of May. Temperature, pulse and respiration about normal, urine negative and no changes were found in the blood. Patient remained in hospital about two weeks, made no improvement, but gradually grew worse especially the nervous symptoms, returned home, and died in a few weeks.

Case 2, referred by Dr. Woodville, Fayette, W. Va. Mrs. R., age 23, admitted March 12, 1911, married three years ago, no children, specific history negative, general health was very good until about three years ago when she had the first attack of the present trouble. In fact this patient was referred to us in March, 1910, with some of the same symptoms as given below.

On admission we found a very thin, much emaciated, melancholic woman, with insomnia, anorexia, excessive flow of saliva, an aphthous stomatitis, diarrhoea, and a rough scaly eruption on back of hands and wrists. Temperature, pulse and respiration about normal, urine and blood negative. Her trouble always began in the spring of the year, and with the advent of warm weather her condition improved. She remained in hospital for two weeks, no improvement, but getting worse, especially the nervous symptoms, odor from mouth was gangrenous. Patient returned home and died a few days later.

FIBROMA OF THIGH—A CASE.

Geo. D. Jeffers, M.D., Parkersburg, W. Va.

In reporting this case I believe it to be an unusual one and I wish to thank my friend, Dr. C. J. Scott of this city, for referring the case to me.



The patient, a female, age 26, tall, and fairly well nourished. Unmarried and with a good family history.

At the age of 17 she noticed a small growth on the outer surface of left limb just above the knee joint. The growth had been gradual, although it had increased in size more rapidly in the last three or four years. The tumor had given her very little pain, but some discomfort from carrying it. The surface became irritated at times and on two or three occasions she had quite a profuse hemorrhage from the upper and inner surface. The tumor was hard and slightly lobed (as you will see by the cut) with irregular surface brought about by the influence of gravity and friction of clothing. The surface presented a purplish hue, and near the knee joint and pedicle varicose veins were numerous. The patient positively refused to be sent to the

hospital or take chloroform, so with my office assistant and the use of $\frac{1}{2}$ of one per cent. cocaine, I removed the tumor, securing as much skin from the pedicle as possible to cover over the stump. The stump healed rapidly and gave a nice smooth surface. The tumor weighed $2\frac{1}{2}$ lbs. and when opened up the interior presented a hard, cheesy appearance with a dark center and some fibrous bundles.

The pure fibromata, which are rare, are generally solitary, grow slowly, are of uniform consistence and have not much circulation. They usually have a distinct pedicle and may become large. The soft fibromata grow rapidly and usually several occur at the same time.

Opp City Hall Place.

Selections

THE RATIONALE OF TRANSVERSE ABDOMINAL INCISIONS.

Under this title, in the *St. Paul Medical Journal* of Dec., 1910, Dr. S. S. Hesselgrave has an interesting article whose main points are given below.

Everyone who has opened the abdomen by the vertical method knows the difficulty frequently encountered in retracting the wound sufficiently to enable him to do the intra-abdominal work. He has been annoyed by the intestines protruding into the wound and by the difficulty in replacing them. The wound is often inadequate in fat short patients, and wound infection occurs oftener than he would like notwithstanding the precautions taken to prevent it. More unfortunate for the patient, practically all of the infected wounds and some of the clean ones are followed by weak scars. In addition they are often sensitive and unsightly. In order to overcome the difficulties which the operator encounters and to ensure the patient against the likelihood of hernia the transverse incision is recommended.

Baudelocque used it as early as 1847. Pfannenstiel, Maylard and Boeckmann have since advocated it. The recti muscles need not be divided except in solid tumors and bilateral pelvic inflammations with adhes-

ions. In 1908 I made a trial of the transverse incision in reaching the gall bladder. A straight incision at the level of the tenth costal cartilage extending from the median line to the costal border was found adequate. The rectus muscle was retracted toward the median line, giving ample space without incising the muscle. Twelve patients have now been operated upon transversely who had before been operated on by the vertical method, and all expressed a preference for the transverse.

The rationale of the transverse incision is based upon the anatomical principle of splitting the fibres of the aponeuroses rather than cutting them cross-wise. The value of this method has been proven in the McBurney operation and every advocate of the McBurney incision will be a convert to the transverse method. An incision in a tendon parallel to the course of its fibres produces a much less serious injury than one which is made across its fibres. The aponeuroses of the abdominal wall are in reality tendons and are entitled to the same surgical consideration as tendons of the extremities. Transverse incisions not only divide the aponeuroses by splitting the fibres but the blood and lymph-vessels are divided in a manner which favors repair. The aponeuroses of the three flat abdominal muscles pass across the abdomen from one muscle to the other, and have a common insertion in the linea alba. Since the linea alba is not a fixed object, these muscles really pull against each other and act as tensors of the abdominal wall. Below the umbilicus the internal oblique and the transversalis aponeuroses course transversely. Since the fibres of the internal oblique and the transversalis pass transversely in the lower abdomen, a transverse incision will divide two-thirds of the blended aponeurosis which passes in front of the recti muscles by splitting the fibres. The remaining one-third, the external oblique, is intimately adherent to the internal oblique in this locality, and perfect apposition occurs when the blended aponeurosis is sutured: the vertical incision divides these fibres at right angles to their course, and the outward pulling of the lateral muscles must tend to prevent firm union and contribute to the production of a weak scar. The aponeuroses are the essential strength of

of the abdominal wall. The principle of the transverse incision as applied to them is best illustrated by a taut rubber band, which, if cut cross-wise, will gape, while if cut length-wise the edges will remain in contact and the strength is not impaired. The rectus muscle is two and a half inches wide in the average patient, and extends from the pubic symphysis to the xiphoid cartilage. In the upper three-fourths it is intimately adherent to the anterior and posterior layers of its sheath. On account of this adhesion the muscle is not permitted to retract when cut transversely; in fact it frequently protrudes into the wound beyond the edges of the wound in the aponeurosis. In the lower fourth the rectus muscle has no sheath, since all of the aponeuroses pass in front of it in one blended aponeurosis. When the muscle is divided in this locality the ends retract about one-half inch. Approximation of the aponeuroses is usually all that is necessary to approximate the muscle. Occasionally the muscle ends remain retracted after the aponeuroses are approximated. In these cases the muscle tissue should be included in the bight of the suture in the aponeurosis. There are usually three transverse lines in the rectus muscle between the umbilicus and the xiphoid cartilage which have been proven to be tendinous intersections in the muscle passing from the anterior to the posterior layers of the sheath. Hyrtl says that this arrangement strengthens the muscle by creating a series of short muscles where we would otherwise have one long one. If a transverse incision is made so as to divide one of these muscle bellies, an additional transverse line will be formed when cicatrization occurs. In like manner when the muscle is divided transversely in the lower abdomen a transverse line will occupy the site of the incision when cicatrization has taken place.

Having divided the rectus muscle one hundred and thirty-two times in seventy-two patients, I feel justified in saying that it is often advantageous and never injurious.

The internal oblique and transversalis aponeuroses run transversely, therefore it seems to me to be a very logical thing to make abdominal incision in the transverse direction. That the rectus muscle

repaired well when divided transversely, Maylard discovered during an operation upon the stomach through vertical incision. Control of hemorrhages demanded more room, and it was impossible to retract the wound sufficiently; so he divided the aponeurosis and right rectus muscle. When the wound healed he was surprised to note that the transverse portion of the wound was firm and strong, while the vertical portion presented a well-marked hernia. This was the reverse of what he had expected. Recalling that the oblique subcostal incision of Kocher, which divides the rectus muscle, usually cicatrizes firmly, he began cross sections of the muscle in the lower abdomen, with results equally good. He states that he was not actuated by a desire to do something odd, nor to depart from well established customs, but that the better results obtained compelled him to choose the transverse incision.

The nerves of the abdominal wall pass transversely, supplying the rectus muscle after perforating the transversalis and internal oblique aponeuroses near the semilunar lines. There are no nerve trunks between the limits of the semilunar lines, consequently if the incision is kept within this area we will have the minimum of pain and atrophy. Contrast this incision with one at the outer border of the rectus muscle, where nerve trunks must be divided and the rectus weakened thereby. This incision at the outer border of the rectus is seldom less than three inches long, and since it is about twelve inches from the pubic to the costal attachment of the rectus, one-fourth of its nerve supply at least will be severed by this incision. The median incision does not injure nerve trunks, but it divides the aponeuroses in the most injurious way and at a point where the circulation is feeble and repair of necessity slower than in localities where the blood supply is abundant.

The blood-vessels and lymphatics run vertically between the semilunar lines and anastomose feebly at the linea alba. It is apparent that the blood-vessels course directly across the wound in transverse incisions, and that this is the best possible arrangement for the introduction of arterial nourishment and the carrying away of

wound effusions by the veins and lymphatics which accompany the arteries.

In defense of the transverse section of the rectus muscle in the lower abdomen, let us recall that Kocher and his followers have been practicing it in the upper abdomen for a number of years with satisfactory results. Kocher divides the sternothyroids and sterno-hyroids in thyroidec-tomies requiring ample space, and his technic is followed by a great many men who are opposed to dividing the rectus in its lower portion. Bevan employs transverse section of the rectus muscle in reaching the biliary ducts when more room is needed than given by an incision through the middle of the rectus. The Mayos prefer it in operations on the deep ducts. They incise the aponeurosis in front of and behind the rectus muscle, but do not divide the muscle transversely. Cross section of muscle cicatrizes remarkably well. They occur daily in so-called flesh wounds, and ill results only when the nerve supply has been injured or loss of substance is met with.

All pelvic and epigastric operations may be done through two transverse incisions; one about two inches above the symphysis pubis and the other at the level of the tenth costal cartilage. The upper one need not extend further than the median line in ordinary cases of gall stones, and the muscle should be retracted toward the median line. In cases requiring more space the incision may be extended across the epigastrium and both muscles divided if necessary. In pelvic operations the muscles may be separated in the median line as they are in vertical incisions, or they may be divided partially or completely as the case requires. I do not cut the muscles when it can be avoided, but have cut them sufficiently to become convinced that it is better to cut the muscle cross-wise and the aponeuroses length-wise than it is to cut the muscle length-wise and the aponeuroses cross-wise.

It would be idle to contend that the transverse incision will not give way in clean cases that become infected nor in pus cases which must be drained from the start. What is claimed is that the transverse incision resists infection better in cases primarily clean, that it is less likely to be fol-

lowed by wound reaction, and that it tolerates the presence of a drainage tube and its opposition to cicatrization better than the vertical does. If under these circumstances hernia does occur, it is always much less pronounced than is the case in the vertical incision, and is more readily repaired because the fibres are only separated while in the vertical incision the ends of the fibres have been pulled apart by muscular action and destroyed by septic processes leaving an appreciable deficiency between them. The incision should be made as nearly as possible directly over the area requiring treatment. The transverse is admittedly the best direction, else why do thousands of vertical operators employ forcible retraction to convert the vertical into transverse incision?

In closing these incisions formalized pyoktanin catgut has been used throughout. Continuous sutures have been used in each layer with three additional interrupted sutures in the aponeurosis, one in the median line and one on each side at the point where the external oblique joins the internal oblique aponeurosis. In fleshy people, in whom wound effusions are apt to occur, the ends of the three interrupted sutures are left long and allowed to protrude through the incision in the skin acting as capillary drains. Number 0 is used for the peritoneum, number 1 for the aponeurosis and 000 for the superficial fascia and skin. The skin is closed by a subcutaneous suture and the anesthetic is stopped when the peritoneum is closed, as there is no pain connected with the closure described.

The length of the incision will vary from two inches with separation of the muscles for ovarian cysts to five inches or more for solid tumors of large size.

A word of caution should be given in case the incision must extend beyond the limits of the semilunar lines. If this is done with knife or scissors the nerve trunks supplying the rectus muscle will be very apt to be divided, so it is imperative to employ digital separation of the fibres of the aponeuroses. No apology need be offered for an incision which extends one inch beyond the semilunar lines, for it will be but seven inches in length, while vertical incisions frequently extend two or three

inches above the umbilicus in operation for large solid tumors, and since the distance from symphysis to umbilicus is six inches it is very apparent that it exceeds the transverse in length.

Ochsner says that the transverse incision has improved the results in umbilical hernia to such an extent that whereas it formerly furnished the largest number of recurrences we now have as good results as we do in inguinal hernia. This is another way of saying that the transverse incision is followed by stronger cicatrization than the vertical. Reed states that fat patients, while lying upon their backs, exercise all of the gravity which is derived from heavy and mobile abdominal walls in a tendency to retract from the median incision, while their equally natural tendency is to hold a transverse incision in continued apposition.

The making and closing of the transverse incision requires more time than the vertical does, but the intra-abdominal part of the work can be done more quickly, more easily, and with less traumatism, which is a more important consideration than the rapidity with which a patient can be removed from the table.

I venture to predict that the time will come when no other incision will be employed, and that time will arrive when the incision is better known and understood. After three years acquaintance with it I am unable to think of a single objection to it. My experience has been limited to 128 cases and includes the general run of pelvic, biliary and appendiceal conditions. There were also three cases of supra-pubic prostatectomy, one of supra-pubic cystotomy, one of excision of the ascending colon, two incomplete obstructions due to bands and adhesions from previous operations, one case of acute obstruction and two explorations through an incision two inches below the umbilicus. There have been no wound infections in the clean cases. The case of acute obstruction was followed by a severe wound infection, but it was not unexpected as there was a pus focus in the pelvis when we operated.

My results have been very much better since I have begun using the transverse incision and since the only important change that I have made in the technic is the direc-

tion of the incision; it seems only fair to ascribe the improvement to the direction of the incision. The vertical incision is poorly supplied with arteries and veins to feed the wound and carry away the debris, and every one who has been subjected to this measure has been grateful for its discontinuance.

The most important advantages of the transverse incision to the operator are:

1. Easier and less tiring operating on account of the direct access to the field of operation and the better view of the area involved. In pelvic cases I have had witnesses at least six feet away who could see perfectly well.

2. Simplicity, one does not have to learn a multitude of incisions running every which way. It is only necessary to learn the anatomy of the cross section of the abdominal wall above and below the semilunar fold of Douglas and to make an effort to keep the incision within the limits of the semilunar lines.

3. One is never embarrassed for want of space, for if more room is needed than originally thought, it can be obtained by extending the incision in one direction or the other, or, if need be, in both directions.

Some of the most important advantages to the patient are:

1. Better looking scar.
2. Stronger union of the aponeuroses.
3. Less pain. This is especially noticeable when the recti muscles are cut and is due to the absence of spasm of the recti.

4. Less wound reaction. This is due to the fact that the wound margins are not contused by retractors and to the technic of closing the skin into which no needle nor thread penetrates.

5. Less anesthetic is needed, particularly when the recti muscles are cut, because we have no rigidity to overcome.

6. Greater protection is offered the intestines, which are retained within the cavity surrounded by their normal envelope.

7. Less gauze packing is necessary and we should never hear of a yard piece being left in the abdomen since they are all within reach of the eye.

8. In cases of pendulous abdomen, a long lozenge-shaped incision will do away with the skin and fat in this deformity as

a preliminary to the proposed operation.

9. Shaving of the pubic hair is not necessary and everyone who has been subjected to this measure has been grateful for its discontinuance.

MY OBSERVATIONS IN EIGHT YEARS OF OSTEOPATHY.

W. A. Rush, O.M.D., Omaha.

I do not wish to be understood as making apologies for being an Osteopath. Such is not the case. I have never been sorry that Fate so directed my course. On the other hand, I consider it one of the most fortunate experiences. In the first place, had it not been for my taking up the work in the way I did, I probably would never have studied medicine. Secondly, I think it has been of great value to me in giving me a mental attitude which permits me to give just consideration to any phase of the healing art without the least bias. This point I wish to emphasize. I care not to be designated as an Osteopath or as a representative of any exclusive system of therapeutics.

I completed the required course in a standard Osteopathic college, graduating in June, 1903. I left this school thoroughly enthused, as I had been fed on Osteopathic Pie to the total exclusion of any other diet. I located at La Grange, Indiana, for the practice of my chosen profession and there had an experience which involved me in a law suit with a medical brother. This bit of experience tended to further sour my stomach against the medical profession. I lived through this experience very gracefully, but as time went on and my experience broadened, I began to learn that in all the hundreds of years that the science of medicine had been in the process of evolution, one man, working alone in his way, following out his own course of thought, could not in a span of a few years, work out a system of therapeutics that could upset and destroy all the results of hundreds of honest, conscientious, brilliant, soberminded men who had devoted their lives to the study of human life in health and disease, and to the study of therapeutic measures directed toward their relief.

Having become aroused to this occasion, I began reasoning to myself.—“Is it not

possible that a mistake was made when I was taught at an Osteopathic School, that we as Osteopaths, are better trained in those fundamental branches of the healing art anatomy and physiology, than M.D.'s? Perhaps other branches have not been given the importance they deserve, that may justly be considered as foundation stones.”

We, as Osteopaths, were using the argument at that time, that, although a medical course was then requiring sixteen months more time than the Osteopath's course, we were being more thoroughly trained in the more important branches that make a firm foundation for the building of a skillful physician, the claim being that medical schools wasted, as we put it, so much time in the study of materia medica and drugs, that their courses in the fundamental branches were sadly neglected. We congratulated ourselves that we were, therefore, the better equipped.

I began comparing notes, visiting medical schools, talking with medical men, and as a result of my investigations, I concluded that they were fully as well equipped as we, yea, even better, and in addition that there was another branch of medicine that was a very, very important essential, that had been well nigh totally neglected in my course. I refer to pathology. I speak freely on these subjects, because, as I said in the first place, I believe that I am totally unbiased. I can see the weaknesses in osteopaths.—I can see the weaknesses in medical men. I believe that I am a better friend to osteopathic principles and to the future of the osteopathy than the man who plunges madly on, claiming to do things which common sense and good judgment lead even the laymen to conclude is either gross misrepresentation or woeful ignorance, than the man who worships so blindly at the throne of his own “ism” or “pathy” that he walks boldly on ground where angels fear to tread—a thing that must eventually react unfavorably to his profession.

When I saw how carefully pathology was considered in medical schools and then thought of how I had, in all, never seen to exceed twenty-five gross specimens of pathological organs, how ridiculously few microscopic studies of pathological sections I had made, how I had never seen a post mortem performed, I decided that I was in

no sense a man in whose charge I would care to place the life of my wife or child, mother or father, expecting them to receive the best care that modern training is supposed to fit him to give.

I am very firmly grounded in the belief that when a physician is called to the bedside of the sick and afflicted he should first of all be equipped with ability to make a diagnosis by any or all, if need be, of the modern methods of laboratory and physical diagnosis, and when he has made his diagnosis, to apply any form of treatment indicated, not being hampered by dogmatic ideas or faith in any one system of practice which is so great that he refuses to consider any other form of treatment.

In my opinion, a physician should be a broad minded man, a man who can see his duty clearly and be fearless in the performance of it. If the case, or any phase of it, be such that a form of treatment be indicated which he is not trained to apply, he should refer the case to a man who can give treatment. He should do this because it is a duty he owes the patient. He should not be so narrow minded as to say, "No I will not recognize a man who represents another school of practice."

Osteopaths have heralded about the country a claim that they are the best anatomists on earth, and this belief is very popular among the laity. I wish to deny this most emphatically. Having completed the course in both schools, I feel that I am equipped to answer this question. My personal experience is that I received a more complete course in a regular medical than in osteopathic school. This was my *personal* experience. In medical school, the course was conducted by Dr. H. J. Prentiss, one of the world's greatest living anatomists. Therefore, realizing that in view of the fact that it was my good fortune to have this man as my tutor, I will take no unfair advantage in the comparison. I have selected a catalogue from a medical school which meets the requirements of the American Medical Association, and one from an osteopathic school which fulfills the requirements of the American Osteopathic Association. I find that medical students are required to devote more time to anatomy than are osteopathic students. We must grant that men attending either

school are equally anxious to get the best out of their work; that the men teaching the subjects are equally enthusiastic. The natural conclusion, therefore, is that graduates from the medical colleges are more efficient as anatomists than are osteopaths. Please keep in mind that I am considering nothing but standard schools, for there are schools in both systems that are a shame and a disgrace to either profession.

The laboratory courses in both schools are by no means on an equality, medical laboratory training being far superior.

Chemistry is another subject which is not given sufficient attention in the schools of osteopathy.

Next I wish to mention a thing which to me seems of great importance, if we wish to maintain a high standard among our graduates. This is the matter of entrance requirements. Up to the present year, osteopaths have not asked as much as a high school diploma for entrance credits. Most any one who had the money to pay tuition could be matriculated. This spirit of commercialism is a deplorable thing in any school. Osteopathic catalogues now advertise high school credits as entrance requirements, and I have no reason to say that they will not closely adhere to it. On the other hand, standard medical schools are now requiring two years college credits in addition to high school diploma.

The result of low entrance requirements in osteopathic schools has been the licensing of a large number of men who should never have been permitted to take up the work, because we know, even at the best, few men are born physicians.

I think I have said enough by way of comparison between the two schools to prove that D. O.'s are positively far inferior to M. D.'s in so far, at least, as training is concerned.

I know you feel differently regarding the value of mechanical therapeutics, but in this land of freedom of thought and expression, I feel at liberty to speak freely of what my experience has taught me to be true. I know that in many conditions results are obtained under this form of mechanical therapeutics where drugs have failed, and at the same time, nothing is

being introduced into the body that has toxic effects.

Many of you will say that the results thus obtained are due to psychic effect rather than any real therapeutic value of the mechanics applied. I say such is a mistake, but even in granting that such statement be correct, if by inducing an altered psychical state, we can cause a constipated bowel to move normally, why insult the delicate mucous membrane with irritating and toxic drugs?

Another good thing homeopathy and osteopathy have done is to act as a check on the practice of reckless drugging and useless polypharmacy. To illustrate,—I am not a socialist, but I think socialism has done vast good acting as a check on the old parties; and its effect has resulted in beneficial legislation. * * *

By now I hope you understand me when I say that I feel that a medical man who blindly refuses to consider this form of treatment, walks in his own shadow, and the osteopath who is so pinheaded as to go on groping in the darkness of his own ignorance, casting to the winds the results of hundreds of years of medical science and research, is a fool and a menace to human life.

In conclusion, I wish to say that I have tried to be fair to every one, and to myself, in giving you the results of my eight years experience in osteopathy. I often think that the ideal condition would be to have a department of mechanical therapeutics in our colleges, with a man at the head of the department who devotes his entire time to the subject, a man who is capable of conducting research work along this line, and who would be enthusiastic enough to bend his best efforts towards advancing the science and keeping the thing before the student body in such a way that they will leave the institution fully convinced of its great value, thoroughly trained in the application of it, and with a determination to either practice it themselves, or, recognizing its efficiency, turn the work over to some one who can do it properly.—*Iowa Med. Journal.*

Abdominal pains associated with a small mass in the umbilical region, or at the brim of the pelvis, should arouse the suspicion of a possible "fused," "horseshoe" or "pelvic" kidney.—*American Journal of Surgery.*

Anaphylaxis. In *N. W. Medicine* for July Dr. Owen, of Seattle, writes on this subject, reaching these conclusions:

Hypersusceptibility is increased by repeated dosage, and is now more likely to be encountered by reason of almost universal usage of the serum for immunizing purposes than formerly, and it is therefore, the duty of the physician to ascertain in every case before administering treatment, if his patient has had a prior injection, and to inquire as to history of asthma and hay fever.

Hypersensitiveness is markedly influenced by the amount of serum used, making it advisable to employ the highest concentration of antitoxin, in the smallest quantity of serum obtainable.

As in the hypersensitive subject the serum produces a more profound effect if injected directly into the circulation precaution must be taken to avoid passing the needle into a blood vessel.

And, finally, if the study of anaphylaxis should prejudice any physician against the use of antitoxin, he has only to reflect that for every death chargeable to the serum, a great number of lives have been saved which without it would have been lost; and that if the occasional fatal results attending its use were hopelessly unavoidable, it would still be a small exaction in comparison to the priceless boon its discovery has proved to humanity.

(We suggest the following additional: When it is necessary to administer serum to an asthmatic, to one sensitive to the odor of horses, or to one with chronic bronchial affection, precede the injection by a hypodermic of atropine, which has been shown to have some controlling influence. If anaphylaxis occurs in any one, give atropine and digitalis by injection, as both are believed to be useful.—

In the case of a urethro-vaginal fistula, the vaginal opening can readily be discovered by the injection of methylene blue into the bladder and noting its escape through the vagina. If, however, the opening communicates with the ureter, the blue colored fluid cannot be seen. In such a case, a catheter at times can be passed directly from the vaginal opening into the ureter.—*American Journal of Surgery.*

The West Virginia Medical Journal

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Editorial

OUR 44th MEETING.

White Sulphur Springs—"The Old White"—almost world-famous before the dreadful civil war that devastated the sunny southland, was the place of our meeting. Our mind wandered at times to the *ante-bellum* days when, as tradition has it, the youth and beauty and chivalry and statesmanship of the South were wont to assemble here year after year to pass the summers, some in wandering beneath the giant oaks, some in roaming through forest paths, some in riding over mountain roads, some engaging in the mazy dance at night, and others setting up political plans to shape the future of the state or nation. And what more delightful spot could have been selected in which to rest, find joy in social intercourse, and gather new strength for the accomplishment of future ends. A lovely and most verdant valley scooped out of the towering, wooded mountains that rise on all sides, an abundant supply of

green and shade, the purest water in never-failing abundance and of health-giving quality free for the asking to all who come, such is this old resort—old in years but rejuvenated and beautified by the efforts of the C. & O. R. R. Co. which owns the place.

Though a long distance from the homes of most of our members, one hundred came to this annual meeting. We were glad to see many new faces, but no less so to greet again old friends made familiar and dear by frequent association at our yearly meetings. The sessions were held in the casino, a beautiful hall in the grove, far removed from the noise of the hotel. So many doors opened to the outer world that the meetings were practically out doors. No suffocating fumes of tobacco, no carbon dioxide, no bad air of any kind; hence clear brains, keen attention and intelligent discussions. At no former meeting have we observed such marked attention and patient hearing of even the longest papers. On the second day the afternoon session opened soon after two and continued until after seven o'clock, when the day's program was completed. Not even the ever-present photographer could induce the members to desert the hall.

To one as long a member of the Association as the writer, the improved character of the papers and discussions in recent years is most notable; and those of this session rank with the best. We remember when the entire state contained scarcely a half dozen surgeons into whose hands one would have cared to place himself as a patient. West Virginia no longer needs to go beyond her own borders for any known surgical operation, and every county can boast of at least one excellent operator, while the state is full of physicians and surgeons of intelligence, judgment and skill, ready to render good service to all in need of aid. We are tempted to name some of those whose fine work has added to the good name of West Virginia medicine and surgery, but our readers well know them from their good papers and their work as recorded in the Journal.

In the House of Delegates the deliberations were, on the whole, calm and peaceful. An exception was the discussion on the medical defense plan of the Association.

An effort was made to rescind the former action of the Association; later so to amend the law as to discharge the legal counsel and the special committee, and leave the matter entirely in the control of the Council. Had the attorney feature been retained in this measure it would have passed with little opposition, but the retaining of a lawyer for advisory purposes was considered an essential feature; so after a somewhat heated debate the matter was left as it was originally passed, the feeling being that another year's trial would be wise. Fortunately no malpractice suit has been entered during the past year. A contest in the courts might result in showing the members that a dollar a year is a rather low price for the mighty good which our medical defense plan promises. Or, it might fail to show this. Let us try it.

We learned from three county secretaries that each had secured about ten new members solely on account of our provision for defense. On the contrary it was apparent that not a few had postponed payment of dues in the expectation that the defense plan would be revoked. It is difficult to conceive that any member who feels any interest whatever in medical organization or in the least appreciates the benefits to be derived from medical societies, will sacrifice his membership for the sake of a paltry dollar. Come forward, gentleman, like enthusiasts in the cause, pay up to date, and let us give this defense plan a hearty support until a test of its merits is made in the court. Then we will be in a position to determine its final fate. Other states have tried it successfully, saving members thousands of dollars. We know of one suit that was prevented in our state by a member showing the complainant that he would have the whole organized profession to contend with if he entered suit. Originally opposed to the plan, not a partisan advocate now, we calmly sit on the fence and watch for results, only begging that the Association may be a unit in its support while the law is on our books.

Three evening meetings were held at The White. On Wednesday evening a large audience heard with pleasure the Public Address by Dr. Venning in which he eloquently told what the profession had done and is doing for the general good of the public. On Thursday evening a general

discussion was had on the question of Social Hygiene, during which many members gave individual views and experience. The discussion was opened by a half hour's address by a member from Wheeling who spoke by special invitation. On Friday evening, instead of the usual banquet, a social session was held, and several hours were spent in delightful intercourse, with speeches, witty, wise, and otherwise. No one seemed to miss the banquet, certainly not the dozen or so who had been made quite ill in the morning, perhaps by over-indulgence in the many good things provided by the hotel management.

We have been privileged to hear doctors talk in many lands, both in formal lectures, in society discussion, and around the banquet table. After this experience we are of the decided opinion that the average well educated American physician is the most ready off-hand talker of them all. And so it is a constant pleasure to listen to a good discussion in a medical society, at an informal gathering of doctors, or to the "unprepared" banquet speeches, though accompanied with poetical illustrations drawn from the pocket instead of the head.

A fact worthy of note is, that there was no contest for any office. It early became apparent that all felt that Dr. C. O. Henry, for 28 years a member and always loyal and enthusiastic, should be chosen President. And so it was, by unanimous vote. All other offices were filled by the same vote. All seemed happy that we had escaped the petty wrangling and wire-pulling that have been so apparent at some of our recent meetings. An election confers no honor when it is secured by the methods of the politician. Hereafter "let us have peace," and let those be honored who, by the preparation of papers, by frequent presence at our meetings, and by work done for the Association, have striven to advance the cause of organized medicine and the interests of the Association which we all love.

It is needless to say that the business of the meeting was conducted pleasantly and efficiently by President Wingerter, and hence the White Sulphur session, while not attended by as many members as some others have been, will long be remembered as one of the most happy and successful in the society's history.—S. L. J.

If your Journal fails to reach you by the 10th, drop a card to us, not to your Secretary.

* * * * *

Where did the papers read at the annual meeting come from? This tells the story. The Capital City, Charleston, did herself proud and heads the list with eight papers; Huntington four; Charles Town three; Fairmont three; Clarksburg two; Wheeling two and one each from White Sulphur Springs, Martinsburg, Hinton, Elkins, Gauley Bridge, Jeffrey, McKendree and McComas. Where is the third city, Parkersburg, the beautiful? *Non est!* One delegate present and no paper. The first city can not boast, but we are assured that two, perhaps three additional papers have been written or are in course of preparation and will appear in the Journal.

* * * * *

At the suggestion of Dr. Venning provision was made at our recent meeting for a committee of three, acting with the editor, which shall provide for short papers on the prevention of disease to be published in the Journal unsigned, with the purpose of having the papers of the State copy them for the information of their readers. It is hoped that much good may in this way be accomplished. The *Chicago Tribune* has recently established a new department under the title, "How to Keep Well," edited by Dr. W. A. Evans, the distinguished ex-Health Commissioner of Chicago.

* * * * *

Our congratulations are extended to the public first and next to the big Dr. Wiley, on the complete vindication from the unfounded charges entered against him. No physician needs to be told what kind of people are back of these charges. They are not those who are interested in the physical welfare of the people so much as in their ability to pay big prices for impure foods and drugs.

* * * * *

The Sawyer Sanatorium at Marion, Ohio, has about completed an entire new group of buildings of the bungalow pattern. The style is unique but very pleasing and convenient. The new plant is almost ready for occupation. We are glad to know of this evidence of prosperity.

This is an old and well established institution for the care of the sick. We have recently had a patient under the care of the Drs. Sawyer and have heard nothing but pleasant things of the place.

* * * * *

The following from *Colorado Medicine*, the Journal of the State Society, so accords with our own ideas and repeated suggestions, that we appropriate it entire, and ask for it prayerful consideration:

Advertisements.

This journal is supported by the State Society. Whatever deficit is incurred must be met by the members of the society. The more advertisers we have the less each member of the society need pay toward the expense of running *Colorado Medicine*, out of his own pocket, and the more money the State Society will have to use for other purposes.

Now, no business firm will give you an advertisement from motives of sentiment or of charity. Every advertiser must see a good, hard business reason for contributing money to the support of your journal, and you must go out of your way to help convince him that it is to his interest to advertise. You don't have to solicit. We will attend to that, but you do need to raise your voice in season and out of season to the end that advertisers may see the value to them of an advertisement in your paper. If two or three surgical instrument shops advertise, and others do not, patronize those that do, and let them know why you patronise them; drug firms clothing stores, etc., the same. Then we shall be able to hold those we have, and get others besides. Our advertisers will see results, and we shall have no difficulty with them. That's what they are after—results.

* * * * *

An effort is being made by teachers of Obstetrics to have the State Examining Boards require all applicants to produce evidence of having attended at least six obstetrical cases before a license will be issued. Our women are certainly deserving of our best care. They are the salt of the earth. The requirement suggested is certainly none too great. Many more than six cases will be needed before the young doctor will be fitted to cope with the many emergencies often encountered in obstetrical practice.

* * * * *

The *Canadian Journal of Medicine and Surgery*, always the most beautiful Journal that comes to our office, is made doubly beautiful in the September issue by the introduction of many half tones and other pictures, illustrations of the hospi-

tals, public buildings and natural scenery of Canada. The number of advertising pages indicates a state of great prosperity in the Journal office.

DOCTOR DIED IN POOR HOUSE.

In 1880 Dr. F. P. Scott was President of the Washington County, Pennsylvania Medical Society, and on the 28th day of August, 1911, he died in the county home, where he had been since April 8th, this year. Many of us remember Dr. Scott as rather erratic, but withal a fair man, who was a sufferer. He studied medicine with the elder Dr. Emery, and practiced at Claysville and Monongahela. The cause of death is given as cancer of the face, and the paper says of his death: "No funeral services were held, but the body of Dr. Scott was buried at Pigeon Creek." It may be right, but it does not look so to us. Some men live too long it appears. Peace to his ashes, says every one of you.—*Washington County Bulletin*.

In choosing an antitoxin the practitioner should consider only serums of known reliability—products into which no element of conjecture enters. His own interests and those of his patient demand this.

With reference to diphtheria antitoxin it is noted that Parke, Davis & Co., in their current announcements to the medical profession, feature both the "serum," which they have produced unchanged for many years, and the newer "globulins," the two products being presented apparently upon even terms, without favor or prejudice to either. In explanation of this the manufacturers point to a division of sentiment on the part of practitioners, some of whom indicate a preference for the older serum, while others favor the globulins. In point of efficiency the two products stand upon an equal footing, each being of definite antitoxic strength.

State News

Dr. R. M. Baird, of Wheeling, was so unfortunate as to suffer a fracture of the right radius, very near to the wrist joint recently, in cranking an automobile. He has the sympathy of all of his brethren. The fracture, fortunately, was accompanied with no displacement and is recovering nicely. But a doctor badly needs a right hand, and this accident has entailed considerable loss.

* * *

Dr. L. N. Harris, of Mill Creek, who spent some time in medical study in Europe, is at home again.

* * *

Drs. Reed, Hildreth II, Hupp, Schwinn, Ackermann and Noome, of Wheeling, are expecting to attend the Surgical Clinics in Philadelphia in November.

* * *

The State Association chose the following officers at the late meeting: President, Dr. C. O. Henry, of Fairmont; Vice Presidents, Drs. R.

E. Venning, of Charles Town; Charles O. Grady, of Charleston, and H. W. Daniels, of Elkins; Secretary, Dr. A. P. Butt, of Davis; Treasurer, Dr. Nicholson, of Charleston.

Society Proceedings

MINUTES OF THE FORTY-FOURTH ANNUAL SESSION OF THE WEST VIRGINIA STATE MEDICAL ASSOCIATION.

Held at White Sulphur Springs, September 20th, 21st and 22nd, 1911.

GENERAL SESSION.

Wednesday, September 20th, 9:55 A. M.

Called to order by the President, Dr. C. A. Wingerter. Prayer by Rev. D. P. McGaechy. Address of welcome by J. S. McWhorter, Esq., of Lewisburg. Response by Dr. S. L. Jepson.

The President, Dr. C. A. Wingerter, of Wheeling, delivered his address. See page 111.

Drs. V. T. Churchman, H. W. Daniels and C. O. Henry were appointed a committee to act upon the recommendations contained in the President's address and report to the House of Delegates. Adjourned.

Wednesday, 2:30 P. M.

Called to order by President Wingerter.

Dr. Charles O'Grady delivered the oration in medicine—"Three Founders of Modern Medicine."

"The Significance of Albuminuria" was read by Dr. J. M. Lovett. Discussed by Drs. Jepson, Henry and Linsz.

"Recurrent Circumscribed Edema or Quincke's Disease" was the title of a paper read by Dr. G. B. Capito. Discussed by Drs. Hupp, Ray, Bonar, Johnson and Wingerter.

Dr. D. French Pauley read his paper, "Typhoid Fever, the Necessity for More Active Measures to Prevent It." Discussed by Drs. Butt, Jeffers, McClung, Bonar, Daniels and Judy.

Dr. A. K. Kessler read a paper entitled "Surgical Shock and Other Distressing Conditions Following Abdominal Operations." Discussed by Drs. Henry, Daniels, Bonar, Covert, Hupp, Judy, Jeffers, Strickler, McQueen and Wingerter. Adjourned at 6 p. m.

Thursday, September 21st, 9:55 A. M.

Called to order by President Wingerter.

Dr. T. H. Elliot read a paper on "Infant Feeding." Discussed by Drs. Judy, Edmondson, Bonar, Putney, Yost, Hupp, Jeffers and Henry.

"What Should Be the Physician's Attitude Towards Civic Improvements" was the title of a paper read by Dr. C. O. Henry.

"What Shall We Teach the Laity?" was read by Dr. R. B. Miller.

"A Few Facts Concerning Lodge Practice and

a Means of Abolishing Same" was read by Dr. J. Nelson Osburn.

Dr. James R. Bloss read a paper entitled "The Value of an Early Diagnosis in Cases of Mental Diseases."

These papers were discussed by Drs. Pauley, Mason, Covert, Tom A. Williams (visitor), Judy, Strickler, Venning, Churchman and Golden. Adjourned.

Thursday, September 21st, 2:40 P. M.

Called to order by President Wingerter.

The oration in surgery was delivered by Dr. S. M. Mason, viz.: "Some Observations Regarding Recent Surgical Progress, both as Regards Diagnosis and Technique."

"Operative Treatment of Fractures" was read by Dr. J. E. Cannaday.

Dr. W. Wayne Babcock, of Philadelphia, read a paper on "The Repair of the Relaxed Pelvic Outlet."

"Traumatic Musculo-Spiral Paralysis. Surgical Treatment, Report of Cases" was read by Dr. F. L. Hupp.

Dr. Ricketts, a visitor, of Cincinnati, was asked to open the discussion of the papers of Drs. Mason, Cannaday, Babcock and Hupp with special reference to the paper of Dr. Babcock.

Dr. Tom A. Williams, of Washington, D. C., was asked to discuss the papers with special reference to that of Dr. Hupp.

In the general discussion of the above papers, Drs. Cannaday, Venning, Arnold, Edmonson, Godbey, Covert, Golden, McDonald, Henry, Strickler, Babcock and Hupp took part.

On motion of Dr. Hupp Dr. W. W. Babcock was unanimously elected an honorary member of the Association.

On motion of Dr. Godbey Dr. B. S. Ricketts was elected an honorary member.

"Some Cerebral Affections Apt to be Mistaken for Neoplasms. Differential Diagnosis. Report of Case" was read by Dr. Tom A. Williams, of Washington, D. C. Discussed by W. W. Babcock, of Philadelphia.

Dr. H. G. Nicholson read a paper on "The Nauheim Bath." Discussed by Drs. Judy, Godbey, Churchman, Ray, Ogden and Wingerter.

Dr. Churchman offered a resolution. Adopted.

WHEREAS, the White Sulphur Springs is one of the great resorts in this country, and its waters are most beneficent in very many of the ailments pertaining to human kind; and,

WHEREAS, the said White Sulphur Springs is situated in the midst of the most healthful section of the United States, amidst beautiful surroundings, pure air and the most wonderful scenery in America; and,

WHEREAS, the properties of the waters of the Springs are as life-giving and health-making and potent in the prevention and cure of diseases, as are the waters of Europe; and,

WHEREAS, hundreds of thousands of dollars every year are taken from America by continental health resorts, when the same ends can be reached at home, thus saving millions of dollars to the people of America, and adding to the

wealth and beauty of our own country; therefore, be it

Resolved, That this Association express its desire and hope that the owners of the White Sulphur Springs will improve said property and develop it into one of the great health resorts and cures of the world.

It being the opinion of this Association that the said White Sulphur Springs can be made one of the great resorts of the world, and that it will be effective for the cure of very many diseases which today are sent abroad for the purpose of curing, the physicians of this country, and especially the physicians of this Association, in case baths are constructed and systems of cure inaugurated, will do all in their power in suitable cases to turn the direction of those seeking cure and health towards the White Sulphur Springs, rather than in the direction of Europe.

This Association respectfully calls the attention of the owners of the Springs to this view of the medical profession of the State of West Virginia, and this Association most earnestly hopes that the owners will concur in these ideas and inaugurate the line of work necessary to this end, and this Association will use all of its efforts to assist the owners in building up a great American cure, which they believe will rival any similar institution in any part of the world.

The President is directed to communicate this resolution to Mr. George W. Stevens, Mr. Frank Trumbull and Mr. Edwd. Hawley, of the C. & O. Railway.

Friday, September 22nd, 11 A. M.

Dr. G. Timberlake, of Baltimore, read a paper on "Tumors of the Bladder. Treatment."

Dr. H. R. Pepper read a paper on "Cure of Enlarged Prostate and Urethral Stricture by Electro-therapy."

A paper on "Vesical Urinary Retention" was read by Dr. C. L. Holland.

The papers of Drs. Timberlake, Pepper and Holland were discussed by Drs. Bloss, Venning and Arnett.

"The Meaning of Conservatism in Medicine and Surgery" was the title of a paper by Dr. C. R. Ogden. Discussed by Drs. Ricketts and Morgan.

Dr. Ricketts demonstrated the use of Harcourt's chloroform inhaler. The doctor stated that he had used this inhaler very successfully for a number of years.

"Tonsillectomy A Hospital Operation" was read by Dr. L. C. Covington. Discussed by Drs. Churchman, Johnson, Ogden, Moore, Cooper and Edmondson. Adjourned.

Friday, September 22nd, 2:50 P. M.

"The Laboratory in Diagnosis" was read by Dr. H. L. Robertson. Discussed by Drs. Cooper, Bloss and Tom A. Williams.

Dr. Stuart McGuire, of Richmond, read a paper entitled "A Review of the Cases of Goiter Operated on at St. Luke's Hospital During the Past Twelve Months." Discussed by Drs. Hupp,

Bloss, Edmonson, Jepson, Bennett, Tom A. Williams, Judy and Ricketts.

"Some Abdominal Conditions Simulating Appendicitis" by Drs. R. E. Venning and F. M. Phillips was read by Dr. Venning. Discussed by Drs. McGuire and Butt.

Dr. R. E. Venning moved that a committee of four, one of whom shall be the editor, be appointed to prepare or select, unsigned papers for the Journal on preventive medicine and the care of the health, with a view of having such papers copied by the newspapers of the State. Carried, and the following committee was appointed: Drs. Venning, Lind, W. H. McLain and Jepson.

On motion Dr. Stuart McGuire, of Richmond, was made an honorary member of the Association.

Dr. W. W. Golden made some remarks on vascular surgery in emergency work, and will publish his paper at a later date in the Journal.

The following papers were read by title and will be published in the Journal:

Should the State Medical Associations Have Increased Power, J. C. Irons.

Popular Delusions as Affecting the Physician, G. D. Lind.

Treatment of Maxillary Tumors, J. Schvinn. Pellagra, Report of Two Cases, B. B. Wheeler. Auto-intoxication. J. W. Moore.

A Quick Macroscopic Typhoid Agglutination Test, H. E. Sloan.

The Incipient T. B., Edward Cummings. Infantile Cerebral Spasie, C. W. Halterman. Meningitis, OWith Special Reference to Diagnosis, Abner Albin.

Peripheral Neuritis, A. L. Grubb. Administration of Salvarson, L. O. Rose. Pre-operative and Post-operative Treatment, A. P. Butt.

Cardiospasu, J. T. Thornton. Venereal Disease and the General Practitioner, A. L. Keim.

Value of the Test Meal, R. U. Drinkard. The usual vote of thanks was tendered the local committee, and the manager of the White Sulphur Springs. Adjourned to meet at Webster Springs in July, 1912.

C. A. WINGERTER, *President*,
C. A. BUTT, *Secretary*.

Members Present During the Meeting.

- W. P. Fawcett.....Alderson, W. Va.
- L. N. Yost.....Fairmont, W. Va.
- W. H. Yeakley.....Keyser, W. Va.
- R. E. Venning.....Charles Town, W. Va.
- S. L. Jepson.....Wheeling, W. Va.
- V. L. Casto.....Ripley, W. Va.
- H. W. Daniels.....Elkins, W. Va.
- A. A. Shawkey.....Charleston, W. Va.
- D. G. Preston.....Burnwell, W. Va.
- W. T. Highberger.....Maysville, W. Va.
- J. McKee Sites.....Martinsburg, W. Va.
- G. B. Capito.....Charleston, W. Va.
- B. F. Conaway.....Mannington, W. Va.
- A. B. Eagle.....Martinsburg, W. Va.
- H. P. Lintz.....Wheeling, W. Va.
- C. S. Morgan.....Moundsville, W. Va.
- W. P. Bonar.....Moundsville, W. Va.
- O. F. Covert.....Moundsville, W. Va.
- C. S. Fortney.....Hundred, W. Va.

- Mary J. Fortney.....Hundred, W. Va.
- J. E. Cannaday.....Charleston, W. Va.
- W. H. Wilson.....St. Albans, W. Va.
- G. W. Wentz.....Chester, W. Va.
- E. S. Dupuy.....Parral, W. Va.
- J. E. Coleman.....Fayetteville, W. Va.
- John Bennett.....Friendly, W. Va.
- R. A. Hamrick.....Clay, W. Va.
- E. W. Smoot.....Madison, W. Va.
- C. A. Ray.....Charleston, W. Va.
- C. O. Henry.....Fairmont, W. Va.
- W. E. Neal.....Huntington, W. Va.
- J. R. Bloss.....Huntington, W. Va.
- S. M. Mason.....Clarksburg, W. Va.
- H. G. Nicholson.....Charleston, W. Va.
- G. A. Gilchrist.....Asbury, W. Va.
- S. W. Price.....Scarbro, W. Va.
- James Putney.....Charleston, W. Va.
- W. W. Tompkins.....Charleston, W. Va.
- J. E. Rader.....Huntington, W. Va.
- C. L. Holland.....Fairmont, W. Va.
- T. W. Moore.....Huntington, W. Va.
- H. F. Smith.....Hinton, W. Va.
- W. H. St. Clair.....Blucfield, W. Va.
- D. F. Pauley.....Jeffrey, W. Va.
- W. W. Harloe.....Matoaka, W. Va.
- M. V. Godbey.....Charleston, W. Va.
- G. W. Banks.....Shepherdstown, W. Va.
- T. C. McClung.....Ronceverte, W. Va.
- H. C. Skaggs.....Kay Moor, W. Va.
- S. P. Peck.....Hinton, W. Va.
- W. L. Weadon.....Mt. Carbon, W. Va.
- I. D. Cole.....Academy, W. Va.
- E. Y. Willis.....Montgomery, W. Va.
- O. O. Cooper.....Hinton, W. Va.
- T. C. McClung.....Ronceverte, W. Va.
- W. E. Beard.....Alderson, W. Va.
- J. W. deVeber.....Ronceverte, W. Va.
- J. E. McDonald.....Logan, W. Va.
- M. F. Clark.....White Sulphur Springs, W. Va.
- O. J. Henderson.....Montgomery, W. Va.
- I. B. Johnson.....Laneville, W. Va.
- A. O. Albin.....Charles Town, W. Va.
- Howard Osburn.....Rippon, W. Va.
- I. N. Houston.....Moundsville, W. Va.
- A. K. Kessler.....Huntington, W. Va.
- J. M. Lovett.....Huntington, W. Va.
- B. B. Wheeler.....McKendrie, W. Va.
- J. Nelson Osburn.....Martinsburg, W. Va.
- W. A. Wykel.....Hinton, W. Va.
- B. L. Pettry.....Lawson, W. Va.
- W. J. Judy.....Webster Springs, W. Va.
- R. B. Miller.....Hinton, W. Va.
- L. L. Wyatt.....White Sulphur Springs, W. Va.
- C. A. Wingter.....Wheeling, W. Va.
- A. P. Butt.....Davis, W. Va.
- H. R. Fairfax.....McComas, W. Va.
- Charles O'Grady.....Charleston, W. Va.
- W. Quimby.....Wheeling, W. Va.
- F. L. Hupp.....Wheeling, W. Va.
- X. R. Price.....Marlington, W. Va.
- O. F. Richter.....White Sulphur Springs, W. Va.
- Glenn Moomau.....Petersburg, W. Va.
- J. B. Grove.....Petersburg, W. Va.
- W. W. Golden.....Elkins, W. Va.
- R. H. Edmondson.....Morgantown, W. Va.
- S. R. Holroyd.....Athens, W. Va.
- J. Ross Hunter.....Hansford, W. Va.
- L. C. Covington.....Charleston, W. Va.

C. T. Arnett.....Clarksburg, W. Va.
 H. L. Robertson.....Charleston, W. Va.
 R. H. Pepper.....Huntington, W. Va.
Visitors.

Tom A. WilliamsWashington, D. C.
 Edward Ricketts.....Cincinnati, O.
 W. Wayne Babcock.....Philadelphia, Pa.
 E. S. Hamilton.....Fayetteville, W. Va.
 Stuart McGuire.....Richmond, Va.
 J. B. Lockridge.....Minnehaha Springs, Minn.
 J. W. Ford.....Talcott, W. Va.
 L. W. Leonard.....Page, W. Va.
 G. Timberlake.....Baltimore, Md.

AMERICAN PROCTOLOGIC SOCIETY,
 13th Annual Session, 1911.

President, DR. GEO. J. COOK, Indianapolis.
Secretary, DR. LEWIS H. ADLER, Philadelphia.

ABSTRACT OF PAPERS.

SOME OBSERVATIONS UPON THE SURGICAL ANATOMY AND MECHANISM OF THE COLON—By GRANVILLE S. HANES, M. D., of Louisville, Ky.

Until comparatively recent years diseases of the colon and sigmoid, and the surgical anatomy of each, received but scant attention. Recently, however, much valuable information upon this subject has been developed. Robert Coleman Kemp in his work on Diseases of the Stomach and Intestines says that Dr. J. M. Mathews was the first to call attention to sigmoiditis and diverticulitis of the sigmoid.

The entire length of the large bowel in situ is found to be much shorter than when it is dissected from its attachments. An ordinary thirty-inch colon tube has sufficient length to extend around the lumen of the large bowel to the cecum. While this has not been done in the living individual it has been done in the cadaver, and radiographs of the same are on record.

It is almost universally believed that ordinary flexible colon tubes can be manipulated in such a way as to traverse the entire course of the large bowel around to the cecum. It has been proven by a number of investigators that such an achievement is impossible in the normal bowel. The average length of the sigmoid is about eighteen inches, and this being a floating portion of the large gut it is almost impossible for an instrument to pass beyond the middle half of the sigmoid. Should such be possible and the tube enter the descending colon it would be a physical impossibility for it to pass either the acute angle at the splenic flexure or the hepatic flexure. The failure of the instruments to pass high into the bowel has been demonstrated by X-ray pictures.

Dr. Hanes demonstrated the difficulty in passing any instrument through the hepatic and splenic flexures by introducing a thirty-inch, No. 20, French, soft rubber catheter into the caput coli in an old appendicostomy case. He failed by any kind of manipulation to pass the catheter through these flexures. The tube was allowed to remain in the head of the colon for twenty-four hours with the hope that peristalsis would carry it around, but this failed. After manipulating the second time three hours later four inches of the catheter appeared through the anal opening.

He forced bismuth solution into the head of the colon till the wall of the gut was thoroughly distended and then Dr. E. Bruce made a skiograph. No regurgitation into the ileum occurred. This experiment was repeated a number of times with the results as above given. If the ileo-cecal valve allows no reflow into the ileum then exceedingly large amounts of water injected into the bowel are retained in the large gut, and not a part of the amount passed into the small bowel as is supposed by some.

In an old appendicostomy case, with the patient on the left side, coal-oil was poured into a colon tube that had been introduced three inches into the rectum. In six and a half minutes the oil was flowing out of the appendicostomy opening. The amount employed was thirty ounces. This clearly demonstrates that liquids will easily pass around the entire colon without flowing through a tube. The point is also made that coal-oil is much less irritating to the mucosa than plain water or ordinary aqueous solutions.

The capacity of the large bowel in situ was measured by temporarily closing the opening of an appendicostomy case and allowing coal-oil to flow into the rectum as long as the patient could tolerate it. At a later date the same experiment was made by allowing oil to flow into the head of the colon. About the same amount of oil was received in each case. After making the same experiments in other cases it was decided that the average large bowel had a capacity, varying between fifty and sixty-four ounces.

The capacity of the rectum was ascertained by inverting the patient and placing a colpeurynter at the juncture of the sigmoid and rectum, just within the sigmoid. The colpeurynter was then distended with air until no fluid could pass into the sigmoid. Coal-oil was allowed to flow into the rectum till no more could be received. It was then drawn off with a catheter and the average amount was found to be between fourteen and seventeen ounces.

He insists that the Inverted Position (Hanes) is much to be preferred by both patient and operator when any kind of illuminating instruments are to be employed in the rectum or sigmoid.

HAVE WE AN IDEAL OPERATION FOR HEMORRHOIDS? — A New Hemorrhoidal Clamp.—By A. B. COOKE, M.D., of Nashville, Tennessee.

An ideal operation for internal hemorrhoids must embody the five following surgical principles and precepts:

1. Complete hemostasis.
2. Immediate closure of the operative wounds.
3. Preservation of the function of the parts.
4. Permanency of cure.
5. Due consideration of the factors of safety, simplicity of technic, time required for recovery, and the amount of post-operative discomfort.

The ligature operation violates principle 2. The clamp and cautery operation falls short with reference to the fourth class of principles in each of its several points.

The Whitehead operation violates principles 1, 3 and 5, and is, moreover, an unnecessary and unjustifiable procedure.

The operation by means of Earl's clamp is a modification of the Whitehead method and a vast improvement upon it, but is apt, likewise, to violate principle 3.

Pennington's enucleation operation is open to criticism under classes 1 and 5 of the surgical principles. In spite of its ingeniousness, it is dangerous.

The Clamp and Suture operation described by the author fulfills all conditions and is entitled to be considered the most nearly ideal of any yet devised.

A new hemorrhoidal clamp designed to facilitate the last named operation was presented and strongly recommended.

BARBOUR-RANDOLPH-TUCKER SOCIETY.

ELKINS, W. VA., SEPTEMBER 8TH, 1911.

The above society met in regular session in the parlor of the Hotel Randolph in Elkins on Tuesday, September 5th, with a fair attendance. The following officers for the coming year were elected:

President, Dr. E. J. Horgan, of Jennigston, Vice Presidents—First, Dr. A. S. Bosworth, Elkins; second, Dr. E. M. Hamilton, Belington; Secretary, Dr. E. R. McIntosh, Elkins; Censor, Dr. H. W. Daniels, Elkins.

At the afternoon session two very interesting papers were read. The title of the first, by Dr. Cherry, was Sciatica, and the next was Notes From Abroad, by Dr. Harris. Both were greatly enjoyed. At the evening session Dr. A. P. Butt, of Davis, read a most instructive paper entitled Preoperative and Postoperative Treatment. Dr. Golden was down for a paper on Illegal Practitioners, but the paper failed to materialize, but the society hopes to have it in the near future.

E. R. MCINTOSH, *Sec'y.*

EASTERN PANHANDLE SOCIETY.

The Eastern Panhandle Medical Society met September 6th in the parlors of the Hotel Berkeley. At noon the society had a special dinner, after which the business session took place. Dr. W. E. Henshaw, President of the society, presided over the deliberations, with Dr. A. Bruce Eagle, Secretary. The chief feature of the occasion were three addresses by three distinguished medical men. This portion of the program included Dr. P. Herring, of Baltimore, Md., on "The Trend of Modern Psychiatry;" Dr. James M. Duff, of Martinsburg, "Indications for, and Method of Removal of the Tonsils," and Dr. Arthur M. Shipley, of Baltimore, "The Diagnosis and Treatment of Acute Abdominal Conditions in Children."

Those present at this meeting were: Drs. Herring and Shipley, of Baltimore; Dr. Phillips, of Charles Town; Dr. Ranson, Harpers Ferry; Dr. Swimley, Bunker Hill; Dr. Brown, Shenandoah Junction; Dr. Lemaster, Bedington; Dr. Stigers, Hancock; Dr. McCunc, Evers, Henshaw, Sites, Osburn, Sponseller, Clay, Duff and Eagle, Martinsburg.

A. BRUCE EAGLE, *Sec'y.*

TYLER COUNTY SOCIETY.

FRIENDLY, W. VA., SEPTEMBER 18TH, 1911.

A meeting of this society was held in the office of Dr. G. B. West, at Sistersville, W. Va., September 16th, at 2:30 p. m.

Meeting called to order by Dr. George A. Jennings, president. There was a good attendance, and while we had no papers, there were a number of very interesting care reports.

Dr. G. W. Shriver, Secretary-Treasurer, having moved to Metz, W. Va., to resume the practice of his profession, Dr. John Bennett, of Friendly, was elected Secretary-Treasurer. The following physicians were elected to membership: Drs. W. H. Young and J. A. Grier, both of Sistersville. The second Monday of each month at 2:30 p. m., was set as our regular meeting day.

Received dues from Dr. J. A. Grier. Remember our next meeting day, October 9th at Sistersville, at which time papers will be read by Drs. W. H. Young on Medical Ethics; Dr. M. M. Reppard on Common Affections of the Throat.

Wishing the Journal success, we remain,

Respectfully,

JOHN BENNETT, *Sec'y.*

OHIO COUNTY SOCIETY.

This society met at the usual place on Monday evening, September 18th, Dr. Fulton in the chair, and Dr. Hersey at the desk as Secretary. An unusually large number of members were present. The annual election of officers was held, and resulted in the unanimous choice of the following:

President, Dr. S. L. Jepson; Vice President Dr. S. L. Spragg; Secretary, Dr. E. F. Glass; Treasurer, Dr. R. M. Baird; Board of Censors Drs. Aschman, Haning and Hall; Delegates to State Association, Drs. Hupp, Quimby and Thornton; Alternates, Drs. Jepson, Schwinn and Hildreth III.

The society again met on the 27th. Dr. Hupp read his paper on Repair of Nerve Injuries. After a brief session the society adjourned.

Medical Outlook

THE PROPHYLACTIC ACTION OF ATROPINE IN IMMEDIATE ANAPHYLAXIS OF GUINEA PIGS—Auer reports in the *American Journal of Physiology* of September 1910, the results of an experimental research as to this subject. He asserts that a prophylactic injection of atropine sulphate in guinea pigs sensitized by the subcutaneous injection of horse serum saved eighteen out of twenty-five from the lethal effect of toxic injection; while out of twenty-four adequate controls only six survived. Stated otherwise: The death rate with atropine was 28 per cent.; without atropine it was 75 per cent. These figures show the distinct therapeutic utility of atropine in immediate anaphylaxis, sometimes seen after the use of diphtheria antitoxin.

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ORATION IN MEDICINE

THREE FOUNDERS OF MODERN MEDICINE.

Charles O'Grady, B. Sc., M. D., Charles-
ton, W. Va.

(Read at Annual Meeting W. Va. State Medical
Association, Sept. 20, 1911.)

"The knowledge which a man can use is the only real knowledge, the only knowledge which has life and growth in it and converts itself into practical power. The rest hangs like dust about the brain or dries like raindrops off the stones."—Froude.

The lives of great scientists have always had an inspiring effect. We are on the lookout for geniuses and find that it only means persistent, energetic work. Many of us have read Dr. Osler's master word in medicine, namely, WORK. No three lives could have been selected to illustrate the lecture from the view-point of work better than the three I have selected as the master minds in medicine—Auenbrugger, the inventor of percussion; Laennec, the discoverer of auscultation, and Pasteur, the father of bacteriology and the inventor of bio-therapeutics. It will be illuminating to us to review the lives and struggles and discoveries of the three most practical men in medical science.

The clinical teaching of medicine developed very slowly and is not as old as one might expect. Early in the sixteenth century St. Frances Hospital was established at Padua, Italy, in connection with the University there. This was the first hospital in which clinical or bedside instruction was given to students. But not

until the end of the seventeenth century in the small town of Leyden, in Holland, also in connection with its University and under the care and influence of the great Boerhaave, did clinical instruction receive proper recognition. Under this great master, Boerhaave, students from all over Europe began to flock to the comparatively small and hitherto obscure town of Leyden to receive instruction at the bedside. Two rulers were attracted by the immense practical value of the innovation, Pope Benedict XIII, who immediately founded a clinic and hospital in Rome under the direction of Lancisi, and Maria Theresa of Austria, who invited Van Swieten, one of Boerhaave's distinguished students, to come to Vienna to start a hospital and clinic; later another distinguished student of Boerhaave's was invited to come to Austria in the person of De Haen. These two Dutch physicians and their methods are really what gave to Vienna its precedence in medicine for more than a century and led to the founding of what afterwards became known as the old Vienna School of Medicine. They established bedside instruction and made a collection of every feature of the case, the symptoms and causes; and followed the case to the post mortem table, where the diagnosis was criticised and the true cause of death made known. These methods were bound to produce results, and they did. They made Vienna a center for clinical teaching of practical medicine and brought forth some of the greatest masters of medicine, such men as Wunderlich, Rokitansky and Skoda, and later Hebra, Billroth and Nothnagel. These methods and the success they de-

served were the ultimate cause of the building of the Allgemeines Krankenhaus, the great General Hospital of Vienna.

It was here that Leopold Auenbrugger made his studies in medicine. He was born in the town of Gratz, in lower Austria, on November 19th, 1722. He was the son of a hotel keeper. The family was known as a middle-class family in Austria. Auenbrugger's father was able to give his son a University education by making some sacrifices, but this seemed to be the usual circumstance in science and medicine, too. For instance, Virchow, Pasteur, Helmholtz and Sir Andrew Clark, and many others might be named.

Auenbrugger was fortunate in making his studies at this time under such great men as Van Swieten and De Haen, and, although there is nothing said of his student days except of his engagement of marriage before graduation, after his graduation he had the good fortune to be appointed resident physician of the Spanish Military Hospital of the Holy Trinity. This hospital gave him many opportunities for clinical study. Many cases from it were taken before the students of the University. This hospital work gave him the opportunity to apply himself to the daily task of verifying his pet invention, percussion, and he verified it in every way. When cavities were found in the lungs they were mapped out on the surface and at post mortem were verified. Also liquids were injected into the pleura and other organs of dead subjects to enable him, by this experimental work, to verify the sounds. Auenbrugger's invention or discovery consists in percussion, the term he used and since known throughout the world, or we may say, tapping on the chest and body, the varying sounds produced enabling him to tell the normal from the abnormal. The sound produced by tapping the thigh he termed *schenkelton*, or thigh sound, which he made the standard of dullness. This he compared with the dullness over the heart muscle; also with the consolidation in the lung in pneumonia and tuberculosis, and in pleurisy and effusion. His percussion of the heart muscle gave the first definite knowledge of hypertrophy of the heart and the beginning of dilatation of the heart. Auenbrugger spent seven years in his investigations, following up all the fatal cases of the heart and lungs to the

post mortem table. In this way he would verify the consolidation in the lung or lungs in pneumonia cases; also the cavities and consolidation in consumption, and the height of the fluid in hydrothorax or pleurisy, and the size of the heart. Skoda, who fifty years ago drew so much honor and so many students to Vienna to learn diagnosis, said that "Auenbrugger had made the beginning in modern diagnosis." He cast the first light on diseases of the chest which before his time were very obscure.

Auenbrugger called his book "Inventum Novem," and it was written in Latin, which was the language of science and letters at that time. The complete name was "A new discovery that enables the physician, from the percussion of the human thorax, to detect the diseases hidden within the chest." It contained about ten thousand words, and Auenbrugger was conscious that he had made a great discovery, one that would be fruitful of saving many a life and of alleviating untold suffering. Although conscious of his great discovery his preface is a model of clearness and modesty.

I present to you, kind reader, a new sign for the detection of diseases of the chest which I have discovered. It consists in the percussion of the human thorax and the determination of the internal condition of this cavity by the varying resonance of the sounds thus produced. My discoveries in this subject are not committed to paper because of an itch for writing, nor an inordinate desire for theorizing. Seven years of observation have put the subject in order and have clarified it for myself, and now I feel that it should be published.

I foresee very well that I shall encounter no little opposition to my views, and I put my invention before the public with that anticipation. I realize, however, that envy and blame and even hatred and calumny have never failed to come to men who have illuminated art or science by discoveries or have added to their perfection. I expect to have to submit to this danger myself, but I think that no one will be able to call any of my observations to account. I have written only what I have learned by personal observation over and over again, and what my senses have taught me during long hours of toil. I have never permitted myself to add to or subtract anything from my observations because of the seductions of preconceived theory.

I would not wish, however, that anyone should think that this method of diagnosis which I suggest has been developed to its utmost perfection. I confess with all candor that there are defects in the system which conscientious observation will, I hope, amend with time. It is possible that there are other important truths for the recognition of diseases still hidden from this method of diagnosis. Some of these may prove of great

usefulness for the differentiation, prognosis and cure of diseases of the chest.

This was the reason why, in my personal experience, after I had succeeded in finding the signs in the chest, and proceeded further to the investigation of their causes, so far as my own observation could help me, I have always afterward had recourse to the commentaries of the illustrious Baron Van Swieten, since I have considered whatever can be desired by an observant man is sure to be found in his work. I have thus been able to spare you a long disquisition. I have found in his work a sure basis of knowledge on which my slight superstructure may be raised up to view.

I do not doubt, however, that I have accomplished a work which will earn the gratitude of all true devotees of the art of medicine, since I have succeeded in making clear certain things which shed not a little light on our knowledge of the obscure diseases of the chest, a subject hitherto imperfectly understood.

I have committed many things that seem doubtful because they are not yet sufficiently elaborated. I shall endeavor, however, faithfully to devote myself to the further development of these points. Finally, it has not been my effort to write in any elegant diction. I have chosen a style in which I may be thoroughly understood. Farewell.

December 31st, 1760.

Auenbrugger fully realized the importance of his discovery, but its failure of acceptance did not spoil his temper. He resigned his position at the Spanish Military Hospital after ten years' service, and began his private practice. He was refined and affable in manner and readily made friends. He was very fond of young physicians and medical students, and used his best endeavors to aid them in every way. Many of them called on him in illness and he used every care to carry them through safely. And many of them in after life gave him full credit for their lives. He was exceedingly ethical with his fellow practitioners, and was very popular and highly esteemed in consequence. He had a large practice among the well-to-do citizens, but he never allowed anything to prevent his attendance on the poor, with whom he was always sympathetic and he gave freely his best medical skill and knowledge, and very frequently food and medicine. If there had been a conspiracy against him to prevent the spread of the knowledge of his discovery it could hardly have been more successful than was the envy or failure to recognize its value. No great authority at that time mentions Auenbrugger's discovery. In Ludwig's Commentaries, published in Leipzig, some writer, whose name is not signed, reviewed

Auenbrugger's work and called it a "torch that was designed to illumine the darkness in which diseases of the of the thorax had, up to this time, lain concealed." Van Swieten, his teacher in the University of Vienna, published a system of medicine in eight volumes, and treats exhaustively diseases of the lungs and pleura, but fails to even mention Auenbrugger's discovery. Later De Haen published a work in eighteen volumes and does not even mention Auenbrugger's name. These men both taught Auenbrugger, and both exhibited to their classes patients from Auenbrugger's clinic at the Spanish Military Hospital, but either envy or failure to recognize the value of his discovery made them pass it by without mention, which cannot be considered creditable to their intellect. Another professor in the German University of Goettingen, Professor Vogel, mentions it without having read or understood his methods, and compares it to Hippocrates' succession, from which he said it was copied, and that for all that was good in it the credit should be given to Hippocrates, and that the part which was original did not amount to much.

This learned professor was an authority throughout Germany, and his work, in six volumes, prevented his countrymen from profiting from the greatest medical discovery which ever was made by a man of their race until much later. After De Haen's death Professor Stoll was elected to the chair of medicine at Vienna, and began teaching Auenbrugger's method of percussion and one of his students, Eyerel, wrote a little book on Auenbrugger's method as learned from Professor Stoll. Professor Stoll also gave credit to Auenbrugger for the removal of fluid from the chest by paracentesis, whether a pleurisy with effusion or an empyema. This little book, written by Eyerel, fell into the hands of Corvisart and from it he learned percussion. When the Emperor of France, Napoleon 1st, sick with a bad cold and with considerable pain in his chest, was told of Corvisart, who examined the chest by percussion, he sent for him, and later appointed him physician of his family and court. Corvisart finally obtained a copy of Auenbrugger's "Inventum Novum" and translated it into French, from which the new method spread rapidly throughout the world. It seems strange, indeed, that Laennec, who was to add the

other half of physical diagnosis as we know it, namely, auscultation, was a student under Corvisart at that time. Auenbrugger's invention did not become generally known until after his death.

Auenbrugger had many beautiful traits. He was affable and courteous to all, was loved by the rich and poor alike. He was very fond of music and of the opera, and wrote a very successful comic opera himself, libretto, score and all. The Empress Maria Theresa asked him why he did not write more operas. He replied that his professional work would prevent him. In his country place he had a garden which he was very fond of, and spent considerable time working it. He lived a long and useful life and died at 87 years of age. His wife preceded him a couple of years. They lived to celebrate their golden jubilee. Their friends all flocked around them to show their esteem. Auenbrugger lost interest in life after the death of his wife, and kept within his home, and when taken ill predicted the date of his death. He was said to have had the best private library in Vienna. Dr. Otis said of Auenbrugger, before the American Society of Climatology:

Though always enthusiastically devoted to the study of disease, Auenbrugger escaped the misfortune of the student—a loss of sympathy with one's kind. His love for his fellow-men, for suffering humanity, for struggling students in his own profession, kept pace with his love for medical study. He never sacrificed the man for the scientist, nor did he lose his interest for other things of life, as happens sometimes with men intensely devoted to one pursuit. A man of original powers, as someone has truly remarked, can never be confined within the limits of a single field of activity.

He was interested in music, philosophy and the drama, and well illustrates what Dr. Da Costa has so happily styled "The Scholar in Medicine." With dignity, sympathy and enthusiasm in his profession even to the last, ever seeking to improve and add to his art, modest like most great men, never refusing to give what is best to suffering humanity, he richly lived out his long life.

As we teach our students percussion as a matter of just recognition and due honor, let us tell them something of the discoverer, or at least mention his name, which, I fear, but few who avail themselves of the result of his long and arduous labors, know.

Rene Theodore Hyacinthe Laennec was born in the little town of Quimper, in the Province of Brittany, France, February 17th, 1781. This Province, which the Brit-

ons love to call the "land of granite covered with oaks, has always been noted for the number of great men in all professions which have come from it. The following great men in the medical sciences came from Brittany: Broussais, a famous physiologist; Jobert, a famous surgeon; Guerin, another famous surgeon, who taught the protection of wounds; Chassaignac, who introduced the principle of surgical drainage; Maisonneuve, whose name is quite familiar to all, and last, but greatest of them all, was Laennec. Laennec was descended from a respectable family, several of whose members belonged to the legal profession and some of whom were local magistrates. His father was a lawyer and later became an employe of the government. He was distinguished for great literary attainments. He wrote poetry that was very favorably received. He seems to have devoted more of his time to literature than to his profession. His wife died when Rene was six years old, and as a consequence the boy was placed under the guardianship of his grand-uncle, the Abbe Laennec, with whom he lived for several years. On account of his grand-uncle, the Abbe, being promoted, the boy went to live with his father's brother, Dr. Laennec, of Nantes, who was a member of the Faculty of Medicine of the University of Nantes, and who left a deservedly honored name. Young Laennec studied diligently under his uncle's direction. He learned English and German, and studied anatomy, besides being frequently allowed to attend cases with his uncle both in his private practice and in the hospital. He gained several prizes for excellence in his studies while a student at Nantes. At the age of nineteen years and in the year of 1800 he proceeded to Paris to continue his studies. He entered La Charite, one of the great hospitals of Paris, and in a short time attracted the attention of Corvisart, who was a great pathologist and one of the leading medical men of Paris at the time. He also took up the study of Latin and Greek, both of which he mastered, as he later could both speak and write Latin elegantly. This extra work did not seem to interfere with his medical studies, as in the year 1801 at the Concours he won both the prizes in medicine and surgery.

Three years later he wrote two theses on Hippocrates, which he defended with

great energy. The second thesis was the one he defended for his degree in medicine. It was written in French and was entitled "Propositions on the Doctrine of Hippocrates Relative to Practical Medicine." In this thesis he showed that Hippocrates followed the clinical method of minute observation of symptoms, facts and consequences which would enable him to make a diagnosis and also a prognosis, and shows clearly the bent of Laennec's mind towards practical medicine as against philosophic medicine, which was mostly theory. This early turning to clinical medicine is shown also while attending as a student at La Charite he drew up a minute report of 400 cases of the most interesting kind. Nothing escaped him, and this is given also as an example of his zeal and industry. He also began to contribute papers in the "Journal de Medicine de Paris" when a student. His first paper was on "History of the Inflammation of the Peritoneum," and a second on "The Tunics Which Envelope Certain Viscera."

Laennec received his doctor's degree in 1804. His favorite studies were anatomy and pathology. After the retirement of Bichat, Laennec began a course of lectures on pathology, as did also his friend Dupuytren. Dupuytren was a brilliant and eloquent lecturer and drew large numbers of students to his classes, while Laennec, who was somewhat monotonous and embarrassed in his delivery, recommended himself to the students by the clearness and order of his lectures. He continued to lecture for three years on pathology and medicine, and only stopped for a time on account of his health, which was always rather delicate. In 1812 he was made physician to the Beaujon Hospital, and in this year he was called upon to write several articles for the Dictionary of Medical Sciences, and he wrote upon his favorite subject of pathological anatomy. In the year 1815 he communicated to the Society d'Ecole his first paper on Mediate Auscultation, and his discovery was to relieve of all uncertainty what had hitherto been all darkness and obscurity. It made a new era in internal medicine. In 1816 he was transferred to the Necker Hospital, and before long students from all parts of the world came to his clinic to keep themselves in touch with the discoveries the youthful master was making.

Although his health was always delicate and his physique rather spare and lean, he fulfilled his duties of physician and professor with self-sacrificing devotion. One of his professional colleagues said of him at this time "that he was almost an ideal teacher." He talked very easily and his lesson was always arranged with logical method, clearness and simplicity. He disdained utterly all the artifices of oratory. He knew how to give his lectures a charm of their own. It was as if he were holding a conversation with those who heard him and they were interested every moment of the time that he talked, so full were his lectures of practical instructions.

Laennec's discovery consists not altogether of the stethoscope, although this was the means to the end. He named the instrument himself, only after he had heard it called by such names as "medical horn," "sonometer," "pectoriloquer" and "thoraciloquer," which he considered barbarous. Laennec's stethoscope was the single tube made of wood and now rarely seen and used. The binaural stethoscope now generally in use was made by Dr. Cammann, of New York. With the single stethoscope Laennec began the study of the breath and voice sounds of the chest and the normal and abnormal sounds of the heart. He studied and named the different rales or rattles, and told what they indicated, as the mucous rale, the crepitant rale, the friction rale, the sibilant and sonorous rale, and thus many pathological states of the chest became clear. He defined bronchophony, pectoriloquy and aegophony, and told what pathological state they indicated. He was thus able to diagnose phthisis, pleuritis and effusion and pneumonia, which had often been given before under the generic name of lung fever. Also many diseases of the lungs in which there was no fever, as cancer of the lung, emphysema and asthma. His studies were so thorough on the physical signs of disease of the lungs that scarcely any signs but minor ones have been added in the eight and one-half decades since. He was not so successful in diseases of the heart, but made many wonderful discoveries in heart pathology, and his method during his life time in the hands of Stokes, Graves and Corrigan made plain the remainder. Doctor Austin Flint, whose work, "Auscultation and Percus-

sion," has been so much studied by American physicians, and who was probably the best diagnostician of his time, said of Laennec's work:

Suffice it to say here that, although during the forty years that have elapsed since the publication of Laennec's works, the application of physical exploration has been considerably extended and rendered more complete in many of its details, the fundamental truths presented by the discoverer of auscultation not only remains as the basis of the new science, but for a large portion of the existing superstructure. Let the student become familiar with all that is now known on the subject, and he will then read the writings of Laennec with amazement that there remains so little to be altered or added.

On heart murmurs Leannec was not so clear and made some errors, although he would have been able to elucidate them thoroughly in time. He described a large diastolic sound as the bellows sound, which no doubt was aortic regurgitation. He had not arrived at the classical way of listening over the valves and separating the murmurs from the different valves. He described the saw or rasp sound, which may have been caused by many conditions, and he also described the musical or sibilant bellows sound. He also described a purring tremor which he said was found in ossification of the mitral valves. He wrote of dilation and hypertrophy of the heart, and described the changes in the different chambers of the heart. He wrote of induration of the heart muscle, softening of the heart muscle, of displacements of the heart, and also of malformation of the heart. He wrote on carditis and describes heart rupture and on fatty degeneration of the heart muscle; also on pericarditis.

His pathological studies were very exact and correct. In fact Laennec's name would have lived in medicine without his studies in auscultation. His study of alcoholic cirrhosis of the liver, on hydatid cysts, which he described for the first time as being due to parasites; and he described several different forms or stages of the parasite. He described the tunics of the internal organs, and especially of the liver, and wrote the best description of the inflammation of the peritoneum and its causes up to that time, any and all of which would have caused his name to live in medicine. But his studies in auscultation put him at the head of all physicians, ancient or modern.

And he was the ideal of all physicians. Always an indefatigable worker, he was frequently sick, and had on one occasion to spend nearly two years in his beloved Bretagne to recuperate from overwork and incipient consumption, which was to end his days at the early age of forty-five years. He was indifferent to the applause of the world and lamented the fact that he had been appointed physician to the Duchess de Berri for the reason that it took up his time and made him pay more attention to his dress when he wished only to work and study among the sick in the hospital. He never owned a carriage, but often hired one for his visits, especially when he went to court or was called on by people of consequence. He lived a life of Franciscan simplicity and had all the virtues of the Gospel. One chapter in his work on mediate auscultation, namely, on the curability of phthisis, would have been sufficient to give him all the honor which the world has bestowed upon him. This was when nearly all physicians believed it to be incurable. Professor Halle, of the College de France, who secured Laennec's appointment as physician to the Duchess de Berri, also had him appointed a member of the commission to reorganize the faculty of medicine, which was occasioned by political riots among the medical students. In the duties of this commissioner-ship he was able to retain most of the learned professors who had occupied chairs under the old faculty, although there were objections against them.

On the death of Halle, Laennec was chosen as his successor in the College de France. He was married about this time, but left no issue. He brought out the second edition of his work, *Mediate Auscultation*, and was voted a prize of five thousand francs by the Academy of Sciences, having received a prize of three thousand francs from the same body for the first edition. At this time, from the amount of labor he had done in the hospitals and preparing his work for publication, and the multifarious duties of his practice, his health began to decline, so much so that he decided to return to his native heath. Several of his medical friends detected all the signs of pulmonary phthisis, with profuse expectoration and hectic fever. He left Paris in April and died at Kerlournec in the Depart-

ment of Finistere, August 13th, 1826, in the forty-fifth year of his age.

I cannot conclude this sketch better than by again quoting from Dr. Flint to his students at New Orleans:

The career of this distinguished man whose biography has been our theme on this occasion is pre-eminently worthy of admiration. In his character were beautifully blended the finest intellectual and moral qualities of our nature. With mental powers of the highest order were combined simplicity, modesty, purity and disinterestedness in such measure that we feel that he was a man to be loved not less than admired. His zeal and industry in scientific pursuits were based on the love of truth for its own sake and a desire to be useful to his fellow-men. To these motives to exertion much of his success is to be attributed. Mere intellectual ability and acquirements do not qualify either to make or to appreciate important scientific discoveries. The mind must rise above the obstructions of self-love, jealousy and selfish aims. Hence it is that most of those who have obtained the true eminence in the various paths of scientific research have been distinguished for excellences of the heart as well as of the head.

The example of Laennec is worthy of our imitation. His superior natural gifts we can only admire, but we can imitate the industry without which his genius would have been fruitless. Let us show our reverence for the memory of Laennec by endeavoring to follow humbly in his footsteps.

[TO BE CONCLUDED.]

THE REPAIR OF THE RELAXED VAGINAL OUTLET.

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(Read at Annual Meeting W. Va. State Medical Association, Sept. 21, 1911.)

Nearly one-third of a century has elapsed since the operations now most frequently employed for the repair of the relaxed vaginal outlet were devised. With little anatomical basis, with a trace of scientific reason and with a number of inherent defects and objections they have continued to be used by our own as well as the preceding generation. Despite their objections they have served a purpose in two ways. First, they serve to constrict the vaginal orifice, and second, to abolish, to a large extent, the rectocele. These operations sacrifice tissue that does not require removal, they shorten a

canal that has already lost its normal length, they take little account of the normal muscular and fascial supports of the pelvic floor, they place sutures that often serve as irritating setons, that are difficult of removal or that become imbedded and occasionally produce secondary abscess, sinus formation and invalidism; and yet so strongly are we influenced by the traditions of the past that we are reluctant to turn from the methods taught by early masters of gynecology.

In approaching the subject of the relaxed pelvic floor we should realize that the vagina is a very oblique canal, running indeed almost parallel with the skin surface of the perineum. If you will introduce the finger to the cervix you will find it not difficult to palpate by the external hand the entire length of the digit. The great fascial and muscular supports that hold the vaginal walls in opposition and maintain this obliquity of the canal lie below the vaginal closure, so that they may readily be reached from the outside of the canal. Who for a moment would be so foolish as to open a large inguinal canal for hernia, and then from the inside of this canal attempt to sew the overlying muscular and fascial planes? Foolish as this would be in a herniotomy, for years we have been following an analogous procedure in the operation of perineorrhaphy, and have made our repair from the inside rather than from the outside, where structures are more readily sutured. After the perineal tear the posterior vaginal wall becomes shortened because it has been split and has failed properly to unite. As the rectocele pouches through this enlarged opening it brings to the surface, as the so-called crest of the rectocele, a portion of mucous membrane that normally was a considerable distance from the introitus. When one grasps the crest of the rectocele and brings it down and sews it to the edge of the new opening, as by crown stitch of Emmet's operation, he has perpetuated a part of the deformity of the rectocele and has increased the shortening of the posterior wall of the vagina. If one, on the other hand, assumes that the posterior wall has been split, he may form two edges that may be united, restoring the normal length of the canal, and then may build up under the restored mucous canal the layers of muscle and aponeurosis that normally serve as support, and in this way perform an operation

approaching in its anatomical basis the operation of hernia. Such an operation is the one we would advocate for the correction of the relaxed pelvic outlet. The operation requires the rebuilding of a number of supporting layers; and as these layers require for their support tiers of sutures, we will eliminate all through and through sutures and substitute buried sutures, for which catgut seems at present the most convenient material. Eight years' experience has proved to me that catgut may be safely buried in the perineum. Suppurations have been less frequent, the difficulties and complications of suture removal have been eliminated since I depended entirely upon subcutaneous sutures. The supporting structures of the pelvic outlet include a number of muscles of which the most important is the pubococcygeus muscle or the anterior part of the levator ani. As with other supporting muscles, this is reinforced by fascial or aponeurotic layers. Lying above the levator ani is the vesico-rectal fascia, asserted by some to be the chief support of the rectum in defecation. Below are the two fascial layers of the triangular ligament between which lies the transverse perinei profundus muscle. The more superficial layer is at times called the ligament of Colles, and superficial to this are the transversus perinei superficialis and the bulbo-cavernosus muscles.

In the present operation we endeavor to apply the same principles that are so successfully employed in herniotomy. No tissue is removed nor is extensive deundation made; buried absorbable layer sutures are used exclusively, none of which penetrate the skin or mucous membrane. Instead of operating from within the vagina, the more convenient method of operating from the outside is adopted, facilitating the exposure of tissues, and the introduction of sutures, and enabling each of the layers, the vaginal wall, submucosa, muscular supports, fascial planes and skin to be united seriatim in layers as in a herniotomy. Each structure is sutured with precision under the guidance of the eye without the blind groping of the needle for tissues not seen and perhaps not felt. Although the initial incision is somewhat similar, the operation differs from the flap-splitting operation in the fact that the vagina is not extensively separated from the rectum and that there is no danger of wounding the bowel. The command of tis-

sue is such that it is easy to overdo the operation. No suture requires removal, destructive suppuration is unusual and the operation has, in certain instances, been followed in normal childbirth without laceration.

The operation requires but six instruments, i. e., sharp-pointed scissors, tissue forceps, needle holder, and three tenaculum forceps. A small or moderate-sized fistula needle is used, and one or two strands, each of plain and of chromicized number one catgut. Without undue tension the catgut should be carefully tied in three hitches to prevent untying and the ends are to be cut short. After the first incision, which is usually made with the pointed scissors, further dissection is usually only made by blunt dissection. As a rule, no vessels require ligature, but all hemorrhage must be carefully controlled before closing the wound. The first incision is semi-circular and on the posterior border of the outlet, extending approximately from near the orifice of one of Bartholin's glands to that of the other. Unless there is considerable scar tissue a sufficient separation of the wound is obtained by gauze pressure, the depths of the wound being at the side and no extensive median separation of the vagina from the rectum being attempted. Thus, there is no danger of injuring the rectum. At the sides of the incision the anterior edges of the levator ani are located by the finger and thoroughly exposed in the wound as in Hilton's method of opening an abscess. The openings are enlarged by the fingers and the muscular bellies brought into the wound and fixed by tenaculum forceps. Beginning in the median line the posterior vaginal wall is then closed by a running plain catgut stitch, applied from the outer side of the vagina. After uniting the vaginal wall this stitch is laid to one side and the aponeurosis internal to the levator ani approximated. The edges of the levator ani are then also united in the median line. Mattress, interrupted or continuous sutures may be used according to the operator's preference or the need in the particular case. The overlying layers of the urogenital trigonum are then united, taking especial care to bind the structures firmly to the sphincter ani, which should be supported and lifted forward and upward by the operation. These supporting sutures should be of chromicized catgut. The continuous suture which has united the vaginal

wall is then completed under the skin approximating that structure and subcutaneous fascia. When the posterior edge of the incision is reached the ends of this initial suture are tied, cut short and permitted to sink under the skin, making the sutures entirely subcutaneous and submucous. Despite the number of layers united, the operation may be done in ten or fifteen minutes.

For a complete tear a similar operation may be done, making the initial incision as far away from the rectal margin as possible, and carefully suturing the sphincter in the depths of the wound. For very extensive, complete lacerations the operation may be done in two stages; first uniting the vaginal wall by a submucous suture and then the supporting, muscular and aponeurotic supports, as has been described, but making no attempt to unite the sphincter or to in any way constrict the anal orifice. In this way as thick a mass of tissue as possible is placed between the rectum and the vagina. After complete healing has taken place, a semi-circular incision is made close to the vaginal orifice which is deepened until the divided ends of the levator ani can be secured and sutured. The adjacent edges of the levator ani are also united to reinforce the sphincter as well as the neighboring fascial planes. In this way the rectum and anal orifice are restored in a subcutaneous manner, all stitches and incisions being away from fecal contamination. The chief precaution is to avoid too close proximity in the incision to the thin rectal mucosa. After any of these operations, a small strip of gauze is introduced into the vagina and permitted to hang down over the line of incision. This serves as a guide to the nurse in catheterizing the patient. Two days after the operation, primary union having occurred, the patient is permitted to void, and a laxative is given. The patient may be permitted to be out of bed after the tenth day. Douches may be used after the third day, if required. After each catheterizing or urination the parts should be washed with an antiseptic solution and dusted with boric acid.

We must treat each man on his worth and merits as a man. We must see that each is given a square deal, because he is entitled to no more and should receive no less.—*Roosevelt.*

THE SIGNIFICANCE OF ALBUMINURIA.

J. M. Lovett, M. D., Huntington, W. Va.

(Read at Annual Meeting of State Medical Association, Sept. 20, 1911.)

Albumin in the urine is so constantly a symptom in Bright's disease that at one time it was regarded as an absolute pathognomic symptom. This view is now known to be incorrect. Albumin may be present in the urine without Bright's disease. The reverse is also true. According to the latest research, the source of the albumin is the glomeruli. The important thing noted is a slowing of the blood current in the glomeruli and a deficient oxygenation of the blood resulting therefrom. The earliest investigation along this line was in the year 1770, when Domenico Cotugno discovered in some urine an albuminous body that could be coagulated by heat; a half century later, or to be exact, in 1827, Dr. Bright found a connection between the occurrence of albumin in the urine and a series of symptoms of kidney diseases which later took his name.

It is clearly evident that these early medical men looked upon albumin in the urine as a fatal symptom. It took very careful and prolonged experiments, aided by a better knowledge of proteid chemistry, together with the accidental finding of albumin in the urine of individuals in apparently good health, to establish the true value of this symptom and a better appreciation of its significance; yet, even today, the pathogenesis of albuminuria is not clear. However much the profession may differ as to the final outcome, all are agreed upon one point, that the presence of albumin in the urine means something abnormal, a weakness of the kidney filter, though in many cases it is transient and unimportant; complete cure frequently resulting after variable periods, showing of course that no coarse lesion had existed. Again albuminuria is endured for years, even for a long life time, as numerous recorded instances prove.

We recognize as to forms a true, false, simple and a renal albuminuria. By false albuminuria is meant that the urine is albumin-free on leaving the kidney, but becomes admixed in the course of the urinary tract with albuminous substances, or in the

case of females it may come from adjacent organs. The source of the albumin may be the prostatic or seminal secretion, blood, pus, or an ulcerating tumor.

By far the most important consideration is a differentiation of the simple from the renal albuminuria. We are safe in concluding that we have only a simple albuminuria with the following enumeration of symptoms absent: Absence of granular casts and the absence of the minor symptoms of Brightism, such as cryesthesia, electric shocks, cramp of calf muscles, dead fingers (this symptom denied by Osler as being peculiar to Bright's disease) and unilateral headache, buzzing in ears, usually one ear, not constant, polyuria, epistaxis, sometimes referred to as the great epistaxis, absence of increased pulse tension and absence of displaced apex beat of the heart from hypertrophy, absence of the retention of the chlorides as indicated by edema, with a physiological permeability of the kidneys and a normal toxicity of the urine present.

The presence of granular casts (at any rate the coarsely granular ones) on the other hand is positive proof of a renal lesion in association with other symptoms. *Hyaline casts are unimportant* as regards a diagnosis or prognosis of a nephritis, as they are met with in almost physiological states of the system, and in various other diseases independent of any inflammatory affection of the kidneys. They assume importance in one particular place, and that is in pleural effusions when their presence furnishes a vital indication for its removal.

We recognize another sub-division of albuminuria as regards the quality of albumin, serum albumin, serum globulin, mucin, fibrin, urinary peptones. True albuminuria refers to the proteids of the blood serum in the urine. The abnormal condition leading to their escape may be located in the kidneys or in the blood, or it may be a systemic defect. Under this heading we include both serum albumin and serum globulin, as clinically their separation is unnecessary and besides it involves a complicated process. But owing to the relation of globulin to the severe organic lesion of the kidneys, it is well to have at our command a simple and easily applied test for its detection, at least when its presence is suspected. Robert's ingenious test for globulin fulfils this requirement completely.

It depends upon the fact that globulin is insoluble in water and falls out of solution when the specific gravity is reduced to 1.002. The test is carried out as follows: A test tube is partly filled with distilled water and the urine is allowed to fall into it by drops. If globulin be present each drop is followed by a milky streak as it sinks through the water. If more urine be added the entire water becomes pervaded by a milky opalescence which is re-dissolved on the addition of acetic acid. In acute nephritis serum globulin, in the beginning of the attack, is the predominating element, but later diminishes as progress is made towards cure, and before the disappearance of all albumin from the urine only serum albumin is left. Serum albumin is the chief element in a chronic nephritis, and in all the minor affections it is often found alone in the urine. While ordinarily serum albumin is found in larger quantities than globulin, in severe organic lesion of the kidneys this may be reversed, and the proportion of globulin to serum is found often as 2.5 to 1. Serum globulin means a massy, bulky breaking down of the renal epithelium. Cloetta regards that the quality of albumin has more to do in determining the degree of renal lesion than has the quantity of albumin, and this is evidently true.

In this connection I wish to bring to your notice a thought from Caille in his text on albuminuria, in which he says there are rare instances in which globulin appears alone in the urine, as in measles, and the reason for this is not quite clear. It would be interesting to know if this symptom corresponds to the fatal cases of measles. This is deserving further elucidation from the profession, because if it be shown that globulin alone appearing in the urine is a fairly constant symptom in severe cases, we have in it an explanation for the mortality that comes double in a family. Though not excessively common, it is by no means infrequent. Severely crippled kidneys are a poor defense for the organism in the presence of an intense toxemia resulting from a mixed infection, as occurs in the secondary pneumonia of measles, and if found true that globulinuria does really exist it is easy enough to understand why the patients succumb.

Mucin and nucleo-albumin are found in small quantities in normal urine, and are

noted by a slight cloud on addition of acetic acid. They are with difficulty distinguished, except as a qualitative examination is made of the ash to determine the presence of phosphorus in a nucleo-albumin, and mucin belongs to a hydro-carbon group. Nucleo-albumin is found when there is a large number of cells breaking down in kidney and liver, and indicates a catarrh of the urinary tract and bile ducts. *Nucleo-albumin is not coagulated by heat, and this serves to distinguish it from serum-albumin and globulin.* It is of slight diagnosis value. Also noted after the injection of antitoxic seras, in tuberculosis. According to Fischer, it is this form which is found in the urine of infants in the early days.

We now recognize that a little albumin may occur in the urine without any pathological cause. Severe muscular exercise, beginning of acute infections, severe mental disturbance, temporary debility of circulation, skin irritations, severe chilling, and cold baths may allow albumin to appear in the urine without any kidney defect whatever. The varieties of albuminuria are numerous, and some are of especial interest. Physiological albuminuria in a strict sense does not exist. However, be this as it may, the fact remains that it is perfectly compatible with good health and certainly we could ask nothing more. Simple albuminuria is increasing more and more as search is made for it.

Senator found in the examination of one hundred healthy soldiers slight albumin in forty-one. The albuminuria of over-exertion is transient, soon passes off, and even in the case of prize fighters no albumin is noted after twenty-four hours. The athletes of Oxford were examined as to this symptom, and it was found that after moderate exertion more than half showed considerable albumin; while after severe exertion the entire crew showed it. This is one of the many examples in which albuminuria is rapidly produced in absolutely healthy individuals, but rapidly subsides. Cyclic albuminuria occurs in the young, mostly in boys, and the albumin appears during the morning hours. The night urine is free. This order is sometimes reversed, and when it is, a pathologic state is added, similar to that which occurs in hypostatic albuminuria from splenic tumor by pressure on the renal veins owing to the horizontal position.

The profession views cyclic albuminuria from two different standpoints, some believing it means a relationship to nephritis. Others think it only means a constitutional weakness of the kidney filter without any tendency to nephritis. The latter class is gaining more and more adherents.

Orthostatic albuminuria is due to the increased lumbar curve on assuming the upright position, probably owing to pressure on the renal vein. The wearing of a spinal jacket has caused the disappearance of albumin in this form. Fortunately orthostatic cases never develop chronic nephritis. We frequently note tuberculosis symptoms among them.

Toxic albuminuria is due to intoxication from drug medication, either from an undue susceptibility to the drug or excessive dosage. While it does not signify a nephritis, it at least shows a transitional change, a receptive condition. We should regard it as a danger signal and exercise much caution with these patients. Among drugs capable of causing this effect on the renal epithelium may be mentioned iodine, carbolic acid, other coal tar products, salicylic acid, phosphorus, turpentine, and alcohol by its direct toxic action and also from over-burden of the circulation, from overwork of the heart and the kidneys as in beer drinkers.

Febrile albuminuria frequently noted with the infections is due to irritation produced by the bacterial toxins. It usually passes away with the fever. It occurs in about 70 per cent of pneumonia and 60 per cent of typhoid cases.

Neurotic albuminuria follows attacks of epilepsy, apoplexy and head injuries.

Traumatic albuminuria is noted following injuries in the renal region.

Slight and transient albuminuria frequently follows narcosis from chloroform and ether, depending on the quantity used and length of sleep. According to some authors it is noted almost constantly among women and in only 50 per cent of men. Why this difference in the sexes is not explained.

Infantile albuminuria is noted in a majority of infants, usually terminates by the tenth day, but in some instances continues for two months. If persisting longer than the tenth day it would lead to the suspicion that we may have a nephritis; however, not infrequently an infantile nephritis proceeds

without an albuminuria, and for a diagnosis a microscopic examination must be made of the urine sediment. Albuminuria of pregnancy occurs as variously estimated in 2 per cent to 5 per cent of all cases, and is due in part to the pressure of the gravid uterus on the ureters. Undoubtedly other causes are operative; chief among these are the toxins from the intestinal canal. They usually terminate without much significance, only exceptionally developing a severe renal lesion. These patients should be kept on a rigid milk diet, preferably buttermilk, for two or three weeks previous to confinement. Albuminuria is often found in parturient women. Aufrecht saw it in 56 per cent of all cases. Circulatory depression with albuminuria resulting is due to a venous stasis from cardiac insufficiency. A few days' treatment with digitalis may cause this form to disappear. No such result from digitalis is possible in a true nephritis.

Appendicular albuminuria is another important and interesting form. It appears very often in severe appendicitis as early as the first day, and is an additional argument in favor of early surgical intervention in these cases. The toxins of appendicitis are rapidly diffusible, and the patient may succumb to the toxemia and not to the infection of the circumscribed peritonitis that proceeds more slowly sometimes. It would be an interesting bit of information to know how the advocates of the interval operation would explain this away. This toxic influence of the appendix on the kidneys has led to the suggestion that in a degree it may account for the origin of Bright's disease, and it looks like a common sense argument. The peritonitis is not the all-important consideration in appendicitis, but the toxemia, and its effects both immediate and remote are also to be taken into account.

As to the care of cyclic albuminuria patients, it is sufficient to say that no rigid diet need be carried out as given in Bright's disease; but a plentiful supply of fresh air, wholesome food and moderate exercise, together with tonics, should be provided. The majority of patients completely recover.

In the treatment of renal albuminuria we can practically disregard the albumin symptom so far as any risk directly from it is concerned, as patients rarely perish from the impoverishment of the organism in loss of proteid substance. The termination of these

cases is usually by uremia, or pulmonary edema or some other secondary disorder. The salt-free diet so important in edema has a less influence on the albuminuria. Proteid substance should be supplied; neither is it right to attempt to overcome the loss of proteids by hypernutrition, that is, giving proteid substance in excess, nor is it proper to restrict too much for fear of weakening the organism, especially the heart, as meat is one of our best heart stimulants. It therefore appears indicated in moderation once per day, or even less frequently. Such large amounts as 400 grams or near one pound are never indicated, as it may induce autointoxication, since in renal insufficiency the toxins are with difficulty eliminated. The risk from meat can, however, be largely overcome in the mode of preparation, since it is the extractives in meat that irritate the kidneys. Boiled meat is the only form proper in these cases, as boiling permits extractives and salt to pass out (more or less) into the water. This is accomplished at the expense of palatability without any diminution whatever in the nutrition of the meat. Though it is proved by recent experiments that the extractives in meat are a stimulant to gastric secretion, therefore they are a valuable and essential aid to digestion. This has been well brought out by Dr. Darlington in a recent issue of the *New York Medical Journal*, in which he notes the experiments by Pawlow. The injunction frequently given nephritis patients, "use no red meat, but only white meat of fowl," is wholly unnecessary. The extractives are only found slightly in excess in dark meat; any objection in this particular can be easily overcome by ordering it in smaller quantities, say one-third less red meat than white (as suggested by Leube) and supply milk to make up any deficiency. In threatening uremia we should confine our patients to an exclusive milk diet, as also in acute nephritis and acute exacerbation of a chronic nephritis. After all, however, the majority will do better on a more or less exclusively milk diet. It gives us the best chance of combating the disease and insures to the subject a longer and more comfortable existence. The selection of the diet is largely a matter of experiment and here the good judgment of the physician is in evidence.

Our discussion would be incomplete without some reference to albuminuria as it pertains to life insurance. Urine sediment should be examined in every case, even if urine is albumin-free, as granular casts may precede the appearance of albumin in the urine. In other words, granular casts may be the initial symptom of Bright's disease, preceding the appearance of albumin. An important point to note is that the examination should be made while the urine is fresh, as casts are easily dissolved. It must be remembered, too, that casts, though formed, may not appear in the urine, since bacteria may dissolve them. Oftentimes albumin is found in one specimen and not in another passed shortly before or afterwards. The conclusions drawn from this are, we must not rely on a single urine analysis, and, above all, not any single passing of urine, but on an all-day specimen or a twenty-four hours collection. In one of the most fatal kidney maladies, chronic interstitial nephritis, with which we have to contend, we must seek for its diagnosis outside of symptoms elicited by albumin and casts. Serious nephritis may be present and repeated examinations show no albumin and no casts. It must be positively stated that the absence of albumin and casts is no proof that interstitial nephritis is not present. Our diagnosis rests with other symptoms as a rule. This is not only important from the insurance standpoint, but for the individual as well, as the early finding of symptoms places the subject in the best possible position to stay, limit or prevent further progress, or at least secure a slower rate, by the protection afforded in the kind of diet and life that will use the kidneys the least strenuously. Centrifuged urine will often show hyaline and sometimes granular casts in normal individuals with normal kidneys, and certainly to centrifuge previously sedimental urine is unfair to the individual from an insurance standpoint.

Dr. Wright, of London, to whom medical science is indebted for much valuable information upon the physiology and pathology of the blood, has evolved a therapeutic test for differentiating the harmless albuminuria from the renal type that is worthy of mention at this time. He has been led to this by the knowledge that calcium lactate when administered by the

mouth possesses the power of increasing the coagulability of the blood by an increase of its fibrin. The conclusion arrived at by him is that the harmless form of albuminuria is due to a less coagulability of the blood, or in other words, an abnormal increase in the diffusibility of the blood serum permitting its transudation through the glomeruli. The method of applying the test is as follows: When albumin is found in the examination of a candidate, he is directed to take one gram (more or less) of calcium lactate at bed time on the same evening, and again two days later, and submit a specimen of his urine passed about noon on the day following the second dose. Rest and a milk diet and a saline laxative also promote the disappearance of the albumin, but the calcium salt acts effectually without these. The record of ten cases submitted by Dr. Wright showed albumin disappeared from the urine in six, in the four remaining cases it persisted. These latter were known cases of disease of kidneys. He terms this hematogenous albuminuria, since it depends essentially upon a condition of the blood. It is suggested that persons showing hematogenous albuminuria by the test may be accepted for life insurance providing they are otherwise healthy. Osler expresses an impressive truth when he says that after forty the state of the arteries and pulse pressure are of much greater importance than any information obtained from the urine in the estimation of an insurance risk.

At this juncture it is not improper to consider what are the most valuable methods of examining the urine in the diagnosis of a nephritis. The microscopic and the chemical examination of the urine are of much less significance than the physical. Microscopical and chemical changes are relevant to temporary alteration of function rather than to alterations of anatomical structure. We are concerned most with the question: has the patient a nephritis or not? What we need to know is, how much urine does he pass by day and by night. Is the urine greatly diminished or greatly increased in quantity, and what is the weight of the urine? These facts, together with the presence or absence of edema, ocular defects as a retinitis, cardiac hypertrophy, and uremic manifestations, many of which we have minutely enumerated else-

where in this paper, constitute nearly all the information at our disposal. The presence of albumin and casts is of relatively slight and vague significance in the diagnosis of nephritis at the present time. The increase in the relative amount of night urine—nocturnal polyuria—is one of the most reliable signs of a chronic nephritis.

There isn't any question but what frequently an exaggerated importance is attached to the albumin symptom. Certainly less so today than formerly. In theory we only seem to know better, as in practice the old impression still makes itself felt. It is begotten of seed sown by our forefathers in medicine. And, as the saying goes, "the first impression is the lasting one," has been handed down to us and today the same is operative among us.

However, it is hoped and confidently predicted that ere long the veil of obscurity will be lifted, and that our vision (mind's eye) may behold albuminuria in its true light, and that everything pertaining to it will be made perfectly plain, as it has been with its frequent associate, edema of Bright's disease, which so long defied explanation. All this has come about within the last ten years.

Finally, notwithstanding the great advance made along this line of thought and the centuries that have intervened, the dictum of Thomas Fuller is still true today: "Reasons drawn from the urine are as brittle as the urinal."

WHAT SHOULD BE THE PHYSICIAN'S ATTITUDE TOWARD CIVIC IMPROVEMENT.

C. O. Henry, M. D., Fairmont, W. Va.

(Read at Annual Meeting of State Medical Association, Sept. 21, 1911.)

At the last meeting of this Association at Parkersburg, in discussing papers touching on the public welfare, the writer spoke freely and made accusations that brought forth a remark from one of the members, "that he did not know there were any 'insurgents' in the medical ranks." The term 'insurgent' means a man who rebels against present conditions. I take this opportunity of informing you that what I have to say applies to all parties, especially in this day of political upheavals, "The Interests," "Conservation," and "Reciprocity."

The question naturally arises in the minds of some of you: What have doctors got to do with civic matters? That is just the question that we are going to try to bring before you; and if this paper brings any new thoughts and ideas to you it will recompense for the effort made. Civic matters have to do with the citizens individually and the commonwealth in general. The physician, from the position he occupies in the latter, comes in close touch with all that appertains to the welfare of the commonwealth. He is there at the birth, attends it while sick, and gives aid and comfort at the death; he comes in closer touch in all the joys and sorrows of the family than any other person on earth. On no other individual outside of the family is so much affection and admiration bestowed. To be like McClure in MacLaren's "Beside the Bonnie Brier Bush," admired for his ruggedness, loved for his kindness and simplicity, not adverse to speak his mind on any question, devoid of sentiment, as when he ordered Sir George Howe to sit down in the dory and not compare a wetting of trousers to the life of a sick mother.

The physician is a factor for social betterment; at the basis of all social reform is the problem of physical well-being. For instance, few matters are of greater importance than the education of our children, the care of the indigent, the insane, the deaf and blind, and those who lack parental care and proper restraint. It is not confined simply to a question of restraint and education, it is a question of eyes, teeth, hearing and adenoids. To no class should state and municipal reform be of greater concern than to the physician; he is the custodian of health. His true ideal is to work for a world in which the need for a physician shall be reduced to a minimum. As the custodians of life the physicians find themselves in conflict with innumerable influences, and with persons who for the sake of gain seek to destroy and endanger life. Hence it should not seem strange to the outside world if the physician be socially a radical. The policy man is never a social uplifter, for he is sure to run counter to people who don't stop at anything to gain their point.

We want to emphasize now, before we go further with this paper, that we have no quarrel with individuals, but with con-

ditions as we see them. For nothing is more woefully apparent, even in this last and mightiest stage of the world, than the actual cheapness of human life. In every community physicians, in matters of health and civic betterment, are regarded as authority and are consulted accordingly. The advice of the family physician is readily taken. Then, if that be true, why should we not as an association insist that The Board of Health, and heads of all our important State institutions be lifted out of the slough of party politics? It would be the strongest possible means of accomplishing that greatly to be desired end, the betterment of the people. The New York State Civil Service Commission and the Board of Managers of Litchworth Village, the new State institution for epileptic and feeble-minded, have inaugurated the very thing that was advocated at our last State meeting, the examination of candidates for Medical Superintendent, who may come from all parts of the United States. The applicant must be at least thirty years of age; a physician in good and regular standing, with five years practical experience with feeble-minded and epileptics; and for his skill and ability he is paid a salary of \$4,500, with maintainance for self and family. Such a position will attract the best qualified men in the country, and offers great opportunity for important social work. Here will be an opportunity for more adequate care and treatment of a class sorely neglected, never wanted, and seldom receiving the best treatment for their mysterious and dreaded diseases.

Still further improvements are needed in our public institutions. Where it is practical—and in nearly all instances it is—a competent oculist and laryngologist should be at least on the consulting staff of such institutions. Take the miners' hospitals of the State. The men in charge of them are all general surgeons, competent in their line, but are not trained in the care of eyes, nose and throat, and I am convinced that it would be a move forward to have such cases, when sent to these institutions, looked after by men trained in the work.

In our reform schools for boys and girls, I want to particularly impress you with the importance of having the inmates subject to the supervision of capable eye, ear, nose and throat specialists. I am satisfied that a

large per cent of the children in these semi-penal institutions are afflicted with visual disorders, enlarged tonsils and adenoids, defects and conditions that are directly and indirectly responsible for the backward mental and physical development so often found; and not only this, but careful examination and analysis, by able investigators, have definitely proved the relation existing between these defects and the moral status of the child, so often tending to criminality.

In the matter of trained nurses, we believe the manner in which they are put upon the public is not up to the standard, and we as physicians, are in a measure responsible for it. Not enough attention is paid to the lectures they are entitled to receive; more emphasis should be placed on the training in the diet kitchen. We know of numerous instances where girls were given diplomas from hospitals who where not competent in this regard. Their knowledge should be on general lines, and especially should those given certificates from the miners' hospitals be required to take other training, viz.: care of children and mothers during confinement, which it is impossible to give them in the hospitals above mentioned. It has been my privilege in the last six years to come in contact with that class of cases, blind, deaf, mute and feeble-minded, and my heart was made sore, and I said things that would not look well in print, of the carelessness of the authorities in not making ample provision for this class of cases. It is not enough to say that no provision has been made by the Legislature for money to carry on this work, for in all my life in West Virginia I have the first complaint to hear from the public for money spent in the care of those who become a public charge. The State pays 25 cents to physicians for the return of birth and death certificates. Some of my brother practioners in Marion County abused me because I insisted that they should make these returns. How many of you have neglected this? Is it important? If you neglect this duty you are taking advantage of innocent children, as in the case of our Monongah explosion many children were born who had no other means of tracing their identity and getting what was coming to them in this as well as the old country. As we said before, the physician

is a great factor in creating sentiment in a locality and directing action in proper channels, and unless you are elected to council in your town, where a doctor is supposed to be less dangerous in office than out of office, you will meet with opposition.

I want to bring to your notice instances that have occurred in my practice and possibly have occurred to you, which go to prove that we must be insistent in such matters. About fifteen years ago an illegitimate boy was born, and in a few days gonorrhoeal ophthalmia developed, which from neglect caused total blindness. When the boy was six years old I wrote to the authorities at Romney and was told they would not receive him until he was eight years old. I moved away from that locality. The authorities at Romney did not keep track of the case, with the result that the boy has never walked and is a helpless imbecile today. Another instance I will give you, and this time I fell counter to the State Board of Control. At my suggestion a bright Belgian girl who was deaf desired to be sent to Romney. Not having much time before the fall opening, I wrote to Mr. Montague, the Superintendent, notifying him that I would have the girl at Grafton, and fill out the proper papers afterwards; advised him to wire me at my expense. I did not hear from him. I wrote again, and in a few days I received a blank without a word of explanation, which I had properly filled out and sent to him, and still no word from the authorities as to when they would receive her. I notified Mr. Montague again in no uncertain tone, and the correspondence here follows. As I was a public official dealing with public officials, I do not think I will be violating any ethics in giving it to the public, nor do I think it to the discredit of any of the gentlemen in charge of these institutions; but it goes to show that false economy has been practiced by political parties to boost them in what they call the management of State affairs:

West Va. Schools for the Deaf and Blind,

Romney, W. Va., Nov. 19, 1910.

Dr. C. O. Henry, Fairmont.

Dear Sir: I thought that my clerk had written you with the application blank that our school was full at that time, but we hope that the Board of Control will arrange to give us another teacher and then we can take in several more pupils who want to come. I will write you as soon as the Board make a decision in this matter.

I am sorry that this explanation did not go forward to you with the application blank as I thought it had.

Yours truly,
(Signed) R. CARY MONTAGUE,
Superintendent.

State Board of Control,
Charleston, W. Va.

Subject: Application for Belgian girl for admittance to the W. Va. Schools for the Deaf and Blind.

November 22, 1910.

Dr. C. O. Henry, Fairmont, W. Va.

Dear Sir: Yours of the 21st upon the above subject is received, and we are surprised at its contents. We were not aware that admittance had been refused this child. We want to assure you that there is room for her, and others for that matter, and if she is eligible she shall be received at that school without delay.

We note your reference to lunatics languishing in jail, and beg to advise that if there be such cases we will thank you or any resident of this State to call our attention to it. We gave direction many months ago that lunatics should be removed promptly to the asylum and not permitted to remain in jail, and until this time you are the first to advise us that this has not been done. You are doubtless aware that the West Virginia Hospital for the Insane at Weston has been crowded almost to overflowing for several years; the same is true of the wards for the male patients at the West Virginia Asylum at Huntington. There has been room all the time at the Second Hospital for the Insane, and Dr. Lyons, Superintendent of that institution, stands ready to receive any patients eligible under the laws. This Board has given some of its best efforts to caring for this class of unfortunates, and has expended for their transportation to the two hospitals for the insane all the money appropriated for their transportation, and has borrowed from the Governor's contingent fund a considerable sum to take care of the deficiency. In addition to this, we are pressing to completion a building for male patients at the Asylum at Huntington, and will within the very near future have it ready for use. We have written you fully, not because of your severe criticism, for we expect that and invite it where it is intended to accomplish good. Such criticism is oftentimes helpful to us, as it doubtless will be in this case. We, therefore, thank you for it.

If you know of other children who should be admitted to the Schools for the Deaf and Blind we would be glad to have you advise us, for it is our earnest desire to do the very best we can for this class of unfortunates.

Very truly yours,

STATE BOARD OF CONTROL,

By John A. Sheppard.

Romney, W. Va., Nov. 28th, 1910.

Dr. Henry, Fairmont, W. Va.

Dear Sir: I have conferred with the Board of Control in regard to the admission of Martha Gregoire, and beg to advise you that owing to the return home of a girl whose health has broken down I can now admit her. I should be glad if you would accompany her to the institution and inspect it. I will pay her transportation to

whomever brings her. Please let me know when she will arrive. Yours very truly,
(Signed) R. CARY MONTAGUE.

Romney, W. Va., Dec. 7th, 1910.
Dr. C. O. Henry, Fairmont, W. Va.

Dear Sir: I want to write and tell you what a very bright child we find little Martha Gregoire to be, and I am certainly glad you urged her admission so vigorously.

I should be glad if you could come here some time and see some of the articulation work that we are doing now; it is most interesting.

Yours very truly,
(Signed) R. CAREY MONTAGUE.

The foregoing letters would indicate what can be done if efforts are persistently followed up. There are many reforms that we can be instrumental in bringing about, viz.: druggist prescribing over the counter, the peddling of Viavi, impure milk, reporting tuberculosis subjects, and one other important factor that we don't want to overlook. If a man is hurt on the railroad or in the mines while so employed, he is sent to a miner's hospital and immediately received and no questions asked; but if some one suddenly goes insane he is landed in some filthy jail or lockup, and enough red tape is gone through with a lot of meaningless questions asked and unanswered, with the word sent back that he will be received when there is room.

Another reform that we should turn our attention to is the cheap vaudeville theatre and moving picture show. The effect of the moving picture film has been proven to have a deleterious effect on the eyes of the young, and we know it has no moral uplift, but tends to work on the nervous system, and leads to moral degeneracy, for every adventurer who goes before the public for some deed or act performed goes on the exhibition platform. When the sins and misfortunes of this class are to become public exhibitions, it is time for the strong arm of the law to step in and stop it.

We now come to an item of public interest that I know is not new to any of you, and that we are all interested in, viz.: the gallant fight that Dr. Wiley of the Bureau of Chemistry at Washington is making. We know the pure food and drugs act was passed largely through the influence of the A. M. A. aided by ex-President Roosevelt, and he placed a man in charge who has the courage of his convictions, and would enforce the law. We know the powerful interests that have been trying to discredit

him and hope it will be the pleasure of this association to pass a strong resolution endorsing Dr. Wiley in his gallant fight for the people.

The American Publishers' Association, with a capital of \$400,000,000 backed by the largest interests, the food adulterators and patent medicine vendors, are the people who are behind the fight against Dr. Wiley, and they in turn are close to some in high official position at Washington, and are responsible for the creation of the Remsen Referee Board who, when their official acts are investigated, will show how the people are duped by those who should be protectors and not debauchers of the people.

PSORIASIS

C. B. Williams, M.D., Philippi, W. Va.

(Read before the Barbour-Randolph-Tucker Society.)

Psoriasis is a disease of the skin characterized by an eruption of round or oval, bright red patches, covered with more or less thick, silvery white, adherent scales; by occurring especially upon the exterior surfaces of the elbows, knees and extremities, and upon the scalp, by running a chronic course marked by remissions and relapses, and by being more or less pruritic.

Cause.—As to cause various theories have been advanced. Heredity plays a part in some cases. No age is exempt, though it is mainly a disease of early adult life. It is seen often in patients in the best apparent health, though some are run down, rheumatic or gouty. Males are more often affected than females. Pregnancy and lactation predispose; also digestive disorders; eating too much oatmeal; taking borax as a medicine, deprivation of the skin from contact with the sun's rays; trophic or vaso-motor disturbances; nervous troubles or nerve shock.

Parasitic Theory: In support of the latter theory, it is known that an injury to the skin like a pin scratch will determine the location of a patch of psoriasis. The colder months and colder climates show more cases.

Pathology.—Pathologists by no means agree. Some consider it inflammatory, while others hold it to be an anomaly of cornification in which an imperfect corneous

layer is formed. Still others say there is a hyperplasia of the rete except directly over the papillae, which latter are enlarged and more vascular than normal.

Prognosis.—Prognosis is fairly favorable so far as the existing eruption is concerned, but no promise should be given that the disease will not return.

Symptoms.—If we remember three characteristics of this disease we will have little trouble in making a diagnosis.

These are: 1st. The formation of dry, papery, thin, silvery, gray scales, mica-like in their arrangement, and as a rule easily detached, is a constant symptom.

2nd. Dryness is an absolute characteristic of the disease at all stages and in every situation. There is never, in a pure type of the disease, the slightest moisture, greasiness, or tendency to ulceration.

3rd. The development of points or discs of a color varying from a pale red to a red of a brighter hue, and showing a certain degree of inflammatory thickening, sometimes marked but usually only moderate or slight, is another characteristic of this disease. The eruption may be general over the trunk and extremities, is usually symmetrical, and there is more or less itching. The patches may assume one of several shapes. If you remove the scales from a well defined patch you generally see little red dots scattered over the glistening membrane beneath. The lesions are well defined at the edges, tend to enlarge at the periphery, and may slightly clear up in the centre.

On the scalp there may be several patches of the disease, or the scalp may be one solid patch with the characteristic dry papery, white, scales. A small patch will generally be seen in front of either or both ears, and a red scaly line just in front of the hair line, that is said to be a striking characteristic of this disease. The palms and soles are very rarely involved. The nails may show the disease becoming opaque, furrowed, lusterless, cracked and raised from the nail bed by an accumulation of scales underneath.

Differential Diagnosis.—We may have to differentiate the disease from syphilis, eczema, seborrhea of scalp, and dermatitis exfoliativa.

In syphilis we have usually some other symptom of the disease to guide us, his-

tory or evidence of initial lesion; enlarged glands, sore throat, falling hair, etc.

In eczema we usually have intense itching, moisture in first stage, thickening of skin, *crusting*.

In seborrhea of scalp we have usually a very greasy condition of hair. Scalp is covered with a yellow, greasy crust that crumbles to the touch.

Dermatitis exfoliativa usually involves the entire surface of body. Scales are large, and the disease generally follows some previous skin trouble.

Treatment.—In treating a case of psoriasis, if the patient is rheumatic, give him salicylates; if gouty, colchicum, phosphate of soda, and cut off red meats, eggs, coffee and sweets. If overfed and plethoric, put him on a very light diet. If he is underfed and run down, build him up with good food and tonics.

Alkalies like the acetate or citrate of potash, and thyroid extract in the first stages of the disease are considered about the best treatment, followed later by some form of arsenic after the acute process has somewhat subsided.

Before making any external applications to the skin, the scales should be removed with soap and water, or some warm alkaline bath. May be, right in the start, inunctions of simple oil or vaseline will effect a cure. If they do not, we should use an ointment of chrysarobin, from one-half to two drachms to one ounce of vaseline, rubbed in once or twice daily until the characteristic dermatitis and mahogany-red color of the skin develops, then stop the chrysarobin and use oxide of zinc ointment until the dermatitis subsides. If the patches look gray on the red background of the inflamed skin, you probably have accomplished a cure. Though, if any patches remain, you can try the treatment over. Chrysarobin stains the bedding and underclothes hopelessly, so it can be put up in a form of a collodion and painted on limited patches. It must never be used about the face, owing to the irritation it may produce in the eyes, and the patient should always be warned not to get the drug in the eyes while using it.

For psoriasis of the scalp the ointment of ammoniated mercury, diluted with one-half or less of olive oil, is usually curative for the time at least.

There are numerous other drugs mentioned, as iodide of potash in most heroic doses, turpentine oil, wine of antimony, carbolic acid, chrysarobin internally, etc. But with these I have had no experience.

(In this connection the following abstract of a recent paper by Dr. Bulkley of New York may be of interest.—EDITOR.)

L. D. Bulkley, New York, (*Journal A. M. A.*, August 26.), says that the medical profession does not seem to appreciate the value of an exclusive vegetable diet in the treatment of psoriasis. He has, therefore, been led to keep a list of his recent private cases who have been under a vegetarian diet for the last two years. He remarks, first, that psoriasis is not very common as an eruption in this climate, but it is still more rare in warmer climates, and, during a prolonged trip to the East he could not learn of its occurrence among the vegetarian, chiefly rice-eating natives. He gives a tabulated analysis of a large number of private cases showing the age of the incidence of the disease, it most frequently occurring during early maturity and middle life, but it may begin during infancy and in quite a number of cases it began during childhood. Its persistence is shown by duration of twenty, thirty or even fifty years in a large number of cases. During the two years in which he has kept a special record he has observed 134 cases of psoriasis who have kept more or less faithfully on a vegetarian diet, nearly one-half of them absolutely vegetarian. Patients who have relapsed into a free meat eating diet have had a recurrence of the eruption or an aggravation of what remained in many cases, though in some instances it did not seem to cause the disease. A certain number of people, however, are, he thinks, as shown by the evidence, incapable of properly assimilating much proteid substance. He is accustomed to tell his patients that the vegetable diet must be continued indefinitely as the disease may return whenever the intake of proteids is greater than the system can manage. The urinary examination of patients with psoriasis showed, in the average deviations from the normal, indicating imperfect metabolism of nitrogenous elements. The average specific gravity was 1.026, much higher figures being not uncommon as the acidity was invariably high, uric acids and urates abounding and the urea increased even double the normal amount. Hence the value of alkaline diuretics with the vegetable diet, which is not alone sufficient in many cases though the most important part of the treatment. There are some articles from the vegetable kingdom which must be guarded against. Alcohol in any form, even the lightest beer, is prejudicial, and in some cases coffee, chocolate and cocoa are better excluded. Butter is the only animal product allowed, except possibly a very little fat bacon occasionally. Too much indulgence in sweets is to be avoided and acid fruits seem sometimes to interfere with the treatment.

Selections

EXPERIMENTS IN CANCER CURE.

The following is from a letter from Italy by Wm. J. Mayo in the *Journal of Minn. State Medical Association*:

The second experiment, and the thing that impressed me more than any other one thing in Italy, was the extraordinary cancer research being conducted by Professor Fischera. It really does appear as though we are in sight of positive knowledge in regard to the disease. Personally, I have never been impressed with the germ theory of the etiology of cancer. It seems to me that up to the present time a modification of Cohnheim's original hypothesis gives the best working theory of tumor-formation. The only thing which we have known positively about carcinoma is the influence of chronic irritation in its production. Chronic irritation causes, normally, an increased production and activity of the epithelial elements, obeying the natural law of compensation; but when this process fails to stop—when compensation is complete and continues to develop and to invade other tissues—we have cancer. An injury causes activity of the connective-tissue cells for the purpose of repair. When this activity fails to stop at the point necessary for repair, and continues riotous production and invasion of the surrounding parts, we have sarcoma. The causation of the condition, then, may lie either in the stimulation which causes it to advance or in a lack of normal ability to check. That it is cell itself which is diseased is shown by the fact that all secondaries, no matter where situated, reproduce the primary cell and not merely a cancer of the organ in which it is found; that is, in cancer of the lip with a secondary of the liver, the secondary will be epithelioma.

It follows, then, that the vital point in cancer, both carcinoma and sarcoma, is the rapid uncalled-for production of embryonic cells. It has been shown that an extract made from a normal organ when injected into a healthy animal, tends to cause the destruction of the same organ. Bolton made an extract from the scrapings of a normal animal's stomach, and this extract when injected into a healthy rabbit caused ulcer of the stomach. Maury showed that

an extract of bile-pigments would cause fatty degeneration of the liver. Finally, in the contagious tumors of rats it was found that an extract made from an embryonic rat would cause the tumor to disappear.

The explanation of Fischera's experiments lies in these known facts: As cancer is due to the unlimited production of embryonic cells, an extract from embryonic cells furnishes the necessary check to the production, and the tumor is then removed through normal processes.

Professor Fischera took two-to-six months human embryos, crushed them up, and put them in a salt solution until they were dissolved by autolysis. This solution was then injected into patients suffering from cancer. Five patients have been cured through this procedure. I saw three of them.

Case 1.—Carcinoma of the tonsil, cheek and wall of the pharynx, with extensive glandular involvement. The case was examined by Professor Alessandra and a piece of the growth removed for microscopic examination. The condition was considered inoperable, and the patient was turned over to Professor Fischera. After a number of injections a complete cure was the result. I examined the patient and saw the scars in his throat. I also examined photographs and microscopic slides of the tumor.

Case 2.—Patient with cancer of the rectum, operated upon by Professor Alessandra. Return of the disease *in loco*. Microscopic examination was made, and the condition was pronounced hopeless. The patient was completely cured by injections.

Case 3.—A woman with a huge carcinoma of the breast; enormously enlarged axillary and subclavian glands; arm swollen; condition inoperable. After a number of injections the glands completely disappeared, the arm became normal in size, and the tumor was reduced to one-fourth of its former dimensions.

It is worthy of notice in these cases that there was extensive glandular involvement, and that this involvement was the first to disappear.

It should be remembered that all of Professor Fischera's cases were examined by competent clinicians—Durante, Bastianelli, and Alessandra; and that pieces of the tumors were removed for microscopic examination.

Professor Fischera is extremely modest and claims but little for his work. He has given his method and his results freely to the profession. While I am not at all convinced that a cure for cancer has been found, I am of the opinion that Professor Fischera's work is philosophic in its reasoning and a distinct step in advance.

" DANGEROUS SURGEONS."

W. K. McCoy, M.D., Gum Springs, Va.

"Too many non-surgeons are doing surgery now-a-days." This is the recent dictum of a notable surgeon, whose standing entitles him to speak with authority. It is also the conviction, not only of surgeons, but of intelligent general practitioners, that surgical practice by incompetent men is dangerously common in our times.

Of course no doctor of medicine should be unready to do emergency surgery in compelling circumstances, and to such emergency work our strictures are not meant to apply, but to the deliberate undertaking by untrained men, of that which they are not fit to do.

The epoch-making discoveries of general anesthetics and of the principles of asepsis are not unmingled blessings. Immunity to pain and comparative freedom from risk of infection have made invasion of the viscera relatively so easy that ambitious fools now rush recklessly in where formerly the wisest and most skilful trod trembling.

Not very many years ago the man ambitious to become a surgeon was obliged to acquire knowledge and skill by unaided experiment—at the expense of his victims—but now when one wishes to devote himself to the practice of surgery, he has every opportunity to prepare himself by regular training in the best equipped hospitals, and under the masters of the science and art of surgical practice.

Whosoever aspires to this noble eminence, yet neglects the preparation, is morally culpable, and ought to be criminally guilty of carelessly assuming one of the most sacred responsibilities.

The novice becomes a famous painter, or sculptor, or musician, or architect only after years spent in laborious apprenticeship, when he is not only *taught*, but *trained* in the fine and exact details which combine to make a harmonious whole; and

without such training, while he may have latent talent, he will always be crude and symmetrical.

It is not presumption for the obscure physicians—the “great unwashed” of the profession—to make these criticisms, for we are the men who refer surgical cases, and when we advise our confiding patients to entrust their lives and happiness to the hands of a stranger, we have a right to demand that the man who undertakes to render the service we cannot give, be fully trained for his part.

It is common knowledge that the operative, *i. e.*, the spectacular part of the surgeon's work makes the strongest appeal to the lay mind; and too often to the professional mind also. To be a “fine operator” is supposed to be synonymous with being a great surgeon, not only by the laity, but the rank and file of doctors. Nothing could be wider of the mark. Indeed, manual dexterity and operative technique are the least of the attributes of the master surgeon.

The highest intellectual faculty is judgment, and the greatest of all the surgical faculties—*sine qua non*—is surgical judgment. In the hands of its possessor our lives are as safe as human wisdom and precaution can make them; in the hands of the imitation surgeon we are in jeopardy every hour.

The man who lacks the trained judgment and poses as a practical surgeon—no matter if his fingers are facile—is a thoughtless and dangerous adventurer whom all good men should disapprove and wise men should shun.

The really competent men in the field of surgery are few, relatively and actually, but the impudent imitators are many, and at their hand lies most of the responsibility for the disrepute into which surgery has fallen with many of the laity. Many people, remembering the acquaintance or relative who was operated upon and died, or more often was nothing better; and being unable to distinguish between the real and the spurious surgeon, will decline or delay operation for readily curable surgical diseases, until they have become inoperable or proved fatal. The writer has had the misfortune to witness the death of several persons who were once curable, but deferred operation until conditions became hopeless; and in all these cases the reason

given was the same, and the examples cited were instances of attempts at treatment by incompetent men.

Let us press the argument *ad hominem*, doctor! You may be content to send your patient, who knows no better than to trust you, to your classmate, kinsman, or friend who aspires to cut, and let the ignorant victim take his chances.

But when you find yourself or one of your family with a surgical disease, will you go to your third-rate friend or to the acknowledged master? If you say the former, you compel us to doubt either your veracity or your sense. If the latter, we should like to ask by what right you give the patient who pays you to advise him a poorer chance than you would choose for yourself? It is high time for this sorry and dangerous business to stop, but it will be stopped only when the rank and file of the profession place the stamp of their disapproval on the smug egotists who have made the Temple of Science a house of merchandise.

Therefore, when one proclaims himself a candidate for our referred surgical cases, we are at liberty—we are bound—to demand his credentials: “Doctor, where were you trained?”—*Old Dominion Med. Journal*.

(Alas, alas, many cases these days are “referred” to the operator for no other reason than that he is known to be a man who *divides the fee*, which the better surgeon and more honest man will not do. The honorable practitioner will not refer a patient to a surgeon whom he will not be willing to have operate on his own wife or child.—Editor.)

COUNTY SOCIETIES—HOW TO INCREASE INTEREST IN.

A committee of the N. Y. State Medical Society makes the following suggestions for increasing interest in county societies:

1. Improved programs. Interest in the meeting depends largely on the attractiveness of the program.
2. Take up post-graduate course as recommended by American Medical Association. This systematizes the programs.
3. Confer with State Board of Health for at least one meeting a year on public health matters. Co-operation with the

Health Department is essential to the welfare of the community.

4. Have at least one reader a year from a distance. Confer with the Committee on Scientific Work of state society if necessary. It will be glad to suggest names of those willing to render such service.

5. Arrange for one or more clinical meetings a year. Select subject and request all who have proper cases to bring them before the society; then have a discussion on the same, always with the understanding that discussion of the case shall not be held in the presence of the patient; otherwise, frequently patients cannot be shown for obvious reasons.

6. Arrange for demonstrations by bacteriologists and pathologists with specimens, lantern slides, etc.

7. Arrange for social part of meeting. Some light refreshments at the close of the meeting are an adjunct to fraternal intercourse.

8. See that meetings are held often enough to keep up interest. Once or twice a year is not enough. Invite every member of the profession in the county to at least one meeting a year, not necessarily inviting them all to the same meeting. In counties where men do not show a willingness to write papers either designate writers for different meetings or see that outsiders are invited—in other words, *see that the meetings are made interesting*. It should be the aim of every county society to secure a permanent home; a small library, with a supply of current journals, and the use of the larger libraries for reference books will greatly increase interest in the county organization.

9. Arrange the time of meeting to accommodate the largest number of members. Where men come from long distance, an evening session is obviously the most convenient. An afternoon session will often appeal to a larger number of men when it permits them to reach their homes at a reasonable hour.

10. Select as officers men who are willing to work. Keep good men in office. Do not promote those who have shown they will not attend to the duties assigned them. Efficiency is the only criterion of leadership. "No physician should accept office unless he is prepared to give the position the attention that it deserves and unless he is interested in the work."

11. In small societies do not unduly multiply offices—the secretary's and treasurer's duties can be best done by one man. Always supply officers with clerical help if work is onerous. Detailed drudgery work should not be asked of men serving for others without compensation.

12. Make the dues large enough to warrant conducting the society work in a proper manner. Those who object to the amount of their dues usually do so because they are not receiving full value for them. Give back a dollar in value for every dollar paid in and complaints will be few.

13. Provide a Committee on Entertainment who shall welcome new or prospective members or guests at meetings. The officers of the society may be active or ex-officio members of such committee. Newly registered physicians should be visited by such committee or written to and asked to join the county society.

14. See that the meetings, programs and proceedings are published regularly and promptly in the state journal.

15. Have high ideals. Be liberal yet firm in maintenance of a high ethical standard. Educate the public. Be a power for good in the community. Do not be ashamed of the county society or apologize for it; make it better. Attend all meetings and see that others do the same. "The county society is a conservator of patriotism and worthy citizenship."

FATAL IODINE INTOXICATION AFTER DISINFECTION—BORJE (*Arch. de med. et pharm. milit.* 1911, Feb.) calls attention to the fact that an idiosyncrasy exists among certain individuals toward iodine, and reports a case of fatal poisoning after two coatings of the tincture. The patient was to be operated upon for an inguinal hernia and the skin was painted with tincture of iodine. The operation was entirely successful. The day after the operation the patient complained of pains in the right chest, and this region was thereupon also painted with tincture of iodine. The day following, the patient had fever; there was an erythematous eruption over the entire body; cramps and diarrhea set in, and then stibismus, signs of cardiac weakness and death. Post-mortem examination showed a decided enlargement of the liver, spleen and kidneys. The cause of death, apparently, was a rapidly progressing iodine poisoning. The author suggests that the official tincture be diluted with alcohol before using it on the skin. [The reviewer fears that this dilution may impair its efficacy. In his surgical work, he always washes off the excess of iodine with alcohol, after the completion of the operation.]—*Review of Reviews*.

The West Virginia Medical Journal

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WHEELING W. VA., NOVEMBER 911.

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All communications to this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the State. Notices of deaths, removals from the State, changes of location, etc., are requested.

Our readers are requested to send us marked copies of local newspapers containing matters of interest to members of the medical profession. Name of sender should be given.

CONTRIBUTIONS TYPEWRITTEN.

It will be satisfactory to all concerned if authors will have their contributions typewritten before submitting them for publication. The expense is small to the author—the satisfaction is great to the editor and printer.

ADVERTISEMENTS.

Advertising forms will go to press not later than the 10th of each month.

Advertisements of proprietary medicines must be accompanied with formulae. Rate cards sent on application.

REMITTANCES

Should be made by check, draft, money or express order or registered letter to Dr. S. L. Jepson, Ch'n of Pub. Com., 81 Twelfth Street, Wheeling, W. Va.

Editorial

If your Journal fails to reach you by the 10th drop a card to us, not to your Secretary.

"A COMPROMISE WITH VICE."

Under the above title there appeared in the *St. Louis Medical Review* for September of this year, an editorial frankly and unblushingly advising the medical man to make a compromise with evil by advising the masturbator to indulge in illicit sexual intercourse, on the ground "that an unlawful and immoral relationship, indulged in at intervals, is preferable to continued debauchery of one's self." Such advice has been given again and again by physicians who were thoughtless or untrained in clear thinking. It has also been given and defended by many of the radical men of the profession, thoroughly soaked with the materialistic ethics which are taking hold so fast on the minds of the younger generation.

Harold Bolce, in a remarkable series of

articles appearing under the general title, "Blasting the Rock of Ages," showed convincingly and without contradiction that our modern colleges and universities are undermining the faith of their students in those eternal verities, belief in which is necessary for the safeguarding even of a pagan state. What makes the editorial in the *Medical Review* peculiarly sad to read is, that the writer evidently has not let go entirely his hold upon the Rock of Ages, but, feeling himself drawn by the powerful current of the materialistic undertow, makes one last convulsive effort to cling to morality. He says, "It cannot be said of such advice that it is chaste, nor is it such that it can be given indiscriminately, but in cases of continued, excessive self-abuse, it offers the best chance of success. Yes, it is a compromise with vice, but better compromise with one vice than be overwhelmed by another." He tries, however, to soothe his troubled conscience by saying that the physician must not in a careless and jesting fashion suggest to the youth, his patient, to "seek relief for his longings in the embraces of a public woman," but that "the matter must be handled in a dignified and plausible manner." The patient must not be at once "dismissed with a crude suggestion to visit a bawdy house and to seek in the first inmate he meets gratification for his intolerable craving," but the physician must "take his hand, gain his confidence, and have a heart-to-heart talk with him. Granting that he is deeply rooted in the habit, explain its degrading phases and dwell upon its harmful effects if persisted in. Then advise sexual relations with some available woman."

The thoughts that swarm upon one with horror on reading this editorial would take more time and space to express than are allowed here. We can only touch the high places. In passing, we would ask, who will be the "available woman" whom the masturbator will select? What if she be the doctor's daughter? Or if not his daughter, what if she be mine or yours? At all events she must be some man's daughter or sister or wife, or, horrible to think, some one's mother.

Or, again, not rising above the pure materialistic view, is it true that there is less economic loss in one man's debauching himself alone by one vice than in his debauching himself and the "available woman" by

another vice? We confess that we cannot answer this question, since we have not been trained in the school of materialistic ethics.

According to our view it is never permitted to do any evil "that good may come" of it. *The end does not justify the means.* Right is right forever, and right must be advised and should ever be done "though the heavens fall." We know in advance what judgment the writer in the *Medical Review* will pass upon us, for he says in his editorial that "no broadminded man will take exception to advice of this character" [to this compromise with vice] "if it holds out a promise of release from the deadly danger of excessive masturbation." We "bend low with bated breath and whispering humbleness" and confess with joyful pride in our hearts that we, in narrowminded persistency, will cling to the Rock of Ages with its steadfast and unshakeable foundation based upon an All Wise, All Holy, and Eternal God, rather than, broadmindedly, let go our hold of it to float about like a storm-tossed mariner upon the shifting seas of false philosophies, be they pragmatism or hedonism or utilitarianism or pantheism. We do most strenuously take exception to this advice; we cry out against it with all the vigor of our mind, with all the ardor of our heart, with all the energy of our soul. It is evil advice. If the principle that underlies it were generally admitted, if we were allowed to hold that the end justifies the means, that evil may be done in order to attain what seems good, moral chaos and social anarchy would follow fast upon its train.

C. A. W.

"FOR THE GOOD OF THE ORDER."

The Secretary's report at our September meeting indicated that at that time there were about 150 members who had failed to pay their dues for 1911. No doubt many of them have since paid and others will do so before the year closes. It is a bad plan to cultivate this habit of delay in the meeting of society obligations. It entails a big loss on any member who might be sued for malpractice, since no member can receive any aid from the Association unless his dues are paid in January. It entails loss to the Journal, since we often fail to collect pay

from those who, while getting the Journal regularly, at last to allow their membership to lapse. Not all men are impressed with a sense of obligation to pay for benefits received. It will be a favor if those who intend to drop out of the Society will notify us of the fact at once, that their names may be dropped from our mailing list. Such notice should be accompanied by one dollar to pay for the Journal which has come to them since January, and which in this case will continue to come until the year closes. Of course we shall be glad to continue as subscribers any who may not think enough of our Association to continue members of it; and we shall be still more glad if all old members conclude to stay with us. Certainly every physician who is in affiliation with any live county society gets more profit and pleasure than his society membership costs.

If the Society is *not alive*, inquire if you are not in part responsible for its moribund condition. Study carefully, and every member may do so with profit, the suggestions given on another page (167) as to how to improve the county Society. If these suggestions are followed we are satisfied that good will result, and a revival of interest be shown in those local Societies that have partially disintegrated.

We were much pleased recently to receive a letter from a member of a distant society, in which occurred this sentence: "If you enjoyed the White Sulphur meeting half as much as I did, you were well repaid for going." We have never met this member at an annual meeting before, but we are quite sure his experience is not unique. And so it is with those who attend the meetings of a *live* local Society. And all may be made so by an enthusiastic and united effort by all the members.

To the County Secretary a word—Make a last and persistent effort to collect every dollar due from members on your roll. If a member has not resigned, he is indebted to the society for the year's membership, which includes the Journal that has come to him during the whole year thus far. Let us conduct our business in a business-like way. Our postal laws hold every subscriber of a paper responsible for the subscription price until the paper is ordered discontinued. No member has asked us to

stop his Journal. The price is due the Association, and we can put the money to good use. But, as already intimated, we prefer to get the dollars from members who are to remain faithful, and we want to see the Association grow until it gathers into the fold every reputable practitioner in the state. We now have on our mailing list 1,152 names, but not all of these are of W. Va. physicians. We have only a few over half of the physicians in the state as yet within the Association. Collect the dues for 1912 in January and you will accomplish a double purpose; 1. Secure for all the protection afforded by our plan of medical defense. 2. Secure your membership for the year. It may be a little hard for some to pay now for this year and again so soon as January, but having once paid in January, future payments will be twelve months apart. It is well to establish this good habit at once. S. L. J.

The very successful surgical clinics given in Chicago last autumn resulted in the formation of a permanent organization. Dr. Albert J. Ochsner was made first president and, subsequently, Philadelphia was selected for the next clinical congress, which will be held November 7 to 19, inclusive. An elaborate programme of clinics has already been arranged by the Philadelphia committee. (Dr. John G. Clark, chairman). Membership in the Congress is not limited; it is open to all who attend and register. Any of our readers who are devoted to surgery will be richly repaid by a visit to Philadelphia at the time named.

Von Notthafft claims that the automobile mania is apt to result in sexual impotence. W. J. Robinson (Critic and Guide) regards the claim as not unreasonable and says:

"We know that two of the greatest causes of sexual debility are worry and strain, and the strain of the person who drives a car at the rate of thirty or forty miles an hour is certainly very great. The strain, the anxiety combined with the jar of the car tend to induce cerebral neurasthenia, which causes sexual impotence. Dr. von Notthafft states that his patients improved when they gave up speeding and ran their cars at a moderate rate, which of course speaks for a causal relationship.

"Yes, we are quite ready to believe in an etiologic relationship between automobile speeding and impotence. And what is more, we should

do our utmost to spread this knowledge among the automobilists. We know how conscienceless and foolhardy some of them are. Human life is nothing to them. Of fines they are not afraid. Even the fear of a prison sentence does not deter them: they know that with money and with good lawyers they can get out of any scrape. But spread the knowledge to them that reckless speeding may result in a diminution of their sexual power, and you will see how quickly the mania for speeding—and killing and maiming innocent passersby—will go out of fashion."

If any of our members contemplate doing post graduate work in New York City, we can save them a little money. First come first served.

The Second Annual Meeting of the Am. Association for Study and Prevention of Infant Mortality will convene at Hotel LaSalle, Chicago, on November 16th. The program is filled with good things, promising a meeting of unusual interest and profit to those who attend. Among the many topics of interest announced is that of Eugenics.

We welcome to our exchange list a new Journal, *Successful Medicine*, which is to be issued bi-monthly from 60 Randolph street, Chicago, the managing editor being Dr. Henry R. Harrower, who says: "*Successful Medicine* represents an attempt to see the practice of medicine from a dollar and cents standpoint." The first number contains some excellent articles by widely known men. We emphatically dislike the mixing up of advertisements with reading matter, and generally drop into the waste basket Journals of this kind when we arrive at the first ad. Otherwise we wish this Journal success.

STORM BINDER—THE FAVORITE OF THE MEDICAL PROFESSION.

We note with much pleasure the wonderful growth of the Storm Binder in the favor of the medical profession. From a comparatively small beginning but a few years ago the business has grown into a large and profitable one. Dr. Katherine L. Storm, the inventor and head of the concern, is to be congratulated on this success, which has been won through the worth of her binder and her fair dealing. Dr. Storm not only has the satisfaction of having built up a paying business, but she also has the greatest satisfaction of having scores of grateful patients to whom her name is a synonym for relief and comfort. The testimony of the numbers whom she has helped in various conditions through the efficacy of her

excellent binder and supporter means more to Dr. Storm than any other phase of her success. Probably no other binder on the market has to so great a degree the favor and confidence of the medical profession. The Journal rather especially rejoices in the success of this woman's physician.
—*Woman's Medical Journal.*

General practitioners will be interested in the announcement by Parke, Davis & Co. of two new products of their chemical laboratories. Proposote and Stearosan are the names chosen to designate the preparations in question.

Proposote is creosote in combination with phenyl-propionic acid. It is a straw-colored, oily liquid, neutral in reaction, nearly odorless, and having a slightly bitter taste suggestive of creosote. The indications for it are the same as those for creosote. Tubercular cough following pneumonia, the cough of pulmonary tuberculosis, acute and chronic bronchitis, purulent bronchitis, abscess of the lung, asthma, and bronchitis complicated with Bright's disease are among the pathological conditions benefited by its administration. Being insoluble in acid media, it passes through the stomach unaltered by the gastric juice, to be slowly broken up by the alkaline fluids of the small intestine, hence may be given in gradually increasing doses until the desired effect is obtained. Proposote is free from the objection of causing nausea after prolonged ad-

Stearosan is Santal oil combined with stearic acid. It is an odorless, tasteless, light-yellow oily liquid that is insoluble in water and dilute acids but is slowly broken up by alkaline fluids. It may be employed with advantage in chronic gonorrhoea, cystitis, urethritis, vaginitis, pulmonary disorders such as chronic bronchitis, bronchorrhoea, etc. It possesses therapeutic properties fully equal to those of santal oil.

Both Proposote and Stearosan were thoroughly tested clinically before being offered to the medical profession, and practitioners may be assured of their therapeutic efficacy in all cases in which they are indicated. They are supplied in 10-minim elastic gelatin globules, boxes of 25 and 100, and may be obtained through retail druggists generally.

State News

IN MEMORIAM.

Dr. Jesse L. Sammons was born January 23, 1859, near Oak Forest, Greene county Pa. He was the youngest of four sons of Rev. Lewis J. and Elizabeth Rumble Sammons. At the age of 26, when a student in the Baptist College at Jefferson, Pa., he made a profession of religion and was baptized by Rev. Craig, uniting with the Baptist Church at Macedonia, afterward removing his membership to Wolf Run Baptist Church, after his removal to Marshall county, W. Va., where his membership remains. But his Christianity was stronger than his denominationalism. The Christ life was his ideal and he lived as he prayed. In all churches he felt at home and especially in the Methodist Church at Mt. Hope, where he was as far as possible a regular at-

tendant, it being near his home, while his own church was five miles away. He taught a Sabbath school class of young men, over which he had great influence in the Mount Hope Methodist Church. He was a student of Waynesburg College and taught very successfully in the public schools of Greene county for ten years, beginning at the age of sixteen, and continued teaching while reading medicine, his preceptor being his brother-in-law, Dr. William Parry. In 1885 he was graduated from the Starling Medical College at Columbus, Ohio, with honors in surgery. He located at Calis, where he was married to Miss Mary Phillips, of Rock Lick, W. Va., and their silver wedding would have been celebrated in November. All of the subsequent years were spent at Calis, except one year in Rogersville, Pa., where their only son, Dr. William Phillips Sammons, now a resident physician of Mercy Hospital, Pittsburgh, was born. His only daughter, Hazel, was born in Calis. Dr. Sammons belonged to a long-lived race of people and was a man of vigorous constitution whose powers of endurance stood well the test applied to the country physician until about five years ago, when the serious protracted illness of his son and daughter caused a temporary breakdown which, followed by a severe fall on the ice, caused concussion of the brain, from which he never fully recovered. However, for the last year he had apparently regained his health and was actively engaged in his professional duties until the week of his death, which occurred Saturday, September 30, 1911. Memorial services were held Tuesday afternoon from the Mt. Hope Church, near his residence, his lifelong friend and former pastor, Rev. Jas. S. Jewell, pastor of the Allison Avenue Baptist Church, Washington, Pa., preaching the sermon from a text selected by the family. "Greater love hath no man than this, that a man lay down his life for his friends." A fitting tribute to the unselfishness of the man and the self-sacrificing Christian physician. The great concourse of friends, aside from the family connections, attested the high respect in which he was held by those who knew him best. The floral offerings were numerous and the music was the hymns he had loved to sing. He rests from life's labors but the good he has done is immortal. In addition to a son and daughter, he leaves two brothers, James, who resides in Oregon, and Russell, of Shadyside, O., and two sisters, Mrs. Mary Parry, of Waynesburg, Pa., and Mrs. Charles Monroe, of Sistersville.

* * *

It is probable that the matter of making allowances to physicians for examining persons on lunacy charges in Wood county will be given a test in the courts unless some satisfactory arrangement can be made between the county court and the doctors of the city. Some time ago, the court reduced the fee which is allowed for such examinations from \$3 to \$1.50. This brought a protest from the Little Kanawha and Ohio Valley Medical Society and a resolution was adopted fixing the fee at \$5.

Recently two physicians were called to examine a person on a lunacy warrant and in compliance with the resolution adopted by the society, they have tendered a bill of \$5 for their services. It

is understood that each will insist on the payment of that amount.

The county court has announced that it will not recede from its position, giving as a reason that the expenses for such examinations are entirely too high. The physicians say that the examinations require considerable time, and a large amount of experience, and as the services are very unpleasant at all times, that they are justly entitled to a larger fee.

* * *

Dr. C. B. Williams, of Philippi, is in New York City, taking post-graduate work at the N. Y. Post-Graduate School.

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At the annual meeting of the Barbour-Randolph-Tucker County Medical Society, held in Elkins, September 5, the following officers were elected: President, Dr. Edmond J. Horgan, Jennings; vice-presidents, Drs. Albert S. Bosworth, Elkins; E. Mendel Hamilton, Belington; secretary and treasurer, Dr. Ernest R. MacIntosh, Elkins; and censor, Dr. W. Hoddis Daniels, Elkins, re-elected.

* * *

Dr. A. B. Nichols, of Wheeling, has associated with him in practice Dr. C. H. Keesor. Dr. N. is expecting soon to make a protracted visit south.

* * *

We regret to announce the serious wounding of Dr. J. E. McDonald, of Logan, by a pistol in the hands of a former female employee. We sincerely hope for the early recovery of the genial doctor, whom we have so recently met at White Sulphur Springs.

* * *

The physicians of Preston county met in Kingwood, August 23, reorganized and elected the following officers: President, Dr. Buckner F. Scott, Terra Alta; secretary and treasurer, Dr. A. G. DeFoe, Brandonville; and censors, Drs. Daniel J. Rudisill, Kingwood; Grand M. Fogle, Rowlesburg, and Dr. William F. Dailey, Terra Alta.

* * *

Wheeling has recently been again honored in the elevation of Dr. H. P. Linsz to the presidency of the Association of Surgeons to the Pennsylvania Lines at their meeting at Indianapolis on October 4th.

* * *

The Ohio County Anti-Tuberculosis League was chartered August 29, with offices in Wheeling. The league is given authority under the charter to own and transfer real property to the value of \$50,000, and personal property to a similar amount, and to erect and maintain hospitals for the care of persons afflicted with tuberculosis. The incorporators are Drs. Harriet B. Jones, Eugenio A. Hildreth II, and William H. McLain, and Messrs. Jesse A. Bloch and Henry M. Russell. A sanitarium is in process of erection near Elm Grove, five miles east of Wheeling, and a part of it will soon be ready for the reception of patients.

* * *

The City Hospital Aid Society, of Parkersburg, has recently procured and installed a new complete sterilizing outfit for that institution.

The Circuit Court (in Wood county) recently decided that the will of the late Dr. A. G. Clark was invalid. The case has been appealed to the higher court. If the decision of the lower court is affirmed, about \$38,000 will go to the lawyers and the relatives of the deceased instead of to the poor, as intended by Dr. Clark. The general ground of the decision was, that the legatee, "the poor of the city," was an indefinite party. *Warning*—Dr. Clark drew up his will without consulting a lawyer.

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Dr. Thos. R. Evans, late of Kanawha county, is now an assistant physician in the Ohio State Hospital for the Insane at Massillon.

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Dr. Louzo O. Rose, of Parkersburg, whom we all know as a very competent pathologist, announces that he is now prepared to make the Wasserman test. It is quite a satisfaction, in doubtful cases of syphilis, to confirm one's diagnosis by this test. It is also highly satisfactory, after one has long treated a syphilitic patient, to get a negative Wasserman.

DEATHS.

Dr. J. R. Walker, late of Brownstown, died a few weeks ago. We have not learned the cause.

We regret to hear of the recent death of a young son of Dr. W. H. Sands of Fairmont.

MARRIAGES.

James D. Dodrill, M.D., Webster Springs, W. Va., to Miss Mabel I. Harford of Richwood, W. Va., at Charleston, W. Va., September 26.

John H. Steenbergen, M.D., Huntington, W. Va., to Miss Jessie Johnson Fitch at Fairmont, W. Va., September 20.

Claude Jackson Martin, M.D., Clarksburg, W. Va., to Miss Edith Claire Riall of Baltimore, September 13.

Society Proceedings

MINUTES OF THE FORTY-FOURTH ANNUAL SESSION OF THE WEST VIRGINIA STATE MEDICAL ASSOCIATION, HELD AT WHITE SULPHUR SPRINGS, SEPT. 20TH, 21ST AND 22ND, 1911.

HOUSE OF DELEGATES

Tuesday, Sept. 19th, 1911, 11:30 P. M.

The House of Delegates was called to order by President Wingerter in the Music Room of the Grand Central Hotel. Delegates Wingerter, Haley, Linsz, Strickler, Jepson and Butt were present.

Adjourned to meet at 9 o'clock Wednesday morning.

Wednesday, 9 A.M.

After the House was called to order the Secretary, A. P. Butt, reported as follows: "Mr. President and Fellow Members of the House of Delegates of the West Virginia State Medical Association: The work of the past year has been much harder than usual. At least three factors have contributed to this: First, the Medical Defense. This being its first year it was not to be expected that it would work altogether

smoothly. The wording of the amendmnet to the By-Laws was a little obscure, and capable of more than one interpretation. I think at least one-half of the county secretaries were in doubt as to the correct amount of money to send me for each member. A large number of our members thought it was optional with them whether they should take the Defense, pay one dollar more than usual, or let it alone. I took the matter up with a number of our officers and all advised that I had no option in the matter. This was my own view. All this necessitated a great deal of correspondence and, I fear, caused some little bitterness.

Second: The lateness in fixing the date of our annual meeting caused much trouble. Various national and state journals, exhibitors and directories want these dates, to say nothing of our members. The month should invariably be fixed a year in advance, and the exact date at least ten months.

Lastly: The papers for this meeting were very late in coming in. I started working on the program one year ago at Parkersburg. Almost nothing was accomplished until shortly before the meeting. Then I got desperate and sent out a general alarm. As a result you have more papers on the program than you should have. This cuts off discussion and makes our sessions too long.

Our paid-up membership to date is 803; of these 112 are new members. We have lost during the year 140 old members. Some of these were lost by death or removal, but by far the larger number were lost from non-payment of dues. A number may pay before the year ends. Our success or failure as an Association depends almost entirely upon the efficiency of the county secretary. If he is wide-awake, zealous, persistent, knows no factions, cares for nothing but the welfare of his society, is determined to get every worthy man in, and make life miserable for him after he gets in until he pays his dues, then his society will be a success; otherwise not. If this is true, what can we do to get and retain good men for this office?

For one thing, make the county secretary a member of this body. This is aimed at by a resolution introduced by Dr. McBee last year and which will be voted on this year.

Should the enactment of this amendment make this body too unwieldy, it could be remedied by a further amendment making the county secretary the first delegate.

In my opinion the office of county treasurer and county secretary should in all cases be combined. Nearly all of our societies do this, but some do not. I see no advantage in the two officers, and I know that in at least two societies having separate officers it has caused much trouble.

The membership by counties is as follows:

Barbour-Randolph-Tucker	65
Boone	13
Braxton	14
Brooke	7
Cabell	55
Doddridge	6
Eastern Panhandle	38
Fayette	45

Grant-Hampshire-Hardy-Mineral	31
Greenbrier Valley	27
Harrison	56
Hancock	7
Kanawha	65
Lewis-Upshur	15
Logan	5
Marion	39
Mason	2
Marshall	23
Mercer	34
McDowell	33
Mingo	13
L. K. & Ohio Valley	46
Monongalia	17
Nicholas-Webster	17
Ohio	61
Pleasants	3
Pendleton	1
Preston	8
Raleigh	2
Ritchie	17
Summers	13
Taylor	17
Tyler	8

(Figures brought down to Nov. 1.—Editor.)

Respectfully submitted,

A. P. BUTT, Sec'y.

Drs. Daniels, Yeakley and Strickler were appointed a committee to report upon the recommendations contained in the report of the Secretary.

Adjourned to 9:50.

11:15 A.M. Wednesday, Sept. 20th, 1911. . .

Dr. Jepson reported for the Committee on Publication as follows:

To the House of Delegates of West Virginia State Medical Association.

GENTLEMEN—In presenting the annual report of the Journal's business transactions, we beg to repeat some of the suggestions made last year, believing these to be in the interest of the Journal's success. While the Journal was not started as a money-making venture, it must be kept in mind that the more money we receive the better and larger Journal we can give to our members and subscribers.

The delay in the payment of annual membership dues is the greatest handicap we have to carry. We never know until after the annual meeting how many old members are going to allow their membership to lapse, and are hence compelled to have enough copies of the Journal printed to supply all, knowing that a number of these will never be paid for. Last year we sent bills to thirty or more who were on the roll for the entire year, but failed to pay their dues. Of these but three were honest enough to send a dollar for the Journal, which they had received an entire year, and they had failed to notify either the local secretary or the editor of their intention to drop from membership. Others had left the state without our having been informed of the fact. The only way to avoid this loss is to exact payment of dues in January; and we are quite sure that, as heretofore suggested, the member whose dues are paid early will be more interested in the society than the delinquent will be.

The U. S. Post Office Department has ruled

that no Journal shall be continued to a subscriber who is more than four months in arrears. We are, therefore hereafter compelled to cut from our mailing list the names of all whose dues are unpaid May 1st. In this way only can we avoid the penalty that may be imposed by the Post Office Department.

We again urge our members to patronize our advertisers as far as it is possible for them thus to supply their needs. We can not exist, much less prosper and grow, without the favor of our advertisers, and it is only proper that our members should reciprocate when possible. On our list are wholesale druggists, medical book publishers, instrument makers, sanitariums and hospitals, and all of us have occasion at times to patronize some or all of these. Look over our advertisements monthly, and let the advertisers know it by your orders.

Heretofore, in making out our financial statement, we have included all money collected from the business of the past fiscal year, which runs from July 1st, to June 30th, even though collected later than the last date. This year's report includes only the actual receipts and expenditures for the fiscal year. Thus calculated our report shows a deficit of \$68.33. But there remain on our books \$235.00 uncollected for last year's advertisements. More than \$100.00 of this will come in later. Indeed \$32.00 has been received since our report was made up. So there is actually a small balance in our favor on the year's business. Although we are not in condition to boast, yet we are not bankrupt. The showing is about the same as last year. It should be better, and it can, we believe, be easily made better: 1st. By holding the society meetings regularly, beginning the exercises promptly, always having an assured program, that none who come will be turned away disappointed. 2nd. By gathering into the local societies all physicians who are eligible, and especially the young graduates. 3rd. By collecting membership dues in January from all members, for as stated above, the paid-up member will be more interested in the society than will the delinquent. 4th. By patronizing our advertisers and hunting up new advertisements for the Journal.

We call attention to the fact that the fiscal year of the Journal differs from that of the Association, the latter ending with December and the former with June. One or the other should be changed, and while the Journal year ends with the June issue, we can make the fiscal year correspond with that of the Association without changing the Journal year.

Below is our financial statement.

Very respectfully,

PUBLISHING COMMITTEE.

S. L. JEPSON, *Chairman.*

(To save space we give here a summary only. A full itemized account was presented to the House of Delegates, audited by the Council and found correct, as stated below).

RECEIPTS.

From Membership Dues.....	\$ 803.00
" Advertisements	\$1,065.47
" Subscribers	31.80
" Journals sold.....	1.00

" Interest on deposit..... 10.00

Total \$1,911.27

EXPENDITURES.

Printing Journal	\$ 918.51
Mailing Journal	25.69
Postage stamps and cards.....	18.50
Printing letter heads, etc.....	4.50
Reprints	4.25
Half tones	1.25
Commission on ads.....	6.00
Binding Journal for Association.....	.90
Editor's Salary	\$1,000

Total \$1,979.60

The receipts of the Journal for the year were (not including membership dues) \$102.45 more than the previous year, and the expenses were \$125.42 greater, the latter being due to our larger mailing list. The last year's receipts from members were \$830.00. To date of issue of this (November) number of the Journal our receipts from membership are but \$803.00, but we are hopeful that before the close of the year they will exceed those of the former year. (Figures brought down to Nov. 1.)

Dr. J. W. McDonald, chairman of the Committee on Public Policy and Legislation, reported as follows:

Dr. Chas. A. Wingerter, President West Va. State Medical Association, Wheeling, W. Va.

DEAR SIR—As Chairman of the Committee on Public Policy and Legislation of the State Association I beg leave to submit the following report:

During the session of the recent Legislature, several bills of importance to the medical profession were up for consideration. One, a small bill attacked our medical practice act in an apparently unimportant way; another attacked the prerequisite education feature of our act. Both of these bills were easily disposed of in committee, before which I had the honor of appearing through the courtesy of Dr. C. A. Barlow.

A State Tuberculosis Sanitarium was established, the bill carrying an appropriation large enough to soon make it effective.

A bill establishing Medical Inspection in Public Schools in the various independent school districts of the State was passed; this bill should be carefully considered by the profession, as it is in the line of work of the Russell Sage Foundation for Preventive Medicine.

The results attained by the organized practitioners of medicine have been so great in all of the states, that a plea for a closer and stronger organization should be made in every county, thereby strengthening the State Association.

Dr. H. C. Wiley in his great work deserves the commendation of the profession, and should have its united support in his present fight against the "interests."

Respectfully submitted,

J. W. McDONALD, M. D.,

Chairman Committee of Public Policy and Legislation.

Fairmont, W. Va., Sept. 11, 1911.

Dr. V. T. Churchman introduced the following resolution:

"Moved that the fiscal year of the Journal begin January 1st. When a new society is organized after June 30th the dues for that year be only up to January 1st following, and then the regular annual dues shall be due and payable." Carried.

On motion of Dr. Hupp it was decided to hold the sessions of the House at such an hour as not to conflict with the General Meeting.

Adjourned to meet Thursday morning, 8:30.

Thursday, 9:10 A. M.

The report of the treasurer, Dr. H. G. Nicholson, was read and referred to the Council for audit. It is as follows:

West Virginia Medical Association, to Hugh G. Nicholson, Treasurer:

1910.	Dr.	Cr.
Oct. 7 to check G. H. Benton, Councilor	\$ 18.82	
Oct. 7 to check J. E. Rader, Councilor	5.45	
Nov. 1 to check Henri P. Linsz, Councilor	7.50	
Nov. 10 to check Dr. A. P. Butt, Janitor, etc.	14.88	
Nov. 10 to check Dr. A. P. Butt, Envelopes, etc.	21.70	
Nov. 16 to check Lohmeyer-Goshorn-Patterson Co.	10.00	
Nov. 21 to check Dr. L. D. Wilson, Assistant Editor	50.00	
Nov. 21 to check Dr. G. D. Lind, Assistant Editor	25.00	
Nov. 21 to check Dr. S. L. Jepson, Editor	600.00	
1911.		
Jan. 5 to check The Davis News, Printing	41.50	
April 6 to check Dr. J. C. Irons, Expenses	8.10	
April 6 to check Dr. A. P. Butt, Half Salary	150.00	
April 13 to check Dr. W. W. Golden, Medical Defense	350.00	
May 17 to check The Davis News, Printing	12.50	
May 23 to check Dr. A. P. Butt	18.66	
June 2 to check Dr. S. L. Jepson	600.00	
June 5 to check R. M. Baird, M. D.	1.00	
June 14 to check A. S. Grimm	1.00	
June 14 to check S. R. Holroyd	28.35	
June 14 to check B. B. Wheeler	15.20	
July 11 to check West Virginia Medical Journal	576.00	
Aug. 8 to check W. W. Golden, Chairman	230.00	
Aug 24 to check H. G. Nicholson, Treasurer	125.00	
Sept. 12 to check Dr. A. P. Butt, Secretary	150.00	
Sept 12 to check Dr. A. P. Butt, Postage, etc.	21.98	
Sept. 13 to check The Davis News, Printing	23.00	
Sept. 13 to check Dr. C. L. Pearcey, Refund	1.00	
Sept. 18 to check Dr. W. W. Golden, Chairman	170.00	
Sept. 18 to check Dr. Henri P. Linsz, Expenses	26.00	
Sept. 18 to check Dr. G. H. Benton, Councilor	21.75	
Sept. 18 to cash on hand	676.88	
1910.		
Oct. 10 by cash brought forward	\$1,174.93	
Oct. 10 to Feb. 11, cash from 1910 Dues	48.00	
Nov. 21 by cash from Journal	170.00	

July 7-11 by cash from Journal	410.43
Nov. 8-10 to Sept. 10-11 by 1911 Dues	2 198.00
	\$4,001.36
	\$4,001.36

Audited and found correct.

SAMUEL HOLROYD,
B. B. WHEELER,
P. A. HALEY,
H. P. LINSZ,

Committee.

On motion of Dr. Churchman Drs. Jepson, Nicholson and Linsz were appointed a committee to confer with the local committee as to the propriety of holding a banquet. After consideration the committee reported that it was not deemed advisable to have a banquet, but that instead the members meet in social session at 8 p. m. Friday. Adopted unanimously.

The following report from the Council was read by Chairman Linsz:

Report of Council.

A semi-annual meeting of the Board of Councilors of the West Virginia Medical Association was held at Parkersburg, W. Va., March 29, 1911.

Councilors present: Drs. Linsz, Chairman; Haley, Secretary; Holroyd, Benton, Grimm, Wheeler, Link.

The condition of the Association and of the various County Societies, was discussed thoroughly. Most of the counties reported in good condition and where anything could be accomplished to improve conditions, it was done. Some of the County Societies reported in better condition than for years.

Kanawha County Society sent in a registered protest against the Malpractice Policy; twenty-four (24) members withdrew from the Society and the remainder paid their dues under protest, on this account.

Kanawha County Society reported that it will join with Fayette County Society, April 1, 1911, and publish a monthly journal of the proceedings of these two Societies.

The Secretary of the State Association, Dr. A. P. Butt, asked advice of Council as to whether recommendation of committee appointed on President's address at Parkersburg, last year, was sufficiently explicit to warrant incorporation of the State Association.

Council notified Secretary Butt that the recommendation of that committee was not sufficiently explicit and therefore did not warrant incorporating.

Dr. Butt submitted a detailed account of the actual state of affairs of the State Association, which was quite interesting.

The date of the meeting of the Association at White Sulphur Springs was left to the Chairman and Secretary of Council. This committee, acting in conjunction with the Committee on Arrangements of the Greenbrier County Society, named September 20, 21 and 22, 1911, as the dates for such meeting.

To fill a vacancy, caused by ineligibility, Dr. B. B. Wheeler was appointed to act as delegate to American Medical Association, Dr. G. H. Benton, alternate.

Adjourned to meet at call of Chairman.

The above report was read to the House of Delegates, September 21, 1911, and adopted unanimously.

H. P. LINSZ,
Chairman.
P. A. HALEY,
Secretary.

The annual meeting of Council was held September 20, 1911, 9 p. m., at White Sulphur Springs, W. Va.

Present: Drs. Yeakley, Wheeler, Haley, Secretary; Linsz, Chairman.

The various reports from the different districts showed the Association to be in a flourishing condition, and while quite a number of the old members had dropped out during the year, the records showed an increase of one hundred and seventeen (117) new members taken into the Association during the year. The outlook of the Association for the ensuing year is very favorable, tending toward increased membership as well as a restoration of the members who dropped out during the past year.

The financial report of Dr. S. L. Jepson, editor of The West Virginia Medical Journal, was received, examined, audited and found correct.

Signed: Drs. Yeakley, Haley, Secretary; Linsz, Chairman.

The financial report of the Treasurer of the West Virginia Medical Association, Dr. H. G. Nicholson, was received, examined, audited and found correct.

Signed: Drs. Holroyd, Yeakley, Wheeler, Haley, Secretary; Linsz, Chairman.

The report of the Committee on Malpractice Defense was received, examined and read before the House of Delegates. Adjourned.

September 21, 1911.

The report of the Secretary, Dr. A. P. Butt, was received and audited and found correct.

Signed: Drs. Holroyd, Haley, Linsz.

Relative to the requirement of the postoffice department that each member shall be a *bona fide* subscriber to the Journal, (but without obligation to pay additional for it), it was directed that each Secretary draw up a subscription paper directed to the editor and have each member either himself sign it or authorize the Secretary to do so, signifying that the members desire the Journal for the coming year and until further notice.

September 22, 1911.

The Board of Councilors, consisting of the members in office and the newly elected ones, met and organized.

Present: Drs. Holroyd, Jeffers, Rader, Edmondson, Johnson, Wheeler, Haley, Linsz.

Dr. H. P. Linsz, of Wheeling, W. Va., was unanimously re-elected Chairman for the ensuing year.

Dr. P. A. Haley, of Charleston, W. Va., was unanimously re-elected Secretary for the ensuing year.

It was moved, (Linsz) seconded (Haley), and adopted unanimously, that the salary of the editor of the Journal, Dr. S. L. Jepson, be one

thousand dollars (\$1,000.00) for the ensuing year:

That the salary of the Secretary, Dr. A. P. Butt, (including that of a clerk,) be three hundred dollars (\$300.00) for the ensuing year;

That the salary of the Treasurer, Dr. H. G. Nicholson, be one hundred dollars (\$100.00) for the ensuing year, and

That twenty-five dollars be donated to Dr. G. D. Lind for services rendered.

It was moved, seconded and adopted, that Council hold its mid-year session at Huntington, W. Va., in December, 1911, the date to be named by the Chairman. Adjourned.

The above report was read to the House of Delegates, September 22, 1911, and adopted unanimously.

H. P. LINSZ,
Chairman.
P. A. HALEY,
Secretary.

Dr. McQueen introduced an amendment to the by-laws repealing the provision for medical defense. Laid on the table for one day.

Dr. W. W. Golden, Chairman of the Medical Defense Committee, reported as follows:

Report of the Executive Committee on Medical Defense.

On — day of December, at the suggestion of one of the members, the Executive Committee of the Committee on Medical Defense held a meeting at Grafton, W. Va. W. W. Golden was elected Chairman and J. W. McDonald, Secretary. Hon. John W. Davis, of Clarksburg, was appointed consulting attorney for the year 1911 with the understanding that he is also to give his professional services in the capacity of consultant to the West Virginia State Medical Association in general. The fee agreed upon was \$100.00 per annum. A fear was expressed at this meeting that the by-law on Medical Defense may not be sufficiently clear in its wording, and the Chairman was therefore directed to submit it to Mr. Davis for an opinion. One question in particular seemed to us in need of immediate answer, and that was whether we, under the by-law, are obliged to take up the defense of criminal charges against a member, such, for instance, as charges of criminal abortion. We were also puzzled about the advisability of incorporating the State Association, an impression having been gained by a member of the committee that this would be essential in order to safely carry out the work of medical defense. The following letter was received from Mr. Davis a few days late which clears up all these points:

Clarksburg, W. Va., Dec. 31, 1910.

Dr. William W. Golden,
Elkins, W. Va.

My Dear Sir:

I have yours of the 29th and hasten to reply. Answering your questions in order, I do not see how I can, by general discussion, make your duties clearer than does the special by-law which you enclose. I think it plain, however, that this by-law does not require you to defend members accused of any criminal offense. It has reference solely to civil suits brought to recover damages for mal-practice.

I shall be glad to answer any other specific question which may present itself to you.

The State Medical Association is a voluntary Association of individuals not for profit, and is on the same legal footing, therefore, as clubs, granges, the State Bar Association, etc. Its members are therefore individually liable for those acts only which they have expressly authorized or assented to, and in each case the burden of proving such authority or assent is upon the person bringing suit. I can see nothing to be gained by incorporating the Association.

I note with pleasure that I have been placed on the mailing list of the Journal of the American Medical Association and I shall scrutinize with care those pages bearing on the subject at hand.

Yours very truly,

[Signed]

JOHN W. DAVIS.

It will be recalled that at our last Parkersburg meeting the report of the committee urging the adoption of a plan of medical defense emphasized the fact that the main advantage in such a plan lies in its prophylactic effect. It has been the experience of all medical societies adopting such plan that the number of law suits against their members has been much diminished thereby. The committee finds particular pleasure in reporting that not a single law suit for alleged malpractice has so far been entered against any member of this Association for any alleged act since January 1, as far as this committee knows. Perhaps this information will become more interesting if we state that we know of several cases against members now on the dockets in several of the courts of our State arising from services rendered within the last few weeks of 1910, that is to say, just before the State Medical Association's plan of medical defense became operative. That right on the heels of these there should be a stretch of nearly nine months without a law suit against any one of our members could hardly be considered a coincidence. The committee believes that our plan of medical defense is doing exactly what we hoped it would do. It has put an effective brake on the main factors which are usually concerned in the instigation of suits for alleged malpractice.

The committee, however, fully expects sooner or later to have some suits to defend, but if the results prove with us as they have with other medical societies, we do not apprehend any serious consequences to any of our members. Mr. James T. Lewis, counsel for the Medical Society of the State of New York, makes the following statement in his report for the year 1909: "Your counsel began the defense of malpractice actions on September 1, 1900. Since that time over two hundred and fifty cases have come before him, and of that number one hundred and thirty-eight have been actually tried, none finally lost and one now on appeal. Not one dollar of damages has ever been paid." "This," he continues, "is a result not even hoped for, and the success of organized malpractice defense in the hands of State Societies has been demonstrated." Of thirty-six cases that came to trial under the plan of medical defense of the Iowa State Medical Association, as reported in our own State

Journal, not a single one turned out against the physician.

We do not know what effect, if any, this plan has had upon the size of our membership. In estimating this we should remember that the plan is not yet generally known among the physicians of the State who are not members. It has brought about an increase of membership in all other State Associations; and, therefore, we have a right to expect it here. Of one thing we are certain, and that is that the value of the State Association today to its members is much greater than it has ever been.

We recommend that no hasty changes be made in the by-law on medical defense. If some changes are deemed wise, let those be entrusted to this, or to a special committee with instructions to make careful study of the plan, and report at the next annual meeting.

FINANCIAL STATEMENT.

Total amount so far received from H. G. Nicholson, Treasurer \$750.00

EXPENDITURES.

Grafton meeting L. D. Wilson..\$ 4.50
Grafton meeting W. W. Golden. 2.90
Grafton meeting J. W. McDonald
Telegrams and telephone..... 1.21
Stationery 2.80
Stenographer's charges and postage 15.00
Attorney's fee John W. Davis... 100.00

Total\$126.41

Balance\$623.59

WILLIAM W. GOLDEN,
Chairman.

J. W. McDONALD,
L. D. WILSON.

September 21, 1911.

Thursday, 12 M.

Dr. Churchman reported for the Committee on Presidential Address as follows:

We, your committee appointed to report upon the recommendations contained in the President's address, would most respectfully make the following report:

We would most heartily recommend the adoption of the President's recommendations in regard to the incorporation of the State Association, as many things can be said in its favor.

We would further advise that this Association extend to the West Virginia Society of Social Hygiene our moral support, as recommended by the President.

As to the organization of District Societies, we would suggest that this question be freely discussed to obtain the opinion of those members present. Personally, we are in favor of its adoption, but think it should be freely discussed by the Association.

We also advise the adoption of the President's

recommendations regarding a resolution to have the Secretary of each County Society a delegate to the State Association.

There is one question upon which we must differ with the President. We believe that the system of so-called "Medical Defense," under which the Association has been working for the past year, is detrimental to the best interests of the Association, and contrary to the advice of the President, we would suggest that that portion of the by-laws relative to medical defense be repealed, as we do not believe that the medical profession of this State is ready to adopt such measures at this time.

V. T. CHURCHMAN,
Chairman.

C. O. HENRY,
H. W. DANIELS.

On motion of Dr. Jepson the recommendations were taken up one at a time.

First—Shall the Association be incorporated?

Dr. Jepson moved that we do not incorporate the Association. Carried.

Second—Recommendation carried.

Third—Recommendation laid on the table until next year.

Fourth—Recommendation concerning County Secretaries carried.

Fifth—Recommendation: Dr. McQueen moved the adoption of this recommendation.

Dr. Edmondson offered as a substitute the following:

Moved that the question of medical defense be referred to the County Societies and be taken up at the annual meeting of 1912."

Dr. Jepson moved to refer the matter of medical defense to the general meeting for decision.

Dr. Churchman called for the previous question.

Substitute motion of Dr. Edmondson carried. Adjourned to meet at 9 a. m., Friday.

Friday, 9 A. M.

Election of officers resulted as follows:

President, Dr. C. O. Henry, of Fairmont.

First Vice President, Dr. R. E. Venning, of Charles-Town.

Second Vice President, Dr. Charles O'Grady, of Charleston.

Third Vice President, Dr. H. W. Daniels, of Elkins.

Secretary, Dr. A. P. Butt, of Davis.

Treasurer, Dr. H. G. Nicholson, of Charleston.

Councilors:

First District—H. R. Johnson, of Fairmont.

Second District—R. H. Edmundson, of Morgantown.

Third District—B. B. Wheeler, of McKendrie.

Fourth District—C. D. Jeffers, of Parkersburg.

Fifth District—J. E. Rader, of Huntington.

Delegates to American Medical Association:

P. A. Haley, of Charleston, for two years; V. T. Churchman, alternate.

Frank L. Hupp, for one year; C. A. Wingerter, alternate.

Next place of meeting Webster Springs. Month of July the time.

An amendment to the constitution, Article V, was introduced last year by Dr. T. Jud McBee: "The House of Delegates shall be the legislative and business body of the Association and shall consist of (1) delegate elected by the component County Societies, (2) the Councilors, (3) ex-officio the President and Secretary, and (4) the County Secretaries. Carried.

Dr. C. O. Henry reported for the Committee on Tuberculosis as follows:

We, your Committee on Tuberculosis, beg to submit the following report:

Through the previous efforts of the West Virginia Medical Association and the allied influences, the long looked for State Institution for the care of our tubercular citizens has had its birth and foundation by an act of our last State Legislature appropriating \$40,000 to buy land and erect buildings for this purpose. It was the duty of our State Board of Control and our State Board of Health, as provided in the bill, to act jointly in the selection of a site and the purchase of the same.

The wisdom of the selection made by these combined bodies bespeaks earnest, careful and honest search for the best location considered from all standpoints within the borders of our Commonwealth.

Your committee notes that the site selected was the identical site recommended by a previous committee appointed by the Legislature nine years ago. The fact that the two bodies acting entirely distinctly and without consultation made the same selection, serves to strengthen our belief that it is the very best location that could have been made.

The erection of buildings will begin in the very near future. We think our State Board of Control is leaving no stone unturned in an effort to make the wisest possible use of the appropriation at their disposal for this purpose.

We, your committee, urge that the influence of this Association may be made felt in the appointment of a competent head for this institution, and further we recommend that when the head of this institution is appointed he be requested to attend our annual meetings, that a mutual co-operation and understanding may be had between the said institution and our profession, that we may be better able to lend our earnest support to the institution that we have so earnestly asked our Legislature to establish.

Respectfully submitted,

C. O. HENRY, *Chairman.*

Dr. McQueen's motion, introduced Thursday, to amend by-laws touching medical defense, was lost, the President declaring it to lack the necessary two-thirds vote.

Dr. H. W. Daniels reported for the Committee on Secretary's report. Moved that the recommendations of the Secretary be adopted. Carried.

Dr. Godbey offered the following amendment to the constitution:

"That all physicians who have become incapacitated, due to age or otherwise, and that

are regularly elected honorary members of the local Medical Society, may become honorary members of the State Association, without being required to pay the usual fee due the State Association." Laid over for one year.

Adjourned.

Friday Afternoon, 5 O'clock.

The President's attention was called to an alleged error in his ruling on the vote on Dr. McQueen's motion at morning session. President Wingerter replied by saying that while he gave the wrong explanation for his ruling at the morning session, the ruling itself was right, inasmuch as a majority of the delegates registered at the annual session was necessary to carry the amendment, and such majority had not voted for it. An appeal was taken from the ruling of the chair. Chair was sustained.

Report of the Council by Dr. Linsz was received and adopted.

Dr. L. D. Wilson was unanimously elected a member of the Medical Defense Committee for three years.

Adjourned at 5:19 p. m.

C. A. WINGERTER,
President.
A. P. BUTT;
Secretary.

LITTLE KANAWHA AND OHIO VALLEY SOCIETY.

... PARKERSBURG, W. VA., Oct. 7, 1911.

Dear Editor:

As you have not heard from us for some time, I write to let you know that we are still alive. In September our society met after the summer vacation. It was a business meeting. Had conference with the ladies of the Anti-Tuberculosis League of this county, and a committee was appointed to consider how we could best co-operate with them in their work. They have a trained nurse here working in their line.

Action was taken in regard to the course of our county court in arbitrarily reducing the fees for examining patients in lunacy cases from \$3 to \$1.50. The custom has been to have two physicians make these examinations, paying each \$3. It was resolved that we refuse to make such examinations for less than \$5 for each physician employed. All the physicians of the city signed this pledge. So the matter at present stands.

Drs. Jeffers and Rose were appointed delegates to the State Society.

October 5th society met at the Chancellor hotel. Essayist for the evening, Dr. H. Gaynor, who gave us an instructive paper on "Specific Urethritis." Present twelve members. Dr. Jeffers gave a short account of the recent State Society meeting.

Committees reported progress.

In December we will have the quarterly social meeting with dinner at the Chancellor hotel. Program will be announced later.

Dr. Scott, our President, is in Denver on account of his health. We learn that he has improved. Dr. Albert, late of Hinton, is filling his practice during his absence.

Yours truly,
W. H. SHARP, *Sec'y.*

THE CABELL COUNTY SOCIETY.

HUNTINGTON, W. VA., Oct. 13, 1911.

Editor W. Va. Medical Journal:

The regular monthly meeting of this society was held last night in the Hotel Frederick. We had fifteen members present and two visitors.

The evening's program consisted of a general discussion of Salvarsan and its use, with the experience of the men here in getting clinical results from it.

Clinical case reports were given by President Fitch, Dr. L. T. Vinson and Dr. A. F. Haynes.

After the regular evening's work was over, lunch was served in the Dutch room.

Fraternally yours,

JAS. R. BLOSS, *Sec'y.*

Reviews

A MANUAL OF CLINICAL DIAGNOSIS BY MEANS OF LABORATORY METHODS—For Students, Hospital Physicians and Practitioners. By CHARLES E. SIMON, M.D., Professor of Clinical Pathology and Experimental Medicine in the College of Physicians and Surgeons, Baltimore. Seventh edition, enlarged and thoroughly revised. Octavo 780 pages, with 168 engravings and 25 plates. Cloth, \$5.00 net. Lea & Febiger, Philadelphia and New York, 1911.

I have been deeply impressed as to the value of this book, I think that the library of every student of medicine should contain a copy. I have never seen a more masterly collection of the essentials of "Clinical Microscopy." The various sections on the examination of sputum, urine, feces, gastric contents, spinal fluid, bacteriology and blood, are complete and thoroughly up to date. The author has also included a section which takes up nearly half of the book, that gives the laboratory diagnosis of each disease in tabulated form. This gives the physician or student not only the method of examination, but also the laboratory findings in any given case, without looking through the entire book.

I can conscientiously recommend this work as one of the very best in print on the subject of "Clinical Microscopy." R. U. D.

MANUAL OF DISEASES OF THE EYE FOR STUDENTS AND GENERAL PRACTITIONERS.—By CHAS. H. MAY, M.D., Chief of Clinic College of P. & S., N. Y. Ophthalmic Surgeon to Mt. Sinai Hospital, Consulting Ophthalmologist to Bellevue Hospital, to Red Cross and the Italian Hospitals. Seventh edition, revised. \$2.00. Wm. Wood & Co., N. Y., Pub's.

This book has been before the profession for over ten years, and has been so popular that seven editions have been demanded. It clearly meets a want. Nearly all books on the eye are made for the specialist, and are hence entirely too large and too technical. This is a duodecimo of 400 pages. It contains all that the general practitioner or student needs to know as to eye diseases. It will teach him how to diagnose and treat all the more common diseases properly, and he should send all the complicated ones to a

specialist, if he would avoid trouble for himself and the patient. The book is exceptionally well illustrated, many of the pictures being colored, and very correct representations of eye diseases. It is well printed, well bound and well indexed. Its information is the latest, even salvarsan getting its share of attention. We know of no book on the eye so good for the busy practitioner and the diligent and over-worked student as this.

THE ELEMENTS OF THE SCIENCE OF NUTRITION—Second revised edition, enlarged—By GRAHAM LUSK, Ph.D., M.A., F.R.S. (Edin.), Professor of Physiology at Cornell Medical School, New York. Second edition, revised. Octavo of 402 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1910. Cloth, \$3.00 net.

This book is highly scientific, and is not easy reading for the poorly educated physician. It gives evidence of an enormous amount of labor and experimentation in evolving accurate knowledge as to the processes of assimilation and metabolism. A chapter is devoted to the processes leading to starvation, two to the Influence of Protein Diet, one to the Specific Action of Foodstuffs, and others to the Influence of Fat and Carbohydrates, Effects of Work on Metabolism, A Normal Diet, Food Requirements, Metabolism in Anemia, at High Altitudes, in Myxedema and Exophthalmic Goitre, in Diabetes and in Fever. The last chapter is on the Theory of Metabolism. The last half dozen chapters are of greatest interest to the practitioner, dealing, as they do, with problems that the physician encounters in his daily management of disease.

An appendix contains a number of tables containing information of value, especially that showing the composition in protein, fats, carbohydrates, etc., of ordinary food materials. The work contains fewer than 400 pages, and if mastered by the physician it will make him a far better practitioner than before its reading.

INTERNATIONAL CLINICS—A quarterly of *Illustrated Lectures and Especially Prepared Articles*. Edited by HENRY W. CATTELL, assisted by OSLER, MUSSER, BILLINGS, MAYO, and other eminent men. J. B. Lippincott Company, Philadelphia. Price \$2.00. This is Vol. III. of the 21st series.

That the series has passed through twenty years of life is evidence of the high character of the papers that have thus been presented to the profession. Articles appear in this volume on Therapeutics, Medicine, Pediatrics, Neurology, Surgery, Diseases of the Ear, Obstetrics and Ophthalmology. In addition are two papers on The Successful Practice of Medicine, and on Economic Conditions Affecting Physicians, Some Uses for Some Old Drugs, Fastening, Venereal Diseases in Children, Operative Treatment of Recent Fractures of Long Bones, are some of the titles of papers of interest. The volume is up to the usual high standard.

BLOODLESS PHLEBOTOMIST.—

The value of heat as a therapeutic agent has

been so conclusively proven that it will admit of no further argument.

The difference, however, between convective heat in contra-distinction to radiant heat is a subject in which the profession generally is interested.

Convective heat is particularly applicable in cases where radiant heat is not indicated and the reverse is quite true. Their differential thermic value is clearly set forth in the October issue of the *Bloodless Phlebotomist* along with an interesting paper by Dr. David MacIntyre, a Cunard Surgeon, upon "Drugs at Sea."

In the same issue of the *Phlebotomist*, Dr. Edward Parrish of Brooklyn, presents his methods of treating Tic Douloureux and Dr. Leverett of Yonkers relates his experience in the successful handling of ivy poisoning cases, which in many instances are quite as intractable to handle as Tic Douloureux.

In addition to these papers, much other interesting and instructive material is given, and it is worth while to write to The Denver Chemical Mfg. Co., New York, for a copy of the *Bloodless Phlebotomist* for October, which they will send upon request.

Medical Outlook

PROCTOCLYSIS.—J. E. Cannaday, Charleston, W. Va. (*Journal A. M. A.*, April 15), after speaking of the difficulties that nurses have in administering drop by drop rectal enemas, says he has found the most simple method of inducing the fluid to flow drop by drop is not a hemostat but a hairpin and matches. The hemostat clamped on the tube invariably cuts in, and probably in five minutes the fluid is flowing a steady stream. He uses an ordinary wire hairpin, straddling the rubber tube and with the free ends twisted together. Three or four wooden tooth-picks or a match trimmed down to a wedge-shaped point are pushed in between the hairpin and the tube till the flow becomes just as desired. A steady drop-by-drop flow can be provided for as long as needed. A soft rubber catheter in the rectum, made after the type of the usual retention catheter or secured by sticking plaster, is much less irritating than a hard nozzle. Aside from the well-known value of saline solution by rectum in the treatment of shock, thirst, and hemorrhage, it is perhaps of still greater value in the prevention of urinary irritation and suppression, relieving the kidneys from over-taxation in getting rid of the toxic materials unloaded on them.

DIGIPURATUM IN HEART DISEASE.—WM. F. BOOS, L. H. NEWBURGH and H. K. MARKS in a paper published in the April issue of the *Archives of Internal Medicine*, discuss the great differences observed in the pharmacological strength of digitalis leaves and their preparations. The efficiency is said to depend greatly upon the soil, the gathering season, the method of collecting and drying the leaves and the methods used in preserving the dried product. For a time it seemed as if the pure active principles of digitalis

would be reliable substitutes for the galenical preparations, but it was soon evident that neither digitalin nor digitoxin alone could produce the true digitalis effect obtainable from the leaf preparation of known strength. As the fluid preparations do not retain their original strength so readily as the dry, standardized products are preferable. Digipuratum, a dry digitalis extract, was found free from the harmful digitonin and 85% of the bulky and inactive matter. The drug is standardized by means of the frog experiment so as to be equal in strength to the equivalent amount of potent leaves, this strength being uniform.

Digipuratum was employed extensively by the authors in the medical service of the Massachusetts General Hospital. Eight cases are quoted and tabulated, showing the interesting features. The diuresis was efficient in all cases and a marked effect on the pulse rate was usually present. One case was sent to the hospital in a moribund condition but reacted very quickly to the drug, so that compensation was reestablished in a week. The digipuratum was usually given in the form of treatments of 12 tablets each, and while in some cases the first treatment gave little or no results, the second was always very efficient. Good results may often be obtained by combining the medication with venesection, the removal of fluid by tapping, or by combining the digipuratum with other drugs, such as diuretin or apocynum.

Digipuratum has now been used in the Massachusetts State Hospital for over a year and more than 180 cases of primary heart disease or secondary cardiac involvement have been treated with it. The effect on the urinary output has been very prompt in most instances. There was not a single case of vomiting nor diarrhea; in fact, the vomiting of a number of cardiac cases at entrance was promptly stopped by digipuratum. Cumulative poisoning was never observed. One of the early patients, a boy of 16, was given 106 tablets in six weeks; at no time was there any suggestion of digitalis poisoning. In one or two instances the house officers were made uneasy by sudden drops of 40 or more beats in the pulse rate, but no disagreeable consequences followed in any case. It must be remembered, naturally, that digipuratum is a digitalis preparation, but the tendency to produce poisoning is much diminished so that it is possible by means of this drug of reliable strength to push digitalis therapy in a manner hitherto unknown.—*Cleveland Med. Journal.*

TREATMENT OF TETANUS—DRS. BEATES and THOMAS in reporting a successful case of tetanus in the *Monthly Cyclopaedia*, thus conclude the report:

This report is submitted rather in the nature of an appeal, so that others may be influenced to employ the treatment as described and to report their successes and failures impartially. Finally, it would be seen that, in any event, the treatment of tetanus, as exemplified in this case report, can be summarized as follows:

1. The removal by curette, cauterization, excision, amputation and the application of iodine,

of the tetanus bacilli engaged in elaborating the tetanic toxins.

2. The neutralization of the free toxins in the blood not yet combined with the nerve-cells by inoculation with antitetanic serum primarily, preferably, by intravenous injection, followed by its administration intraspinally, intraneurally and subcutaneously. For the intraspinal and intraneural, if not the subcutaneous, injection, the greatly concentrated serum (in our case from two to eight times the strength usually marketed) may prove signally meritorious.

3. The control of spasticity, muscular spasms, or convulsive seizures by either magnesium sulphate intraspinally or chloretone by rectum or both, alternately, dependent upon conditions.

4. The elimination of all tetanus poison from the system, as far as possible, by free catharsis and the administration of normal salt solution.

5. The administration of cardiac, pulmonary, and renal stimulants to meet the particular conditions.

Thus, the three fundamental principles underlying the therapeutics of tetanus have been observed:

1. The destruction at the focus of origin, of the tetanus bacilli.

2. The neutralization of the tetanolysin in the tissues.

3. The neutralization of the tetanospasm in the cord itself.

The special symptoms, such as sleeplessness, the spasms themselves, etc., were treated by the administration of suitable remedies meeting the indications with marked amelioration of suffering.

ERYSIPELAS, TINCTURE OF IODINE IN TREATMENT OF—The author reports a series of about 40 cases treated locally with iodine tincture. He considers it superior to other agents, but specifies certain points in the technique which are essential to success. The zone of sound skin surrounding the involved area is first painted with a wad of sterile cotton dipped in the tincture; next the disease area is painted, using a fresh wad; finally, the area is covered over with cotton, to prevent spreading of the infection through the intermediary of the patient's fingers. The author found it best to apply the iodine lightly five or six times a day rather than more freely morning and evening. In this way induration of the superficial skin layers, which would interfere with the action of the iodine, is avoided.

The tincture used should be of 10 to 12 per cent. strength, and freshly prepared.

Twenty-one cases of facial erysipelas were thus treated with uniform success, 1 recovering after the first application, 16 in three days, 3 in four days, and 1 in five days. Of 6 cases of erysipelas of the neck, 2 were relieved in four days and 4 in six days. Eleven cases of erysipelas complicating accidental wounds yielded in less than five days. The wounds were left unsutured and treated likewise with iodine, with good results.—M. FERRARI, *Gazetta degli Ospedali e delle Cliniche*, March, 26, 1911. *Monthly Cyclopaedia.*

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PUBLIC ADDRESS

The Physician's Work in Building the Nation.

R. E. Venning, M.D., Charles Town, W. Va.

(Read at annual meeting of W. Va. State Medical Ass'n, Sept. 1911.)

Over two thousand years ago in the Island of Cos, on the shores of Greece, was founded by Hippocrates "The Science of Medicine." Man, together with the beasts, has implanted in him the instinct to heal his diseases, as well as to supply his wants. It is impossible to say at what time Medicine developed into a science and an art; the works of Hippocrates give us the first written record. More has been done for the advancement and growth of Medicine in the last fifty years than in all the preceding centuries.

For a long time the field of hygiene and preventive medicine was a barren waste and the physician directed his efforts to the curing, or relieving the effects, of those diseases with which he came in contact. Little was known of the cause and nature of diseases, and many which we now know to be caused by pathogenic organisms were supposed to be due to humors in the blood, for the cure of which much purging and bleeding was resorted to. The work of Pasteur and Koch and the discovery in 1882 of the

tubercle bacillus as the cause of tuberculosis, and Lister's antiseptic treatment of wounds, opened up a new field to the enquiring mind of the scientist, physician and surgeon.

Since these epoch making discoveries, to the microscope and laboratory have surrendered such strong foes to the life of man as diphtheria, typhoid fever, cholera, bubonic plague, yellow fever, malaria and other diseases. We not alone recognize the various germs causing these diseases, but are learning more and more how to combat their destructive effects on the human body.

In 1776 Edward Jenner, an English physician, noted that dairymaids and others who contracted cowpox were immune to smallpox. In 1798 he published a paper entitled "An Inquiry into the Cause and Effect of Variola Vaccinae." Soon after this vaccination was practiced in the army and navy, and the practice spread to some extent to other countries. Vaccination did not become general until the middle of the last century.

Pasteur demonstrated that the various changes involved in the process of fermentation were due to the presence and growth of micro-organisms, and that when the atmospheric germs were absolutely excluded fermentation did not occur. He found that each variety of fermentation was due to a different micro-organism, and concluded from this that in like manner diseases were due to the presence of specific microbes. He went further and found that disease germs could be isolated and cultivated, and

that when injected into animals an immunity could be produced to that particular disease.

In 1885 he perfected his antitoxin treatment of rabies. These experiments put vaccination upon a sure foundation. Whereas up to the beginning of the nineteenth century one-tenth of mankind succumbed to smallpox, now this disease is effectively controlled by the application of Jenner's discovery and vaccination and revaccination are the means by which it is done. To such an extent is vaccination depended upon to control this disease, that recently the State Board of Health of Minnesota had the boldness to advise that "no attempt be made to isolate patients, and that entire reliance be placed on vaccination."

In the last few years much work has been done along the line of producing immunity to diseases by inoculation with non-virile or killed bacteria. Only recently the attention of the medical profession has been called to the possibility of rendering immune those exposed to the infection of typhoid fever. This is of so recent date, and I believe will be so far-reaching in its effects, that I will quote freely from a recent article by Major T. F. Russell, M.D., U. S. Army:

"In the Spanish war 86.24 per cent of the entire mortality (U. S. troops) was due to typhoid. The death rate for the entire country is estimated by Lumsden at 46 per 100,000, which would give an annual incidence of about 400,000.

"When we consider the average duration of the disease to be six weeks, we can appreciate the economic loss to the country. There are few countries which exceed us in the amount of typhoid, and as a nation we are, therefore, notorious for the excessive prevalence of this infectious disease. For the army we must have the kind of protection requiring the least labor and time to make it effective, and which will last during the comparatively short life of the campaign.

"There is nothing which answers these requirements so well as anti-typhoid vaccination, since this measure, by increasing the resistance of the individual to infection, operates under all conditions and at all times no matter how adverse the circumstances."

The vaccine is prepared from a strain of bacilli which has been cultivated for many years and has practically lost its virulence for animals. The bacilli are grown on agar, being incubated for eighteen hours. The bacilli are then killed by being subjected to a higher temperature for an hour. They are counted and diluted in the salt solution

until each cubic centimeter contains a definite number of bacteria.

The result of this prophylactic treatment is shown by Dr. Keane, U. S. A., in a recent report. In 1898, 10,759 men were assembled at Jacksonville, Fla. There were 1,729 certain cases of typhoid fever and 2,693 probable cases, and 228 deaths from typhoid. This year (1911), March 10 to July 10, there were 12,801 men in the maneuver division at San Antonio, Tex. Out of this number there was but one case of typhoid and no death. This patient had not completed his immunization, having taken only two doses. This case was a very mild one and would have been overlooked but for the rule that blood cultures were made in all cases of fever of over 48 hours duration.

A recent editorial in the *Journal A. M. Association* says: "The value of this preventive measure, as well as its innocuousness, has thus been demonstrated conclusively and on a great scale. It would seem, therefore, that the time has come for the medical profession throughout the entire country to follow the example of the army by making use of this typhoid prophylaxis in general practice."

Until a few years ago, owing to the constant prevalence of yellow fever in Cuba, our cities along the South Atlantic and Gulf coasts were annually subject to an epidemic of yellow fever. The disease was supposed to be contagious or infectious, and many and crude were the methods used for preventing the development or spread of this fearful scourge. Ship cargoes were destroyed, and whatever came in contact with a yellow fever patient was either destroyed or disinfected. It is now a matter of history that the work in the Canal Zone has been made possible by the discovery that the infections of both yellow fever and malaria are transmitted by the mosquito. It was the prevalence of these diseases that caused the French to abandon work on the Canal Zone. In 1900 a board was appointed, on the recommendation of Surgeon-General Sternberg, U. S. A., for the purpose of establishing in what manner the infection of yellow fever was transmitted. The late Major Walter Reed, surgeon, U. S. A., was made president and conducted the experi-

ments, which were made in Cuba. Twelve men, two of them members of the board, Dr. Jesse W. Lazear and Dr. James Carroll, voluntarily submitted to being bitten by contaminated mosquitoes and all of them contracted the disease. Dr. Lazear died as a result of the infection, a victim to his enthusiasm in the cause of science and humanity. Dr. Carroll recovered after a severe attack. These experiments established beyond a doubt that the mosquito (*Stegomyia Fasciata*) is the intermediate host for the yellow fever parasite, which is present in the blood the first three days after the attack. The specific infectious agent has never been demonstrated, probably owing to the fact that the yellow fever parasite is too small to be seen with our present microscopes. All that is now necessary to prevent the spread of the disease is to protect the infected by mosquito bars during the first three days of their sickness.

Malarial fever may be aptly termed the twin sister of yellow fever, for it, too, is transmitted by the mosquito (*Anopheles*). The mosquito having first bitten some one infected with malaria, the organisms undergo certain changes in its body and are again transmitted to man, introduced into the blood by its bite, and finding lodgment in the red blood corpuscles, there develops and produces the disease. Fortunately in the treatment of this disease we have a specific in quinine, but the old adage, "An ounce of prevention is worth a pound of cure," holds good here, and it should be the aim of every community to break up the breeding places of these insects.

The discovery that yellow fever and malaria are transmitted by the mosquito has already paid back to this country in dollars more than the cost of the Spanish and Philippine wars and the entire expense of digging the Panama Canal.

The following abstract from the *Journal A. M. Ass'n* gives the report for the month of March of the department of sanitation of the Isthmian Canal Commission, and indicates that there were only 43 deaths from all causes among 47,935 employees, 16 from violence and 27 from disease; 23 were colored and 4 were Italian and Spanish. Not a single white American died of disease. There are 10,299 white employees and their

families from the United States in the Canal Zone. Of these, three white employees from the United States died as the result of disease. Out of 4,282 white women and children from the United States there were only seven deaths.

"Has any such record in the elimination of disease ever been before established or dreamed of? Yet, as good results can be secured in any community in the United States, if the intelligent, painstaking, scientific methods followed by Colonel Gorgas are only adopted. If the Panama Canal should serve no other purpose than of an object lesson in sanitation, it will be worth to the United States and the civilized world far more than its total cost."

"The world has been shown that preventable disease is the result of ignorance and indifference and that in view of our present knowledge of the causes and methods of prevention of disease, its continued existence is discreditable to modern civilization."

You are all familiar with the great fight that is being made against tuberculosis, and successful to the extent of reducing the mortality of this disease 48% in the last twenty years. A few years ago it was thought that tuberculosis was hereditary, and, when once the disease was developed, the victim was marked for an early death. Now we know that the disease is not hereditary. The germ is everywhere, and the only reason we do not all succumb to the malady is because the vital resistance of our own bodies is able to defeat and destroy the germ. It is only when resistance becomes lowered that one becomes a victim to the disease. It is one of the most easily curable of all the infectious diseases. The remedy is simple and we all know it. Fresh air twenty-four hours out of every twenty-four, plenty of good food and plenty of good water, inside and out. Medicine, drugs, and above all "sure cures" should be let alone absolutely.

Mainly through the introduction of anti-diphtheritic serum the death rate of diphtheria has been reduced 80 per cent, but the rate is still too high. Antitoxin should be used early in the disease, and it should be more generally used to immunize those exposed to the infection.

In studying the various epidemics of this disease it is found that they have been in a large measure fostered by bacilli carriers, animal as well as human. The dog, cat, and rat have been proven to be carriers of this infection. At least one per cent of all

healthy school children are carriers of diphtheria bacilli, and such bacilli may be communicated from one person to another. Recently in the city of Minneapolis an epidemic of diphtheria was found to have its source in one of the best and cleanest dairies supplying milk to that city. Cultures were taken from the throats of all the employees, and one man, apparently perfectly well, was found to be a carrier of bacilli. This man was promptly isolated, the milk that he handled destroyed, everything about the dairy sterilized or disinfected, and the disease stamped out, but not before 22 cases had developed.

The secretary of the Board of Health of Pennsylvania has issued a notice of warning to the effect that the cup used in common in public places must inevitably be the constant medium of communication of diseases such as tuberculosis, diphtheria, and other infections. The public drinking cup has been pictured as a skull with its top sawed off, a handle fastened to the occiput, a chain attached to the handle, and the other end fastened to a drinking fountain.

I have touched in a general way and briefly on a few things that have been done by medical men in our generation for the good of mankind and the upbuilding of the nation. It may be asked what has been the result of all this work in preventive medicine? Has the death rate decreased, and how much? In a recent editorial by Dr. Jepson in our STATE MEDICAL JOURNAL I find estimates based upon the last census reports from the "Registration Area," that is, a limited part of our country in which statistics approximately correct have been collected. This report was compiled in 1909, and gives the changes in mortality since 1880:

Under 20 years, a decrease of.....	17.9%
20 to 30 years, a decrease of.....	11.8%
30 to 40 years, a decrease of.....	2.3%
40 to 50 years, an increase of.....	13.2%
50 to 60 years, an increase of.....	29.2%
Over 60 years, an increase of.....	26.4%

While we should be gratified and encouraged at this decrease in the death rate of persons under 40, it still remains excessive. We must wage a systematic and vigorous campaign against preventable disease. It is estimated that one million deaths occur in

our country annually from preventable diseases, and the loss to the country measured in dollars, exceeds one and one-half billions annually. The municipal boards of health, and in the rural districts the county boards, should take a more decided stand in matters relative to the public health. They should instruct the communities over which they have jurisdiction in matters of hygiene, sanitation and disinfection, as well as establish and maintain quarantine when necessary. A vigorous campaign of extermination should be waged against the house fly, probably the greatest known carrier of disease germs. Last year the total expenditure of our government was \$1,122,000,000. \$161,000,000 was used for pensions and the comparatively small sum of \$15,000,000 for the protection of public health. Enormous sums are spent annually preparing for future wars, and but 1.3% of the entire expenditure of the government for the war against disease.

Three years ago both the senate and house voted down the bill introduced by Senator Owen to unite in a Department or Bureau of Health the various national health organizations; and yet, through a government department whose head is a member of the cabinet, advice is given the farmer; free seeds are distributed, a corps of experts are constantly at work giving advice about how to protect trees and plants from insects, and animals from disease. President Taft expressed the sentiments of the physicians when he said: "There is nothing in the Constitution especially about trees or cattle or horses; and if, out of the public treasury at Washington, we can establish a department for that purpose, it does not seem a far stretch of logic to say that we have the power to spend the money in a bureau of research to tell how we can develop good men and women."

Our law makers are responsive to the pressure of public opinion, and it is the duty of every physician in this state and throughout this land to use his best efforts to educate and stimulate the public mind on this subject. Dr. Rosenau says: "Preventive medicine is the watchword of the hour, and enlistment in the cause can only come through education."

In the registration states vital statistics

show an increased mortality of 26.8% above the age of 40, since 1880. This increase is not confined to the aged, whose life work is done, but falls heavily upon those in the prime of life, increasing the mortality 13.2% between the ages of 40 and 50 years. Registration records show this alarming increase to be due to cancer and the degenerative diseases. This means that the heart, kidneys and blood vessels are unable to bear the strain of our strenuous life and are wearing out 20 to 30 years before they should. This is largely responsible for the fact that the death rate from pneumonia has remained about the same for the past 30 years. Pneumonia continues to be most fatal and widespread, and with the exception of tuberculosis, causes more deaths annually than any other acute disease. Osler is authority for the statement that very few fatal cases occur in robust, healthy adults. As a nation we have developed so rapidly and our civilization has become so complex that we have been unable to adjust ourselves to the changes. With all our vaunted modernism, we eat irrationally, drink immoderately, turn night into day, "burn the candle at both ends" and die of old age when 40 years old.

Alcohol is responsible in a large measure for the increase in degenerative diseases, these in turn causing a state of lowered resistance, making the individual greatly more susceptible to the acute infectious diseases, and especially to pneumonia. It is estimated that the consumption of alcoholic beverages each year is 25 gallons for every man, woman and child in the country. Fifty years ago it was only five gallons. We are quick to recognize the effects of the toxæmias of the acute infectious and contagious diseases, but overlook the slower poisoning due to overeating and drinking, and neglect of the simplest laws of health. More fuel is burned up in the body than the human machine needs, and a greater strain is put upon the eliminative organs than they can stand. This results in a dangerous increase in the pressure exerted by the blood in the arteries and brings about changes in their calibre and elasticity. The blood vessels are thinnest in the brain, and when the blood pressure increases beyond a point which the artery can stand, it ruptures,

causing apoplexy. The heart becomes weak, pumping blood through arteries offering increased resistance, and the time comes when the kidneys, overworked and irritated by the poisons, fail in their efforts to excrete the waste products.

The rich eat food too rich in the heat units, the poor food not rich enough, but the diseases due to these two conditions are, strange to say, very similar.

The fundamental condition for successful life is health, and these diseases and the degenerations of the central nervous system are taking a heavy toll from our nation.

Venereal diseases, and more especially syphilis, play a most important role in lowering the vitality, paving the way for other diseases, and laying the foundation for degenerations of the vascular and central nervous systems. Mortality statistics do not show the extent of its ravages, but some idea may be obtained of its significance when we realize that next to tuberculosis and pneumonia it probably contributes more toward the death rate than any other disease.

In conclusion, let me quote Lord Beaconsfield: "The public health is the foundation on which repose the happiness of the people and the power of a country."

This being true, gentlemen of the medical profession, our duty as physicians rises to a higher plane and that duty requires of us a broader patriotism.

THREE FOUNDERS OF MODERN MEDICINE

Oration in Medicine.

Charles O'Grady, B.Sc., M.D., Charleston, W. Va.

(Concluded from November issue.)

Louis Pasteur.

Louis Pasteur, the greatest of modern scientists, the Father of Bacteriology and the discoverer of experimental immunity, was the son of Jean Joseph Pasteur, who was a sergeant in the armies of the great Napoleon. Jean Joseph Pasteur was a tanner by trade, as were his father and grandfather before him. He was decorated with the Cross of the Legion of Honor for brave

and meritorious conduct. After his service as a soldier was completed, he settled at Dole, where Louis Pasteur was born Friday, December 27th, 1822. His family shortly afterwards moved to Marnoz and later to Arbois, where Louis entered Arbois college after going through the primary schools. He received some prizes at Arbois College, but excelled mainly in drawing and painting and learned all that his master could teach him. He made pictures of all the celebrities in the town and of many of his friends and of his father and mother.

He then entered the Royal College at Basancon, less than thirty miles from his home. Here he seems to have studied art and literature more than science, but made good progress and fitted himself for entrance to the Ecole Normal of Paris. He spent three years at Basancon and made good progress especially in mathematics which he always claimed was a dry and hard subject. After completing his course at Basancon he entered the Ecole Normal at Paris and came in contact with several investigators of the first order. Among them was J. B. Dumas a professor in the Sorbonne who, besides being a great chemist, was a fascinating and eloquent lecturer. Balard was another great chemist who made an impression on Pasteur. Delafosse was the first to interest Pasteur in the subtle beauty of crystalline forms, and we shall see later how this led to his first great discovery.

Pasteur continued his studies, and when the minister of public instruction desired to appoint Pasteur a teacher of physics at Tournon Lycee, Balard declared it would be rank folly to send him five hundred kilometers away from Paris when the youth only desired the modest title of curator, and to work from morning to night in the laboratory preparing for his degree of doctor of science. Balard's advice was followed, as Pasteur was not exiled in the country and was allowed to follow his wishes in regard to laboratory work.

When Pasteur died his monument was a small chapel in which his body lies, and on the walls the discoveries he made and the years are given as follows:

1848—Molecular Dissymmetry.

1857—Fermentations.

1862—So-called Spontaneous Generation.

1863—Studies in Wine.

1865—Diseases of Silk Worms.

1871—Studies in Beer.

1877—Virulent Microbic Diseases.

1880—Vaccinating Viruses.

1885—Prophylaxis of Rabies.

Apparently one would think Pasteur an erratic genius, but each one of his discoveries followed another with a regular order and in fact paved the way for that which followed. He began the study of the tartrates and paratartrates of soda and ammonia. The salts had been studied by Biot and also by Berzelios, who named the paratartrates vacenic acid, and lastly by Mitscherlich, one of the greatest chemists of his time, who stated that the tartrates and paratartrates "had the same schemical composition, the same crystalized form, the same angles in the crystalized condition, the same specific weight, the same double refraction, and consequently the same inclination of the optic axes.

Notwithstanding all these points of similarity, if the tartrate is dissolved in water it causes the plane of polarized light to rotate while the paratartrates exert no such action."

This produced a question in Pasteur's mind. He did not believe that all the physical qualities could be identical and their action on polarized light different. But Mitscherlich was a great chemist. Pasteur made his own solutions and then examined the crystals with a microscope, and discovered that the crystals from the tartrates had hemihedral facets on the right side, while the crystals from the paratartrates were composed of two kinds of crystals, one kind with hemihedral facets on the right side and the other kind with hemihedral facets on the left side, and Pasteur believed that this was the cause of the effects on polarized light. So he obtained crystals of paratartrates and separated them, making solutions of each, and those with the hemihedral facets on the left side moved the polarscope to the left.

"This research culminating with the discovery of the nature of paratartaric acid proved" as Herter says, "that Pasteur had made himself master of the experimental method." One of the results of this discovery led Pasteur to the study of fermentation. He made a simple experiment.

To some ammonium paratartrate he added fermenting albuminous solution. After some time this solution was examined with a polariscope. It rotated to the left promptly. This levorotation, in Pasteur's mind, was due to the fact that living organic matter had decomposed the dextrarotary elements. He did not believe that purely chemical ferments could cause the change. And there was no mind in existence more capable of demonstrating the correctness of his theories.

About this time he was appointed to a Professorship at Lille, a section of France where there were many distilleries. He began teaching chemistry to young men who would use their knowledge in local industries, and it became necessary for Pasteur to know all about fermentations. The theories then in vogue were unsatisfactory and had no experimental evidence to rest upon. The best authorities were inclined to believe that alcoholic fermentation was a chemical process. The first discovery was by Theodore Schwann, who studied the yeast plant in relation to alcoholic fermentation. He showed that the material which initiated fermentation was destroyed by heat and was a living organism.

This so-called vitalistic hypothesis met with a great deal of ridicule from many of the greatest authorities in chemistry and physiology, and among them was Justus Liebig, whose opinion was considered final in chemistry. Liebig regarded this as a backward step, and pointed to the facts that sugar undergoes several kinds of fermentation other than alcoholic, as butyric and lactic, and that no organism resembling the yeast plant was to be found in these forms of decomposition.

Schwann failed to defend his position and his discovery failed of acceptance. Pasteur never accepted Liebig's theories, because they were not upheld by experimental evidence, and besides, he had a preconceived theory, from his study of the paratartrates, that all kinds of fermentation were caused by micro-organisms. His first study was on lactic acid, and he ended by discovering the organism and growing it in artificial media. Pasteur studied also butyric acid, acetic acid, and later wines, beer, and alcoholic fermentations, and discovered the organisms concerned, and thus bacteriology was born and the specific causes of the in-

fectious diseases became known. It was also natural that the question of spontaneous generation should be again brought forward, and the long and bitter controversy which culminated in a series of brilliant experiments by Pasteur, and the complete vanquishment of the spontaneous generationists led by Pouchet and Bastian. This chapter is probably one of the most interesting in the life of Pasteur, and his victory in this caused him to be honored by election to the Academy of Sciences.

His next studies he was almost compelled to accept, and very much against his will, viz: the studies of silk worm disease. His friend and teacher, J. B. Dumas, who as chairman of a Senate committee, and knowing Pasteur's tenacity, had him appointed as the head of a commission to study the disease which had been decimating silk worms and destroying the industry. France had lost hundreds of millions of francs from the disease. Pasteur spent about five years and found that there were two diseases, pebrine or corpuscle disease which affected the eggs, and flacherie which was a disease of intestinal origin affecting the adult worm; and finally Pasteur was sent to the estate of the Prince Imperial to show there and prove the discoveries he had made. The year's work netted the estate 22,000 francs and was the first favorable crop they had had there in ten years. Pasteur published a report in two volumes concerning silk culture and its diseases which should be read by all scientists.

The effect of this success made all agriculturists in France turn to Pasteur to solve all the problems of animal pathology, and this fact brought new success. From the excessive work and a great deal of controversy and criticism during his studies on the silk worm, Pasteur had a series of paralytic seizures which threatened his life. At the critical period of his illness his faithful wife was assisted by the most distinguished men of France who would often spend the whole night at his bedside in an effort to prevent so valuable a life from being taken away from them. How valuable it had become the following letter and quotations will show beyond question:

"MY DEAR SIR:—

Allow me to beg your acceptance of a pamphlet which I send by the same post, containing an account of some investigations into the subject which you have done so much to elucidate,

the germ theory of fermentative changes. I flatter myself that you may read with some interest what I have written on the organism which you were the first to describe in your memoire *Sur la Fermentation appelee Lactique*.

"I do not know whether the records of British surgery ever met your eye. If so you will have seen from time to time notices of the anti-septic system of treatment which I have been laboring for the last nine years to bring to perfection.

"Allow me to take this opportunity to tender to you my most cordial thanks for having, by your brilliant researches, demonstrated to me the truth of the germ theory of putrefaction, and thus furnished me with the principle on which alone the antiseptic system can be carried out. Should you at any time visit Edinburgh, it would, I believe, give you sincere gratification to see at our hospital how largely mankind is being benefited by your labors. I need hardly add that it would afford me the highest gratification to show you how greatly surgery is indebted to you. Forgive the freedom which a common love of science inspires, and believe me with profoundest respect."

JOSEPH LISTER.

Pasteur recovered from the paralysis with only slight remains of his trouble and his friends soon realized that experimental science had lost none of its lustre for him. Again quoting from Herter:

"As in the case of Ignatius Loyola, it seems as if the lamp of genius shone with a larger and more luminous flame after the onset of bodily infirmity, in defiance of the physical mechanism which is too often permitted to master the will."

Pasteur lived for twenty-five years after the close of the war with Germany. During this period he discovered the cause of many of the infections in man and animals, especially those that were caused by micro-organisms, and he also discovered what Herter called "the central Jewel in the diadem of Pasteur's achievement," experimental immunity.

When Pasteur began the study of chicken cholera he tried several different culture mediums before he succeeded in getting one that exactly suited him, and this was sterilized chicken broth. He found that the germ of chicken cholera grew abundantly in this medium, and that a few drops of the infected broth placed on the food of chickens invariably produced the disease. Some tubes of the infected broth were laid aside for a couple of months and were practically forgotten, and later, when Pasteur's attention was called to the old culture he immediately inoculated a number of chickens, and found they were only sick for

three or four days, and did not die as when inoculated with fresh cultures.

He proceeded to get fresh cultures and inoculated these same chickens, but they did not get sick at all. Other chickens promptly died when inoculated. Pasteur soon concluded that he had made another great discovery, and experimental immunity was born. He saw also in this a great practical victory for agriculture, the stamping out of chicken cholera.

What he did for chicken cholera remained for him to do for anthrax. Although not first in the field in the study of anthrax, it is doubtful if Davaine or Koch would have been able to convince the agricultural classes without Pasteur's aid. And to do this Pasteur discovered a new germ known to us as the bacillus of malignant edema, but which he called the vibrio septicus. Pasteur also worked out a serum treatment or a vaccine which practically stamped out anthrax or charbon fever among the cattle and swine of France. He came out to visit the hospitals in looking for the bacterial origin of disease. In this way he came into close relationship with the practitioners of medicine and surgery. He was welcomed by the alert and by those who were intellectually honest, and was given every aid by them; the conservatives looked at him with contempt and lost no time in ridiculing the germ theory of disease. It would be hard to picture the amazement and incredulity of many of these fat, sleek, self-satisfied practitioners of medicine and surgery when Pasteur announced he had found the same pus-exciting micro-organism (the staphylococcus pyogenes aureus) in the pus from a series of boils and in the pus from an osteomyelitis, and these conditions so different in clinical character are identical in etiology.

A little later he dropped a shot among these same conservatives that was to echo around the world. That child-bed fever is a septicemia due to a coccus in chains, and that the cocci could be detected in the cavity of the uterus, in the uterine sinuses, and in the blood of living patients.

The wonderful effects of this discovery and the short memoir in which Pasteur described it are so well known that I shall not dwell upon it.

The last study of Pasteur and the one presenting the most difficulties, and prob-

ably the most successful one, is his studies of rabies or hydrophobia. The difficulties were several. The first was his inability after a most systematic search, to find the micro-organism. Another difficulty almost as disconcerting was that transmission of the disease by means of the saliva was a matter of great uncertainty. The always fatal outcome of hydrophobia made it uncertain whether the unknown virus was capable of conferring immunity. All of these difficulties would have proved insuperable to most investigators. But Pasteur's interest had been fully engaged before he realized all the difficulties. He realized that a way to communicate rabies experimentally must be found. And as rabies is a disease of the central nervous system, he soon came to the method of taking parts of the central nervous tissue from animals dead from rabies and placing them subdurally in the animal to be infected. He found this method exact and the disease developed regularly in fourteen days. From an experience of the study of swine erysipelas, which was similar for rabies, Pasteur found he could increase the pathogenic virus by carrying it subdurally through a series of rabbits, and reduce it by carrying it through monkeys. Later he produced a safer virus by drying the spinal cords of rabbits dead of rabies over caustic potash at twenty-one degrees C. Pasteur's experiments in immunizing dogs were successful when the little Alsatian boy, Joseph Meister, was sent to him from his home with fourteen wounds inflicted by a rabid dog.

Suffice it to say Pasteur succeeded, and one of the most beautiful chapters in science was written.

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In fractures of the trachea an immediate tracheotomy is indicated, as emphysema occurs if the mucous membrane is punctured, and the operation is then rendered much more difficult. The mucous membrane is injured in most cases.—*American Journal of Surgery.*

WHAT SHALL WE TEACH THE LAITY?

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(Read at annual meeting of W. Va. State Medical Ass'n, Sept. 1911.)

For years we have been considered by the laity as only dispensers of pills and prescribers of drug mixtures.

What does the word Doctor mean? It is derived from the Latin *docco*—I teach. A Doctor of medicine is a teacher of health, and we are not truly doctors but merely mechanics, unless we practice wherever and whenever we can the noble science of preventive medicine.

In order to get full benefit of preventive medicine we should get our patients, as a class, into closer relationship with the family physician. I believe that they should get in the habit of going to their family physicians for health examinations with reasonable frequency, in order that the doctor may have an opportunity to guide them into healthful modes of life and to detect disease in its curable stages, so that they may seldom hear the familiar remark, "If I had known your condition earlier I could have given you some relief, prolonged your life, or even cured your disease." Now I shall mention a few of the diseases that we should give warning about and insist upon the importance of the various premonitory symptoms.

Cancer.—In this most important pathological condition the prognosis is hopeful only when the diagnosis is early. Cancer is almost the only disease which is steadily and rapidly increasing among civilized races, and statistics show that at the present rate of increase it will soon be more fatal than tuberculosis.

Judd says that a precancerous disposition exists in the majority of cases of tumors of the breast, the cure of which prevents a development of cancer. Eighty-five per cent of all breast tumors are malignant to begin with, and it is estimated by the best authorities that one-half of the remaining fifteen per cent will become malignant if the patient lives long enough. If this be true, tell your women patients to consult their family physician or surgeon about all lumps and growths in the breast, whether painful or

not; and that medicine and local applications will avail nothing except to allow the cancer to get a start and become inoperable. In case of doubt, always advise expert consultation.

Beckman says that the laity should know that every tumor of the breast is a pathological process, that absolutely nothing can be gained by expectant treatment, and that in almost every instance delay lessens the chances for a cure. Freedom from pain often leads to a sense of security. The public should know that cancer is a painless disease, and that pain comes late from adhesions, ulcerations and inflammatory thickening.

In cancer of the uterus, early diagnosis is again our only hope. Tell the laity that a persistent foul vaginal discharge or a constant and irregular bloody discharge, especially about the menopause, should be regarded as suspicious, and not to attribute everything that occurs about the pelvis (such as pain, uneasiness, leucorrhœa, irregular and profuse menstruation) to the "change of life."

All chronic ulcers, especially those about the lip and face, should be under the constant supervision of the regular doctor and not given to the cancer quack, whose only desire is the monetary consideration. No doubt you have all seen carcinoma of the rectum which had been treated for months, possibly years, by the patent pile remedy until it is referred at last to the surgeon, who finds it inoperable.

Tonsils and Adenoids of Children—How many deformed faces do we see? How many pathological processes can we trace back to these little organs that could have been prevented by their early removal? Explain to the anxious father and mother that they not only produce mouth breathing and snoring, but they are the forerunner of tuberculosis, middle ear disease, and later deafness which can only be benefited but not cured. They are also the starting point of rheumatic affections and later cardiac lesions. The frequent sore throats are not only a financial loss to them, but a constant suffering to the child and a permanent drain on the constitution. Teach them to come to you about the ordinary sore throat. This may not be a simple tonsillitis or pharyngitis but that dangerous disease, diphtheria, which when seen early can be

cured easily. It is an easy thing to teach your patients how to examine the throat and what to look for.

How about that chronic cough, frequent catching of colds, gradual loss of weight, general malaise and loss of appetite? Teach them that all symptoms of this kind should be looked after and a positive diagnosis made. It may mean incipient tuberculosis, and you may have it in your power to prevent that haggard picture of consumption. Warn against the drug store cough drops and rock candy and whiskey and cod liver oil, etc. Make it clear to your patients that they must not wait for the spitting of blood and night sweats before they present themselves for examination. Let them understand that frequent attacks of what seems to be the grip may be simply a series of tuberculous reactions. The symptoms are almost exactly identical.

Teach your patients that even cramp colic may not be such a simple thing, to be relieved always by a dose of castor oil and turpentine, but may mean a serious pathological condition, namely, appendicitis, gall stones, perforation of a duodenal ulcer, stone in the kidney or ureter, etc., and even a skilled clinician may not detect a serious condition, such as a gangrenous appendix, before fatal peritonitis has an opportunity to develop. Do not be afraid to teach your patients that there is always danger in the so-called "cramp colic."

How About Our Obstetrical Practice?—How many of you have your obstetrical patients under constant supervision from the beginning of gestation to delivery? Often we are not called or consulted until labor has begun, and then we are handicapped by finding a pathological condition present that possibly could have been avoided. Explain to your patients that while pregnancy is usually a physiological condition, that it is so near the border line of a pathological one that they should consult their family physician and learn how to conduct themselves during gestation. Especially see that the kidneys are doing their work fully by making frequent urinary examinations.

Backache.—Often we hear this term, especially among women, who often believe that they have a weak back any way, and go on suffering for years wearing porous plasters, taking patent remedies and favor-

ite prescriptions, and over-stimulating their kidneys by dangerous diuretic pills and mixtures purchased at the drug store or ordered from the various "lame back" newspaper advertisements. All this time they may really be suffering from a retroversion of the uterus, chronic salpingitis, pyosalpinx, varicosity of the broad ligaments, pelvic peritonitis, adherent or prolapsed ovary, or fibroid pressing on the sacral plexus, or uterine prolapse from a relaxed or torn vaginal outlet, or it may be Pott's disease of the spine. Teach them that these conditions can only be relieved by proper and timely diagnosis and treatment by a skilled physician and surgeon.

Headache.—Yes, just a little headache. No use to consult a physician. A dose of calomel or coal tar headache tablet purchased at the drug store, or possibly a dangerous sample headache remedy found on the front door step will do. So think many people. Explain that the chronic or frequent headaches do not always come from liver or stomach, and that coal-tar remedies are dangerous unless properly prescribed. Headaches may be due to eye strain, glaucoma, nerve exhaustion, rheumatism, brain tumor, abscess or meningeal hemorrhage, or the beginning of some acute infectious disease, or to renal or arterial changes. The latter disease especially would mean a serious condition if an early diagnosis be not made.

Now right here I want to call your attention to a most important subject: the optometrist and fake glass fitter. It is our duty to instruct the public that these men cannot detect systemic diseases which often produce serious eye lesions, and that by allowing them to fit glasses without proper diagnosis as to the cause of the failing eyesight, the sufferers are losing valuable time and money and not improving their sight.

How many of you have had patients come to you wearing glasses, who were really suffering with albuminuric retinitis, arterio-sclerosis, or some syphilitic manifestation in the retina, optic nerve or choroid? Teach them that these diseases are painless, yet most dangerous when allowed to go on without treatment.

Veneral Diseases.—What shall we teach our patrons about the social evil? Teach them that venereal diseases are serious diseases, that they should immediately consult

a physician of standing, and not waste time on the drug store cure-alls until they become chronic.

Tell them not to believe themselves cured of gonorrhoea because the discharge has ceased and nothing is seen but the "morning glory." Because you have all seen the charming innocent bride of a few weeks or months suffering with a painful cystitis, salpingitis or pelvic peritonitis, come to the operating room and become sterile for life, possibly a chronic invalid, or may be find an untimely grave, all because the husband had never had his prostate gland massaged free from that dreaded Neisserian infection—the result of his wild oats sowing.

Lues or Syphilis.—Here is one of the greatest scourges of the human race, affecting all classes, the high and the low, the rich and the poor. It is known through all history, even from the time King David became infected from Beth-Sheba, Uriah's wife, and there was born unto them an infected child which succumbed to this dreadful disease, syphilis neonatorum, on the seventh day, in the year 1134 B. C.

Explain to them how dreadful a disease syphilis is. Explain about its modes of contagion, its horrible dangers not only to themselves and wives, but to their child. Fully explain the required length of time for treatment and the loathsome results that may follow, should they not take your advice. Let the gay and giddy young man with the initial lesion have a glimpse of the pictures in the books.

Now, how shall we achieve these things? I think the problem has a simple and practical solution. Let every physician have talks with each of his regular clients upon the value of preventive medicine. Make him understand that a doctor isn't simply a drug vender, but that he stands for something higher and of a greater service; establish between yourself and your patient a relationship of mutual confidence, so that he will feel like coming to you at any and all times for frank discussion and timely advice. Show him how you can serve him by preventing disease—get him interested in the subject. Demonstrate the value of frequent health examinations, just as the dentist shows the value of periodical examinations of the teeth. Secure for yourself the right to volunteer advice, to insist upon examinations of throats and lungs, to know

what is causing this girl's pallor and that mother's cough. Do not fear that people will resent your activities. If there is anything that patients as a class really do appreciate, it is evidence of strong personal and professional interest by the doctor in their welfare; and whether grateful or not we should at all times remember that they are entitled to know all we can tell them about the prevention of disease.

DIFFERENTIAL DIAGNOSIS OF AFFECTIONS APT TO BE MISTAKEN FOR CEREBRAL TUMORS

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(Read before W. Va. State Medical Ass'n in Annual Session, Sept. 21, 1911.)

It will be instructive to relate a few examples which presented symptoms arousing suspicion of a neoplasm in or near the cerebrum, which in some cases, however, were derived from other causes than neoplastic growth.

If Cushing's experience is the usual one, the commonest mistake where a tumor affects the cerebrum is to diagnose hysteria. Formerly there was some excuse for this, as hysteria was supposed to be characterized by certain stigmata, the presence of which was supposed to be enough for a diagnosis. But we know now that such a stigma as inverted color fields is a sign not of hysteria, but of increased intracranial tension. We know also that hysterical anesthesia is induced, evanescent and easily removable. We know that the hysterogenic zones are merely the normal erethistic areas which most easily provoke instinctive defense reactions, and the intensity of these varies in different individuals without necessary relation to their hysterizability, or that they may be the artefacts of suggestion. Contractures and palsies too are now also clearly comprehended as direct or indirect results of suggestion from without or within. Without further citation, we can in short affirm that

the stigmata are just as psychogenic and as variable by suggestion as are the accidents of hysteria themselves; for it is now shown that most of the trophic disorders which psychological mechanisms are incapable of producing are either the results of intention, or whether from mythomaniac disorder or the result of deliberate stimulation, whether puerile or ingenious; or else that they are the signs of such disorder as trophedema, vascular or secretory neurosis; in short, that they are non-psychogenic and have nothing to do with hysteria.

Again, the deep reflexes are not in reality modified hysterically, although here two qualifications must be mentioned. Firstly, by imitative suggestion, a reflex may appear to be modified; but it is not difficult as a rule to detect intentional interference of the patient with the response of his lower neurones. A very little address and experience suffices to detect this. Secondly, systemic states which interfere with the nutrition of the neurones often modify reflex responses, and sometimes do so unequally in different parts of the body. Such toxic states very often also increase the patient's suggestibility by lowering the threshold of the associational processes. In this way is presented a picture of somatic perturbed reflectivity along with hypersuggestibility. Such a picture is familiar to all of us in cases of incipient paresis, severe alcoholism and in many acute toxi-infectious states. It is not legitimate to say that the hysterical state of these patients is responsible for the perturbation of their reflexes, for a common pathogen is the source of both.

When these considerations are borne in mind, and are applied with a knowledge of the technic of clinical neurology, very many fewer cases of cerebral neoplasm will be labelled hysteria; for the presence of any of the preceding non-psychogenic signs will no longer be accepted as hysterical, but will arouse the certainty of somatic disorder.

A pregnant illustration of these considerations was the case of a young girl who was one summer (1906) in the salle Pinel at the Salpetriere, and whom Professor Dejerine treated for several months as a hysteroneurasthenic on account of intellectual torpor, peculiarity of disposition, of language, of humor, and fugitive head-

aches. The following winter I observed the same patient at the Hotel Dieu, where she was admitted to Professor Ballet's ward because of an amnesic aphasia for substantives. It was not until I detected an incipient papilledema some weeks later that neoplasm was diagnosed.

The preceding case is merely an illustration of how even great neurologists blundered before the ideas of Babinski regarding hysteria had prevailed. The following case illustrates the procedure now that those ideas can be utilized.

Paralysis of the arm removed by suggestion although a cerebral neoplasm was present.—A girl of 16, M. H., was referred by Dr. N. P. Barnes on account of paralysis and anesthesia of the right arm, and right abdominal pains, and of frequent aching on the right side of the head not alleviated by suitable glasses. There were vomiting spells alternating with bulimia. The headache, which had set in about six weeks before, would occur gradually, terminating in a few minutes by nausea and followed by vomiting. Dizziness would ensue, and the staggering compelled her to hold on to maintain her balance. As far as she recollected she tended in no particular direction. There were now and then sudden dimness of vision, inability to read, and sparks before her eyes. There were dull periodical pains in the breast and abdomen. Until two weeks ago, she had diurnal "spells" so that malaria had been diagnosed. These were not Jacksonian, but consisted of jerking attacks on waking up, which she sometimes could not arrest; they were not localized, and never entailed loss of consciousness. She was very weak and tired rapidly, and had fallen from 135 lbs. to 109 lbs.

Examination:—Motility. Left labio-nasal fold deeper than the right when contracted. An apparent paralysis of the left arm was immediately removed by suggestion-persuasion. After this, there was no inequality to resisted movements. There was, however, a dysdiadokokinesis, especially on the left when the forearms were rotated, but not with any other movements. Other cerebellar signs were negative; but there was slight, slow, coarse nystagmus on looking to the extreme left. There was no contra-lateral synergic abnormality.

Rotation Tests:—After being turned in either direction she tended to fall backwards, perhaps slightly to the left. When spun from right to left she said the objects seemed to spin in the direction in which she spins. When spun from left to right objects appeared to travel from left to right also.

Reflexes:—Showed no inequalities or excess, the radial and triceps were perhaps diminished, the latter requiring reinforcement. The pupils were equal and contracted readily.

Sensibility:—The left arm palsy was preceded for two days by a tingling there, which soon disappeared. At first, she said that objects were

more difficult to feel on the left arm, but she changed this opinion presently. Visual acuity was normal; but the color fields were inverted and there was a slight papilledema. Two weeks later, the right plantar reflex had diminished, deep reflexes were sluggish especially to the right; but although the optic disks were more edematous, especially to the right, inversion of the color fields was more difficult to elicit.

It was ascertained from friends that it was mainly the left arm which she jerked, and that this would occur in sleep. She was apathetic, but declared that her memory was better than before. She said she did not feel like doing the seven-from-a-hundred subtraction test, and she said that four plus three made eight.

In spite of the rapid cure of paralysis by suggestion, I believed that a neoplasm was present, but wished to verify the side on which the paralysis really occurred; as there was a discrepancy in the history, it being stated that the right arm was paralyzed, while when I observed her, it was the left arm. She was accordingly permitted to return to Virginia and was told to report in a month. This she failed to do and we have lost sight of the case.

At the time this girl became paralyzed, poliomyelitis was epidemic in Washington; and the terror of the disease was at its maximum. It was natural that the friends believed that she was suffering from that disease. It is very likely that the slight paresthesia perhaps with paresis which had been present was suggested into a complete flaccid paralysis by the fear of poliomyelitis. That the paralysis was completely removed by suggestion-persuasion proves it to have been purely psychogenic.

The absence of reflex modifications at first, along with the rapid removal of paralysis and hyperaesthesia would have pleaded against the diagnosis of neoplasm, but for the characteristic history of the headache, dizziness, vomiting, dimness of vision and the presence of ocular changes. Reflex changes two weeks later confirmed the diagnosis.

I have since learned that the patient was operated upon with fatal result, and a tumor found post mortem in the temporal lobe.

A luetic meningitis of the anterior fossa with uncinate gyrus syndrome simulating neoplasm.—A woman from West Virginia, aged 41 years, was referred by Dr. Wilmer. She had complained of pains in the eyeball and feelings of distress in the vertical and lateral muscles there; and she is annoyed at having to turn her whole head

when she changes the direction of her look.

Previous History:—Although she had had no previous visual difficulties, the muscles of the eyes have always troubled her; and ten years ago similar pains and muscae volitantes lead her to consult Dr. Wilmer and receive relief. She had had malaria until ten years ago, when she left Washington. Eleven months after her marriage, a miscarriage occurred; and after this she had a severe oophoritis, which was cured by "electrical treatment." She had several other early miscarriages and a child which died at once after a prolonged labor. A uterine discharge persisted in spite of curettage and cervectomy; but she had no discomfort, weakness or pain since the operation, and otherwise felt in good health as a rule; but at times she became exhausted and nervous, sometimes to the point of tears: from this she was often relieved by a drive or a walk. These attacks might last for a week, but did not cause insomnia. For three months, she had been somewhat depressed; and in the mornings felt as though a great stone lay on her chest.

Present Condition:—There is dull frontal headache and an occasional throb above the left orbit. No dizziness, nausea rarely, although regurgitation often occurred. There often occurs a sensation in the nostrils as of an odor which permeates everything she eats. It is not unpleasant, but is like that of a static electric machine or ozone tube. It may last only a few minutes or some hours; and it always occurs suddenly and quite independently of her thoughts.

The Reflexes:—Patellar lively and equal. Achilles left greater than right. Triceps overactive, left greater than right. Plantar, the great toe is immobile, the movement of lesser toes is very slight, especially to the left. Abdominal reflex is almost absent, but volitional contractions make it hard to examine. The response is at least irregular and delayed.

Sensibility was normal to wool, pin, deep pain, cold, heat, attitudes and vibration, except that over the dorsum of the right foot the tuning fork is felt as a burning, and she believed that it still vibrates while stationary. As this mistake was not committed upon the arms a slight defective sensibility of the lower limbs may be inferred. There was no loss of smell or taste. There was no hemianopia.

Motility:—No weakness, except perhaps in the facial movements, nor paralysis; no ataxia. The eye movements were complete. The diadokokinesis, however, was less quickly performed with the left arm. There was no dysergia on mounting a chair or leaning back.

The pulse beats 120 during examination. The urine was variable in quantity, but no abnormal constituents were found. She seemed soporific, but declared herself to feel nervous and excited. Although she declared herself to be of a nervous family, no stigmata of hypersuggestibility were found; nor had she become subject to phobias, anxiety, obsessions, manias or mannerisms. The following report of the case was accordingly made:

"I have examined your patient, Mrs. S.

The only significant signs that I found were the right optic atrophy, an inequality in the Achilles reflexes, the left being more active than the right, a similar inequality in the triceps and radial, a diminution in the plantar reflexes, especially in the left, an occasional misinterpretation of sensations of deep pressure upon the lower limbs, it sometimes being called heat, a relative diadokokinesis in the movement of the left wrist and an apparent soporific state during examination. She declared on the contrary that she feels excited, and her pulse frequency of 120 per minute bears this out. There are no objective signs to enlighten me about her parosmic symptom; and it might possibly be elucidated by a rhinologist. The symptoms (headache, depression and regurgitation without cause) and signs present now concord with a neoplasm of very slow growth pressing upon the uncinate gyrus in the neighborhood of the optic nerve, chiasm or tract, the relative exaggeration of the reflexes of the left side being due to pressure from a distance on the motor projection fibres, and the sudden olfactory paresthesia being due to the vascular modifications which oscillate to such a degree within the cranium. I do not believe that pressure on the olfactory tract or bulb would occur without giving rise to some loss of smell which is not present. The symptoms, however, are not enough for a positive diagnosis as yet; and I recommend that she be kept under observation and seen again at the end of six months. It is possible that the Wasserman reaction might throw light on the etiology, and guide us in treatment."

This appeared to show that the last supposition was correct: as Dr. Wilmer informed me a year ago that the symptoms had cleared up after potassium iodide had been given.

Severe intermittent claudication of cerebral vessel causing hemiplegia resembling that of neoplasm of the cerebrum.—A large stout, strong single woman, aged 26 years, seen with Dr. I. H. Lamb, Oct., 1910, because of several attacks of right hemiplegia. The patient is a teacher of marked ability and vivacious disposition who makes the best of circumstances and tries to minimize her sickness.

Two years previously she had appendicitis followed by two weeks of fever, not of rheumatic type, in which she developed a mitral systolic bruit, which disappeared in six months, but which

later recurred during the attacks of hemiplegia. The right leg had begun to drag a year ago, and her mother believes that the mouth had been drawn to the left for sometime. But the first attack occurred only two months before I saw her. In this she fell unconscious; and after this was aphasic and right hemiplegic for two days; after which there was rapid improvement; until three weeks later, a similar attack occurred, without a fall, however. About a month later Dr. Lamb observed her in a third attack; when the pupils were wide and paralyzed, the pulse rapid and feeble; she was hemiplegic, aphasic and disorientated, but spoke after three hours with marked dysarthria; she complained of severe pain in the neck. After this, paralysis partially remained; as within two weeks, three similar attacks occurred, the last one, however, without aphasia. Ptosis and swelling of the eyelids and jaw occurred in the attacks. I first saw her at 11 p. m. (during an attack which had commenced at 9 p. m.) while she was recovering from the aphasia of the attack. There was then no defect of intelligence, memory, comprehension or judgment; but she found it difficult to express her ideas on account of the dysarthria.

Motility:—There was complete right hemiplegia, including the muscles of the face, except the brow; the tongue could be protruded only very slightly, and the right eye could scarcely be closed alone, and the effort induced tremor of the lid.

Reflexes:—The patellar, Achilles, radial and masseter were much exaggerated, the last less so on the left. The plantar reflexes were very feeble but distinctly in flexion, while the abdominal response was very active.

Sensibility:—Subjective tingling was complained of on the whole right side. There was integrity of the senses of attitudes, of deep pain, of spacing everywhere; but there was a diminution, especially over the right tibia, of the perception of prick, temperature and vibration. On the body, the difference of threshold was felt within half an inch of the mid line. She wrote with great difficulty, but there was no ataxia. The voice was monotonous, and now and then she repeated or omitted a word. There was no papilledema, but marked inversion of the visual fields.

I was unable to decide vascular and neoplastic involvement of part of the middle cerebral distribution in this case. As a precaution, the Wasserman reaction was tried, but proved negative. The absence of Babinski's toe sign and the fact that the perturbation of the esthesia reached so near the mid-line caused serious consideration of hysteria as a diagnosis; but the character of the facial paralysis was such as to preclude this.

In spite of the history of a cardiac lesion, hemorrhage, embolus and thrombus of a middle cerebral branch could be excluded by the recurrence of and rapid recovery from the attacks. But the vascular varia-

tion of neoplasm was a most likely source of attack.

The next day the history was further probed. It transpired that she had had headaches and nausea for at least six months before I saw her; there had, however, been no vomiting. She had always had "dizzy" attacks, which she attributed to unusual use of the eyes and giving up glasses. Sudden attacks of aphasia and incapacity had occurred in school for several months. As a schoolgirl, an attack of spasm of the eyelids occurred, and once she had tinnitus. Two years ago, she used to have sudden parasthesiae of the right arm and jerkings of this in sleep.

A week later, no further fit had occurred. Sensibility was normal except for a slight impairment of perception of vibration of the right hand. The deep reflexes were less exaggerated. The plantar reflexes were less feeble, especially the left. Both combined flexion test and the synergic extension of the leg on raising its fellow were slightly positive. The right grasp was slightly weaker than the left. The dysarthria and aphasia had disappeared, and there was no inversion of the color fields.

In my opinion, further observation was needed for a diagnosis; although I inclined to believe in an intermittent claudication rather than a neoplasm, in spite of the fact that searching inquiry revealed no symptoms of vasomotor ataxia in the family. A few weeks later, the appendix was removed by Dr. Balloch on account of the chronic discomfort given ever since the attack two years before. Since the operation, there has been no paralytic attack, and the patient's face is now straight, and she walks perfectly well.

Nephritis and Cerebral Edema.—But delicate though the diagnosis may be when the symptoms of cerebral tumor are presented in cases of luetic meningitis, intermittent claudication of cerebral vessels, or when a clinical picture of hysteria is presented in a syndrome created by a neoplasm, the diagnosis is perhaps more difficult still when we are dealing with results of nephritis. As the functional efficiency of the kidneys undergoes variations, a single measurement of its excretory capacity, even by phenol-sulphonphthalein may not be sufficient for a diagnosis; and a slight

quantity of albumin in the urine by no means precludes the possibility of a cerebral neoplasm in addition to a nephritis. The papilledema in neither case has pathognomonic characters, as was formerly believed.

Besides uraemic edema may occur focally, and give rise to inequalities in reflectivity, or may preponderate upon certain portions of the cerebrum, causing a predominance of symptoms of either disordered motility, sensibility, equilibration or intelligence. Indeed, arteriosclerotic changes may lead to disorganization of some region and produce permanent symptoms still more suggestive of cerebral invasion.

The following case illustrates these difficulties:

Mrs. N., 40 years old. Cerebral tumor suspected by Dr. Barnes Hooe, who called me. Previously diagnosed albuminuric retinitis by Dr. Green and others. Headache all her life. Rush of blood to brain began last winter, ten months ago. Since then has been dizzy. Vomiting began seven months ago. Vision lost five months ago following a dizziness and specks before eyes since illness began.

Facial palsy, sciatica and dropsy had preceded the whole attack by two months along with tinnitus and vertigo. Convulsions occurred five months ago and she became "flighty" and was sent to a sanatorium without improvement.

Reflexes all feeble, left Achilles being absent. Right facial palsy. Sensibility and motility normal, but vertigo easily provoked and she falls backwards. Quite blind. No deafness. Pulse rapid, small of low tension. Slight albuminuria. No mental hebetude. Very stout. No edema. Milk and fruit diet.

Three weeks later. Reflexes less feeble. Patellar right greater than left. Achilles still absent. Plantar flexion left hyper-excitable with foot inversion. Optic disk shows atrophy and edema. Old hemorrhages in left retina. Urine shows less albumin and casts.

The result of the phenosulphonphthalein test was as follows: First hour, 116 cc. S. G. 1106 phthalein 29.4% of 6 Mg.; second hour, 25 cc. S. G. 1012 phthalein 11.6%. Total for two hours, 40%.

As the normal for two hours is about 80%, the reduction is considerable, although Dr. Rowntree of Baltimore, who made the tests, informs me that it is not necessarily pathognomonic unless considerably lower than this.

In searching for signs of fracture of the base of the skull, post-auricular edema should be looked for.—*American Journal of Surgery.*

QUINCKE'S DISEASE, OR RECURRENT CIRCUMSCRIBED OEDEMA.

G. B. Capito, M.D., Charleston, W. Va

(Read at annual meeting of W. Va. State Medical Ass'n. Sept. 20, 1911.)

A married, middle-aged man, five years ago awoke with a swelling over the left eye, which closed it and involved a considerable portion of the tissues over the forehead and temporal region of the head. He considered it to be a spider bite, but, inasmuch as there was no pain, no tenderness, nor itching, simply a feeling of tension of the parts, he doubted his own diagnosis, and a physician was called. It was pronounced by him as not a spider bite nor insect bite. The exact nature of it, he honestly said, he did not know.

Since that time the patient has been troubled with similar swellings which have recurred at intervals of two to five months and have involved various parts of the body. I saw him about three years ago, and at that time he had a condition the history of which is typical of the previous and subsequent attacks. It was as follows: Upon retiring he experienced on the top of the head what he described as a "tight feeling" which gave no particular discomfort. About two or three o'clock he awoke and found a marked swelling on top of the head, which extended to the forehead. At ten a. m. both eyes were closed, and the left cheek was swollen. At that time the swelling was sharply defined, all in all covering an area the size of a dessert plate, normal in color, no pitting, no apparent elevated temperature of the skin or the surrounding tissues, no itching, no burning, and no constitutional symptoms whatever. In the afternoon of the same day the swelling over the forehead had disappeared and the eyelids were somewhat movable. The next morning the swellings in all parts had disappeared, and he appeared and felt the same as two days before. An examination of the urine showed the reaction neutral, no albumen, no casts, no sugar, and only a trace of indican. The blood examination showed red cells 4,500,000; leucocytes 8200; hemoglobin 85; blood pressure 135 mm. The physical examination of the

chest and abdomen was negative as to abnormal findings.

Since that time the swellings have been located as follows: The face fifteen times; hands and arms twelve times; lips eight times; feet five times; scrotum three times; and neck twice; never on the trunk or any of the mucous membranes excepting on tongue before I had seen him.

The lesions have appeared, as a rule, during the night, and in accordance with the report of Collins, of New York, and Cassirer, of Berlin, the usual time was between two and five in the morning, when the bodily functions are at their lowest ebb. The disease, after a few attacks, was recognized, of course, as a recurrent circumscribed oedema, or Quincke's disease. Several names have been given the affection, among which might be mentioned angio-neurotic oedema, acute idiopathic oedema, periodic swelling, non-inflammatory oedema and Australian blight. It usually occurs in adult life, very rarely in people after fifty-five, although a case has been reported at the age of three months. I have seen none reported after the age of sixty.

Heredity seems frequently to play a role. In this case, there was no history of hereditary cause. Osler has given a series of cases that included five generations and twenty individuals, and others have made similar reports including one or two generations.

The general health of my patient is good, and this seems to be the rule with persons having the disease. Some writers, however, believe it to be associated more frequently with neuropathic patients, and especially those who have a tendency to hysteria. Graves' disease accompanies this disease in a certain number of individuals.

I could obtain no exciting cause in my case. The patient was a man of extremely temperate habits in every way, practically never using alcohol or tobacco, not given to worry or anxiety, never associating the attacks with undue exposure, or the ingestion of numerous varieties of food, about which he was questioned thoroughly. His hours for work were not confining nor extremely laborious, he being one of the members of a wholesale mercantile firm. This, of course, allowed him time for rest and recuperation when necessary.

- The previous history was good with the

exception of an attack of typhoid fever which antedated one year the first appearance of the recurrent swellings. This attack of fever lasted for six weeks and was followed by a rather stormy convalescence; inasmuch as, during the three weeks after the temperature was normal, there were chills and fever every other day. The physician in charge pronounced it malaria, and the patient says large doses of quinine were required to prevent a recurrence of the chill; while taking the quinine he was continually troubled with the ringing in the ears and other symptoms of cinchonism, and this condition remained long after the quinine medication was stopped.

Treatment.—The treatment in this case has involved many drugs and many methods and all without permanent benefit.

The drugs employed have been aspirin, calcium lactate, physostigmin salicylate, atropin, strychnine, arsenic, and so-called intestinal antiseptics. After a consultation with Johns Hopkins physicians, tincture of belladonna was given for four months without any appreciable effect. With these have been ordered the usual hydiatic and massage treatments for keeping up the tone of the general system. At the suggestion of a consulting physician of the East, thyroid extract is being tried at the present time. This drug gave apparently a partial cure in two out of four cases in which it was used; that is, there were no recurrences within one year. So far as the drug is concerned in this case, there is little to report, inasmuch as it has been given but a few weeks, during which time there were no recurrences.

My own observation has been that the patient does better when his weight is high. Almost invariably, when he has a recurrence of the swelling, his weight is a few pounds lower than normal. I have, therefore, placed him upon a fattening diet of milk, cream, butter, bacon, olive oil, etc., and hope in this manner to increase the intervals between the attacks, the fat giving nourishment to the nerves which, according to the majority of theories concerning the pathology, are at fault in this disease.

My main object in this paper was to give my personal experience covering three years in this one case, and, if possible, by striking just right, to draw light, so to speak, from the rich experience of some of

the physicians present concerning the history, symptoms and treatment of this baffling disease.

I am indebted to Dr. Ray for information in the early stages of this case.

INDICATIONS FOR AND METHOD OF REMOVAL OF THE TONSILS.

James A. Duff, Martinsburg, W. Va.

(Read before the Eastern Panhandle Medical Society.)

In bringing before the society a paper on this subject, I hope to bring out a discussion that will be of more benefit than the reading of this paper.

Just a word or so on the anatomy of the tonsils. The tonsils are small, elongated, glandular bodies, situated one on each side of the fauces between the anterior and posterior pillars. Each has between eight and twenty openings called crypts on its surface leading to follicular depressions within the gland and lies close to the internal carotid artery.

The indications for the removal of the tonsils are many, and in fact too numerous to give special mention. Among the most important ones are chronic tonsillitis, tonsillar abscess or quinsy, simple recurrent tonsillitis, tumors and new growths of all kinds, diseased crypts, mouth breathing due to hypertrophy of the tonsils, middle ear troubles when due to enlarged tonsils, the submerged tonsil with its pus-filled crypts and foul breath, and all diseases which may be traced to the tonsils.

The two most common forms are the hypertrophied tonsil and the submerged tonsil.

The enlarged tonsil is most common in strumous children. Its cause is a chronic catarrhal inflammation or maybe a simple hypertrophy without any inflammation. Repeated attacks of acute tonsillitis not infrequently leads to this condition. Boys and girls before the age of puberty are most often affected, but as the patient gets older the disposition of tonsillar inflammation decreases. In some cases the tonsils seem to fill the throat and the child sleeps with the mouth open, and its rest is broken. If for no other reason than the relief of this condition these tonsils should come out, for sooner or later there will develop a condi-

tion that will undermine the health of the child. The hypertrophied tonsil in children of 5 years and under, when giving trouble, are cases where the tonsillotome is the instrument of choice. But children over this age should whenever possible have the radical operation, that of tonsillectomy. Cases in which a tonsillotomy has been done at or after puberty, will in a great per cent come back later on for the removal of what has been left behind. These cases are more difficult to do, owing to the adhesions and fibrous tissue.

The submerged and honeycombed tonsils are the ones that cause more constitutional disturbance than any other form. In these cases there is no tonsil to clip and a tonsillectomy is our only choice here. The tonsil tissue is fibrous and may be impacted. The blood vessels and lymphoid nodules are diminished in size. The tonsil, instead of being soft, is in the hypertrophic state, is firm and unyielding to the touch, and in some cases very ragged and honeycombed. The crypts become enlarged and at times communicate with each other. On pressure there is most always a cheesy material squeezed out from the crypts. This material is made up of leucocytes, epithelial cells and micro-organisms. This is the tonsil we have most of our absorption from, and it should never be treated lightly. The sooner such are out, and out entirely, the sooner the patients' general health will improve. The results after a tonsillectomy in these cases are ever gratifying. The same may be said in cases following bad results from tonsillotomy.

The method of removal is a matter of choice. There are quite a number of operations described by different men, and they are all good, and good results follow as long as the whole tonsil is removed. The best method and the best results follow after learning one good operation and sticking to this one. The method I am more familiar with is the operation done by Dr. A. D. McConachie, of Baltimore.

Tonsillectomy can be done either under local or general anesthesia. Under general anesthesia we can work with more satisfaction than with local. Hemorrhage can be controlled more easily, and as there is but little risk to the patient by using ether as an anesthetic it makes the general anesthesia the one of choice. Under local anes-

thetia the chances for secondary hemorrhage are very much increased, due to the use of adrenalin injections into the tonsil. Quinine and urea may be used to produce local anesthesia and does make a very good anesthesia. But in watching several cases and seeing bad after-results compared with cocaine anesthesia I prefer the latter. This is made up of 10 min. of 2% solution of cocaine, 10 min. of adrenalin, 1 dr. salt solution. This is injected around the tonsil through the pillars with a long hypodermic needle. In a few minutes complete anesthesia and anemia result.

For general anesthesia ether is the safest and should always be used. A hypodermic of morphine gr. $\frac{1}{4}$ and atropine gr. 1-150 given a half hour before the operation will insure a quieter anesthetic and check the flow of saliva which is very profuse at times. An important part of the operation is having the patient deeply under ether. This will prevent the gagging and vomiting, and will also help check the slight oozing which we always have. A suitable mouth gag being placed in position and the throat sponged dry, the reflected light is thrown in and the tonsil grasped with a tonsil vulsellum forceps; a good bite should always be taken. Traction is now made and the tonsil will be easily outlined, the head is tilted to the left, the operator standing in front and also to the left of patient's head, a clear view of his field is had. With a Tiding's knife the tonsil is freed, keeping the point of the knife always in view. --

The left tonsil should be taken first, so that the right will be clear, and no oozing cover the field of operation. The tonsil being freed now, care being taken not to cut the pillars, the Tiding's snare is slipped over the forceps. Traction is now made on the tonsil which brings it well into the snare and the operation is completed by crushing through at the base.

Less hemorrhage will result after the use of the snare than the knife or scissors; that is, if all of the tonsil is removed and the pillars are not cut.

The Vetter loop is of no advantage and only in the way; by using the snare wire alone we can get deeper and be sure of a clean operation. The question of hemorrhage always concerns the operator, and every man doing a tonsillectomy should also be prepared to cut down and ligate the

cartotid artery; also to be able to do tracheotomy. Hemorrhage is best controlled by the hemostasis forceps. The bleeding points being caught up and the forceps left in place for a few minutes will nearly always check hemorrhage; if this fails then we can ligate.

Some cases need not have any more than pressure applied with a gauze sponge. In fact nearly all cases are of this class. The cases should always be kept under observation for at least 24 hours in a hospital. After this time secondary hemorrhage is less apt to occur. The orthoform lozenge containing 1 gr. of orthoform makes a very pleasant application to the throat after tonsillectomy. By its anesthetic effect on the mucous membrane it lessens the pain. The older method of tonsil surgery, that of tonsillotomomy, can only be condemned except in cases under 5 years of age, where there is quite an enlargement of the tonsils. Its place now in surgery is the same as that of the amputation of the cervix of the uterus in carcinoma. --

Selections

WHY SHOULD PHYSICIANS ATTEND MEDICAL SOCIETIES?

By Lewellyn F. Barker, M.D., Baltimore, Md.

One's standing in the medical profession can, to a certain extent, be measured by his relation to the various medical societies. Some physicians attend no medical society at all; these represent, on the whole, the lowest stratum of the profession. Others attend only their town or county medical society. Still others enjoy, in addition, the meetings of the state society and of certain special societies dealing with the parts of medicine in which they are particularly interested. The more advanced members of the profession in every community attend the American Medical Association. Only a few of the hardest workers and best known men in the profession attend the special national associations and international congresses.

Medical societies have grown more interesting and more profitable with the general

rise of private scientific societies during the nineteenth century. Most thinking men in the medical profession have seen the necessity of improving the organization of medical knowledge. It is a great advantage to physicians to meet one another on common ground, where they can compare their results and collect facts which will help them in their work.

Two features of the more recent development of medical societies have been (1) the tendency to increase in number and (2) the tendency to become more and more specialized. There are both advantages and disadvantages accompanying these tendencies. The time consumed in attending a large number of meetings is considerable; it is rare that any one physician can attend all the general and special medical meetings held in a large city; he is compelled to make a selection. The specialization which has occurred is beneficial in that it leads small groups of men, interested in the same subject, to meet together, and to discuss problems in which they are all really interested. It is necessary, however, to have a certain number of medical societies of more general nature, in order that there may be a proper synthesis and coordination of the scattered work of the special societies, so that in the first place, the general practitioner may profit by it, and, in the second place, the special worker in each branch may keep in touch with medicine as a whole.

On account of the large number of meetings, and of the special character of many of them, some physicians have gotten into the habit of neglecting attendance on all medical societies. The disinclination to attend is seen perhaps less in the younger men than in those who are growing older. The busier lives of the older men, the fatigue felt after the day's work and the recognition that there is less surplus energy available than in earlier years, are, doubtless, partly responsible.

The avoidance of the expenditure of the energy necessary to attend evening meetings of medical societies should be regarded, however, as a danger signal, of variable meaning; on the one side, it may indicate that the practitioner is working harder than he should, in which event it should lead him so to order his life that he may still retain the energy necessary to participate in a work of great importance for

himself and for his fellows. On another side, this danger signal may announce the onset of a more serious state—that of intellectual stagnation, or retrogression. He who yields to the temptation to stay away from medical meetings should seriously ask himself the questions, "Am I losing my interest in medical progress?" "Has the time arrived when I am no longer willing to make sacrifices for the sake of knowledge?" and "Have I reached the age when my mind, and my body, tend to become fixed?"

Turning one's attention to the possibilities of danger is the first step toward correcting the evil. The best recipe for keeping young in body and mind is to live with young people; while judiciously conserving energy, one must also judiciously expend it, if he is to improve intellectually and morally as he advances in years. The onset of disinterestedness is often insidious, scarcely recognized by the individual concerned. Too often the malady has made such progress before one notices it that great difficulty is experienced in forcing himself back to normal interests. How pathetic it is to see a man, who, in his earlier years, took active part in the meetings of medical societies, and had a lively interest in medical advance, grow in middle life to be apathetic, inactive, unappreciative of new knowledge, and content to remain where he is, or to retrograde, rather than determined to press onward!

Let anyone who doubts the value of regular attendance upon medical societies, read the paper written by one of our former members (Dr. Osler) for the Centennial Celebration of the New Haven Medical Association in 1903, entitled "On the Educational Value of the Medical Society." It is printed in the volume entitled "Aequanimitas." This address contains many hints regarding the ways in which local medical societies can be made interesting; it would do no harm if those who have to do with the arrangement of programs would look it over at least once a year.

What we need in a well-conducted medical society are short reports on subjects of contemporary interest, illustrated, as far as possible, by the concrete examples, in the form of clinical cases and of specimens from the pathological or the clinical laboratories. We should not only hear the words

of the men who are doing the work, but we should be able to see with our eyes, as far as possible, the objects which they describe. One real example of a clinical syndrome does more to fix it in the memory than hours of lectures or of case reports. Long drawn out histories, exhaustive papers for publication, weary and dissatisfy. Let the reporter write up an article, if he desire to do so, but, for the medical meeting, let him reduce his communication to a brief oral statement, giving only the salient points, and avoiding long historical disquisitions and detailed clinical records.

Aside from actually increasing one's medical knowledge, attendance on the medical society goes far toward keeping up our acquaintanceship, with, and good feeling for, other members of the local profession. Meeting only rarely in their daily activities, physicians soon drift apart, unless they come together, at regular intervals, to discuss the work of the profession, or to dine together, in little clubs consisting of groups of medical friends. Nothing can be more harmful to a medical man than isolation from his colleagues in the profession. Along the solitary way lie a thousand dangers. Closely in touch with one another, fellow-workers develop an *esprit de corps* which exerts a beneficent influence upon all.

If meetings of the city medical society are desirable, just as much, or more so, are the occasional meetings of the county medical societies. Working alone in country communities, the rural practitioner is, by virtue of his situation, far more isolated from the profession than is the city practitioner. Fortunately, in Maryland, habits of good cheer are so prevalent, that the county society meeting often means a dinner, or a supper, in addition to the intellectual union. Anyone who has attended a county society meeting in this state will long remember the good fellowship which Maryland practitioners know how to cultivate in their gatherings.

Those of us who are watching the progress of the profession here in Maryland cannot help but be gratified by the increasing interest shown by the practitioners in the counties in the meetings of the state society. We shall be glad when the time comes when every county practitioner will feel a pride, not only in belonging to his state

society, and in attending its meetings, whenever possible, but also in joining the great American Medical Association, which is doing so much to organize our profession throughout the entire country. The members of the county societies who are already members of the state society and of the national association can do much by words spoken in due season to increase the membership, and thus to extend the benefits of these larger associations. "Let us hold fast the profession of our faith without wavering . . . and let us consider one another, to provoke unto love and to good works; not forsaking the assembling of our ourselves together, as the manner of some is."—*Bulletin Med.-Chi. Faculty.*

ALL THE DAY.

If you will, you surely may
Brighten every work-a-day!
Tasks are nearly always easy
If your soul is only breezy;
And you scarcely can grow weary
When your heart is light and cheery—
All the day!

If you will, you surely may
Gladden every work-a-day!
Just by praise and joyful singing
Like some bird its sweet notes flinging—
Just by hearty, wholesome laughter,
Echoed back from roof and rafter—
All the day!

If you will, you surely may
Lighen every work-a-day!
Just by dropping care and worry;
Bluster, fluster, rush and hurry—
Just by taking change of weather,
As the wind takes up a feather—
All the day!

If you will, you surely may
Shorten every work-a-day!
Time which drags for idle shirkers
Swiftly flies for cheerful workers;
Willing hands can make each burden
Yield to them its precious guerdon—
All the day!

If you will, you surely may
Consecrate each work-a-day!
Every second of full measure
You may welcome as a treasure;
Every earnest, busy minute,
Will have joy and sweetness in it—
All the day!

If you will, you surely may
Thank God for his work-a-day!
The kind need of constant labor
For ourselves and for our neighbor;
For the round of daily duties—
Tasks and trials, blessings, beauties—
All the day!

The West Virginia Medical Journal

S. L. JEPSON, A.M., Sc.D., M.D., *Editor*.

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Editorial

SALVARSAN TO DATE.

No remedy ever presented to the medical profession has given rise to so much writing by so many men in so many lands as has the world-renowned "606", the unfortunate name by which salvarsan first became known, not only to the profession, but to the laity as well. We have before endeavored, editorially and in selections for the Journal, to lay before our readers information that would enable them to place a just estimate upon the value of this new remedy. As an immense experience has accumulated within the past few months, we here try to summarize the important points that have been developed by the very wide-spread application of the remedy. American experience has been set forth in a series of papers in the *Journal American Medical Association*, and in the *Interstate Medical Journal* for October is an interesting review of twenty-nine papers by thirty-six foreign physicians. Many articles in other of our exchanges have also been read, and we

here attempt to present the essentials of all, as impartially as possible.

It is safe to say that the expectations at first aroused by the many reports of alleged marvelous cures of syphilis have not been realized in the more recent experience. The idea of complete sterilization, especially by a single dose of the remedy, has been long since abandoned, as applied to the human family in the disease for which it was devised. The absolute specific and uninjurious effects of this drug, reports of which were often heard a year or so ago, are discredited by the many recurrences, relapses and unfavorable effects, both local and general, which have been since noted in the practice of almost every experimenter.

A serious objection to the remedy is the difficulty in its preparation, the importance of getting a faultless solution, of keeping adventitious particles out of it, the need of perfectly clean instruments, the numerous possibilities of miscarriage in one way or another. It is necessary that the technique be faultless if serious or even fatal results would be avoided. And how many practitioners are sufficiently skilled and careful to master all the necessary details and persistently adhere to them?

Another objection to all methods of administration except the intravenous, is the pain that results. This is often very severe after the intra-muscular injection, neuralgic in character at times, requiring, it may be, several doses of morphia hypodermically to control it. This pain sometimes sets in several hours after the administration. The subcutaneous injection is not attended with so much pain, but it is less efficient.

The reaction is at times very severe, a pronounced rise in temperature occurring, with throbbing and pain and a sense of fullness in the head, accompanied with chilliness. In one reported case the fever continued for a week. Even Ehrlich says that "the febrile reaction, when severe, may exercise a fatal influence on weak individuals with disease of important organs." Wechselman, however, after having given 4,500 injections, says he has encountered no toxic effects. But we have had journal reports of thirty-three fatalities, fourteen in children and nineteen in adults. We know of one other, and doubtless there are many which will never reach the journals. Martius reports seven from the literature and

eight as yet unreported publicly. In five autopsies were revealed syphilitic aortitis, coronary sclerosis, and myocarditis with cardiac muscular degeneration; in one hypoplasia of the heart and aorta; in one extensive changes in other organs. Wechselman thinks that some fatalities may be due to the bacterial content of the water used in the preparation of the remedy for injection, the result of careless asepsis; and he advises sterilization of distilled water in all cases. He thinks also that some persons are naturally hypersensitive to the action of the drug. But certainly the difficulties here made apparent constitute a valid objection to the use of the remedy in general practice.

Another criticism is, that recurrences of luetic symptoms, even after several doses have been administered, are by no means rare. This seems to apply especially to symptoms of disease of the nervous system. A number of such recurrences have been reported by Finger of Vienna; and Terry and McDonald report one such case after a second injection had been given. Partial paralysis and other symptoms indicating cerebral disease appeared, all of which later improved rapidly under the use of iodides internally and mercurial inunctions (*Providence Jour.*). Ehrlich explains these recurrences on the hypothesis that the water used in preparing the injection contains bacteria, and these cause such a stormy reaction as to injure the cells so as to make them hypersensitive to a second injection of the remedy. He further explains—and we confess that the explanation is somewhat hazy to our limited vision—that

“the cause of the nervous relapses is to be referred to the fact that almost the entire number of syphilis germs in the body have been destroyed and only isolated spirochetes remain alive. We have to do with a sterilization that is almost complete. These few germs are placed under better life conditions because their competitors have been expelled. Since from anatomic reasons the action of salvarsan is more difficult in the nervous tissues, most of the residuary spirochetes are found here and come therefore most markedly and earliest into evidence.”

An inconvenience of the remedy is the necessity of keeping the patient in bed, preferably in a hospital, for 24 hours after the reaction temperature has returned to the normal. It is the consensus of opinion

that this is absolutely necessary if we would avoid serious or dangerous results.

The contraindications to the use of salvarsan are not a few. One writer thus summarizes them:

1. Non-luetic diseases of the retina and optic nerve.
2. Neuroses and organic diseases of the heart and blood vessels.
3. Severe disease of the lungs, except tuberculosis with no hemoptysis.
4. Severe non-luetic nephritis and diabetes.
5. Severe visceral lues, ulcers of the stomach.
6. Advanced degeneration of the nervous system, and alcoholism.
7. Febrile diseases.
8. Severe congenital lues of the new-born.
9. Menstruation.
10. Senile degeneration, non-luetic marasmus, cachexia.”

Marshall adds aortitis, coronary sclerosis and myocarditis. Now since a number of these conditions are quite obscure in their symptomatology, and hence very difficult of diagnosis by the average practitioner, the danger of using salvarsan in improper cases is by no means small.

That the remedy is poisonous to the kidneys is evident from reported cases in which albuminuria set in speedily after its administration, with total suppression of urine in several cases, at least one such case terminating fatally. The explanation offered by Morata is, that the drug produces congestion and swelling of the renal epithelium, depriving it of its function.

Some writers insist that not more than two doses should be given, others place the limit at three, while still others have not hesitated to use four, and this without disastrous result. Exactly the number of doses to secure the best results has not yet been determined. Stuemke suggests that the spirochetes become resistant to arsenic after the second dose, and advises the employment of mercury after these have been given.

In the treatment of congenital syphilis, experience has shown that injection of the mother in the hope of curing the infant through a modification of the milk, has not been successful. Milk from a cow or goat that has been injected with the drug is advised, because the milk from an infected woman, even though she receive the salvarsan treatment, cannot be as wholesome as milk from a healthy animal which has been similarly treated.

There was a doubt early expressed as to the safety of using salvarsan in eye dis-

eases. In view of this fact, the following statistics tabulated by Stuelp, giving the results of the administration of the remedy in a variety of syphilitic eye affections, should be of interest:

Cases	Rapid or good results Per cent.	No results or relapses Per cent.
Eyelid	3 100	
Conjunctiva	8 63	37
Cornea	95 27	73
Sclerotic	5 80	20
Uveal tract	85 63	37
Neuroretinitis	76 63	37
Eye-muscles	132 33	67
Orbit and trigeminus nerve	7 100	
	411 66	34

Stuelp noted the occasional appearance of iritis, choroiditis, optic neuritis and ocular muscle palsy two or three months after salvarsan, given in the early stages of the disease.—*Interstate Med. Jour.*

It is the testimony of a number of writers, that salvarsan has a rather limited effect on the Wasserman reaction; and it appears certain that such effect is much less pronounced than upon the clinical manifestations of syphilis. In some cases so well as to be dismissed from treatment, the reaction remained unchanged. Large and repeated doses, even as much as two grammes, seem to be necessary to permanently affect the Wasserman; and the fear of disastrous results will certainly deter any but the boldest of men from the employment of such quantities of a drug having such potency of dire results. The further fact that the Wasserman reaction is positive in a number of other diseases, makes it of less diagnostic and prognostic value than it has generally been considered to possess.

While we have thus far stated the inconveniences, uncertainties and dangers of salvarsan, we can not but recognize the new remedy as a most valuable and permanent addition to our armentarium against this vilest of diseases. Any remedy should have a welcome that holds out a fair promise of alleviating the dread consequences of this pest. Fortunately lesions of the mucosa are most amenable to it, the action in such cases being favorable and prompt. Thus may be diminished the number of

cases of syphilis of the innocent. Chancres are said to disappear in eight to fourteen days, mucous patches in perhaps a shorter time. The papular rash yields in about ten days. In the more active and malignant forms of the disease this remedy seems to be most efficient, and in these cases we must concede it to be more potent than any remedies heretofore within our reach. It should therefore be promptly used in laryngeal syphilis with threatening stenosis, in malignant cases which progress rapidly in spite of the free administration of mercurials, in patients having an idiosyncrasy against mercury, in the acute stages in married persons, to diminish the liability of conveying the infection.

It is claimed also that it has proven useful in parasyphilitic conditions of an inflammatory nature. Of course it can do no good where actual degeneration has set in. It is said also to act favorably in obstinate cases of palmar and plantar syphilis. On the other hand, in the ordinary run of cases, which generally do well on the mercurial and iodine treatment,—and we rarely see any other kind except among the intemperate—we think it wise to adhere to these well understood and approved remedies, rather than to run the risks attending the use of a powerful remedy whose limitations have not yet been accurately determined, whose dangers have been shown by over thirty published deaths, and which has not yet been used for a period sufficiently lengthy to demonstrate its powers to actually cure a disease many of whose symptoms, we must admit, it can mitigate. To quote from Ehrlich himself:

“If the result of securing a final cure in the great majority of cases of primary syphilis should be achieved, a very important forward step in the attempt to abolish this fearful plague will have been taken. Whether a permanent cure is possible in the later stages and to what extent must be determined by further experience.”

It must be admitted, we think, that many years must pass before we can know the exact power of this remedy as a preventive of paresis, locomotor ataxia, and the other late nervous manifestations of the disease. It is a safe proposition that no drug can be regarded as a substitute for mercury and iodine until (1) “it can abort the disease; (2) prevent tertiary or parasyphilitic man-

ifestations; (3) heal lesions more quickly, constantly and permanently; (4) cause fewer dangerous effects." None of these can yet be proven for salvarsan.

As to mode of administration, that most commonly advised is the intravenous, because "we thus strike a more sudden and powerful blow" than by other methods, as the blood current carries the remedy throughout the body, the lethal effects on the spirochetes being thus immediate. This method is also free from the pain that attends other modes of injection. But, as one writer suggests, the intravenous method "is a surgical operation requiring more care than many more pretentious ones." We have already seen the great necessity of the most minute care in the preparation and use of the injection material. As remarked by Dr. Tucker: "No matter how extensive the experience, or faultless the technique, accidents are bound to occur when we introduce at one dose a drug capable of poisoning where some unknown factor or idiosyncrasy exists." Therefore there are still a number of experimenters who prefer the intra-muscular method, and others who use the intra-venous method for the first dose, following this with one or more intra-muscular doses.

The number of doses necessary to produce the desired effect is as yet undetermined. Some hesitate to use more than two injections, and four are the most we have seen advised. It seems to be now conceded by practically all observers, that the administration of the new remedy should be followed by the employment of our standard remedies, mercury and iodine, which is itself a confession that salvarsan can not yet be considered a cure for syphilis. We suggest that, in view of the facts here set forth, it will be well for the general practitioner to adhere to these old remedies, leaving further experimentation to hospital physicians, who have opportunities of seeing more cases and more severe ones, and, alas, in persons whose lives are not generally considered so valuable to the community as those met with in private practice, because so often health and character have been destroyed by riotous living. When the hospital specialists have demonstrated the use, the limitations, the dangers, the proper doses, the proper method of administration, and the exact properties of

this powerful drug, will it be time for us who see comparatively few cases of this disease to take up this method of treatment. We close with the prediction, that more salvarsan has been used in the year 1911 than will ever again be used in any one year.

S. L. J.

OUR NEXT ANNUAL MEETING.

Already our efficient State Association secretary has his active mind on our Webster Springs annual meeting, as will be seen by the following communication. Those who were at the Webster Springs meeting a few years ago, will remember it as altogether the most delightful session we have ever held. A number of the members brought the lady members of their families, and socially the meeting was a great success. Every guest of the hotel was invited to the banquet on the last evening, and a royal time was had. We may here remark, that it is our pronounced conviction, that this function should always be held on Friday evening. This fact known in advance, the members can arrange their coming accordingly, so that if unable to remain three days, they can come a day later. All business contention and bitterness, if any arise, are wiped out at a banquet, with men who have any of the milk of human kindness in them. As for others, it does not matter.

In the January issue we shall print the names of all whose dues for 1911 have been paid. Heretofore this list has been printed in the December issue, but to accommodate the tardy we make the change, hoping to have all old members in line by the end of the year. Remember that no aid from the Defense Fund will come to any who are in arrears for 1912, the dues being payable in January to receive this aid. Begin next month to *get right*, so that hereafter you will make payments twelve months apart. Pay *now* for 1911, and in January pay for 1912, and you are safe. Read the items on Medical Defense printed below. And let the local secretaries help Dr. Butt by securing good papers for our July meeting. Also read Prof. Barker's paper on Medical Societies.

HEAR THE SECRETARY.

Editor W. Va. Medical Journal:

I am more than happy to be able to an-

nounce that the date of our next State Association meeting is fixed. Place, Webster Springs; time, July 10th, 11th and 12th. Hurrah for the Nicholas-Webster Society in general, and Dr. Judy in particular!

Now let us remember that the meeting is over two months earlier than our accustomed time, and get our dues paid up in January; also that our program will have to be gotten out earlier. If any member who reads this can have a paper for our next meeting, let him drop me a card at once.

A. P. BUTT, *Secretary*.

A whirlwind campaign is just commencing in Wheeling for the purpose of raising \$250,000 for the erection of a new City Hospital. This institution has done a mighty good in the past twenty years, not only to the people of the city, but to those in the territory for many miles around. Many poor have been received even from other states near us. Help is needed from all who are in a position to give aid. Subscriptions will be received by the hospital treasurer, Mr. Louis F. Stifel.

We welcome *The Potomac Valley Medical Bulletin*, a quarterly published at Keyser in the interest of the Grant-Hampshire-Hardy-Mineral Society, and edited by Drs. Yeakley and Babb, two very competent physicians. No doubt such a journal will greatly advance the interests of the local society. Many such bulletins are conducted in Pennsylvania and are found very beneficial in fostering local interest in medical organization. Success to the new venture!

MEDICAL DEFENSE.

We purpose, during the next few months, printing any item touching medical defense met with in our fifty exchanges, whether these be favorable or unfavorable. Thus far we have seen nothing unfavorable, but will thank our readers for any item of this kind, as both sides should have a full hearing. Here are several favorable items:

Philip Mills Jones, Secy. Medical Society of the State of California, San Francisco, Cal.

DEAR DOCTOR—I wish to express my sincere thanks to the State Medical Society for the able way in which your attorneys, W. W. Kaufman and H. A. van C. Lorchiana handled my defense

in a malpractice suit brought against me for \$20,-450. The jury brought in a unanimous verdict in my favor on the first ballot.

Although the trial occupied the attention of the Superior Court for three days, it did not cost me a cent. The feeling of having high class counsel to the courts of last resort was a great consolation.

From the experience which I have had I can assure any conscientious practitioner that he need have no fear of the final outcome of a suit defended by our State Society. I am certain I had much better service than any far-away insurance concern could have given.

Wishing you success in your good work and with many thanks, I am,

Very truly yours,

H. B. CAREY, M. D.

San Francisco August 12, 1911.

MAL-PRACTICE CASES.

The excellent work of the Medical Legal Committee in defending cases brought against our members has led their attorney to compile a book on mal-practice cases which ought to be of interest to every physician of Iowa.

A careful perusal of this work would save many from the difficulties which they most dread.

It is not expected that a medical man shall study law, but it is as necessary for him to know those points which bear upon his profession as for any other professional man to keep posted on collateral subjects.

If we know that we are right we can avoid trouble and save the committee much valuable time.—*Iowa Medical Journal*.

DEFENSE FUND FOR PHYSICIANS.

The creation of a defense fund for the legal protection of physicians who are made the victims for suits for alleged mal-practice was the most important matter before the house of delegates of the State Medical Association. The report of the committee as adopted provides that seventy-five cents should be set aside from the annual dues of each member for the defense fund. This will bring in about \$1,800 a year.

We are not certain which State Society has taken this last action. The item is from the *Jour. Am. Med. Ass'n*.

OF GREATEST IMPORTANCE.

It is of the utmost importance that county society secretaries should realize that the business of conducting the affairs of the State Society, and of the component societies, is no trifling matter. The work has grown so much, in the last few years, and especially since the State Society undertook the defense of all members in good standing, in malpractice suits, that it can only be properly conducted by the exercise of business principles. Members receive, for their small annual assessment, what it would cost them at least fifteen or twenty dollars to buy outside of the Society. But it takes money to run the Society and do all the work it is doing. This

money, when due, must be promptly paid. All assessments are due and payable in January; while a member not in good standing will not be defended by the State Society. This may seem to you a trivial matter, but if you happen to have a suit filed against you some day, and then discover that you had allowed your dues to accumulate and were not in good standing, it would not seem so trivial. There is some difference between the few dollars you pay for your county society dues and the several hundreds or thousands of dollars it might cost you to defend a suit. And remember that you never can tell when a suit will be instigated. Membership is worth a good deal to you; far too much for you to take any chances of allowing it to lapse.

The State Society is now defending all of its members against malpractice suits; it is a great responsibility and it should be so considered by every member of the Society, for any member may be sued at any time, justly or unjustly. Experience has shown that nearly all these suits are without the shadow of justice; they are merely attempts to avoid paying a bill, or pure blackmail. If we all stand together and refuse to be blackmailed or defrauded of our just charges, there will soon be an end to these tricky practices. But each one of us must do his part and all envy or personal animosity must be forgotten.—*California State Journal*.

SPECIAL WESTERN NUMBER.

In furthering the plan of producing special issues of the *American Journal of Surgery* composed of contributions by surgeons within a certain geographical area, yet of international reputation, there will be issued in the early part of 1912 a *Special Western Number* of this magazine. Subjects and those to contribute:

The operation of Gastroenterostomy, by William J. Mayo, Rochester, Minn.; The Surgery of Tendons, by John B. Murphy, Chicago, Ill.; Operative Treatment for Graves Disease, by George W. Crile, Cleveland, O.; Colonic Intoxication, by J. F. Binney, Kansas City, Mo.; Practical Points in the Surgical Treatment of Exophthalmic Goitre, by A. J. Ochsner, Chicago, Ill.; Treatment of Foreign Bodies in the Esophagus, by E. Fletcher Ingals, Chicago, Ill.; Brain Surgery Technique, by J. Rilus Eastman, Indianapolis, Ind.; Treatment of Abscesses and of the Necrotic Foci Resulting from the use of Salvarsan, by A. Ravogli, Cincinnati, O.; Treatment of Prostatic Obstructions, by E. O. Smith, Cincinnati, O. Subject not announced, H. Truholke, St. Louis, Mo.; Artificial Tendons and Ligaments in the Surgical Treatment of Paralysis, by Nathaniel Allison, St. Louis, Mo.; Uterine Cancer, by John C. Murphy, St. Louis, Mo.; Arthritis Deformans, by Leonard W. Ely, Denver, Col.; Acute Angulation and Flexure of the Sigmoid, as a Causative Factor in Epilepsy with special Reference to Treatment, by W. H. Axtell, Bellingham, Wash.

The character of contributions prepared by these well known surgeons are of such a nature as to make this number particularly interesting.

A NATIONAL DEPARTMENT OF HEALTH

Senator LaFollette's versus Senator Works' Views.

In a recent issue of LaFollette's Weekly, the personal organ of Senator Robert M. LaFollette, appeared an editorial on "Government Care of Public Health," a part of which is here reprinted:

"The speech of Senator Works of California from the standpoint of a Christian Scientist in opposition to the bill so ably championed by Senator Owen, has attracted wide attention to the subject of establishing a national department of public health.

"We must concede that if one believes there is no such thing as sickness or disease, then all scientific research into cause and prevention, quarantine and sanitation laws, and crusade against carriers and sources of contagion, must appear useless.

"But if we believe disease and sickness deplorable facts in human life, just as we believe health and vitality desirable conditions, then we must be anxious that the work done by our government for these objects should be encouraged, correlated, and brought to the highest efficiency.

"If we want pure food, cold storage conditions regulated, mosquitoes, flies, rats and other carriers of fever and plague exterminated; if we want the spread of tuberculosis, meningitis, and children's diseases stopped; if we want child labor laws, limitations of hours of women's work, proper health conditions in our public schools, then we should favor a national department of health.

"Scattered through all the various departments, State, Army, Navy, Interior, Agriculture, these subjects are now being considered in various ways. I pick up at random from my desk a report of the Marine Hospital. It relates to plague prevention work—cholera, leprosy, small-pox. It publishes municipal ordinances, pertaining to public hygiene, care of milk, protection of foodstuffs, garbage collection, sanitary and plumbing code. One report of the Department of Agriculture is a treatise on the extermination of hydrophobia; another relates to 'How Insects Affect Health in Rural Districts.' The latest report from the Bureau of Education is a volume on schoolhouses in their relation to health.

"It seems to me a reflection on our national intelligence and a commentary on our commercialism that the nations of Europe should have departments of health and education and we should be content to have these great fundamental subjects scattered about in different bureaus, as though they were of secondary importance in our national life.

"The opinion seems to have gained wide credence that the department is to be organized to promote some school of medicine. Nothing could be more erroneous. Mr. George H. Shibley, a resident of Washington in high standing, devoted to public interest, whose wife is one of the ablest osteopathic physicians in the country, made this statement to the Senate committee holding hearings on the bill:

"It being a settled fact that the control of the licensing system is in the States, and there being

in the States no tendency to surrender that power, it follows that the osteopathic physicians, the homeopathic physicians, and the eclectic physicians, whose occupations are licensed under State laws, are in no danger from a national health department. . . . The need for the establishment of a national health department is most pressing. The people are less protected from disease and death than are their cattle and hogs. A properly conducted department of health can do for the people in general what the Department of Agriculture is doing for the farmers. All of the people are vitally interested in the Department of Agriculture."

Dr. Francis B. Kellog, President of the California State Homeopathic Society, in an address recently said: "In my opinion there is an effort being made to exploit the homeopathic profession by influences and interests which are indirectly but radically opposed to the welfare not only of practitioners of medicine in general, but to that of humanity itself. I refer to the effort to enlist the homeopathic support for the so-called National League for Medical Freedom."—News item, *Los Angeles Times*, Oct. 14, 1911.

Before adjourning Thursday the Southern California Homeopathic Medical Society passed resolutions asserting that the society is not in sympathy with the objects or methods of the National League for Medical Freedom. The resolutions asserted that the "so-called National League for Medical Freedom is composed of those not in sympathy with the practice of medicine and surgery and of the scientific means of protecting the public health."—*Bulletin Los Angeles Med. Soc.*

State News

COMMITTEES OF STATE MEDICAL ASSOCIATION.

The following committees have been appointed by President Henry:

Public Policy and Legislation—First District—O. F. Covert, Moundsville; L. N. Yost, Fairmont. Second District—E. W. Strickler, Kingwood; J. Nelson Osborne, Martinsburg. Third District—G. A. McQueen (chairman), Charleston; V. T. Churchman, Charleston. Fourth District—A. S. Grimm, St. Marys; Rollo Camden, Parkersburg. Fifth District—T. W. Moore, Huntington; J. E. McDonald, Logan Court House.

Medical Education—C. A. Wingerter, (chairman), Wheeling; C. L. Holland, Fairmont; Jas. R. Bloss, Huntington.

Public Address—Frank L. Hupp, Wheeling.

Oration in Medicine—W. H. Yeakley, Keyser.

Oration in Surgery—J. A. Rader, Huntington.

Council on Legislation, A. M. A.—Chester R. Ogden, Clarksburg.

Council on Medical Education—John L. Dickey, Wheeling.

Publication—S. L. Jepson (chairman), Wheeling; C. A. Wingerter, Wheeling; L. D. Wilson, Wheeling; G. D. Lind, Greenwood.

MARRIED.

On Thursday evening, November 9th, in Martinsburg, Miss Mellie, daughter of Dr. and Mrs. J. McK Sites, to Mr. James Furlong Thompson, Jr. Long life and happiness attend their lot!

* * *

A letter received from our valued former member, Dr. J. C. Irons, now of Frankford, Ind., indicates his abiding interest in his old State. He says: "While out of the State bodily, I still in mind often visit the scenes of my former labors, and recall the many meetings of the State Society. May its influence never diminish, and the character of its Journal ever remain as meritorious as in the past." Thanks, Doctor. Sorry you left us. Prosperity be with you!

* * *

Dr. Yeakley, of Keyser, is to be congratulated on a recent very narrow escape from mangling, or death on the railroad. While crossing the track a train came upon him unexpectedly, and he narrowly missed being run down. His setter dog was killed by the train.

* * *

Dr. J. E. Rader, of Huntington, is taking post-graduate work at Philadelphia, and Dr. C. B. Williams, of Philippi, is in New York on a like mission.

* * *

Dr. J. C. McCullough, late of Moundsville, has located in Sherrard, and Dr. J. J. Duffy, recently at Rosby's Rock, has gone to Glen Easton.

* * *

Drs. Ackermann, Reed, Schwinn, Caldwell, Noome, Hildreth 2nd and Etzler attended the recent surgical clinics in Philadelphia.

* * *

Dr. S. L. Jepson, of Wheeling, recently had a very pleasant visit in Morgantown, the Athens of West Virginia. He addressed a very large audience on the evening of November 24th on "The Social Evil and Its Peril," and after this had a conference with the members of the County Society. Here, as elsewhere, the members who are most in need of a society's influence are conspicuous by their absence. The ablest men can always learn something at the meetings. The younger are "too busy" to attend. Strange, isn't it?

* * *

The Journal is still in a position to save a little money to any one who is thinking of doing post-graduate work in New York. First come, first served. Our power is not unlimited.

Society Proceedings

AMERICAN PROTOLOGIC SOCIETY.

CANCER OF THE RECTUM.

By J. RAWSON PENNINGTON, M.D., of Chicago, Ill.

I take it we are all agreed as to the increasing frequency of cancer. At least it seems to me no other conclusion can be drawn from the following

figures: According to the twelfth United States census, cancer appears to have increased 12.1 deaths per 100,000 population in the previous decade. In Great Britain, so we learn from the work of Roger Williams, the deaths from cancer increased from 177 per million in 1840 to 885 per million lives in 1905. Williams points out that while the population barely doubled from 1850 to 1905, the mortality from cancer increased more than six fold. Nor is the increase confined to the United States and Europe; it holds good for Japan, India, and even for uncivilized countries. In short, cancer is one of the several diseases which is apparently increasing by leaps and bounds, in spite of our boasted progress in medicine, surgery and hygiene. Apart from the increased prevalence, the present death rate from malignant diseases is something dreadful to contemplate. Our anxiety in regard to malignant disease of the rectum is pardonable when we reflect that a good proportion of cancers involve this region. Williams found that 9.6 per cent in males and 5.3 per cent in females were located in the rectum. Is there anything that can be done to check this foe? The writer believes there is, and that this Society may be made a powerful factor for good in such a crusade. In Germany a similar crusade has been started against cancer of the uterus by Winters, agitating the subject both among the profession and the laity. It is estimated that the number of cases of inoperable cancer of this organ has been reduced over 30 per cent as a result of calling attention to the early symptoms. Of the 2914 cases of rectal cancer in the male referred to by Williams, 2592 patients were over 45 years of age, and 2180 of the 2533 female patients. In the male sex again the average age at which the onset was noted, was 49.7 years, the minimum being 16.75 and the maximum 74; while in the female sex the average was 50.4 years with a minimum 21.8 and a maximum of 88 years. This brings me to the crux of my argument, that every person who has reached the so-called "cancerous age" should be examined periodically for evidence of commencing carcinoma, not necessarily of the rectum alone, but in the female, for example, of the uterus also.

In 120 resections of the rectum for malignant disease W. J. Mayo observes: "It is an unfortunate fact that, in the majority, cancer of the rectum is not recognized in time to obtain a radical cure." I said a moment ago that cancer in the beginning is a local disease. This granted, then early and thorough removal must lead to a cure. It has been shown that a large proportion of malignant growths originate in scar tissue. In cancer of the stomach, for example, the Mayos found that no less than 62% showed evidences of a previous ulcer. In rectal cancer patients frequently give a history of previous operations on the part. Does the cancer occur in the scar left from an operation for hemorrhoids done by one of the commoner methods—ligature, clamp and cautery, or some other technic leaving much scar tissue and sometimes stricture? May it not be occasionally engrafted on the scar following the usual incision method of operating for fistula? Here is a suggestion for us in our own work. Secure smooth healing by resorting only to such procedures as leave the minimum of cicatricial

tissue, hence the least possible nidus for possible mischief in the future. With the co-operation of the public it seems to me we should learn much about cancer in the early stages. To educate the public we must—as has been well said—"organize, systematize, deputize, energize, supervise and economize." The field is broad and the opportunity is at hand. Shall we grasp it?

CLINICAL SOCIETY OF NEW YORK POLY-
CLINIC MEDICAL SCHOOL
AND HOSPITAL.

MEETING OCT. 2, 1911.

Dr. T. H. Morgan showed a typical case of cancer of the stomach in a patient 72 years of age, a laborer in good health up to three months ago. He first complained of loss of appetite, then loss of flesh; later pain and distress in the stomach, after taking food, with periodical attacks of vomiting every 24, 36 and 48 hours. He was sent to the hospital and given a test meal. Dr. Jeffries examined the stomach contents; found free hydrochloric acid, *Boas bacillus*, etc., etc. The patient soon had coffee-ground vomit and tarry stools. Marked cachexia. Physical examination showed thickening near pylorus on lesser curvature. Vomiting became more frequent after admission to hospital. Dr. Albert Morrow advised a gastro-enterostomy in which Drs. Lynch and Sinclair concurred. The patient, however, refused operation. The case was shown as being a typical one of carcinoma of stomach.

A specimen of cancer of the stomach was presented by Dr. Albert Morrow. The specimen was removed from a patient 60 years of age; the general character of the symptoms being the same as in Dr. Morgan's case. Vomiting constant; emaciation extreme. The tumor was distinctly felt in the region of the umbilicus, and an exploratory incision was made under local anesthesia, hyoscine and morphine being given before the operation. The patient lived only three days, but retained food and did not vomit after the operation. She might have recovered but was in extreme condition of exhaustion when taken for operation.

Dr. Hays called attention to the frequent presence of extensive carcinoma, without positive symptoms, until the disease is incurable.

Dr. Jeffries said that the blood in carcinoma closely resembled that of pernicious anaemia, and at times only an expert could differentiate it. The case showed secondary anaemia with little or no leucocytosis. The stomach contents showed no evidences of pieces of tumor and there was a total absence of free hydrochloric acid. Pepsin was present.

Dr. Albert Morrow stated that cases of scirrhus cancer of the breast might live many years, in spite of considerable emaciation.

Dr. Maurice Packard presented an interesting case of pigmentation of the face in a man 72 years of age, suggesting Addison's Disease.

Angio-sarcoma of the testicle, presented by Dr. Albert Morrow. Dr. Morrow said that he had operated on the patient for Angio-sarcoma of the left testicle, which he removed. The patient was 45 years of age, and had an undescended testicle of the left side, which came down at the age of

seven. Fifteen years ago the same testicle became swollen from an injury, but subsided under hot applications. Twelve years later a hydrocele developed on the same side. This was frequently tapped. A year ago the hydrocele seemed larger and was so annoying that the patient decided to have a radical operation. On examination Dr. Morrow found apparently two sacs; the lower one hard and elastic. He removed some fluid and thought that the former injections of carbolic acid might have caused the thickening of the sac. On exposing sac, was surprised to find a great number of blood vessels in the sac, and also a great deal of pain present. Upon cutting into hydrocele, a solid, firm mass was found, resembling a blood clot. Further examination revealed a soft growth. Patient was informed that the growth was probably malignant, and consented to have it removed. Pathological examination showed an Angio-Sarcoma of the Testicle. Patient is doing well.

Several interesting points were emphasized. 1. Undescended testicles are very apt to undergo sarcomatous change. 2. The history of injury and the question as to whether the constant injection of carbolic acid during previous treatment had anything to do with the condition? The prognosis was very uncertain. Angio-sarcoma may be less malignant than other forms; most cases, however, are very malignant. Coley's serum was worth trying.

Dr. Sinclair said he had injected many cases of hydrocele with pure carbolic acid, and had never seen a serious case from it, or any evidence of sarcomatous change. He had experience with Coley's serum in only one case. A year after using the serum the patient had bronchitis. He found a consolidation in one lung and a peculiar cough. The patient did not improve and died suddenly. Autopsy showed sarcomatous material in the lungs, peritoneum, and abdominal wall. The case was one of general sarcomatous recurrence.

Dr. Doran had been working in sarcoma with amylopsin and trypsin. He gave hypodermatically 20 minims of each every other day for about six weeks, gradually working up to 60 minims of amylopsin and trypsin. With care he had avoided abscesses.

Dr. Joseph Taylor reported a case of carcinoma which he had under observation four years ago. The patient was a young woman of 22, who had been married three years. She had a big swelling on the left side, which on operation proved to be a gray tumor. Dr. Jeffries reported a round-cell sarcoma. While ill in bed she developed swelling on both sides, and a nelytic tumor near the site of the original tumor. Examination nine months later disclosed an absolutely normal nelytic. Amylopsin and trypsin had been carefully given during this period and had apparently been effective in producing a cure.

THE CABELL COUNTY SOCIETY.

HUNTINGTON, W. VA., Nov. 10, 1911.

Dear Editor:

The regular monthly meeting of this Society was held last night in the Assembly Hall of the Hotel Frederick.

We had with us Dr. Charles A. L. Reed, of Cincinnati, O., who gave a very interesting and instructive address on "Some Dyspepsia and Constipation Problems," illustrated with stereoptican views.

One new member was admitted to membership and another application was referred to the Board of Censors for action.

After the regular work of the evening was completed a lunch was served in the cafe.

Fraternally yours,

JAS. R. BLOSS, Sec'y.

LITTLE KANAWHA AND OHIO VALLEY SOCIETY.

PARKERSBURG, W. VA., Nov. 10, 1911.

Dear Editor:

On November 2nd the Little Kanawha and Ohio Valley Medical Society met at the Chancellor Hotel, sixteen members present. The essay for the evening was on Placenta Previa by Dr. H. M. Campbell, of this city, which was an able and scholarly exposition on that important subject. After discussion by the members, Dr. Scott, president, called on Dr. Price to tell us what he saw and learned during a recent visit to the clinics in Chicago, which the doctor did. We all were glad to learn that Dr. Scott's health has improved.

Dr. Sharp called attention to the criticism of the profession in this "the third city" in the editorial columns of the W. Va. Journal, because of its failure to contribute papers to the meetings of the State Society. Dr. Campbell was requested to present his paper to the next meeting of the State Society. Adjourned.

W. H. SHARP, Treas.

OHIO COUNTY SOCIETY.

November 14.—The Society met in regular session, President Jenson in the chair. Twenty-two present. Dr. Gaydosh read a paper on Auto-intoxication. The internal and external secretory and excretory organs, with their secretions and excretions, were carefully considered, and the treatment outlined for the various states. Dr. Osburn opened the discussion by relating a case in which he had all the signs of auto-intoxication without constipation. Did not think that constipation was present as an essential part of the etiology. Where it does exist, he advises a vegetable diet with high purgative enemata.

Dr. Noome spoke of the latest treatment for this condition, the removal of the colon, or colon anastomosis. Dr. Wingerter related his experience with two cases, one patient passing twelve basifuls of hard fecal matter during a period of ten days, after which the symptoms of intoxication passed away. He believes in a vegetable diet, and uses podophyllin and sodium succinate as therapeutic agents. Dr. Birney remarked that very little progress has been made in the treatment of these cases during the past quarter century.

Dr. I. I. Dickey read a paper, Some Instructive Statistics on the Value of the Sphygmomanometer in Life Insurance, showing that a high blood pressure is a reasonable index to a suspicion of some organic change, and estimating the risk

on the life of the applicant. Dr. Fulton reported experience of a local company confirming the results as reported by Dr. Dickey from another company.

By request Dr. Noome reported some facts gathered at the recent Surgical Clinics in Philadelphia. He quotes Musser as saying, that sixty per cent of cases now seen are surgical, twenty per cent suitable for open-air treatment, and twenty per cent for medical treatment. Dr. Noome was much impressed by his observations of spinal anesthesia, and thinks it is applicable in many cases, though not free from danger. The doctor was impressed with the importance of having a competent anesthetist, and said that many surgeons are employing the nurse for reason that a physician feels such interest in the operation that he is apt to neglect the anesthetic. Thinks that the X-ray is apt to make physicians careless in their diagnostic methods, and diagnosis is the foundation of medical practice. He quoted some one as saying that all birth palsies are due to partial or complete dislocation of the shoulder joint. Dr. Hirst, of Philadelphia, does not believe in the immediate repair of the lacerated perineum, preferring to wait ten days. Reason is that perfect result is not had in the immediate operation, and the operator is apt to be censured. Dr. Schwim was impressed at Philadelphia with spinal anesthesia, as demonstrated by Babcock. Thinks that danger can be eliminated by careful technic. Was also impressed with the Gwyllin Davis method of reducing congenital dislocation of hip joint, which he described.

November 21.—The Society met with twenty-seven present, President Jepson in the chair. Dr. J. Schwim gave an instructive lecture on What the Physician Should Know About the Thyroid. He first gave the anatomy, histology and physiology of the gland. Thyroidin, discovered by Bowman is considered the specific secretion of the gland, and is one thousand times as rich in iodine as is iodide of potassium. It is an iodide in combination with albumen. It is the amount of thyroidin secreted, and not the size of the gland, that gives rise to symptoms. It is the highest attainment of the physician to recognize the pathology at the earliest date possible, for then it is amenable to treatment. This can be reached by the co-operation of the internist, the surgeon and the laboratory worker. The same is true in appendicitis, duodenal ulcer, gall stone disease, etc. With an early diagnosis the mortality can always be reduced. In myxedema, in which there is a lack of thyroid secretion, thyroid feeding is the only treatment that gives good results. In hyperthyroidism, thyroid extract is always injurious, as is iodine in any form. In this form of disease, surgical mortality has been reduced to six per cent when the cases were seen early. Kocher, in 156 cases, has had a surgical mortality of but two per cent. An operation has no danger in the early stages, but the danger is great after the heart muscle becomes involved.

Dr. Wingerter opened the discussion. Said that of fifty-one cases of Graves' disease seen in private practice only three have died. Statistics in this disease are uncertain. The mortality in

medically-treated cases is much less than seventeen per cent as stated by the speaker. The thyroid is a very important organ and it should not be lightly removed. He demonstrated the relationship between the thyroid, the pancreas and the spleen and other chromophine bodies by a diagram. The removal of one of these affects the others.

Dr. Reed regards the disease of hyperthyroidism as both medical and surgical. The surgeon never removes the whole gland, but aims to reduce the secretion by a partial removal. Forchheimer, with quinia hybromid, reports the cure of forty-five of fifty cases. This remedy has been shown to be superior to any serum yet devised. He had used it in a few cases and always with benefit. Dr. L. D. Wilson thinks that there has not been much advance in treatment of Graves' disease recently. He advises rest, careful diet, digitalis, and under this treatment the patients generally do well. Would not advise belladonna, named by some speaker. Told of a case in which the heart was badly degenerated, and yet the patient was put on the table for an operation, and expired with the first whiff of anesthetic. Considered it bad surgery, at least in this case. Dr. Hupp had been at Crile's clinic recently and told of the operations seen there, and also in Columbus. Dr. Charles Mayo also reports excellent results following removal of the gland, in many bad cases. Surgery certainly has a place in these cases.

GLASS, Sec'y.

Reviews

A TEXT-BOOK OF THE PRACTICE OF MEDICINE. By JAMES M. ANDERS, M.D., Ph.D., LL.D., Professor of the Theory and Practice of Medicine and of Clinical Medicine, Medico-Chirurgical College, Philadelphia. Tenth Revised Edition. Octavo of 1328 pages, fully illustrated. Philadelphia and London: W. B. Saunders Company, 1911. Cloth, \$5.50 net; Half Morocco, \$7.00 net.

This book has been before the profession for about fourteen years. No work on Practice ever had the immediate success accorded to this. It has been for ten years one of a dozen or more similar works in our library, and is the one to which we turn most frequently. We have had occasion to give it very favorable mention in these columns before and hence it need not receive a full notice now. The book has in this edition much new material, and much of the old rewritten. Among this may be named tonsillectomy in acute rheumatism; artificial pneumothorax in tuberculosis; salvarsan in syphilis and malaria; Wassermann's reaction in syphilis; transfusion in pernicious anemia; salt-free diet in arterio sclerosis; Solomon's test in cancer of stomach; auto-serotherapy in ascites; Bostons test for albuminuria. These are but a few of the topics upon which much new matter is presented in the book, which we regard as the best single volume work on Practice now before the profession.

S. L. J.

DORLAND'S AMERICAN ILLUSTRATED MEDICAL DICTIONARY. A new and complete dictionary of terms used in Medicine, Surgery, Dentistry, Pharmacy, Chemistry, Veterinary Medicine, Nursing, Biology, and kindred branches; with new and elaborate tables. Sixth Revised Edition. Edited by W. A. NEWMAN DORLAND, M. D. Large Octavo of 986 pages, with 323 illustrations, 119 in colors. Containing over 7,000 more terms than the previous edition. Philadelphia and London: W. B. Saunders Company, 1911. Flexible Leather, \$4.50 net; thumb indexed, \$5.00 net.

Dorland's has long been a favorite dictionary. In this new edition 7,000 new words have been added. So prolific in word production is our profession that one must needs have the latest dictionary or be lost. The words are printed in bold face type, thus readily catching the eye. Initial capitals are used for proper names only, a decided improvement over the usual capitalization of all words. The pronunciation of every word is indicated, and its definition given. Veterinary and dental terms are for the first time introduced. The name, nationality, specialty, and date of birth and death of men whose names have been given to diseases, structures, etc., are given. While not especially valuable, this is an interesting feature. Over fifty pages are given to dosage and therapeutic tables, alphabetically arranged. Tables of arteries, nerves and muscles are also given. Many illustrations are introduced, a number of them colored. Well printed, well bound, it lies open at any page. We know of no recent dictionary that we can commend more highly than Dorland. S. L. J.

MERCK'S MANUAL OF THE MATERIA MEDICA. (Fourth Edition.) A Ready Reference Pocket Book for the Physician and Surgeon. Containing a comprehensive list of Chemicals and Drugs—not confined to "Merck's"—with their synonyms, solubilities, physiological effects, therapeutic uses, doses, incompatibles, antidotes, etc.; a table of Therapeutic indications, with interspersed paragraphs on Bedside Diagnosis, and a collection of Prescription Formulas, beginning under the indication "Abortion" and ending with "Yellow Fever"; a Classification of Medicaments; and Miscellaneous, comprising Poisoning and Its Treatment; and an extensive Dose Table; a chapter on Urinalysis, and various tables, etc. Merck & Co., 45 Park Place, New York, 1911. 493 pages. Sent on receipt of forwarding charges of 10 cents, in stamps, to physicians, or to students enrolled in any College of Medicine, in the United States.

THE FOURTH PHYSICIAN—By MONTGOMERY PICKETT. A. C. McClurg & Co., Chicago, \$1.00.

This is a beautiful Christmas story in which three physicians are characters, one a slum doctor, one, Dr. Shepherd, who moved in aristocratic circles which took from him the sympathizing heart, and who "lost his head" and almost his character as an ethical physician by a "great discovery" which failed to materialize when applied in the case of a "slum" child, whom the doctor,

after much protesting, was persuaded to visit by a third physician and his daughter, Dr. Shepherd's sweetheart. In missing his "great discovery" he regained his heart and his almost lost sweetheart, by the influence of the fourth physician, who shall be nameless here.

THE PRACTITIONER'S VISITING LIST for 1912. A valuable pocket-sized book containing important memoranda and data, and ruled blanks for recording every detail of practice. The Weekly, Monthly and 30-Patient Perpetual contains 32 pages of data and 160 pages of classified blanks. The 60-Patient Perpetual consists of 256 pages of blanks alone. Each in one wallet-shaped book, bound in flexible leather, with flap and pocket, pencil with rubber, and calendar for two years. Price to any address, \$1.25. Thumb-letter index, 25 cents extra. Lea & Febiger, Publishers, Philadelphia.

PAMPHLETS RECEIVED.

HYGIENIC LABORATORY—*Bulletin No. 74*—

—Digitalis Standardization. By WORTH HALE. **PUBLIC HEALTH REPORTS** for April and June.

SMALLPOX IN THE UNITED STATES DURING THE YEAR 1910. By JOHN W. TRASK, Assistant Surgeon General U. S. P. H. and M. H. Service.

THE SALIENT EPIDEMIOLOGICAL FEATURES OF PELLAGRA. By C. H. LAVINDER, Passed Assistant Surgeon U. S. P. H. and M. H. Service.

THE SANITARY PRIVY. By C. W. STILES and L. L. LUMSDIN, of U. S. P. H. and M. H. Service.

THE CAMPAIGN AGAINST CANCER—*Educational, Experimental, and Clinical.* By W. SEAMAN BAINBRIDGE, N. Y. Skin and cancer hospital, etc.

ARTIFICIAL LIGATION FOR IRREMOVABLE CANCER OF PELVIC ORGANS. By W. S. BAINBRIDGE.

PROCEEDINGS OF THE CANAL ZONE MEDICAL ASSOCIATION for 1909 and 1910.

EDUCATION AND PREVENTIVE MEDICINE. By DR. NORMAN E. DITMAN, M.D. A masterly paper appearing originally in the *Columbia University Quarterly*.

DIAGNOSTIC VALUE OF THE SPHYGMO-METER IN EXAMINATION FOR LIFE INSURANCE. By DR. I. W. FISHER, Medical Director Northwestern Mutual Life Insurance Company.

PREVENTABLE BLINDNESS. By DR. W. CHEATHAM, Louisville.

INVESTIGATION CONCERNING RELATION BETWEEN CORPORAL OSSIFICATION AND PHYSICAL AND MENTAL DEVELOPMENT. By DRs. ELI LONG and E. W. CALDWELL, New York.

ILLUSTRATIVE CASES OF PRIMARY MELANOSARCOMA OF THE CHOROID. By DR. J. H. WOODWARD, New York.

EXPERIMENTS IN THE PRODUCTION OF SANITARY MILK. By HORACE ATWOOD and N. J. GIDDINGS, of West Virginia University Agricultural Experiment Station.

CLINICAL ASPECT OF UTERINE HEMORRHAGE and the VENEREAL DISEASES, THEIR CAUSES, PREVENTION AND CURE. By DR. W. O. HENRY, Omaha.
REPORT OF HOFFMAN HOSPITAL, Key-sey, W. Va.

Medical Outlook

[The Role and Methods of Psychotherapy in the Care of Psychasthenia which tends to inebriety; the functions of the general practitioner.—*Author's Abstract.*]

A sense of inadequacy is the most frequent cause of the desire for alcohol or other narcotic. It is unscientific to exhort a man not to over-indulge this bent. The proper course is to remove the cause of his tendency.

The sentiment of insufficiency is only one of the chief symptoms of the state termed psychasthenia since the work of Prof. Janet. It is a malady which shows itself sometimes in states of intolerable anxiety and distress, sometimes by morbid unreasonable fears, sometimes by insistent ruminations upon the most trifling events, sometimes by impulsions to perform absurd actions, always by vacillation of the will, often by mannerisms and erratic gestures, and by the wandering mania, or the life of solitude of the recluse.

This is the disease we have to relieve in order to prevent the greatest part of the inebriety of our day. For the people who suffer from this disorder, a good hygiene is of course necessary. But even more important for their recovery are psychobiological measures.

An analysis of their mentality is the first requisite. When this is accomplished, (thanks to the means placed at our disposal by modern neurological technique) a re-education must be begun toward the acquisition of tolerance for feelings of inadequacy. After this, mental poise is given by means of a helpful philosophy.

These ends cannot be accomplished by mere precept. The psychotherapist devices *practical exercises in control* by means of gradually increasing periods of mental concentration. The technique of this is described in the paper of which this is an abstract. (*Medical Record*, Nov. 4.) (Read at meeting of *Miss. Valley Med. Ass'n.* by DR. TOM A. WILLIAMS, Washington, D. C.)

DIET IN TYPHOID—To one who has kept pace with current medical literature it becomes more and more apparent that we are gradually giving up our old notions of diet in typhoid fever. The profession is coming slowly to the conclusion that a more liberal diet is necessary to counteract the great wasting of this disease. The following extract from a paper by GEORGE K. VANDERSLICE, M.D., of Phoebus, Va., read at the Medical Society of Virginia in October, 1911, is worthy of a reprint:

"Diet is undoubtedly the most important feature in typhoid treatment. Manifestly the consideration in diet is the serious wasting character of the disease, from twenty to sixty pounds be-

ing the loss in weight in cases of average length, in a manner resembling starvation. To meet this, one should endeavor to feed the patient as well as possible so as to diminish the sum total lost at the end of the fever. This purpose is influenced by—first, the loss of appetite, and even anorexia which may exist; second, the decrease of power to digest, and decrease of absorption; third, the condition of the ulcers in the lower part of the ileum, which makes it necessary to bear in mind the character of the residue to pass through this section of the bowel."

"The time has come when we must investigate the diet in typhoid carefully, for the indiscriminate use of six ounces of milk every two hours will not suit present requirements, and there is not sufficient evidence to show that milk gives a soft, harmless residue. I have found a milk coagulum or curd in the perforation of typhoid at operation." G. D. L.

SELF-PERFORMED OPERATION FOR HERNIA—TZAICOU (*Rev. Francaise de med. et de chir.*, July 10, 1911) describes an operation for hernia performed by him on himself under rachistrychno-stovainization. His conclusions were as follows: (1) The pain caused by the lumbar puncture is greater than that produced by a subcutaneous injection, but it is decidedly less disagreeable than the sensations experienced by many patients at the beginning of chloroform anesthesia. (2) In his case the anesthesia was ushered in by agreeable sensations and passed off unconsciously. (3) The slight excitement at the beginning of the anesthesia and the vertigo which he felt on quick movement prove that the anesthesia was diffused in the direction of the cerebral hemispheres. His intellectual faculties remained perfectly intact and his consciousness was unaffected, the evident proof of this being his performance to completion of a delicate operation. (4) The technique of the anesthetization and the position of the patient after the injection are the essential factors on which depend the degree and intensity of the anesthesia. (5) The anesthesia has a tendency to remain segmentary. In his case all the body above the level of the anterior superior spinous processes of the ilium remained free, the movements of the hands being unaffected. (6) He proved the efficiency of the anesthesia by being able to operate upon himself and to cut into his own flesh as if it had belonged to some one else. (7) The harmlessness of the method is proved by the fact that during the whole time, with the exception of the occasional vertigo caused by brusque movements, not one disagreeable sensation was experienced in spite of the circumstance that, operating upon himself, he was obliged to maintain the sitting posture, and to reach for instruments, wash his hands, etc. (8) The upright posture and the movements executed during the operation caused no unpleasantness during the operation, but produced some secondary post-operative effects. (9) Rest during the anesthesia and afterward for at least four days is necessitated by the principle of general pathology that "rest is the best antiphlogistic," for the secondary accidents are due to irritation of

the meninges by the substances injected and the consequent variations in the cerebrospinal fluid, all of which are prevented by rest in the horizontal position. (10) A purgative ought to be taken before spinal anesthesia to prevent absorption of intestinal toxins in the event of post-operative paresis. (11) A means of anesthesia sufficiently efficacious and sufficiently innocuous to allow a surgeon to operate on himself for hernia, with success and without any unpleasant consequences, may be modified and improved, but will certainly not be abandoned until human imagination has found a still more wonderful method.—*Brit. Med. Jour.*

NONSPECIFIC USE OF DIPHTHERIA ANTITOXIN.—The nonspecific use of this serum is every day more extensive. Fernandez (1), in a recent review, states that suppurative keratitis of whatever origin is always favorably influenced by this serum. In his clinic at Havana every case thus treated has recovered promptly.

Darier (2) affirms that in the infectious ulcers of the cornea, in the infections by penetrating wounds of the eyes, in the serious complications that sometimes arise after cataract operation, in cases of infectious iritis, etc. the affection is rapidly checked by two or three injections. In these cases there is noted, first, the absence of pain, and afterwards, rapid recovery, as a rule, with remaining vision, which is better the earlier the serum is administered.

Deacon (3) reports a case of puerperal septicemia treated with diphtheria antitoxin. The case was instrumental, perineum lacerated but with immediate repair; on the third day the temperature was 100 degrees F., lochia were normal; 5 per cent. phenol douches were given. Fifth day, pain, tenderness, chilliness; temperature 101 degrees F. Sixth day, severe headache, abdomen distended, temperature 103 degrees F.; curetting under chloroform anesthesia and irrigation with hot creolin, 1 drachm to 2 pints. Ung. Crede was applied to abdomen and thighs morning and evening; calcium sulphide, $\frac{1}{2}$ grain every 2 hours and magnesium sulphate freely were administered; high enemata of hot water and turpentine were given. Ice bag on abdomen. This treatment was continued until the 12th day when the temperature was 105.5 degrees F., pulse 160, abdomen enormously distended, chills, pain, discharge profuse and purulent. On this day 9,000 units of diphtheria antitoxin were used.

The concluding paragraph is as follows:

"The prompt action of diphtheria antitoxin in stopping the suppurative process in this case leads me to venture the opinion that it will be equally valuable in all septic conditions of a profound type, not only those occurring during abortion and parturition at full term, but also those due to infected wounds in any part of the body. In using antitoxin in these cases, it must be used fearlessly and persistently. A total of seventy thousand units was used in the case which I have just reported, and at this writing, October 18, 1909, the patient is in the best of health, and she has never experienced any ill effect whatever from the treatment."

Whitfield (4) reports the use of antidiphtheritic serum in severe cases of grippe. The patients, he states, experienced almost immediate relief from the physical and mental depression. One of the patients, a man with chronic albuminuria and glycosuria, received 6,000 units in 48 hours, and not only was he relieved of his influenza but his urine became free from sugar and showed only a trace of albumin.—*Interstate Journal.*

RADIOTHERAPY.—Dr. Charles Dickson in the *Canada Lancet* says, "Present technique favors shorter exposures, discourages raying for long periods, and the production of marked reactions, unless in exceptional cases.

"The present concensus of opinion is that the more superficial the condition treated, the better the result.

"Thus in many affections of the skin the X-ray more than holds its own. For instance, in acne vulgaris, chronic eczema, sycosis vulgaris, alopecia areata, psoriasis; likewise lupus vulgaris, epithelioma and rodent ulcer. In tubercular adenitis it has many friends. In inoperable cases of exophthalmic goitre it has been advocated. The hemostatic action of the ray has been utilized for relief of the hemorrhage occasioned by uterine fibroids, menorrhagia, and metrorrhagia, and by tuberculosis and ulcer of the stomach. It has also been successfully employed to bring on the menopause artificially.

"In deeply seated growths, while the chance for absolute arrest is very much less, yet progress is markedly retarded, pain frequently relieved, the patient made much more comfortable, and undoubtedly life often prolonged. Thus mediastinal tumors of presumed malignancy are often diminished in size to a very noticeable extent.

"Early post-operative raying of malignant cases is a wise precaution, thus utilizing the inhibitory action of the ray.

"By employing light energy from powerful sources, arc or incandescent, the tendency to ray dermatitis is generally lessened.

"In *Le Monde Medical* for February, 1909, Dr. J. Audan, Director of the Medical Clinic at Grenoble, following up the history of patients whose cases he had reported formerly, published the following conclusions based upon the information obtained: (1) Radiotherapy gives durable results in most cases of cutaneous canceroid and different forms of lupus. (2) It procures a tangible prolongation of life in cases afflicted with various slow superficial cancers. (3) It exerts a very powerful action in sarcoma in which it greatly assists surgical intervention. (4) Lastly, mention must be made of its action on all new growths of lymphoid tissues, the various adenopathies and more particularly manifestations consequent upon leukemia, especially splenomegaly, of which indeed, it constitutes the only really efficacious treatment.

"In Denver, Colorado, the X-ray is used as an adjuvant in the treatment of tuberculosis pulmonalis."—*Therapeutic Medicine.*

DEATH FROM JONNESCO'S SPINAL ANESTHESIA.—*Gabbett* (*British Medical Journal*). Gabbett's case is reported from Madras.

His patient had elephantiasis of the scrotum but was otherwise well. Three c.c. of a solution containing 10 cg. of novocaine and 1 mg. of strychnine hydrochloride were injected between the twelfth dorsal and first lumbar vertebrae, with the patient sitting up. He then lay down and within ten minutes was anesthetic almost to the level of the clavicles. Soon after, he became nauseated, then dyspnoic and suddenly stopped breathing. Artificial respiration was without avail. A marked rigidity of the muscles of the chest and arms suggests that death may have been due to the strychnine rather than to the novocaine.

In Milward's case—one of ileus—spinal anesthesia was used on account of the persistent fecal vomiting. With the patient in the recumbent position, 10 cg. of stovaine and 1 mg. of strychnine were injected into the spinal canal in the dorso-lumbar region. Some twelve minutes later, respiration had ceased and fifteen minutes after the injection he was dead. Artificial respiration and other efforts at resuscitation were used in vain.

A similar case was observed by the writer of this abstract, some weeks ago. The patient had an enormous uterine fibroid that was causing such severe hemorrhage that operation was imperative. On account of a bad myocardium with edema of the lungs a general anesthetic was contraindicated, while the size of the tumor and the probability of extensive adhesions made the surgeon unwilling to operate under purely local anesthesia. A solution containing 10 cg. of stovaine and 1 mg. of strychnine was injected into the lumbar spinal canal. Some minutes later the patient ceased to breathe and died in spite of all efforts to revive her.

In all of these cases, surgical shock played no part. In the first case, none of the large vessels and nerves had been divided; in the second, the operation had not been begun when the patient died; in our case the abdomen had only been opened. Such cases prove that as yet the method has not been rendered safe, if indeed it is capable of being freed from danger. For the present, at least, it should be used only where general anesthesia is contraindicated and where local anesthesia is not practicable. When used, it should be with the definite understanding that it may at any moment result in the death of the patient.—*Charlotte Med. Journal*.

OEDEMA OF LARYNX.—Treatment: Purulent foci should be opened as soon as recognized. In the early stages ice applications to the neck are indicated. Abraham, in the discussion of Smith's paper, stated that he considered a 25 per cent. solution of ichthylol of great value and he uses this solution in all cases of septic sore throat. Rupp reported a recovery in a case of acute and severe oedema of the larynx, treated only by ice applications, and tincture ferri chloridi internally. The value of adrenalin in oedema of the larynx, according to French, is undoubted. In a case which he reported where the epiglottis, arytenoid cartilages and aryepiglottic folds were very oedematous and respiration labored, he applied a 1-5000 solution of adrenalin by means of an applicator with marked

improvement and ultimate recovery. Applications were made hourly. He mentions two other cases where the same remedy was used, but oedema returned owing to the too early discontinuance of the remedy. The remedy may be given internally also. Scarification of the oedematous tissue is of value and is best done with a guarded knife. Lenox Brown recommends hypodermic injections of pilocarpine. Inhalations of steam with benzoin are recommended by some authors. Preparations should always be made for rapid tracheotomy. I would refer those who desire further knowledge of the subject to Semon's classic article which covers the subject fully.—*Ard. in Jour. of N. J. Med. Soc.*

VOMITING OF PREGNANCY.—Dried thyroid substance was used in 5 cases with prompt and lasting benefit. Best results obtained by definite mode of administration: Patient awakened at 5 a. m. for first dose; repeated at 9 a. m. after breakfast in bed, and again half-hour before dinner and supper and before retiring. Morning dose to be not less than 0.3 gm. (5 grains); 0.45 or 0.6 gm sometimes advisable. Exact dosage determined by observation. If vomiting most severe in other than morning hours, the large doses are to be given at this period. Food to be taken only in small amount at a time, meat interdicted.—*SIEGMUND, Cyclo-pedia of Medicine*.

A NEW SIGN IN THE DIAGNOSIS OF SCARLET FEVER.—By DR. C. PASTIA, Bucharest, Roumania. I have observed a new clinical sign in scarlet fever, which I think is of sufficient interest from the viewpoint of diagnosis to merit attention.

This sign consists in an exanthematous eruption, continuous, linear, very intense and localized in the fold of the elbow. At first, the eruption is pink, then dark red or wine colored, and often it is ecchymotic. This linear eruption may sometimes be single, but usually it is multiple, two to four lines being present. Between these linear formations a less intense eruption is found which resembles that which ordinarily exists upon the rest of the skin in scarlet fever.

This sign appears early. Usually it appears at the very start of the eruptive period, lasts until the end of that period, or persists a little beyond the latter in the form of a linear pigmentation. Very rarely the same sign is found in the fold of the axilla, where it is faint and lasts but a short time.

In the presence of this linear eruption in the fold of the elbow and of the pigmentation which follows it, we may therefore suspect scarlet fever even when the eruption over the rest of the body is very faint, or when it has disappeared some time previously.

I believe that this sign in virtue of its frequency and constancy in scarlet fever is of greater value in diagnosis in this disease than Koplik's sign in measles.

Consequently, whenever the sign described above is noticed in a patient, we must always suspect scarlet fever. We have looked for it in other eruptive diseases, particularly in a larger number of patients with measles, and in patients with toxic or drug eruptions, and we have failed to find it in these cases.—*La Tribune Medicola*.

PLACENTAL AERATION IN ASPHYXIA OF THE NEW BORN—The case is reported of a child, born in a state of asphyxia, and resuscitated by aeration of the maternal surface of the placenta. Upon delivery with axistraction forceps the child's skin was livid, with heart beating visibly and pulsations in the cord distinctly palpable. There was no effort at normal respiration. The placenta was at once manually loosened and delivered, the child placed in a basin of warm water, and the placenta held maternal surface upward, exposed to the air, and washed with warm water to free it of blood-clots. After a few minutes the child, though making no attempts at respiration, improved in color, as did the pulsations in the cords in quality and quantity. Placental respiration was thus continued during thirty-five minutes; the pulsations of the cord during this time were good, but decreased in number and were of decidedly worse quality as soon as the maternal surface of the placenta was placed on the table. Whenever the child became cyanosed the turning of the stream of oxygen onto the maternal surface of the placenta brought about immediate recovery of color. The cord was then tied and cut. The child subsequently behaved normally.—M. H. FREUND, *Medical Record*, February 11, 1911.

Miscellany

GET TOGETHER—F. C. HEATH, M.D., President *Indiana State Med. Ass'n.*, says, speaking to the members: "We need to get together more closely. This is the more important since organization of fakery, under such names as League of Medical Freedom seek to muddy the waters and kick up clouds of dust in the atmosphere about 'Doctor's Trusts,' knowing that the doctors unite for the benefit of humanity, and this League of Medical Freedom opposes sanitary reform, pure food legislation and everything else tending to protect the people from preventable diseases, injurious drugs and unprincipled frauds." G. D. L.

MEDICAL EDUCATION.—H. M. FINNERUP, M.D., President *Minn. State Med. Ass'n.* in his annual address makes the following pertinent remarks on an important subject: "During the last few years, great strides have been made in medical education, not only in the study of medicine itself, but also in the higher requirements for admission to the medical school. Much is still lacking to make our medical colleges what they should be. First, a more effective course of literary college work. At least two years in a well equipped college and university should be required before entering on the study of medicine. After that, four years of medical study, and, finally, one year of compulsory internship in a first class hospital should constitute the requirement for a well qualified physician. A man having passed this requirement with a rigid examination, both practical and theoretical, ought to be a safe man to turn loose on a confiding public."

While we regard this as "a consummation devoutly to be wished," the practicability is seri-

ously questioned for the reason that hospitals cannot afford to employ and could not use (if they could) such a large number of internes. While it is true that we are turning out fewer physicians than we were a few years ago, yet the number annually graduated is too great to make it possible to give every one an internship. G. D. L.

SCHOOL INSPECTION—DRS. E. B. HOAG and E. C. BEACH, Committee on Administration Methods of Physical Examination of School Children, published their report in the *Journal A. M. A.*, November 25. The subjects discussed in their report are: First, the object of physical examinations, which is to detect the variations from the normal that interfere with the health, growth and development of the child and especially embarrass the educational method employed. The next subject of investigation was the present methods and results accomplished, and they find that thorough examinations are made in but two cities in this country. The best results follow where preliminary examination is made in the grammar schools by the teacher and defective or suspicious cases examined later by trained medical men. Those made exclusively by nurses or untrained or disinterested medical inspectors are often incomplete, inaccurate and of slight value. A number of factors call for consideration in discussing the fundamental problems of the subject. The board of health deals with diseased conditions and sanitary standards and beyond this has ordinarily little interest. The board of education's function is educative and it must provide favorable conditions for the education of the children and remove factors that interfere with such conditions. This necessitates competent and constant supervision. Some objections have been raised by parents and occasionally by family physicians, sometimes not without cause, in case of selection of incompetent or unscrupulous examiners. The family physicians are not always of the same school and their points of view have to be respected. Objections to the teachers making the preliminary examinations have been made on the basis of insufficient training and this, if it exists, should be remedied. The expense required has been a serious objection but a careful study of the subject shows that its neglect is still more expensive. The recommendations made are, that suitable trained medical inspectors should be employed who can instruct school teachers in the preliminary examinations, that city boards of education maintain departments of medical inspection under trained medical men, and the cities be divided up into districts, each with a medical inspector in charge, that each child be given an examination once a year, preferably at the beginning, sufficiently thorough to detect defects that are liable to interfere with its growth and education, and that in cases showing defect, thorough reexamination by medical men be made. The preliminary medical examination should be made by the teacher or nurse, who should be instructed in regard to the work, and the supplementary ones by the physician, preferably those employed by and under the direction of the board of education.

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Original Articles

ANALYSIS OF CASES OF GOITER OPERATED ON DURING THE PAST TWELVE MONTHS AT ST. LUKE'S HOSPITAL.*

Stuart McGuire, M.D., of Richmond, Va.

Nineteen years ago, when the University College of Medicine was established, I was appointed assistant to my father's surgical clinic, and my principal duty was to provide material for his weekly lecture. He rarely knew what cases I had for him, and he rather prided himself on his ability to successfully deal with any patient assigned him. It so happened that on two or three occasions I had a case of goiter. He discussed the etiology, pathology and symptomatology of the disease, but always found some excuse for not operating. Finally one night he called me into his office and said, "Stuart, don't give me any more cases of goiter in my clinic. I once operated on a case and it was the most bloody, barbarous and unsurgical procedure I ever attempted. Every man must be taught by his own experience, but if there is one thing you can learn from me, it is to let goiter alone."

This advice was good for its day and generation. The great Kocher's mortality in his first seventy cases of simple goiter

*Paper read at the meeting of the Medical Association of the State of West Virginia, at White Sulphur Springs, Sept. 20-23, 1911.

was 40%, and Charles Mayo's mortality in his first sixteen cases of exophthalmic goiter was 25%. It is no wonder that at one time the operation was regarded as unwarranted by the majority of surgeons, and it is not surprising that there are still to day some among the older practitioners who hesitate to advise a patient with goiter to seek operative relief except as a last resort. Times have changed, however, and this once formidable operation has been rendered comparatively simple and safe in experienced hands.

Kocher, with a courage that seems marvelous to the present generation of surgeons, persevered in his work until he finally established a technique that has reduced the mortality in his last one thousand operations for goiter to four-tenths of one per cent.

This was accomplished by

1. Early operations on more favorable cases.
2. Improved aseptic methods to prevent infection.
3. More skilful administration of anesthetics.
4. An exposure which gave ability to control hemorrhage and avoid injury to certain important structures of the neck.

For a number of years I treated goiter by internal medication and local applications. At one time I reported favorable results from iodine by cataphoresis, but finally I came to the conclusion that some of my cases got well despite treatment just as others did without treatment. Six or seven years ago I became convinced from

Kocher's writings that these patients were good surgical risks. I have now operated on more than one hundred cases of goiter, embracing all types of the disease without a single death and with most satisfactory symptomatic results.

Patients with simple goiter require only the usual preparatory treatment for other major operations. Patients with exophthalmic goiter should be kept in the hospital under observation until it is certain they are in good condition. If the heart is weak and irregular, they should be confined to bed with an ice-bag to the chest and given small doses of atropia. Occasionally a preliminary treatment with X-Ray will be advisable.

It is not well to tell the patient in advance the day and hour fixed for the operation. In rare cases where there is great terror of the operation, it may be justifiable to practice the method of Crile which he calls "stealing the gland." The patient is told that before resorting to an operation it has been deemed best to try the Inhalation Treatment. Every day at a certain hour the anesthetist goes to the patient's room, places a mask over his face and for ten minutes allows him to inhale alcohol or some other volatile agent. The day set for the operation, the relatives of course being informed of what is to take place, the treatment is given as usual, only ether is slowly substituted and the patient put to sleep without knowledge that the operation will be done that day.

The operation is most conveniently and safely performed with the table in a reverse Trendelenburg position. The elevation of the patient's head causes a certain degree of anemia, reducing the tendency to bleed and lessening the amount of ether or chloroform necessary to produce anesthesia.

A transverse collar incision is made through the skin and platysma myoides muscle over the most prominent part of the goiter, and these two structures reflected so as to expose the underlying muscles. The sterno-hyoid and thyroide are separated in the middle line to expose the gland. This may give sufficient room to permit the delivery of the tumor, but often it is necessary to divide the muscles trans-

versely near their upper insertion in order to give a safe working field.

If the goiter is of the circumscribed variety, the encapsulated mass should be enucleated and the bleeding arrested and the cavity closed by buried sutures. If the goiter is of the diffuse variety, the affected lobe and isthmus should be excised by ligating the superior and inferior thyroid arteries and dissecting it from its posterior capsule.

Hemorrhage should be minimized by catching vessels before or immediately on division. Removal of the parathyroids should be avoided by leaving the posterior capsule which covers them. Injury to the recurrent laryngeal nerve should be guarded against by carefully exposing the inferior thyroid artery and ligating it close to the pole.

After tying all bleeding points drainage should be inserted, the divided muscles sutured and the skin incision neatly approximated.

During the last twelve months I have operated on twenty-three cases of goiter at St. Luke's Hospital, and I will briefly analyze these cases for the purposes of bringing out some interesting points.

Of these cases three were men and twenty women, showing that the disease is most frequent in the female.

The youngest patient was seventeen and the oldest fifty-three, the average age being thirty, showing that it is a disease of middle life.

Twelve cases were simple goiter causing only mechanical symptoms. Eleven were of the exophthalmic type attended by marked symptoms of hyperthyroidism. The proportion of the latter to the former is much greater than usually reported and shows that the profession in my territory is not yet educated to the point of referring early and easy cases to the surgeon, but as yet only sends the patient whose need is urgent.

In three cases the operation was on the left lobe, in seventeen on the right lobe, and in three on both lobes. The greater frequency of the disease on the right side of the thyroid as compared to the left is noted by all observers, but so far no satisfactory explanation on either anatomical or physiological lines has been given.

The anesthetic employed was cocaine in one case, chloroform in five cases, and ether in seventeen cases. Cocaine was used in the one instance because the patient was obese and had a bad heart. Chloroform and ether were used with equal satisfaction in the other twenty-two cases, the choice of the agent being determined by who was to give it, one of my anesthetists being a chloroform man, the other being an ether woman.

The post-operative complications were as follows:

One patient had some huskiness of the voice for several days, showing I had irritated, but not permanently injured the recurrent laryngeal nerve.

One patient had infection from imperfect drainage of a large cavity left after the dislocation of an intra-thoracic goiter.

One patient had a severe hemorrhage shortly after recovery from the anesthetic, requiring the wound to be re-opened and the bleeding arrested. This accident was probably due to some muscular tissue having been included in one of the ligatures. When the patient became conscious and put tension on the muscle it pulled the suture off. The complication should have been avoided. Fortunately the patient made a good recovery.

Two patients had hyperthyroidism, one mildly the other sharply. They were both over it in thirty-six hours. Whether the symptoms were due to the absorption of thyroid juices from the wound as is generally considered to be the cause, or whether they were due to fright as claimed by Crile, I do not know. The surgeon should try to minimize the frequency and severity of this complication by handling the gland gently during the operation to avoid expressing its juices, and also by endeavoring to allay the patient's dread of the operation, to avoid the possibility of hyper-secretion from psychic influences. I had a case at the Virginia Hospital which strongly substantiates Crile's theory. The patient was a woman on whom I had operated two years before for exophthalmic goiter and effected a symptomatic cure. She came back for the repair of the perineum and the correction of a displaced uterus. At the time for the operation she tried to back out, but I urged her on and

she went to the anesthetizing room in a bad state of fright. The operation was uncomplicated, but for three days afterwards it was a fight for her life. She had high fever, was delirious, and her heart so rapid that the pulse could not be counted. Here was a clear instance of the possibility of hyper-thyroidism from excessive secretion of the gland stimulated by the patient's psychic condition. Of course, absorption of thyroid juices squeezed over fresh surfaces could not exist in this case, as the operation was on the pelvis and not in the neck.

In the twenty-three cases reported the average time taken to complete the operation was thirty minutes, the average confinement to bed was seven days, and the average stay in the hospital was two weeks. The final results were complete cure in the twelve cases of simple goiter where the symptoms were due to mechanical pressure. In the eleven cases of exophthalmic goiter the results were very satisfactory: the exophthalmus or prominence of the eyes was improved in the early cases, but not materially changed in the advanced cases. The nervousness, tremor and rapid heart action were apparently cured in nine cases and markedly improved in the remaining two. Sufficient time has not yet elapsed for them to have received the full benefit of the operation. If after some months their condition is not entirely satisfactory, a second operation can be done and more of the gland removed. How much of the gland to remove at the original operation is often a question. If an error is made it had better be on the side of conservatism, as it is easy to take out more and impossible to put back any of this tissue which has such an important effect on the physical nutrition and nervous equilibrium of the individual.

Neuralgia is differentiated from neuritis by the fact that in the latter pressure upon the nerve increases the pain. The pain of neuritis is more constant, and there are peripheral disturbances in the structures supplied by the affected nerve.—*American Journal of Surgery*.

Dryness of the pharyngeal wall is usually associated with an atrophic rhinitis.—*American Journal of Surgery*.

ORATION IN SURGERY.

Some Observations Regarding Recent Surgical Progress; Both as Regards Diagnosis and Technic.

S. M. Mason, M.D., Clarksburg, W. Va.

(Read at Annual Meeting West Virginia State Medical Ass'n, Sept. 22, 1911.)

I desire, in the first place, to express my thanks, Mr. President, for the honor that has been shown me and to assure you of my appreciation of the compliment you have paid in selecting me to deliver this oration.

Are we, as physicians and surgeons, giving our patients full advantage of the knowledge at our command for early and accurate diagnosis of their complaints? Do we habitually insist upon a careful history and physical examination with the aid of all the instruments of precision obtainable?

I do not hope to be able to add anything new or startling to the literature of this subject, but merely to bring up for consideration and decision some of the advance work that has been done in the past few years. We should take stock occasionally—inventory our knowledge so to speak. Consider what the other man of greater opportunities is doing, and see whether he has anything in his methods or technic worthy of adoption. Do not seek the new because of its newness, but because it is better—an improvement.

To read you statistics of operations performed and cures recorded is not only without interest but often very misleading. That a pathological specimen has been removed and patient has survived the operation gives but meager idea of the actual benefit received by the patient. How much improved was the condition of the patient by the operation, is the real question? The responsibility of surgery does not end with the discharge of the patient, minus a portion of his or her anatomy, from the hospital. The end results are what should concern us.

Most of our advances in late years have come as a gradual evolution from the hands of those doing actual work; studying conditions and results before, during and after operation, aided by the use of the

X-ray, the microscope and other means of precision. Thus Kocher, the Mayos and others have taught us that exophthalmic goiter is best treated by surgical means. The orthopedic surgeon robs acute anterior poliomyelitis of most of its cripples by tendon grafting. Lane of London, has come forward advocating the open operation and permanent fixation of all fractures of long bones; Cushing has added greatly to our knowledge of brain diseases by the decompression operation; the Mayos have successfully demonstrated "Innocent Gall-Stones a Myth," and proven beyond a doubt that many of the classic symptoms of chronic gastritis are in reality symptoms of gall stones.

On the other hand, neither the medical nor surgical investigators have established or discovered the etiologic factor of cancer; hence we have yet to offer a mutilating operation as the best treatment. The perfection of technic has so greatly reduced the operative mortality and number of recurrences that even here we find encouragement.

The medical profession and laity are just beginning to rally from the startling announcement of Ehrlich that he had discovered and given to the world a specific for syphilis, heretofore the most loathsome and dreaded of venereal diseases.

You may claim that most of these are but temporary lights that illuminate the horizon; that they will soon fade as did Edebohl's operation of decapsulating the kidney for Bright's disease; or that such results are not within the attainment of the humble West Virginia practitioner. However, I wish to call your attention more in detail to the difference in the attitude of the surgeon in the past few years to the conditions or diseases affecting the organs of the upper abdomen and the thoracic cavities.

By constant, careful inspection in numberless cases of gall-stones, gastric and duodenal ulcer, and gastric cancer the surgeon has been able to demonstrate many fallacies regarding the symptomatology of these conditions. We have learned that the symptoms of gall-stones as usually described in text books should more properly be classed as symptoms of gall-stone

complications; that we have been blaming the stomach for disturbances it did not cause. Likewise, we were recently informed in Moynihan's book on duodenal ulcer "that the symptoms of duodenal ulcer are definite, and not easily to be mistaken." He goes on to enumerate the symptoms usually ascribed to chronic acid dyspepsia, and states that upon these symptoms alone an exact diagnosis of duodenal ulcer should be made with the utmost confidence, saying "recurrent severe hyperchlorhydria is duodenal ulcer," that "this is the medical term for the surgical condition, duodenal ulcer." This is in direct opposition to the teaching of all our best authors and clinicians. It is from the pen of one who has given us two of the best works we have on abdominal surgery, and the indications are that he can substantiate his claim. However, we know that cancer develops very seldom from the site of a duodenal ulcer but very often from that of a gastric ulcer; about 60% of malignant growths of the stomach arise from a previous ulcer. It is a lamentable commentary on our present diagnostic methods that less than 10 per cent of these cases are correctly diagnosed before they reach the inoperable stage, and that often the first suspicion the physician has of gastric or duodenal ulcer is the onset of perforative peritonitis.

The conservative method at present should be that any patient suffering with persistent gastric symptoms, especially when attended with marked loss of weight, should have an exploratory incision. The incision should be sufficiently large to allow thorough examination. Then if no demonstrable organic lesion is found to account for the symptoms the wound should be promptly closed without doing any unnecessary operating.

Any one competent to open the abdominal cavity and to handle such conditions as intestinal obstruction or perforation, and who is man enough to apply the golden rule, should be capable of operating successfully on these cases. One of even moderate experience and good judgment by careful examination of the abdominal contents readily learns to detect the normal from the abnormal. The operability of many of these cases is as much dependent upon the ability and judgment of the oper-

ator as upon the condition of the patient or the lesion.

Thoracic surgery has made slow progress, due principally to the heretofore uncontrollable difference between the atmospheric pressure and the intra-thoracic pressure; that is, the pressure within the pleura and mediastinum; the great susceptibility of these parts to infection and the difficulty of approach to these operations. Experimental research along this line has been without much encouragement until the introduction of the differential pressure apparatus. I shall not attempt to discuss the theories of syncope and collapse which often attend pneumothorax. It is well known, however, that such dangerous and fatal symptoms do frequently occur in the human subject when one side of the chest is opened. To overcome or ward against this possible danger two forms of apparatus are in use; the positive and the negative pressure apparatus—or sometimes a combination of the two methods. The former aims to increase the intrapulmonic pressure, the latter to decrease the atmospheric pressure on the surface of the lung. The methods differ but the results are apparently the same. It may later be shown that one or the other method has its points of preference in certain cases. It may be accepted that those doing surgery upon the thoracic viscera must soon equip themselves with some form of differential pressure apparatus. It is hard for me to believe, but it is earnestly claimed, that by means of this apparatus exploratory thoracotomy is as safe today as exploratory laparotomy. At any rate all the large German clinics are equipped and in this country Meyer, Green and Janeway, Lilienthal and some others have been using some form of differential pressure for a year or more. The injured lung has been explored, the bleeding vessel ligated, the lung and pleura sutured and the wound closed with recovery of the patient.

We find the Germans, as advocated by Frederick, deossifying the chest wall over unilateral cavernous tubercular lesions. He recommends this treatment in cases of unilateral pulmonary phthisis where there is a large cavity, but not in cases where "the other side is simultaneously affected with active progressive foci." His opera-

tion consists of thorough ablation of the ribs of the affected side, sometimes leaving the first rib and the retrocostal periosteum.

The heart has likewise come in for its share of operative attack, and we have, according to Brewster, reports of 177 cases where the wounded heart has been sutured by 134 different operators with 71 recoveries. Not a bad showing if we could be as sure that we have all the fatal cases as we are that all the recoveries have been duly reported.

What may we expect to be the progress in the next ten years? A very few years ago little elective surgery was done in this state outside the city of Wheeling: today almost every community has one or more men doing major surgery with very credible results. Why should apoplexy not be as operable a condition as depressed fracture, strangulated hernia or hemorrhage elsewhere? Will we be operating upon organic heart and lung diseases? Will we not have some way of differentiating tissues by an improved X-ray or other means that surgical attack may be directed in a more hopeful period? Or shall we see the internist discover some serum or drug cure for these conditions and leave the surgeon with only plastic surgery as a field?

SURGICAL SHOCK AND OTHER DISTRESSING DISEASES FOL- LOWING ABDOMINAL OPERATIONS.

A. K. Kessler, M.D., Huntington, W. Va.

*(Read at annual meeting of W. Va. State Ass'n,
Sept, 1911.)*

In the short time that is mine, I feel that I can but briefly touch the edges only, of the subject assigned to me.

The subject in hand takes me back a score of years, to the time when I was but a beginner in the surgical field. Although twenty years is not a long period at best, it is long enough to carry one back to the pioneer days of abdominal surgery in West Virginia. In the year 1890 there were fewer than thirty abdominal operations performed in this state, while during 1910—twenty years later—there were two thousand nine hundred and fifty-eight per-

formed. In this same period hospitals have grown from two small ones with about forty beds, in 1890, to forty-three hospitals with two thousand four hundred and eighty beds in 1910. I do not mean to say, however, that only thirty West Virginians submitted to the knife in that earlier year—others there were who went outside the state to have such work done. What I wish you to understand is, what the medical profession and the public owe to the hospital industry of the state, if you will permit me to term it such, and at the same time to recall to your mind what hospitals have done for the medical profession and the state, and by contrast, compare the surgery of that day and this.

Twenty years ago the science of surgery and the skill of the surgeon were an unknown quantity, and were imbedded in as much darkness and surrounded by nearly as much ignorance as they were ages before. Surgery was just beginning to come into its own; just beginning to see the light that other schools of knowledge had seen centuries before. In those days hospitals as we know them now were unknown; what little knowledge the public had of them was indeed not to their credit. The general public feared and loathed them; they knew the hospital only as a place of torture—the place to which many went but from which few returned. They bade their fellows shun them as they would the plague or pestilence. Even to this day, with many even among the better classes, this idea still prevails; we have not lived it down, they still shun and dread the hospital as the worst known evil that may fall to their lot: they still live in memories of days that have passed.

The surgeon's knife was a terror to them, and spelled the same meaning that the rack or wheel did to the unfortunate of old. It was to them the means whereby the wielder of the instrument gained in experience at the cost of him who submitted to its touch. Many times they were right, their fears well grounded. Even at this late day, many of us climb to success gained by experience acquired at the cost of those who put their trust in and submitted themselves to our keeping.

On the other hand it is true, if progress is to be had some one there must be who

will blaze the trail. In those early days he who did so received but little credit either way; if he won, it was by accident; on the other hand, if he lost it was no more than what was expected; every community had its "I-told-you-so" citizens, and the offense was but little less than murder.

I know there are among you those who have heard it called in the harsher term. Ephraim McDowell, the pioneer of abdominal surgery, knew to its full (as do many of you), what this taunt meant, for when he did that first ovariectomy, fearless of consequence, facing what he faced, knowing well what failure meant, it is said that he was surrounded by an angry mob awaiting his failure; notwithstanding, as courageously as any christian martyr of old, he responded to the call of duty and builded a pathway over which so many since have trodden to bring to their patients relief and happiness and results which, before his day were, through ignorance, considered attainable only by the handiwork of God. And so it is, the progress of the world goes onward, the impossible of today is the possible of tomorrow, and who knows or even dares guess what progress will be made in the next century, or even in the next score of years. But I am digressing and must hurry on.

The younger aspirant to surgical honors among us knows not what we, of an earlier generation, had to contend with in our struggle to save those who (I might say without fear of contradiction), were saved to a further existence against their will.

Well do I remember my first operative case. It was in the back woods of good old Nicholas county. Today, when I recall it, I am amazed that the patient did survive the ordeal, and by contrast with the conditions then and now, I wonder why it is that failure, today, so often meets us face to face. It was performed in a little log cabin, on the side of the mountain, where cleanliness was unknown; the patient was a small boy suffering from intestinal obstruction. Informing the family that his only chance was through surgical interference, and after a time overcoming the scruples of the mountaineers, they consented to an operation. I began in fear and ended in trembling for the outcome. The means at hand for this abdominal sec-

tion were a trundle bed for the operating table, kitchen pans were used for solutions, absorbent cotton for sponges and dressings. My instruments consisted of one scapel, a hemostat, one tissue forceps and a pair of scissors. A freshman medical student gave the anaesthetic, and as for the rest, I assisted myself. When I closed the abdomen and applied the dressings I gave a sigh of relief and thanked God that my patient was still breathing; but I found my "sigh of relief" was a little premature—my task had just begun. To begin with I found the patient suffering with severe shock which required all my meager knowledge to overcome. Then came that distressing cry for water, followed by nausea and vomiting which continued for about twenty-four hours, and then it was that the "bugbear" that all surgeons fear and dread showed its head; the patient's abdomen became so distended with gas that, in my ignorance, I thought he would surely burst, and that this could mean nothing less than peritonitis that soon must end in death, and at the same time end my career as a surgeon. But nature was kind and allowed the young mountaineer to rally, and much to my surprise his recovery was in a short time complete.

Notwithstanding the advantages that a modern up-to-date hospital affords, we still have with us, quite often, those distressing conditions which we looked for and expected in days gone by; conditions that should in this day, be noted mainly by their absence.

This brings me to inquire why such things are so and how their occurrence may be prevented.

Surgical Shock—First in importance, to my mind, is the prevention of shock, recognizing at the same time that notwithstanding the utmost precaution, it will now and then appear where it is least expected. Shock is found to result mostly in that class of cases where the operation has been prolonged and extensive trauma produced. Loss of blood, it is true, will bring on shock, but I believe it is more often produced by extensive handling of the peritoneum and abdominal viscera and prolonged narcosis than from loss of blood. This last, I consider, is unnecessary if the least precaution is taken, for *bloodless*

surgery is no longer a theory—it has become a fact. Therefore, when we consider the cause of shock, it is apparent that prevention is more important than treatment. The administration of small doses of strychnin three or four times daily for a few days previous to the operation is a valuable preventive. Especially is this true in weak patients. A hypodermic of atropin and morphia one-half to one hour before the operation is also a valuable adjunct in preventing shock. I find that it calms the nerve centers and that much less anesthetic is necessary where it has been given than in cases where it has not. Also, the atropin dries up the secretions and prevents the accumulation of mucus in the throat and larynx which is so annoying during ether administration.

The treatment for shock should be directed toward a re-establishment of an active circulation and restoring animal heat to the body. The head should be lowered and hot water bottles applied; normal salt solution should be given per rectum, subcutaneous, or intravenously according to the severity of the case. In severe cases adrenalin chlorid solution may be added.

The next thing I wish to consider is thirst and nausea. These, like sea sickness, will appear in many cases regardless of previous preparation and oftentimes prove as unyielding to medical treatment.

As a routine, in the Kessler Hospital, as soon as the patient arouses from the anesthetic, we have him gargle and rinse the mouth with cold water to which has been added a little lemon juice or vinegar. This cleanses that tenacious mucus from the throat which is one of the great factors in producing nausea and its sequence vomiting.

All liquids are withheld as much as possible for eight to ten hours. If symptoms are severe, a small quantity of hot peppermint water is given every thirty minutes. If this does not afford relief, an enema of normal salt solution is given, followed immediately by a hypodermic of morphia sufficient to produce absolute rest for a few hours; this, followed by a cup of hot water or tea, usually relieves further trouble.

Acute Gastric and Intestinal Dilatation—This is one of the most frequent and troublesome complications we have, following

abdominal operations, sometimes becoming so severe as to cause great discomfort and seriously interfere with the circulation and respiration. I have invariably found this condition in cases where there has been a prolonged operation and excessive manipulation, causing intestinal paresis. Fermentation takes place (sometimes augmented by large quantities of water taken into the stomach), resulting in an over-distention or dilatation.

The most effective treatment that I have found in these cases is to wash out the stomach with a solution of bicarbonate of soda. Following this with large doses of charcoal every two or three hours usually prevents further trouble in this region. For the intestinal distention, a rectal tube introduced to allow the gas to escape, and an enema consisting of milk of assafoetida, four ounces, to twelve ounces normal saline, repeated every three or four hours, is usually effective.

In summing up post operative conditions, I find the worst results are experienced in cases that have undergone a prolonged operation. Many surgeons think that as long as the patient is taking the anesthetic well they are at liberty to consume all the time they deem fit to complete their work. This is a mistaken idea; the sooner the task is done and the less the trauma produced, the less chance there is for these conditions to develop. I must therefore make a plea for rapid surgery. Learn to make haste. Do what is to be done as quickly as possible, and know when to quit.

Patients who show a progressive loss of vocal power should be examined most carefully for an intralaryngeal condition. An acute aphonia may be due to an inflammatory condition or paresis of one cord; alcoholism, syphilis, tuberculosis and malignant disease bring on a chronic condition. Two most important causes of chronic laryngitis are thickening due to an old inflammatory process and the presence of a small, hard, nodular tumor on one of the cords, *e. g.*, fibroma.—*American Journal of Surgery*.

Vomiting in an insane person should always prompt an examination for hernia.—*American Journal of Surgery*.

A FEW FACTS CONCERNING LODGE PRACTICE AND MEANS OF ABOLISHING SAME.

J. Nelson Osburn, Martinsburg, W. Va.

(Read before the annual meeting of State Med. Ass'n, Sept. 1911.)

Martinsburg, a town of 10,698 population, is situated in the Eastern Panhandle of the state, in Berkeley county. The town has two railroads, the main line of the B. & O., and the Cumberland Valley. The B. & O. has large shops located there, where some 250 men find employment. There are two knitting mills and one woolen mill, giving employment to about 1,000 girls, boys and men. The town is surrounded by limestone quarries, which employ about 1,500 men. The county is very fertile, the land producing good crops of wheat, corn and hay; but the boast of Berkeley is its very fine apples, of which it produces thousands of barrels annually. There are other industries of minor importance—carriage and wagon factories, cider mills, candy manufactory, etc. I think from the above the casual observer would judge the people of this community to be very thrifty and well-to-do, which we also think is the case.

In Martinsburg are three lodges, namely, the Moose, Eagles and Owls, whose chief object for existing, as far as I can learn, is to give cheap medical attention to their members. They also have a sick benefit of three dollars (\$3.00) per week, I think. The Moose has approximately 500 members, the Eagles 125 and the Owls 75, making a total of 700. These seven hundred men, together with their families, number about 2,500. Among this number may be found lawyers, merchants, railroad men, laborers and some, but by no means all, of the well known "dead beats." A very large percentage of these people are well-to-do, and perfectly able to pay legitimate prices for medical attention, but can one blame them for taking advantage of securing medical attention for themselves and families for \$2.00 per annum? I do not blame the people at all, it is the profession I blame for allowing themselves to be robbed in such a manner.

One year ago these lodges employed two men of high professional standing and members of the county and State Associations, to look after the sickness of their members. These men received \$2.00 per annum from each member, whether married or single, one of them having the contract for the Moose, the other for the Owls and Eagles. I know the physician who had the contract for the Moose and from him I gathered most of my information. He told me that while he had the contract he was worked to death; the members would send for him for anything, no matter how trivial, at any time in day or night. At \$2 per annum from each member he was receiving about \$1,000 a year from them, and for this \$1,000 he was giving them \$4,000 worth of attention. Besides giving them this attention he had to furnish a large part of the medicines, thus pulling his receipts down considerably. The other physician who had the contract for the Owls and Eagles told me he would not have the contract back at any price, as some of the members thought they *owned* his services for \$2.00 a year, and would become very indignant if he did not respond to their calls immediately. January last, these two men gave up this work and both say they would not have it back under any consideration. The physician who had the contract for the Moose told me that an average of \$20.00 a year for attention to each member was a conservative estimate. At this average the physicians doing this work are giving \$14,000.00 worth of attention and receiving for the same the small sum of \$1,000.00.

Don't you think that it is time that the medical profession was awakening from its deep sleep, and going on a hunt for this lost \$13,000.00? We work for little enough, without being robbed in such a manner.

Today this work is being done by two men, who, however, have no professional standing and do not belong to any of the societies. One, a man of 50 years, formerly practiced in this state, afterwards in Oklahoma, whence he came to Martinsburg, May 1st, having answered an advertisement in one of the Baltimore newspapers. He took the contract to look after the members of all three lodges for the small sum of \$1,000.00 a year, with the

privilege of employing an assistant at \$500.00 a year. When he arrived, we called on him and tried to induce him to give up his contract and open his office on the same footing as the rest of the profession, but this he declined to do. About June 1st the assistant put in his appearance, in the shape of the former's son, who has been a medical student for the past six years and has not graduated yet. This young man has been practicing in our state since that time unhindered.

Pardon a slight deviation, but it might be of interest especially to the members of the State Board of Health, if any be present. Two weeks ago I encountered a man on whom this young undergraduate had been practicing. This patient is not a member of any of the lodges and was suffering from rheumatism of the shoulder, so he said. This man paid for his prescriptions and treatment from the undergraduate, which, of course, we thought was in violation of the laws of the state. I reported this to the prosecuting attorney, so he drew up an indictment against the "physician," and he was supposed to be brought before this term of the grand jury. We were summoned, the patient, the druggist who filled the prescriptions and myself. When the grand jury met the patient and I were the only ones who showed up. We were sworn and told to go home, that they would send for us when wanted. I had an emergency call and was out of my office for one hour. During this hour they wanted me, so I went to the court house immediately after my return to my office. I got there and found none of the other witnesses, so asked concerning them. I was told that they had not been sent for. I requested that they be sent for; they sent for the patient and he came. I told the prosecuting attorney we were ready. He went in, had a talk with the jury, came out and said they had closed the case, as they could get no evidence against the man. Mind you, they closed the case after hearing no one, and I was the only one they had sent for, none of the other witnesses being summoned when the case was called. The following day I asked the prosecuting attorney what he was going to do. He said nothing. I asked him if it was not a case which the state should investigate and he

said "yes," but the jury has turned it down! I then told him I thought it a pretty bad condition, when the grand jury and prosecuting attorney were afraid of the lodges, because in doing their duty they might lose a lodge vote. He said the only way he could explain it was that there must have been some lodge men on the jury and they thought it was a case of persecution against this man. He said he might later get it called before a justice of the peace, but for me to understand that he was not afraid of the lodges or the medical profession either. I told him to do as he pleased, as it was his duty, not ours to prosecute. Gentlemen, it is a sad condition that the lodge should control our juries and public officers, but what more can we do?

To get back to the subject proper. These two men are not eligible to membership in our county society, the Eastern Panhandle Medical Association, their patients to admission in either of our hospitals, nor the doctors to consultation with any of the physicians in Martinsburg. They are not recognized professionally at all, but with all this they go about their work as happy and contented as any one.

The members of the lodges, naturally, are fighting the organized profession, as it was we who induced their physicians to give up this work last January. For example, three of our members applied for the position of school examiner along with the lodge doctor. When the appointment was made, the lodge doctor had won out. How very simple. Three out of the five members of the school board are members of the Moose lodge, and naturally took this opportunity of giving us a slap in the face. I think this is an insult to the organized and ethical profession of the state, or at least should be an indication of the great strength the lodges are coming to have, and of the need for taking some radical means of preventing any one of our profession from accepting such contract work.

As to the best means of abolishing this work, I am at a loss to know. I'll cite briefly the steps we have taken. Just about a year ago we called a mass meeting of the profession. At this meeting the contract practice for lodges was discussed and the following resolution passed:

WHEREAS, We recognize the fact that contract practice for fraternal societies, orders and lodges, is wrong in principle, being injurious and harmful alike to the public and persons receiving treatment under such contract, and an injustice to the medical profession, in that the physician cannot occupy that place in his own and the public's estimation to which he is entitled; therefore be it

Resolved, That we, the members of The Eastern Panhandle Medical Society practicing in Jefferson, Morgan and Berkeley counties, pledge ourselves not to enter into any contract, or agreement of any kind to do practice for any society, order or lodge, and any physician or surgeon engaging in this practice shall not be eligible to membership in this society, and that we will neither affiliate nor consult with any physician or surgeon engaging in this practice.

This resolution was signed by every physician then in Martinsburg, and January 1st the contracts were cancelled. The two doing this previously did continue in the work, but were charging the lodges regular fees and were being paid the first of every month by the treasurer of the different lodges. This we thought a bad arrangement, as they would soon be back at their old prices, so after discussing it they agreed to give it up entirely April 1st. In the meantime the lodges advertised in the papers, among them the Baltimore Sunday papers. This advertisement was answered and the work taken up by the present lodge physician May 1st. On his arrival we called on him, explained the steps we had taken, and tried to induce him to give up the work. He refused and is still doing the practice.

This practice is robbing us of thousands of dollars annually, and some radical steps must be taken to overcome it. The only possible way I see of doing so is to make the acceptance of such a contract sufficient grounds for revocation of license. This is the only way it will ever be broken up in our section, and I sincerely hope that it will not be long before some steps are taken by the State, and hence stop this great lessening of our annual income.

In a child presenting symptoms of tuberculous disease of the cervical spine, it should be remembered that other conditions, such as torticollis, inflamed lymph nodes, and sprain of the cervical ligaments, are capable of giving similar symptoms.—*American Journal of Surgery*.

HYPNOTISM AS A THERAPEUTIC AGENT.

H. R. Fairfax, M.D., McComas, W. Va.

(*Read at annual meeting W. Va. State Med. Ass'n, Sept. 22, 1911.*)

By a mixture of scientific and idle curiosity I have been impelled to investigate, to find from personal experience and observation what hypnotism is and to what extent it could be used to benefit humanity if applied in medicine and surgery; and I must say that I have been agreeably surprised to find what results may be had by its judicious use in selected cases. I am not an advocate of its use in a promiscuous assembly or by one who has not given the subject considerable study. The science of hypnotism and psycho-therapeutics is only now emerging from the limbo of quackery, because for years the medical profession allowed it to be exploited by so-called "Professors," who used it as a universal remedy in all cases suitable or unsuitable; but it is now attracting the respectful attention of the profession and the thoughtful public. It is perhaps more used in France and England than in this country.

Dr. Osler, in his late work on "Practice of Medicine," recommends hypnotism in the treatment of hysteria, and Dr. Augustus Caille, in his recent book on "Diagnosis and Treatment of Disease," says hypnotism is of real benefit in the treatment of asthma. The many authentic and well attested accounts of its phenomena, which at times have been so extraordinary, have aroused intense interest in them.

Hypnotism and suggestion, both mental and verbal, have such enormous possibilities before them that it is essential that serious attention should be given to the study of hypnosis and medical psychology. The hypnotic influence is a silent, intangible and invisible psychic soul force which is not new, but has been known for years, and I fear sadly neglected by our profession, because it has been used and abused so often by unprincipled persons and charlatans. These pretenders have so offended and imposed upon the public that men of science have been reluctant to use the good that it possesses for fear of being

contaminated by the evil or harm that might result from its injudicious use. The British Medical Association has found hypnotism worthy of investigation, and seems to have no difficulty in reconciling itself to the course recommended by the committee appointed to investigate and report on the question. On August 12, 1900, the International Congress of Hypnotism was held in Paris. Many communications bearing on hypnotism and psycho-therapeutics were read and discussed. In all there were five hundred delegates representing many nationalities, which embraced college professors, medical and scientific men from America and Europe.

Practical hypnotism or therapeutic suggestion has nothing in common with magic or any like crafty art. It deals not in mystery, for truth and mystery are for the most part at enmity with each other.

The educated and true hypnotist and practitioner of psycho-therapeutics scorns all idea of secrecy in the science. Those who entertain a contrary feeling know nothing about its true principles. The hypnotist proceeds by a certain system which all men may learn if they will. He can not boast of infallibility or perfection in his hypnotic suggestions. Like all other methods of treatment it has its advantages and its disadvantages. There are various methods of inducing the hypnotic state, and each operator may select one or more methods to meet with his requirements. In my limited experience I have had more success with the staring method. That is, a steady gazing at either eye of the patient for about two minutes, then as the patient's eyelids begin to quiver or move, the operator in a low monotonous tone suggests sleep, the eye lids are heavy, you are getting sleepy, etc. I have a friend who is a physician who says he uses hypnotism in 40% of his cases and that he fails in about 4% of them. He has found the Luy's revolving mirror more satisfactory as a method of inducing hypnosis.

It is very important that the patient be in the most comfortable position, with all the muscles relaxed, and in a quiet location and as free from outside noises as possible, and preferably in the evening, as in the morning the nervous irritability is

decidedly greater. It is also very important that the operator and subject both keep their minds concentrated on the idea of sleep and on nothing else at the time. As a matter of fact there is no given method which will succeed in all cases; some patients will be easily influenced by one method or treatment and uninfluenced by another. The first induction of sleep is generally the most difficult. There are several stages or degrees of hypnosis; light, deep and profound.

The class presenting the least resistance and making the best subjects are college students and young men of education and of fairly all-round mental development. A few of the diseases that may be especially benefited by this instrument are sciatica, rheumatism, the various neuralgias, neurasthenia, and headaches; as an anesthetic for extracting teeth, opening boils, abscesses, etc.; in the treatment of alcoholics, cigarette fiends, and for the relief of labor and many other pains.

Now while it has its good points, it should not be forgotten that it may, in the hands of the unscrupulous and uneducated, become a very dangerous thing to handle and in a way like fire and electricity,—“a good servant but a bad master.” For the mutual protection of the patient and operator, as with ether or any other general anesthetic, the consent of the patient should be obtained and his heart examined. Never induce sleep except in the presence of a third person in authority who can guarantee the good faith of the hypnotist and the patient. Never give to the hypnotized subject, without his consent, any other suggestions than necessary for his case. The profession is much indebted to Dr. Bramwell for information concerning the therapeutic use of hypnotism. He has made extensive demonstrations of its use as an anesthetic in his clinics at Leeds, and has brought the surgical use of hypnotism prominently before the profession. Dr. Bramwell says that he has never seen any harm done by the judicious employment of hypnotism. With his extensive experience, I think he should be a good authority for such a statement.

Personally my experience has been much more limited. I have used it very satisfactorily in two obstetrical cases, a

few cases of minor surgery, and in relieving severe headaches. In one case of post-operative pains (if you will excuse the personal allusion), my wife was operated on recently for appendicitis. There were many adhesions, and as a result considerable after pains. She was unable to sleep and opiates excited her or failed to give restful sleep. I suggested hypnotism and with her consent it was tried. In a very short while she was enabled to get two or three hours of very restful sleep. This was repeated several times when necessary. My object in selecting this as a subject was to revive interest in this valuable therapeutic agent.

Hypnotic suggestion is a psychological treatment, and to use it successfully demands tact, judgment, medical knowledge of one's patient, or in the words of Dr. Felkin, a firm will, unlimited patience and a calm temperament. It will never be more efficaciously applied than by the trusted family physician, and in his hands it will be free from risk of abuse which might otherwise attend its extensive employment.

THE VALUE OF EARLY DIAGNOSIS IN CASES OF MENTAL DIS- EASE.

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W. Va.

(Read at annual meeting of State Med. Ass'n,
Sept., 1911.)

It is to physicians in general practice that these cases first come. Upon you, therefore, is placed the responsibility, in many cases, where the condition becomes permanent. I realize the great difficulty experienced in dealing with these patients and the relatives who can not think, and are rarely convinced until too late, that slight mental aberrations may be portending to a very serious condition.

Given a woman in the later months of pregnancy with persistent headaches, albuminuria, even though slight, etc., who among you would not "get busy" to prevent, or at least endeavor to prevent, uremia?

So it is, gentlemen, in psychiatry. You should be alive to the slight derangements of the mental functions, if you would be on the side of safety. I firmly believe that the majority of cases of insanity are curable in the beginning, if the danger signals of incipency are heeded.

I have been asked if it is not true that a great many cases are seen by men in general practice, whose period of mental ill is so short or their symptoms so mild, that they recover even though nothing is done for them. I would agree that in some cases this is true. But who among us is so omniscient as to tell how the mildest cases, apparently, are going to terminate? We see many patients who are insane if we consider insanity as being a "departure from the individual's normal standard of thinking, feeling and acting," yet their trouble is transient. Still we must not fail to recognize the serious import of these vagaries among our patients and give them the immediate attention that their seriousness demands.

The derangements in the functions of the brain may be dependent upon diseased conditions in other portions of the body. On the other hand the brain and nervous system are no more immune to slight derangements of their functions than is any other part of the organism. This is evidenced by cases with mild symptoms, such as vague fears and so on, that soon recover and in which you will be unable to trace any actual physical cause.

Now do not understand from this that I regard any of these things as being of no moment. Physicians are too prone to follow the lead of the laity and just laugh off these worries and troubles of their patients, not realizing that they have a beginning case of insanity on their hands, careful mental and physical treatment of which will result in cure; a neglect will result in possibly a terminal dementia or some one of the chronic types of mental disease. Dr. Carl W. Sawyer in a personal communication, very succinctly states this idea; "that they (physicians) should weigh very carefully all the little vagaries of their patients, and that it is a thousand times better to take into consideration some trivial action, and later find that it does not amount to anything, than it is to let them go by and

eventually realize that they have a very serious mental case on their hands."

As to what the indications of beginning insanity are, it would take far more time than is allotted to this paper to go into the various types of mental ills. You will find that these patients will show some deviation from *their* normal standard of thinking, feeling and acting. The reception of percepts, or the ideas formed from the association of the percepts received, are not normal ones; a normally quiet, reserved person becomes loquacious; a cheerful, sunny disposition becomes taciturn or querulous. The abnormal actions of these patients will be found to result from the derangements of their thoughts and feelings.

It is just here that the family physician has the advantage of the alienist, for he knows the man as he is, what his habits are, that is how he has normally thought and felt and acted. He is thus in a better position to detect any departures from the patient's usual self, in the incipency of mental derangements.

While it is true, as stated above, that some cases are so mild or short-lived that they recover, even without treatment, still this is very dangerous to count upon. A mild psychosis following some infection, e. g., typhoid fever or influenza, may pass off; still, if neglected it may result in a chronic type of insanity. The vagaries of a woman at the menopause may right themselves; neglect them and we may have a permanent mental invalid as a terrible monument to our carelessness and neglect. Backwardness and so on in a child may indicate that the activities of the thyroid gland are deficient; that the eyes need careful attention, or that it has adenoids; neglect these things and an idiot or imbecile results. So it is through the whole list. Many cases are, as has been stated above, curable if diagnosed and treated in their incipency; neglected they become hopeless mental wrecks.

Then we should not lose sight of the fact that some mental ills give rise to delusions and hallucinations which may be the source of untold trouble to the relatives, to the patient himself and to the state. I have only to mention paranoia, paresis and some of the adolescent types of insanity, to call to your attention the wasting of

money, dissolute lives, theft, arson, murder and so on. If attention had been given to mild vagaries which are remembered too late, these things would have been avoided. Not by cure, I grant you, but by taking steps in advance to forestall such catastrophes.

In a paper, "The Examination of Insane Persons and Their Commitment to Asylums," which was published in the Journal of our State Association year before last and in my paper last year, the matter of committing patients to the state hospitals was dealt with. I have nothing more to say along that line, only to repeat that if you can not give the patients the attention and treatment which their condition demands, send them to a sanitarium or a state hospital at once. Do not let their condition become hopeless, and then tell the relatives that if they are sent to us they will be cured in a few weeks. It is an injustice to the patient, to the relatives, to yourselves, and finally to us, who will have the brunt of their criticism and dissatisfaction to bear.

THE SPHYGMOMANOMETER IN LIFE INSURANCE.

John L. Dickey, M.D., Wheeling, W. Va.

(Read before the Ohio Co. Medical Society.)

In August, 1907, the Northwestern Mutual Life Insurance Company required the examiners in several of the larger cities to furnish the company with a blood pressure reading of applicants examined by them when the applicant's insurable age was forty or over. The company does not insure any one over sixty. Gradually this requirement has been extended to all localities where it has been possible to secure the blood pressure reading, so that at the present time the blood pressure is furnished in all localities in which the company does business, where it is possible to induce the examiner to secure a sphygmomanometer. The blood pressure is required, regardless of the amount applied for, in persons where the insurable age is between forty and sixty, and at any age where the medical directors deem it advisable. In the examinations made at the home office the blood pressure is taken at

all ages. They therefore have a record of 420 accepted cases under age 40 with a blood pressure average of 125. Twenty-six applicants under 40 were rejected, whose blood pressure was 150 or over.

Recently the Equitable Life Assurance Society has required the blood pressure to be taken in all applicants for ten thousand or more at and beyond the age of forty, and in all applicants of any age who apply for twenty-five thousand or more.

Some instructive statistics have been gathered from the four years experience of the Northwestern; 12,647 persons were insured, between 40 and 60, with an average blood pressure of 130.17. At ages 40-44 this average was 128.26; at ages 45-49 the average was 130.51; at ages 50-54 the average was 131.98; at ages 55-60 the average was 134.46. Showing clearly the steadily increasing blood pressure with advancing age.

There were 806 persons insured whose weight exceeded the average by more than 20%; 21 of these were under the age of forty, and their average blood pressure was 127.38; 407 of the 806 were between forty and forty-four, with an average blood pressure of 121.72; and 378 of this class were between 45 and 49, with an average blood pressure of 134.60; showing that there is a steady and constant increase in blood pressure with an increase in weight.

The mortality record of 525 persons insured with a blood pressure of 150, showed about 35% in excess of the general average for the same period.

The mortality record of 722 persons who were declined for insurance in whom the blood pressure averaged 171.03 showed a percentage of 155.27, almost four times greater than the general average of the company.

Of these 722 declined cases there were 356 in whom there were one or more other impairments than the high blood pressure. In this class the percentage was 171.93.

In the other 366 cases rejected there was no impairment except the high blood pressure, and the mortality was a percentage of 138.07. In these 366 cases the impairments that were subsequently discovered occurred in one hundred and one cases. They were arterio-sclerosis six cases; heart murmur 9 cases; heart hypertrophy 4 cases; albumin and sugar 2 cases; albumin 13 cases; sugar

5 cases; albumin and casts 33 cases; casts in urine 13 cases; nervous symptoms 6 cases; miscellaneous 10 cases.

The causes of death in 13 cases whose average blood pressure was 151.71, were as follows: Apoplexy 1, arterio-sclerosis 1, appendicitis 1, cancer of liver 1, duodenal ulcer 1, pneumonia 2, prostatic hypertrophy 1, railway accident 1, acute rheumatism 1, suicide 2. The causes of death in 32 cases who had been rejected because of high blood pressure, 183.61, were: angina pectoris 2, aneurism of aorta 1, apoplexy 7, arterio-sclerosis 1, appendicitis 2, cirrhosis of liver 2, heart disease 7, nephritis 8, suicide 1, Stokes-Adams disease 1.

Of course four years is a short period in which to gather reliable statistics on the subject. But enough has been learned to demonstrate the importance of considering blood pressure in selecting risks for life insurance. It will probably not be long till all the progressive companies insist on the use of the sphygmomanometer in examinations for any amount and at any age.

Selections

THE TREATMENT OF UNDESCENDED TESTICLE.

A Review of Recent Literature.

By John R. Caulk, M.D., of the Editorial Staff of Interstate Med. Journal.

Judging from numerous operations which have been proposed for the relief of undescended testis, it is evident that an ideal method has not been obtained. The operation which has enjoyed the best favor and has secured the most satisfactory results is the one proposed by Bevan in 1903. Within the last year, Moschcowitz has reported a series of excellent results which were obtained by this method. In spite of this and similar reports, we find that our supply has not been exhausted as a very ingenious method has recently been proposed by Davison of Chicago, which seems to be a most sane and scientific procedure. Concerning the surgical pathology of this malady, a few words may not be amiss. The body of the testicle is usually smaller and softer than its fellow, but preserves the so-called testicular feeling. It is gen-

erally quite movable, and in many cases it has a distinct mesentery. The epididymis is as a rule well developed. The vas deferens is always of sufficient length. This is a very important point, as great stress has been laid on the vas deferens as an important factor in the retraction of the testicle after operation, but this has been disproved. The Bevan operation gives evidence that the vessels are at fault and as a rule the vas is not the offending agent. Katzenstein recently made the assertion that the vas is the important factor in the retraction of the testicle. The processus vaginalis has been claimed by some surgeons to be an obstacle to the replacement of the testicle at operation. Moschcowitz thinks this erroneous and gives the following reasons why:

1. It does not take into consideration the different lengths of the sac.

2. The testis is in reality a retroperitoneal organ, and its motility cannot therefore be affected by something outside of it.

3. Even when the neck of the sac is freed and ligated, the testis is no nearer to the bottom of the scrotum than before.

4. The most practical of all, he says, that he has never found the sac to give him the slightest difficulty in mobilizing the testis.

The spermatic cord is usually spread out in a fan-shaped manner and as a rule is very delicate. The vessels are poorly developed. One of the most important observations and the one on which the Bevan operation is hinged, is that the spermatic vessels are deficient in length, and apparently by the distance between the testis and the bottom of the scrotum. The scrotum varies in size, depending on the presence or absence of a hernia, and on the size of the hernia. The scrotum, however, usually adapts itself to circumstances and affords no obstacle to the operation.

Reasons for Operating—1. Every undescended testicle is accompanied by a hernia, either actual or potential according to Moschcowitz, and this requires operation.

2. The undescended testis is more subject to trauma than the normally situated one.

3. The testis possesses two functions: The elaboration of spermatozoa, and

the maintenance of the sexual characteristics. In the undescended testis it is thought that the spermatogenetic function is practically absent. This has been proven by Haines in experiments on pigs. However, the interstitial and Sertoli cells are thought to preserve the sexual characteristics. Therefore, the preservation of this function is an indication for a conservative operation. Whether or not the replacement of the testis within the scrotum restores its spermatogenetic function or not, is not absolutely proved.

4. The not infrequent development of malignant tumors in the undescended testis.

5. The liability to accidents, such as torsion of the cord.

6. Extension of a gonorrhoea or a metastatic involvement from mumps is much more grave in the undescended testicle. Extreme youth is a contraindication to the operation. The age of selection for operation varies with different operators, from three to nine.

A brief resume of the various operative procedures is as follows:

1. One of the first methods was that advocated by Langenbeck which consisted in massage, manipulation, and the application of a forked truss, to retain the testis. The results by this method were unsatisfactory, the truss causing much discomfort to the patient and retaining the hernia unsatisfactorily.

2. Orchidectomy has been done a great deal for this malady, but its objections are so apparent that they need not be mentioned.

3. Replacement of the testis within the abdomen with closure of the internal ring has been suggested and carried out. There is no advantage to this except that it cures the hernia, but the testicle is exposed to all the dangers which might befall a non-descended organ, and it is in a more dangerous locality for trouble to ensue.

4. *Shueller's Operation*—It was thought that the open tunica vaginalis was the cause of the non-descended testis, and in this operation the peritoneal prolongation is divided at the internal ring and a new tunica formed by the lower part, the testis anchored to the scrotum by sutures. This is only applicable when the testis is already close

to the scrotum. There are many modifications of this operation, such as suturing the fascial structures of the cord to the external ring and suturing the undescended testicle to its fellow on the opposite side after incising the septum scroti.

5. *Lanz's Operation*—Sutures are passed through the testis. These are passed through the scrotum and left long and fastened to a wire cage or to the thigh, the idea being to exert continuous traction in order to lengthen the cord. This operation has many recurrences.

6. *Kectley-Torck Operation*—This operation consists in liberating the testis, correcting the hernia and the fixation of the testis to the skin-flap on the thigh with the idea that the fixation will lengthen the cord. At a second operation the scrotum and testis are liberated from the thigh and the testis replaced in the scrotum. This operation has a very uncomfortable post-operative course for the patient, on account of the traction and dragging on the testis, the very awkward gait, the eczema which often develops and the danger of infection.

The Beck necktie operation according to Moschowitz at best can only hold the testis outside of the external inguinal ring.

7. *The Bevan operation*, which is the most familiar and the most satisfactory, consists in isolating and freeing of the hernial sac with closure of the peritoneal cavity in the usual way. The distal part of the sac may be cut off close to the testis, may be cut some distance from the testis, and new tunica vaginalis made, or it may be inverted and sutured. The isolation of the sac is very important, as one has to be very careful in separating it from the vas, since the ultimate viability of the testicle depends upon the artery of the vas, and, if this is injured, the result will be necrosis of the testicle. Otherwise, as Moschowitz has shown in his experiments, there is not a general necrosis but in some instances a slight central zone necrosis with the periphery in a fair state of preservation. The operation will not be described in detail, the substance of the operation being that the vessels are ligated and the vas left untouched, the vessels being the obstacle to the replacement. The work of Griffiths and Hill has shown that the artery of the vas is sufficient for the preservation of the

testicle. The results of this operation have been very satisfactory. The testicle remains low in a great majority of the cases done by experienced operators and the results have been most pleasing.

Just recently Davison of Chicago, has proposed the most ingenious method of dealing with undescended testicle. He recognizes as the main cause of the retraction, the shortness of the cord from its make-up at the internal inguinal ring to the testicle, and his method is a transplantation operation whereby the spermatic vessels and vas are brought together at the external ring instead of at the internal ring. Ligation of the vessels of the cord interferes with the lymph and nerve supply of the testicle; and he thinks if this can be obviated, as by transplantation, the preserving of the component parts of the cord means that a great deal has been accomplished. The operation is as follows:

The inguinal canal is exposed by dissection as in the Bassini operation for inguinal hernia. The testicle and cord are freed. The posterior wall of the inguinal canal is treated very similarly to the Fowler operation. After ligating the deep epigastric artery, an incision is made through the posterior wall of the inguinal canal from the external ring to the pubic bone, just beneath the site of the external inguinal ring. This destroys the internal inguinal ring and exposes the peritoneum with the vas and spermatic vessels riding on it. The vas is easily separated by gauze from the peritoneum until its desired length is obtained. The spermatic vessels are then sponged loose from the peritoneum by gauze carrying with them lymphatics and nerves which are preserved. A bed for the testicle is made in the scrotum and silk-worm gut suture is passed through the gubernaculum testis and both ends are passed through the most dependent part of the scrotum. Testicle placed in the scrotum, the posterior wall of the inguinal canal is repaired, the cord is made to come through at the lower angle of the incision. The internal inguinal ring is closed, the conjoint tendon is sutured to the underside of Poupart's ligament above the cord, the fascia of the external oblique muscle is sutured to the edge of Poupart's ligament above the cord, and the skin wound is closed. A strip

of adhesive plaster is placed around the thigh just above the knee with a flap on the inner side of the thigh. To this is fastened a thin rubber band to which the sutures form the scrotum are tied with sufficient tension to make the band taut. A light plaster-of-Paris cast to prevent flexion of the thigh and intermittent traction on the gubernaculum is employed. Davison in his article presents three patients and his results seem excellent.

THE OPEN TREATMENT OF FRACTURES—A WARNING.

Under the leadership of Arbuthnot Lane of London, it has become fashionable in many quarters to treat simple fractures by the open method. Perhaps every one who is now advocating the use of the Lane plate does not go to the extremes of the inventor and make use of it in every case, nevertheless its use is far too common. It seems such a simple proceeding to cut down on a fracture, put the two fragments in cabinet-maker's apposition, bore the necessary holes in the bone, put the plate in position, screw it home and close the wound. It sounds easy. It often is easy, more often quite difficult and involves much disturbance of the soft parts, especially in a deep lying bone like the femur. In fact, the application of a Lane plate to a fractured femur may be most difficult, usually is.

What ought to be the principles which guide us in the treatment of fractures? There are two which are fundamental, viz., the restoration of function and the prevention of deformity. If the first is secured, the second usually follows, although it sometimes happens that there is some deformity even when the restoration of function is perfect. By deformity we ought to mean visible deformity, not the deformity which is revealed by the Roentgen ray, which indeed may seem considerable, although inspection of the injured part reveals none and the functional result may be perfect. The truth is that we are in danger of putting altogether too much dependence on the Roentgen ray. It has been an invaluable agent in diagnosis and treatment. By its means unsuspected fractures have been discovered, malpositions corrected and our general knowledge of the sub-

ject much increased. The Roentgen photograph, however, is but the record of a shadow and invariably exaggerates the deviation from exact apposition. It is evident that the nearer the tube is to the injured part and the further away the fractured bone from the sensitive plate, the wider will be the resulting shadow and the greater the error. In our enthusiasm, our praiseworthy eagerness to get exact apposition of the fragments we have been, some of us, led into extremes. We ought to recollect that we cannot deal with the human frame as a cabinetmaker does with a broken piece of furniture. We must always reckon with infection and until we have a certain defense against even the possibility of infection we ought not to make use of Lane's method as a routine procedure. The general practitioner, particularly he who is remote from the great surgical centers, ought, before he is tempted to turn his operating table into a carpenter's bench, to ask himself two questions. Can I secure restoration of function by the closed method? Can I secure this without noticeable deformity? If the answer is in the affirmative, it behooves him to keep away from the knife, the gimlet and the screw-driver and this is equally the duty of the greatest surgeon in the land. What we are after is the result, and if this can be secured by a method or methods which afford perfect safety, we ought never to abandon them for a method which has grave dangers and which in the end accomplishes in the vast majority of cases no more for the patient than the older and simpler way which is devoid of all danger.

Perhaps the enthusiast points to the success which has attended the open treatment of a particular form of fracture, that affecting the patella, as an argument for the routine treatment of all fractures by similar means. In the first place, the closed method in this form of fracture almost never brings the fractured surfaces in apposition on account of the interposition of the torn capsule. Secondly, loss of limb and loss of life have both resulted from the open operation in this fracture because of a complicating infection. No argument of value can be made on this ground.

The question was thoroughly discussed at Denver in June, at the meeting of the

American Surgical Association. Several unfortunate results were reported following infection and one death from shock as a sequel of the open operation. If such accidents could happen to men who are masters in surgery, what may the rest of us expect if we are going to throw ordinary prudence to the winds and resolve to plate every fracture? Infection is much more likely to happen in these cases than in any other clean case, because of the traumatism to which the tissues are subjected. The use of gloves and the Lane bone holders will diminish the chances of infection but never entirely prevent it. Let us also bear in mind that when we get infection after such an operation we are then called upon to deal with an infected compound fracture, quite a different affair from an ordinary and even extensive wound infection restricted to the soft parts. Until we can prevent wound infection by a prophylaxis as certain as the method of Jenner against smallpox, the use of the open method should be restricted to (1) Ununited fractures which have resisted the usual methods. It is justifiable to assume an extra risk in such cases because the loss of function is absolute. (2) Cases of vicious union resulting in loss of function or great deformity. The two usually go together. (3) As a primary measure where the bones are already exposed in a wound. (4) In those oblique fractures in which the upper and lower fragments slide well past each other and cannot be kept in apposition by other means. Finally, let us remember that, when we use the open method, its application requires the highest degree of technical skill and the best facilities of a modern operating room. Even under these circumstances disaster may follow.—Editorial in *N. Y. State Jour. of Med.*, Nov.

Every operation on the stomach should be preceded by a careful examination of all the organs which might harbor diseases having similar symptomatology. A differential surgical diagnosis at the time of operation is quite as essential as a differential medical diagnosis before operation.—*W. J. Mayo.*

Torticollis after adenoïdectomy means a post-operative infection.—*American Journal of Surgery.*

THE DIVISION OF FEES EVIL.

The evils of fee division are so patent that they need little comment. In certain communities they have been growing so rapidly, however, that the local medical organizations have had to consider the whole subject with the object of solving a problem that is becoming serious in the extreme. It is easy to understand the development of the practice of dividing fees. The difficult part is to find any excuse for it. With the overproduction of medical men during the past twenty years, and the gradual shrinkage in physician's incomes, the struggle for business has been getting keener and keener. The growth of specialism has been a prominent factor in the situation and with the growing custom of the general practitioner to send his eye cases to the eye specialist, his skin cases to the dermatologist, his female patients to the gynecologist, his surgical cases to the surgeon, and so on, it is not to be wondered at that sooner or later the general practitioner saw his income dwindling so fast that he became panic-stricken. With bills for every day expenses presenting themselves with the same regularity, but with one-half or one-third the income to meet them, the situation rapidly became acute. What more natural move on the part of the general practitioner than to seek some personal gain from the specialists he was patronizing? He found the specialist in many instances ready to meet him more than half-way, for competition was constantly increasing. Thus a goodly number of physicians began the reprehensible practice of soliciting a commission for each patient sent to a specialist, or a definite portion of the fee received. As the matter has progressed many specialists have openly vied with each other by offering even as much as one-half of their fees! To a great many the whole affair has doubtless appeared as nothing but a simple business proposition. In all fairness therefore to many who have accepted or given commissions for patients referred by or to them we are ready to admit that they may have seen only the business side of the question. When we remember how extensively the profession has been recruited from young men who previous to graduation were engaged in active business pursuits, there can

be still less surprise that the transaction has been regarded as merely legitimate business enterprise. But looked on from professional standpoints and in the light of the special relation which a physician bears to every patient who consults him, the practice of medical commissions or division of fees is absolutely indefensible. The instant a physician allows the question of personal gain to enter into his recommendations in a patient's behalf, just that instant he becomes false to the fundamental principles of professional medicine. The patient may not lose anything, his interests may not suffer at all, but the possibility that any other consideration than the patient's needs may temper his physician's advice immediately surrounds it with doubt, fears and uncertainty. It is agreed that confidence and belief in a physician's judgment and advice are all important, for without them his influence is gone. These can only exist as long as a patient feels certain that his physician's judgment and advice are wholly and absolutely free from any limitation or restraint. By allowing the factor of self-interest to come first and jeopardize a relation that is so essential to medical success, the physician is not only endangering his own welfare but is sacrificing that which makes the practice of medicine a profession—a calling—instead of a business or commercial enterprise. Another element enters the situation, moreover, for the patient usually knows nothing about the commission or consideration which his doctor gets from the specialist. Since the transaction is kept hidden and secret, deceit and dishonesty characterize the affair and still further jeopardize the relations that rightly exist between physician and patient. No matter how the proceeding is viewed, therefore, it cannot be squared with right and honesty. The division of fees, the giving or accepting of commissions, or any other method to the same end is not only unequivocally wrong but thoroughly degrading. Unless this evil is sought out at once and promptly eradicated, the harm that will be done to honest medical practice will be immeasurable. It is a type of graft, and since graft injures everything and every one it touches it cannot be destroyed too soon, nor too completely.

Fee dividing has by no means been con-

finied to the impecunious or lowly members of the profession. That the evil has been fastening its tentacles on some of the leading physicians and surgeons of the land has been well known for some time. Of especial significance is the recent discussion of the subject by the Erie County Medical Society, and still more recently the resolutions passed by the New York Academy of Medicine. When a body whose membership is as carefully chosen as this last named organization finds it necessary to condemn an evil openly and notify its members that evidence of its practice will lead to expulsion, there can be little doubt that the situation has become serious. Within the past two months we have had offered to us by an investigator who has been studying the medical commission evil, a mass of sworn evidence that was astounding. The affidavits, something like eighty all told, covered actual occurrences in Chicago, New York City, Buffalo, St. Louis, Philadelphia and one or two other cities. The names of the surgeons who have secretly been giving commissions or a portion of their fees will shock the profession, if they are ever published. It is inconceivable how men who have posed as leaders in every upward movement for the betterment of the profession, could stoop to practices so reprehensible and stultifying.

Although strong pressure was brought to bear on us to print the evidence submitted, the specious argument being that publicity was the only effective way of overcoming the evil, we declined to lend our pages for the presentation of material that must necessarily prove so destructive to not a few reputations. Possibly some other publication may think otherwise, and deem it proper to expose the evil-doers. Frankly we feel that nothing is to be gained by serving evidence of scandal and wrong-doing to our readers, except possibly a little notoriety, and we do not aspire to further our journalistic progress by scandal-mongering. Such a course is contrary to our aims and policies for it is essentially destructive—and nothing else. We believe there is a better way, a constructive course which consists of creating so strong a sentiment against the practice that no physician with an iota of self respect will be a party to it in any way, shape or fashion. Once let

it be thoroughly understood that fee splitting or the giving or taking of commissions means professional ostracization, and no man who prizes his position *within* the profession will care to endanger it by a practice that will leave him so little self respect.—Editorial in *American Medicine*.

Correspondence

AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS.

CHARLESTON, W. VA., Dec. 16.

Editor W. Va. Medical Journal.

As a member of the American Association of Obstetricians and Gynecologists, I attended the annual meeting in Louisville, which took place shortly after our own state meeting at White Sulphur Springs. The association has members from most of the different states and a number from Canada as well. However, the bulk of the membership comes from the central and eastern states. Dr. Robert T. Morris, of New York, Dr. Carlton C. Frederick, of Buffalo, and the late Dr. Joseph Price, of Philadelphia, were leading spirits in the founding of this society whose membership is limited to 125. Most of the meetings of the recent session were held in the commodious new Seelbach Hotel. The local members entertained the society at lunch at the Louisville Country Club, which is situated six miles out of the city. The beautiful driveway over which our automobiles were driven led out past the splendid new water works and the park section of the city. Luncheon over, the afternoon session of the society was held in the ballroom of this beautiful club building of colonial design. This club house is one of which the members may well be proud. It is most happily situated on the southwestern slope of a beautiful range of gently rolling blue grass covered hills. The Louisville doctors entertain delightfully and a visit among them is most enjoyable.

Dr. William Warren Potter, of Buffalo, was one of the founders of the society, and its secretary for many years, until his death a short time ago. No father ever watched the physical and mental growth of his child with more solicitude than did Doctor Pot-

ter watch after the growth and welfare of the society.

Dr. Gustav Zinke, of Cincinnati, was the presiding officer at the last meeting. His career is a striking example of the success and recognition that may come to an energetic person, even though cast among the most unfavorable surroundings. He came to this country as a German sailor before the mast. Later he found employment in Illinois as a farm hand, and through the assistance of friends was enabled to study medicine. He located in Cincinnati, and by dint of much energy and close application to business he has attained an enviable position in his chosen profession.

Several of the older and more notable members of the society died during the last year, and several eloquent memorial addresses were among the noteworthy features of the meeting. The association sustained a great loss in the death of the former secretary, William Warren Potter, and of Joseph Price. This last man was a pathfinder in abdominal surgery, and will be greatly missed by the rank and file of the profession. His was a fearless and unique life. East, west and south he blazed the trails where many young surgeons have followed. His was the spoken rather than the written word. His was a most expressive personality, and few of the younger surgeons of the eastern states failed to receive inspiration from him.

The Mayos excepted, Dr. Price probably spent more time, energy and money attending medical society meetings than any other American physician. In the heat and excitement of debate, Dr. Price particularly shone. He was a warm champion of what he believed to be right, and usually voiced the doctrines of the east as opposed to those of the west, when it came to a discussion of the much vaunted question of operate or wait, in acute appendicitis.

Dr. X. O. Werder, of Pittsburgh, was elected president for the ensuing year, while the vice presidents are Dr. Louis Frank of Louisville, and Dr. Magnus Tate of Cincinnati. The latter is quite well known in Charleston. The next annual meeting will be held in Toledo, Ohio, September, 1912.

Among the most interesting papers read and discussed, was a protest against the

routine use of purgatives, by Dr. Edwin Walker. He says it is folly to assume that every one that requires a surgical operation requires a purge. He claimed that a purgative stimulates germ activity and renders conditions unfavorable for operations on the intestines. A purgative is very seldom needed immediately after a surgical operation. Dr. Walker says that during his seven years of practice he has given a purge before an operation in less than one per cent of cases. He says that routine purgation is contrary to reason and should be abandoned. Personally, I some time ago discontinued the use of active cathartics immediately preceding surgical operations. If I am going to operate on a patient tomorrow morning, I usually give him a moderate dose of Apenta or Hunyadi water this afternoon. Sometimes I give my patients aromatic cascara instead. After operation I seldom give a laxative sooner than in three or four days, and then the drug given is of a very mild character.

I have always found it most satisfactory to get the bowels to move by proper exercise, and the use of a diet containing plenty of green vegetables and fruit. The saline laxative I like, because, if the patient fails to get a bowel movement in the morning on rising, he can take his medicine half an hour before breakfast and have a free action in the course of an hour without disturbing the digestion of his morning meal or interfering with the usual activities of day.

Dr. Humiston said that he usually had his patients given a dose of castor oil two days before operation. Dr. Joseph Matthews of Louisville, said that more than half the people were constipated, and that he believed that the daily administration of a mild laxative was a good one in such cases. He advised the surgical procedure of removal or side-tracking the colon in accordance with the method advised by Dr. Arbuthnot Lane of London. I have done Dr. Lane's operation in three cases, and with most gratifying results. It is, however, an operation of some danger, and requires considerable care both as to the selection of cases and the accurate technical performance of the work. Dr. Pantzer said that the prolonged rectal retention of feces did great harm.

The treatment of sliding and adhering hernia was discussed by Drs. Dorsett and John Young Brown. A number of cases were reported in which the cecum and part of the descending colon were in the hernia sac. I personally operated on a case of hernia under a local anesthetic, in which a large part of the sigmoid flexure and upper portion of the rectum was in the sac and adherent to its wall.

Dr. Miles F. Porter read a paper on the diseases of the thyroid in women. He says that the thyroid is largely a sex organ, and holds that the toxines of pregnancy may be due to inactivity of the thyroid. In a personal conversation Dr. Porter told me about his interesting work in the treatment of the enlarged thyroid by the injecting of boiling water into the gland substance.

Dr. Haggard called attention of the marked increase of thyroid symptoms during pregnancy. I remember a case of a young woman unlawfully pregnant who had a slightly enlarged thyroid to rapidly increase in size during the course of a few months. She succeeded in aborting herself and there was no further trouble with the thyroid, the decrease in size being quite apparent and the symptoms of intoxication subsiding. Dr. Robert T. Morris advocated the use of the X-ray in some carefully selected cases of hyperthyroidism.

Dr. Huggins says that the diagnosis of extra-uterine pregnancy should be made prior to final rupture and collapse in not less than 80 per cent of cases. He enumerates some of the symptoms as follows which will enable the attending physician to suspect the trouble. A blood-tinged or bright red flow from 4 to 5 days to three weeks after the regular menstrual time, continuing fairly regularly with pelvic pains on either side. This bleeding is no doubt due to the separation of the decidua from the uterus. In nearly all cases he had seen there had been irregularity of the normal flow and pain before serious rupture and collapse of the patient. Dr. Pantzer says that a pulsating swelling on one side and none on the other is very suggestive of this condition. There is considerable danger of death from bleeding in cases of ruptured tubal pregnancy. I have had to practice transfusion of blood in two cases, and have seen some other cases that

narrowly missed dying from loss of blood.

Dr. Reed of Cincinnati, gave some remarkably interesting stereopticon views showing the motor activity of the stomach during the process of digestion. Dr. Reder of St. Louis, read an interesting paper on Dr. Kelley's lipectomy for the fat abdominal wall. He advised that the mass be wedge shape, and that the two incisions converge to a point at the level of the superficial fascia so as to enable the operator to prevent the formation of any dead spaces. The removal of the mass of fat not only improves the appearance of the patient but renders the interior of the abdomen much more easy of access to the surgeon. I have a number of times removed a "skin fat wedge" and have followed the suggestion of Dr. Bonifield and sutured the fat in tiers using a fine catgut, 0 or 00 for this purpose. The union is usually excellent and the result good.

Dr. Sherrill presented his cancer statistics. Out of 19 abdominal operations five have passed the three year limit and are doing well. Out of 12 vaginal operations 4 have passed the three year limit. Eight per cent of his cases of malignancy show trauma as a cause, and 18 can be traced to some form of chronic irritation.

Dr. Morris again advocated the use of the Cargile membrane in surgery. He has used it successfully for the repair of perforations of the small bowel. He depends on it for the prevention of adhesions of the dura and peritoneum.

Dr. Carstens says he prevents shock by simplicity and tact before the operation, by brevity in the operating room, and by the use of saline solution and the prevention of pain for 24 hours after the operation.

JNO. EDGERTON CANNADAY.

A GENTLE CRITICISM.

FRANKFORT, IND., Dec. 13, 1911.

Editor *W. Va. Med. Journal*.

I am not inclined to be hypercritical, but there is one statement in Dr. R. B. Miller's article on "What Shall We Teach the Laity," published in the *JOURNAL* for December, page 193, that I do not feel should be sent to the public uncontradicted.

In his section—Lues or Syphilis—Dr. Miller makes this broad unqualified statement: "It" (Lues or syphilis) "is known

through all history, even from the time King David became infected from Bathsheba, Uriah's wife, and there was born unto them an infected child, which succumbed to this dreadful disease, syphilis neonatorum, on the 7th day, in the year 1134 B. C." According to the medical literature of the most authentic character, syphilis was not known as a separate and distinct disease till 1194 A. D., although it is very probable that it had existed long prior to this date. As to the statement that King David became infected from Bathsheba, upon a careful reading of the only authentic source of information, the Bible, I am unable to find a scintilla of evidence to substantiate his statement. It is true, the child died, when seven days old, according to the prophetic annunciation, but it appears from the declaration of holy writ—2nd Sam'l, ch. 11th, that this death was almost sudden, and not of such a lingering character as we would expect from syphilis. I prefer to believe the plain statement of scriptures, that when King David first looked upon Bathsheba, she was cleansing herself, according to the Levitical law, and from her menstrual period, and not from any loathsome disease. Is it probable or possible that David and Bathsheba would both contract syphilis in 1034 B. C., the child be afflicted with the same disease, and suddenly die, and then in 1033 B. C., less than one year after being afflicted with this loathsome disease, according to Dr. Miller, be the parents of a vigorous, healthy child, such as Solomon appears to have been?

I do not believe either secular or sacred history gives Dr. Miller authority to justify his broad statement, and therefore protest against reading into history what at best can only be an ill-advised illogical conjecture and should not unqualifiedly go to the public.

Dr. Miller's article, on the whole, is commendable, and with the *main idea of educating the people as to preventive medicine* I agree, but do not fail to remember the woes that are pronounced against those who add to or take from "these scriptures."

Yours fraternally,

J. C. IRONS

"Nose-picking" may result in a perforation of the septum.—*American Journal of Surgery*.

The West Virginia Medical Journal

S. L. JEPSON, A.M., Sc.D., M.D., *Editor.*

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Editorial

SATURDAY NIGHT.

Now the week of toil and grinding closes with the fading day, and the lines of men are winding on their cheerful homeward way. And I watch them, heavy hearted, as the twilight shadows fall; in the week that is departed I have done no good at all. True, I've made a lot of money, but can any creature say that I made his life more sunny as he toiled upon his way? I have sold some houses dearly, I have made some trades in land, but I can't remember clearly that I gave a helping hand. I have loaned to those who borrow, I have made some debtors bleed; but in somber homes of sorrow I have done no kindly deed. I have worn the victor's laurels in the markets of the town, but had naught but empty morals for the man who's stricken down. At the banks I've done my duty; all my business debts are paid; but in twilight's hush and beauty

all my sordid triumphs fade. Gain is but a worthless leaven of the larger human plan, for a soul approaches heaven as he helps his fellow man.

WALT MASON.

READ.

We wish for all of our readers the happiest and most prosperous year. To make it entirely safe from worry and needless expense, pay your Society dues this month. Otherwise you cannot secure the Association's defense in malpractice suits, of which the editorial below has something interesting to say.—Editor.

A YEAR OF MEDICAL DEFENSE.

The plan of medical defense instituted by the State Medical Association has now been in operation just one year. The time, therefore, seems opportune to review its working and take account of the results of its first year of existence. It was ventured on tentatively and with many misgivings. Many were skeptical as to its competency to be of benefit either to the individual members or to the interests of the society as an organization. To many the protection it was capable of offering seemed inadequate, the financial backing, insufficient, the administration, difficult and the probable response of the profession in its favor, uncertain. It must be admitted that these misgivings were not without much to sustain them, and the fact that it was a comparatively untried venture caused the results of its first year of operation to be looked forward to with a great deal of interest. It is very gratifying, therefore, to be able to state that the results of its first year are very reassuring and seem to furnish unequivocal testimony to the practicability of the scheme. None of the untoward results feared by many who doubted its feasibility has been apparent, and while it is yet too early to say that all the objections urged against it have been disproved, there seems to be enough evidence to justify a rather confident expectation that it will work out all right. The chairman of the Committee on Medical Defense, in a recent letter, states that "the year closes without a single suit against any of the members growing out of services rendered

since January 1st, 1911, the date when our plan went into effect." He also states that "during the same period suits have been entered against non-members." This is in accordance with the experience of every other state that has tried the plan, and there is a sufficient number of them now to furnish enough evidence to sustain the conclusion, that one of the chief benefits to be expected will be the discouragement of suits against our beneficiaries, by reason of the fact that the entire organized profession is lined up for their defense.

In addition to our own state, the following have made provision for medical defense: California, Illinois, Indiana, Iowa, Kansas, Kentucky, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, New Jersey, New York, North Dakota, Ohio and Pennsylvania. This list is fairly representative. It includes the oldest as well as the newer commonwealths, and the number is sufficient to show clearly that the plan is applicable to all conditions existing in our civic organization. Some have feared that juries might be prejudiced against a defendant because of this mustering of the whole organized profession in his defense. This fear seems to be groundless. Of one hundred and thirty-eight cases defended by the New York State Medical Society in a period of ten years, not one resulted adversely. And not one of thirty-six cases defended by the Iowa State Society. This would seem to indicate that if any prejudice at all was engendered, it was in favor of, rather than against the defense. The doubt of the financial ability of the society to sustain the plan was a serious one, and it was not allowed to be overlooked by the various liability insurance companies. But as suits seem to be practically eliminated from the problem, and as the defense fund year by year will increase, it will soon result in the accumulation of a fund amply sufficient to sustain any probable demands that may be made upon it. Another cause of misgiving was the probable effect on the aggregate of our membership, by reason of the requirement of an additional fee of one dollar per year, to entitle a member to the privileges of the defense fund. Many felt that the effect would be to cause a falling off in our membership. It is too soon yet

to know definitely what the ultimate effect will be, but it is certain that the first year has not justified such fears. It is true we have lost members. Whether or not because of the defense plan is not clear. On the other hand we have gained many members because of it, and it is a fair presumption that, as the plan becomes better understood, its working better exemplified, and its trifling annual cost to the members squared with the undoubted benefits flowing from it, the endorsement and support of the profession will be increasingly given. Such, at least is the opinion that the first year's trial of the plan seems to justify.

L. D. W.

The *Medical Review of Reviews* announces a "New Era in Medical Journalism," which means that it is to be a different kind of journal from the first of the year. It proposes to introduce a new editor, Dr. Arthur C. Jacobson, who modestly "pledges that our editorials may be read without danger of inducing somnolence." New departments will be introduced as follows: Eugenics, medical sociology, original articles (that *must* be original), medical history or biography, science and research, medico-legal, practical therapeutics, medico-literary, and cartoons. One other change we modestly suggest, viz., that a new name be selected, since the old will scarcely fit the new prodigy. We anxiously await the advent, feeling assured that we will be interested. "Therapeutic Medicine" will also be combined with the new journal. We wish it abundant success.

THE ANALYSIS OF NOSTRUMS.

Believing that truth pricks the bubble of quackery, the A. M. A. Chemical Laboratory analyzes the remedies whose composition is kept secret by their promoters. The laboratory reports deal with nostrums exploited to the profession and also with those sold to the public.

Believing that this information is of much value to physicians we present on another page a brief outline of some recent reports.

Dr. Chas. E. de M. Sajous has been chosen as supervising editor of the New

York *Medical Journal*. Dr. Sajous is one of the most widely known physicians of America and a man of the highest scientific attainment. Besides, he has had large editorial experience. The publishers of the *N. Y. Journal* are to be congratulated on securing the services of a man of such commanding ability, who will certainly maintain the *Journal* at its present high standing.

The C. V. Mosby Company of St. Louis, has announced the publication of a book on Pellagra, to be ready by January 1, 1912. This book is being prepared by Dr. Stewart R. Roberts, of Atlanta, Ga., who has just returned from Italy, where he studied the disease in its natural habitat.

We can save some money for any one who is going to do post-graduate work in New York. Write us.

REPORTS FROM THE A. M. A. CHEMICAL LABORATORY.

From recently published reports of the Chemical Laboratory of the American Medical Association we take the following:

Hesperian Tonic is sold by the Temple of Health Medicine Company of San Francisco, Cal., as a sure cure for diphtheria. From the analysis it appears that iron chlorid is the only active constituent. The deaths which will result when helpless children are "doctored" with this nostrum may be imagined.

Sulphurine is a "blood medicine." It is a golden yellow liquid, having a rotten-egg odor. Analysis showed it to be a solution of calcium sulphid such as is obtained when flours of sulphur, lime and water are boiled together. Such a solution has also been exploited by the names sulphume, sulphurine, golden lotion, yellow lotion, liquid sulphur and soluble sulphur, and has even been admitted to the National Formulary under the title *Liquor Calcis Sulphuratae*. It apparently lends itself to exploitation as a "patent medicine" because of the popular belief that anything which smells or tastes bad, must be powerfully good medicine.

Tiz is a nostrum advertised for "sore feet." The Association Chemists state that the essential constituents are alum and tannin. The preparation comes in the form of tablets which are to be dissolved in water for application to the offending members.

Radio-Sulpho Cancer Cure.—Another cancer cure humbug is briefly described in the Pharmacology Department of *The Journal A. M. A.*, December 3. *Radio-Sulpho*, as the "cure" is named, emanates from Denver. It was examined by the official chemists of that state, who reported that it consists of a strongly alkali-

line solution of sodium sulphid with a little sodium carbonate and has a decided odor of rotten eggs, due to the presence of sulphuretted hydrogen. The exploiters of this evil-smelling compound recommend the use of a "cheese poultice" in connection with their nostrum. The poultice is to be made by mixing Limburger cheese and glycerin to the consistency of a paste and applying the mixture to the cancer after having washed the parts with "radio-sulpho." The cost of this odoriferous fake is \$25 a month "and upward."

Tubercleicide.—Tubercleicide, another consumption cure fake, is exposed in the Propaganda for Reform Department of *The Journal A. M. A.*, May 13. The article says that Tubercleicide is given publicity both by means of display advertisements and by advertisements in the form of news items. It is a pale, yellow oily liquid, and comes in a 2-ounce bottle for which \$10 is asked. An examination of this preparation by the Association's chemists showed it to be "essentially a solution of creosote or guaiacol in some bland oil, probably olive oil."

Calmine.—*The Journal A. M. A.*, in its issue of January 14, exposes the exploitation of the substance sent out under this name as a new and specially valuable hypnotic. It is, it says, nothing more than the sodium salt of the more or less favorably known hypnotic, veronal, from which it differs only in that the combination with sodium has made it more readily soluble, and thus it is claimed its absorption is more rapid. It is also sold as medinal. Veronal is protected abroad by a trademark and in this country by a patent, and this is undoubtedly the cause of the introduction of the sodium salt under these fanciful names. This is probably only the beginning and we may look for it under a host of other names with the usual results that thoughtless physicians who have had poor results with it under one name will try it under others. Or, worse still, they may combine veronal with calmine or with medinal in the same prescription, thus giving a dangerous dose.

CONTRACT PRACTICE

REPORT OF THE COMMITTEE OF THE OMAHA-DOUGLAS COUNTY MEDICAL SOCIETY.

The report of the Committee on Contract Practice of the Omaha-Douglas County (Nebraska) Medical Society, given herewith, is one of the most valuable contributions yet made to the discussion of the question. Particularly commendable is the recognition of the economic necessity underlying the retaining of surgeons by railroads and other industrial corporations, with the distinct proviso, however, that medical services should be limited to the examination and treatment of employees incapacitated directly as a result of employment, or, as is said in the government services, "in line of duty."

"We, the committee appointed by the Omaha-Douglas-County Medical Society to investigate the broad subject of contract practice, desire to state that we have given this subject careful

study and discussion. Each member studied some phase of the question, and your committee as a whole has analyzed without prejudice the combined information. We herewith submit for your consideration the following conclusions:

"1. Your committee recognizes the right of industrial corporations employing labor, to engage the services of skilled physicians, surgeons and specialists at reasonable remuneration, to examine employees as to their fitness for service as well as to care for said employees in case of injury or acute sickness when on duty, or to care for those to whom the corporation may be under obligation because of accident. This is but a just and fair protection against damage suits brought by the unscrupulous. However, it would be distinctly understood that such service should not be extended to apply to any member of an employee's family.

"2. We believe that industrial corporations employing physicians, surgeons, and specialists, should limit the service of said physicians, surgeons and specialists strictly to the care of their employees during the time of actual service. We also believe that direct representatives and officials of a corporation should not be included in such medical, surgical and special attendance, or in any way construed as coming under the conditions of this class of service.

"3. We believe that all corporations furnishing medical, surgical and special attendance to their employees should do so entirely at their own expense, or, if the employees are assessed for the expense of such medical, surgical and special attendance, they should be untrammelled in the choice of their physicians, surgeons, and specialists.

"4. We believe that contract practice as applied to lodges, fraternities, benevolent and benefit-organizations, is detrimental to the best interests of the medical profession in general and especially to the physicians employed; that it is especially unjust to all physicians who are subject to ordinary competition, and that it pauperizes the lay public and demoralizes the medical profession in general, teaching the former to expect medical, surgical and special care for practically nothing, lessens their respect for the skill and dignity of our profession, and permits designing men to traffic in and commercialize the practice of medicine.

"5. We believe that such lodge, fraternal, benevolent or benefit-organization and contract practice, as *ordinarily* in operation, is eminently unfair, because it buys medical services at wholesale from the physician, then compels him to peddle out his services at retail, and deprives him of any voice in limiting the amount of service to be rendered for the wholesale price agreed upon.

"6. In conclusion, we earnestly recommend that members of our society decline in the future to accept the position of contract physician to lodges, fraternities, benevolent or benefit-organizations, not industrial in character—therefore without all liability—as well as corporation con-

tracts that are not in harmony with these findings.

"H. M. McCLANAHAN,
"JOHN E. SUMMERS,
"JAMES M. AIKEN,
"F. E. COULTER,
"B. W. CHRISTIE."

ACTION OF BEAVER (PA.) COUNTY SOCIETY.

The regular meeting of the Beaver County Medical Society was held in Rochester, February 9, at 3:30 p. m.

The following amendment to the constitution, together with the explanatory clause following, received a unanimous vote:

Resolved, That the Beaver County Medical Society is opposed to every form of "contract practice," and that it requests that any members who are now doing "contract practice" shall resign either from the work or from the society; and that members who will not or do not comply with this rule of the society shall be expelled.

Clause I. By "contract practice" in this amendment is meant lodge contracts and contracts with liability companies.

Society adjourned.

ACTION OF WASHINGTON CO. SOCIETY.

The Washington County Medical Society met at their headquarters in Washington, September 12, at 2 p. m., President Conner in the chair. Attendance was good, there being about fifty present. Four new members were received and promises of more at the next meeting.

The following resolution was unanimously adopted:

WHEREAS, We believe it is detrimental to the best interests of the people, in that they do not get the best service, and much harm is done suffering families, through employing incompetent lodge doctors, and also that it is degrading to the whole profession, we ask that it be abandoned by the members of this society; therefore be it

Resolved, That it is the publicly expressed wish of the Washington County Medical Society that beginning with the first day of January, 1912, all members of this society shall refrain from taking any part in any lodge or alleged insurance company work for employees, or members where said lodge or company pays a stated rate less than that charged by the regular physicians and surgeons of the community, and all members not willing to comply with these terms will be notified to sever their connection with the society.

CONTRACT PRACTICE IN FOREIGN COUNTRIES.

What may be our personal opinion in regard to the merits of contract medical practice at the present time matters but little, says W. B. Chamberlain, Cleveland, (*Interstate Medical Journal*, December). It is an institution already firmly organized and flourishing in our midst, and it has come to stay. It is very necessary that our profession pay heed to these facts. The contract or Kassa practice in Austria, a sort of industrial insurance supervised by the state, has grown from 1,540,000 members in 1890 to almost three million

members in 1905, or fifty per cent of the inhabitants of the larger towns. As a result, over thirty per cent of the Austrian physicians have a total income of less than \$240 per annum. The average pay for some of the contract doctors amounts to about six cents a visit. In Germany the conditions are only a little better. The fee for an office call is fifteen cents, for a normal childbirth, \$1.20. In England at present an attempt is being made to introduce a similar system of industrial insurance, and the profession there is fully aroused. They demand adequate remuneration and representation on the insurance boards. The profession realizes its danger and is thoroughly united. The same dangers will soon confront us, says Chamberlain, and we must be able to present a united body to browbeating industrial organizations and insurance companies, or suffer the consequences.

CLUB EXCLUDES LODGE DOCTORS.

At the last meeting of the board of directors of the Medical Club of Philadelphia it was enacted that the board of governors should not recommend any person known to be engaged in lodge practice and that he shall be considered ineligible to membership in this club. Similar action was recently taken by the Medicolegal Society here, so that the club doctor is now practically excluded from all Philadelphia medico-social functions.

CONTRACT PRACTICE.

At the meeting of the Wilkinsburg Medical Society, November 20, a resolution was unanimously adopted that each member should sign a paper agreeing never to engage in any contract lodge work and, furthermore, that all local physicians should be asked to sign this paper.

A DISTINCTIVE PIECE OF LITERATURE.

"Here is something different." This is apt to be the first thought of the physician upon breaking the wrapper of Parke, Davis & Co.'s new brochure on bacterial vaccines and tuberculin. And the external appearance of the book is in no wise misleading. The "difference" applies to the printed page as well as to the handsome cover in artistically blended browns and gold. The brochure contains forty-eight pages in addition to the cover and thirteen full-page engravings in colors.

Briefly stated, the booklet is a concise review of the essential facts relating to bacterial-vaccine therapy, containing precisely what the seeker after this kind of information wants. It is not padded with clinical reports—in fact, it contains none. We understand that Parke, Davis & Co. will be pleased to send a copy of this unique and valuable brochure to any physician requesting it. Address them at their home offices, Detroit, Mich., specifying the "new booklet on bacterial vaccines," and mention this journal.

In another place is advertised a new instrument, a modified stethoscope called Huston's Akouophom. It is said to magnify chest sounds to any desired extent, and if it does what is

claimed for it, it will prove a very valuable instrument.

Society Proceedings

THE CABELL COUNTY MEDICAL SOCIETY.

HUNTINGTON, W. VA., Dec. 15, 1911.

Editor West Virginia Medical Journal:

The regular monthly meeting of this society was held in the assembly room of the Hotel Frederick on the evening of December 14th. We had twenty-seven members present and seven visitors.

The annual election of officers was held and all the present officers were re-elected: Dr. F. A. Fitch, President; Dr. W. C. McGuire, Vice President; Dr. I. R. LeSage, Treasurer; Dr. Jas. R. Bloss, Secretary; Dr. K. C. Prichard, Censor for three years.

After the business meeting was over the society listened to an address by Dr. Charles F. Bowen, of Columbus, O., on "X-Rays as an Aid to the Diagnosis of Diseases of the Chest," illustrated with plates and photographs. Dr. Bowen also has an X-Ray moving picture film showing the peristalsis of the stomach. This he brought with him and through the kindness of Dr. Hawes and the other owners of the Sans Souci theatre, it was shown to the society.

Dr. Bowen makes X-ray work his specialty and his address was certainly a rare treat.

Dr. J. W. Lyons, of Huntington, was elected to membership and the application of Dr. L. A. Williams, of Barboursville, was referred to the Board of Censors.

Fraternally yours,

JAS. R. BLOSS, Sec'y.

DODDRIDGE COUNTY SOCIETY.

Feeding in Typhoid.

Dr. G. D. Smith, of Greenwood, read a paper with the above title at a meeting of the Doddridge County Medical Society in which only four of the six members of that society were present. Every member took a part in the discussion. So much time was taken up with the discussion that there was no time left for Dr. A. Poole's paper on Bacillary Dysentery, which was postponed to next meeting. We are giving these details for two reasons. First, they illustrate the fact that it does not require a large number to constitute a good meeting; second, that the subject of feeding typhoid patients, although much discussed of late, is still a living topic. We give a brief abstract of the paper and the discussion.

Lind reviewed the history of the subject for the past ten years, showing that there is a growing tendency on the part of practitioners everywhere towards more liberal feeding. Dr. Rodgers' paper before the State Medical Association meeting at Parkersburg was reviewed and the points he made in reference to the necessity of keeping up the patient's strength and powers of resistance by sufficient nourishment, emphasized.

The strongest reasons for a great variety of food were the facts that both carbohydrates and proteids are necessary to supply the great waste which is going on in the disease, and that eggs and milk are the only two single articles of diet which contain both in the proper proportion, and both of these often disagree with the patient, hence the necessity of seeking these elements among other articles of diet.

Strained vegetable soup, minced meat, fruits deprived of skins and seeds and well cooked, were recommended especially where milk and eggs proved unpalatable or indigestible and also for the sake of a variety even where these two articles are not contra-indicated.

A particular stress was laid on the frequency of feeding, since experiments on cats with the X-Ray have proven that the stomach works as hard and as long on a small as on a larger quantity of food and needs absolute rest at intervals. Food is not to be given closer than five hours and not more than four meals in twenty-four hours.

Dr. McGovern finds many cases have tympany and sometimes hemorrhages before the doctor is called and inconsiderate feeding on the part of the people has endangered the patients. Regards tenderness and tympany of bowels the strongest indications for carefully selected diet. Thinks that meat if finely minced is not at all dangerous.

Dr. McLane told of a case he had known where the patient ate nothing but raw potatoes and made a good recovery. Has seen patients in whom a baked apple caused a relapse. Recommended pure cream instead of milk.

Dr. Poole thinks each case should be considered a case by itself. Should study the patient's peculiarities and endeavor to adapt the food to that particular case. Detailed several cases which illustrated the differences in powers of digestion. One case in which a disagreeable sensation and actual pain in the stomach was relieved by substituting cream of wheat for milk in the diet.

G. D. LIND, *Sec'y.*

GRANT-HAMPSHIRE-HARDY-
MINERAL SOCIETY.

BURLINGTON, W. VA., Dec. 12, 1911.

Dear Editor:

Our society met for the last meeting in the year on November 29, in Keyser, at the hospitable home of Dr. W. H. Yeakley, where we were highly entertained at a bounteous dinner, after which the meeting was held in the parlor of the home.

The following officers were elected for 1912: President, Dr. J. G. Abbott; First Vice President, Dr. J. O. Lantz; Second Vice President, Dr. G. H. Thomas; Third Vice President, Dr. W. G. Drinkwater; Fourth Vice President, Dr. R. W. Love. Board of Censors, Dr. L. L. Edgewell, for long term; Treasurer, Dr. W. M. Babb; Secretary, Dr. M. F. Wright, Burlington.

Our next meeting will be held in Keyser on January 30th. The program will appear in the *Bulletin* about the first of the year, and a special

effort is being made to have it interesting to all, so it is to be hoped we will have a full attendance.
M. F. WRIGHT, *Sec'y.*

LITTLE KANAWHA AND OHIO VALLEY
SOCIETY.

PARKERSBURG, W. VA., Dec. 8, 1911.

Editor Journal:

Dr. Wingerter in his talk to our society last January urged us, *i. e.*, the society, to catch our second wind as a runner does in running a race. Well, we have been having a fairly successful year. Dr. Scott, while in Chicago this past fall, received from Prof. O. W. McMichael, of the Chicago Policlinic, a promise that he would come here and give us a lecture and clinic on the "Modern Early Diagnosis and Treatment of Tuberculosis," particularly with tuberculin. So, December 6 we had the usual meeting of the Little Kanawha and Ohio Valley Medical Society. We extended invitations to the profession in all the adjoining counties, including Washington County, Ohio, and also to the members of the Anti-Tuberculosis League of this city. We had present probably sixty or seventy doctors and ladies, also several patients in the early and later stages of the disease. Dr. McMichael first gave us a paper in the early diagnosis—and later demonstrated many symptoms which were new to most of us, and then the use of the various tests with tuberculin, and the method of using tuberculin. So interested was the society that it was past midnight before we adjourned. On Thursday the doctor kindly saw a number of cases with the physicians here. We had physicians who had come thirty to forty miles and were amply repaid for their trouble, and the slight contribution asked of them to defray the doctor's expenses in coming here. It was a generous thing to travel 1,000 miles to deliver a free lecture to a body of general physicians. Altruistic, yes indeed. He told of his clinic where he sees great numbers of afflicted ones in Chicago, of his open air school for children and of the results obtained by the use of tuberculin. He has promised after revision of his paper that he will send it to us for our *Journal*.

Dr. C. W. Albert was admitted to the society and we have promise that more will renew their membership and new members will join. Of which, more anon.

I learned that the Washington County, Ohio Society, which had been moribund for some year or more, this past week revived and reorganized. We are glad to know it.

As treasurer, I am trying to get all members to settle up to January 1, 1912, so that I can remit promptly. The medical defense plan is not altogether popular, and until it has some successful defenses to its credit it will not prove its usefulness.

In January we have our election and banquet. As our President, Dr. Scott, will not be here the coming year, it will be difficult to select a worthy successor.

By the way, can a member belong to two

county societies? One of our members living in Ritchie living more convenient to this place, desires to retain his membership with us and is pressed by the Ritchie county to unite with them, so he asks this question: (If he is willing to pay dues in both, we know of no law to prevent. Our laws permit him to join the society most convenient.—Editor).

Is there anything to prevent an *osteopath* or *chiropractor* from practicing in this state without going before the State Board? (Yes. The revised law requires an examination.—*Editor*). We had a decision several years ago by Judge J. M. Jackson, of our Circuit Court, in case against the Drs. Ely, osteopaths, of this place, that they were not violating the law, as they did not give drugs; that the meaning of the law by "the practice of medicine" was the use of drugs to treat the sick, and the parties were cleared. So far as I know, this has been the only case in this state. Our Ritchie county friends have a *chiroprath* among them, so this question was asked me last evening. The case against the Elys was pushed by Dr. Percy Goff, of Clarksburg.

Now with best regards, I am very truly your friend,

W. H. SHARP, *Treas.*

OHIO COUNTY SOCIETY.

Nov. 27, 1911.

The society met with 27 present, President Jepson in the Chair. The first paper was by Dr. Jepson on Salvarsan to Date. (See *Journal* for December, 1911). V. P. Spragg took the chair during the reading of the paper. The second paper by Dr. Quimby, was entitled "The Relation of Visceral Ptosis to Autointoxication and Constipation." (We hope to print the paper later). Every form of ptosis was considered, and each causative factor as revealed by the X-Ray received consideration. A number of case histories were given with the accompanying X-ray pictures. Dr. Hupp opened the discussion, quoting Metchnikoff as saying that the colon in man, as in the lower mammalia, is a reservoir for fecal material until a convenient time for defecation. It is also a menace to life from the danger of toxemia resulting. He thinks that the X-Ray after the injection of bismuth, is a great aid to diagnosis in this field. Dr. Thornton pointed out the difficulty in diagnosis in some forms of visceral ptosis, as the prolapse of the liver from the enlarged liver; prolapsed stomach from dilated stomach. He thinks the claim that the small intestine may be prolapsed is rather far-fetched, since these viscera have no fixed position, but are naturally very movable. He doubts if there can be ptosis of the splenic flexure. In all cases of ptosis seen by him there has been present a neurasthenic tendency. His best results have been secured by improving the nutrition. He thinks that every other causation should be excluded before settling on the diagnosis of auto-intoxication. Dr. Schwinn differs from the members who claim that diagnosis of ptosis of the colon is difficult; but thinks that diagnosis

of ptosis of the small intestine is impossible with or without the X-ray. The colon is supposed to cause all the autointoxication. The most common form of ptosis is elongation of the transverse colon. Dr. Wingerter thinks that we should not be satisfied with the term constipation as a cause of intoxication, but make a careful search for other possible causes. Dr. Noome said that the surgeons are concerned with the mechanical constipation rather than the functional. He thinks that ptosis of the ascending and descending colon next to impossible.

Dec. 4.—The society met at 8:30. Number present thirty-nine. Dr. Caldwell read a paper on "Intratracheal Insufflation." He considered the positive and negative air pressure in the normal chest, and how these can be maintained by forcing air into the bronchial tree with an apparatus which he described. He pointed out the advantages of this in chest surgery and in anesthesia. Dr. Schwinn said that this form of anesthesia is in the experimental stage, and will not supplant the ordinary methods.

Dr. J. T. Thornton read a paper on "Paroxysmal Pulmonary Edema," a condition of which little is said in the books. (Paper will be published hereafter). Dr. Schwinn said that the form of edema described is a transient condition, but that edema of the lung is always the same as to pathology. It depends on one of two things. First, a change in the capillaries allowing the fluid to escape into the alveoli, second, a venous stasis, which may come from heart weakness. The indication is to remove the fluid present and prevent further flooding. Expectoration and absorption must be encouraged. Cathartics and depletion indicated. Morphia always useful to allay the patient's fear, and atropia as a vasomotor stimulant. Dr. Gadosh said he has a patient who has had this condition for eleven years. The least excitement will precipitate an attack. He has found aconitia useful. Dr. L. D. Wilson thinks that most of these cases are precipitated by uremia. The edema is a compensatory measure, relieving the circulation, but bringing great danger to the patient. He always uses morphia, and the patients should have all the dry air possible. Does not think atropin indicated. Dr. Thornton says that there is a working disproportion in the two sides of the heart in these cases, and this results in a transudation of serum and corpuscles through the alveoli. There may be a myocarditis at the foundation of all cases.

Dr. Timberlake, of Baltimore, then entertained the society with a lecture on "The Significance of Hematuria." His talk was based on a case now under observation in which it became necessary to remove one kidney on account of hemorrhage, the exact nature of which had not yet been determined. On the black board the doctor illustrated the various forms of hematuria, saying that the so-called idiopathic form was simply a measure of our ignorance as to the cause in these cases. Drs. West and Hupp discussed the lecture, which was instructive and interesting.

E. F. GLASS, *Sec'y.*

Reviews

COLLECTED PAPERS.—By the STAFF OF ST. MARY'S HOSPITAL (*Mayo Clinic*) for 1910. Octavo of 633 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1911. Cloth, \$5.50 net.

The flattering reception given to the first volume of papers from the Mayo clinic, doubtless will be extended, in larger measure, to this second volume.

Physicians who have made the pilgrimage to Rochester,—the veritable mecca of the profession, contract the habit and are prone to return again and again. A sort of religious devotion to the place develops, and to the men, whose spirit and teaching made it the most attractive clinic in the states. These papers are, in a sense, an abstract of the work at St. Mary's, and very naturally they will appeal to the very large number of devotees of this particular shrine.

There seems to prevail a general feeling of gratitude to authors and publishers, for placing this material in a permanent form, convenient for reference. However, not by the Rochester habitues alone, will these papers be welcomed, but by all who are desirous of keeping in touch with advances in the newer fields of surgery; in particular, the surgery of intra-abdominal cancer and surgery of the ductless glands. Upon the first subject W. J. Mayo contributes some five of six papers, and no one looking for the last word on this question will miss the views and conclusions from this authoritative source.

Upon the subject of ductless gland surgery, C. H. Mayo gives about the same number of papers. Since the experience of both men in these particular fields is exceptionally great, the publication which holds their last expressions concerning them proves of especial interest. Papers from other members of the staff are upon a great variety of subjects and of unusual merit, all measuring up to the Mayo standard of excellence.

PATHOLOGICAL TECHNIQUE.—The new (5th) Edition. Pathological Technic. Including Directions for the Performance of Autopsies and for Clinical Diagnosis by Laboratory Methods. By F. B. MALLORY, M.D., *Associate Professor of Pathology, Harvard Medical School*, and J. H. WRIGHT, M.D., *Director of the Pathological Laboratory, Massachusetts General Hospital*. Fifth Revised Edition. Octavo of 507 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1911. Cloth, \$3.00.

Those who are not devoting themselves especially to the laboratory, and yet from time to time require assistance in the detail of pathological work, will find this Manual exceptionally useful. Especial attention has been given to the simplification of every possible detail, so that the reader who is unfamiliar with the nomenclature and phraseology of the laboratory worker, is not confused as he sometimes is in reading the more elaborate text books. Each formula for stains, solutions, etc., and technique so far as possible,

are tabulated, making it most convenient for reference in the laboratory.

Many of the more obsolete methods have been omitted, and an admirable selection has been made of the simplest technique consistent with reliable findings.

A number of the newer staining methods have been incorporated in the text, besides directions for performing the Wassermann and Noguchi serum tests.

The authors confine themselves to the title of their book, "Pathological Technique," so that it is strictly a book for the laboratory, simple and brief, yet sufficient for all practical purposes, exceptionally useful to any student or general practitioner.

H. L. R.

THE CARE OF THE BABY.—A Manual for Mothers and Nurses, containing practical directions for the management of infancy and childhood in health and disease. By J. P. CROZIER CRIFFITH, M.D., *Professor of Diseases of Children the University of Pennsylvania, etc.*, Philadelphia. W. B. Saunders Company, \$1.50.

This is the fifth edition of a book that has proven extremely useful and interesting. Every intelligent mother should have a copy. We have had it in use in our family for years and know from the practical application of its teaching by an educated mother, it has proven of the greatest use. Before the baby comes; the baby; the baby's growth; its toilet; its clothes; feeding the baby; sleep; the baby's nurses; the baby's rooms; the sick baby; these are the titles of the different chapters, and they cover the whole subject in a most instructive manner. An appendix tells how to prepare every article that the baby needs, describes many useful external applications, as baths, poultices, etc. The author attempts in no way to shut out the physician, but rather encourages his attendance in all cases of illness. The instructions are for the mother until a doctor is needed.

S. L. J.

Medical Outlook

APPENDIX DYSPEPSIA.—Formerly the cause of chronic stomach trouble was always sought in the stomach itself and our therapeutic measures were always aimed directly at that organ. It is only in recent years, says W. F. Cheney, San Francisco (*Interstate Medical Journal*, October), that a chronically inflamed appendix or gall-bladder has been recognized as a cause of dyspepsia. When we see how many observers, working independently in different parts of the world, have come to similar conclusions regarding the existence of an appendix dyspepsia we are forced to believe that the condition must hereafter be reckoned with as one of the possibilities in all chronic disturbances of digestion. If we seek for any typical history of this condition we shall be disappointed, says the author. Some cases show in their history a striking resemblance to gastric ulcer, with epigastric pain after eating, flatulence, belching, sour eructations,

nausea and vomiting, and even hematemesis at times. These are the cases, as Graham has said, which were needlessly subjected to a gastroenterostomy for "medical ulcer," there being found at operation no demonstrable lesion in the stomach. In other cases, says Cheney, the history is that corresponding to hyperchlorhydria, with heartburn, water-brash, flatulence, and nausea, but without pain or vomiting. It seems probable that many of the cases of "sour stomach" resisting all forms of medical treatment are due to chronic appendicitis. In fact, this has already been proved in those cases in which the removal of a chronically diseased appendix has been followed by a relief of all symptoms and a return of the gastric secretions to normal. A third group of cases complains of heaviness and fullness after eating, flatulence, belching and regurgitation of food, an inability to take more than a small amount of food at a time. These cases may show a normal stomach analysis and the symptoms seem to be due to pylorospasm. The author has not always been able to get a history that points to the appendix as the seat of disease, but believes that the so-called "belly-aches" of childhood are very often due to appendix inflammation which lays the foundation for the future dyspepsia. Another important point in the diagnosis is that the epigastric pain and other gastric symptoms are either excited or increased by exertion. Again, the time of onset of the pain is usually irregular in contrast to the striking periodicity in gall-stones and ulcer. Unfortunately the occurrence of hematemesis, or blood in the stools, does not speak absolutely against the diagnosis of appendicitis; for evidence is accumulating, says Cheney, that the occurrence of hematemesis can no longer be considered as speaking for gastric ulcer in the differential diagnosis between the two.

CERTIFIED OR PASTEURIZED BUTTER.

—ALFRED F. HESS, M.D., of New York, read a paper at the meeting of the Association of Certified Milk Commissioners of Philadelphia, and published in *J. A. M. A.*, advocates the use, especially for children, of a certified, or at least pasteurized butter, in view of the fact that butter is as liable as milk to convey disease germs especially tuberculosis. Pasteurized butter, he says, has no distinctive taste, color or texture different from unheated butter. G. D. L.

GIVE THE INFANT A CHANCE.—Says HENRY DWIGHT CHAPIN, M.D. "A large part of the sickness among infants in hot weather may be due to ineffective cooling of the animal motor. Imagine an infant on a hot day lying in a crib surrounded by curtains. Air movement is stopped and the atmosphere around the infant becomes so saturated with water vapor from the evaporated perspiration that no more can evaporate, with the result that the infant's cooling system breaks down and vomiting and diarrhoea may ensue."

ARTERIOSCLEROSIS.—H. R. LOWDER, M.D., in a paper before *Interstate Medical Association*, and published in *Association Journal*, May 15, 1911, says that this affection is caused by inflammation of the intima, or inner coat of the arteries which in turn is caused mainly by toxins in the blood and derived from putrefactive changes in the food in the alimentary canal, said putrefaction being a direct result of bacterial activity. The hydrochloric acid of the stomach, the bile in the small intestine inhibiting this action by their antiseptic power, but in the larger intestine the influence of these antiseptics is exhausted, hence the need of other germ inhibiting material. Lactic acid comes in here as a harmless preventive of intestinal putrefaction. It is claimed that the long lives of Bulgarians are due to the ingestion of large quantities of buttermilk, Metchnikoff, of course, is referred to on this subject. Constipation by retaining material a long time in the bowel adds to the trouble. Too much meat is eaten ordinarily. An excessive protein diet favors development of putrefactive bacteria. Bright's disease, which removes so many elderly persons before their time is only one of the results of arteriosclerosis. (Let us all acquire the buttermilk habit). G. D. L.

PERSONAL EXPERIENCE WITH SALVARSAN.—JOHN T. GERAGHTY, M.D., and ALBERT KEIDEL, M.D., in the *Old Dominion Journal of Medicine and Surgery* for May, 1911, give a report based upon fifty-six cases treated in Johns Hopkins Hospital and in private practice. We quote from the "conclusions." "From our experience with this drug, we are convinced that it is an important addition to the therapeutics of syphilis. In every case where visible lesions were present complete disappearance followed the injection and marked improvement in the general condition of the patient was a constant feature. In all cases refractory to mercury the response to salvarsan has been prompt and striking. The drug is indispensable for the treatment of patients who do not tolerate mercury." * * * "The superior ability of salvarsan over mercury to rapidly kill the spirochetæ pallidæ in the tissues has been demonstrated beyond question, and salvarsan is therefore indicated in every case of syphilis even where it seems advisable to supplement it with the subsequent use of mercury."

X-RAY DIAGNOSIS.—F. E. BUNTS, M.D., in an article in *Cleveland Medical Journal* on trifacial neuralgia, gives an instance where an X-Ray observation would have solved a problem. "In one very severe and intractable inferior dental neuralgia in a patient 78 years of age who had worn double sets of false teeth for years, I found upon chiseling through the angle of the jaw an unerupted third molar pressing upon the inferior dental nerve. An X-Ray observation would, of course, have revealed this, and where there is any suggestion of the trouble arising in the jaw itself an X-Ray examination would undoubtedly be of considerable value." G. D. L.

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Peters, E. F.	Maybeury	Schoolfield, E. R.	Carbon
Pettit, J. G.	Weston	Schoolfield, J. E.	Charleston
Petry, B. L.	Lawson	Schwinn, J.	Wheeling
Phillips, F. M.	Charles Town	Scott, C. J.	Parkersburg
Phillips, S. H.	Blakely (new)	Scott, C. M.	Bluefield
Pickering, W. D.	Lone Cedar	*Scott, J. F.	Medley (new)
Poole, A.	West Union	Shafer, C. F.	Grafton (new)
Post, A. T.	Clarksburg	Shaffer, E. E.	Huntington (new)
Post, S. H.	Lost Creek	Shaffer, J. S.	Carmelton
Posten, S. J.	Morgantown	Shanklin, R. V.	Gary
Powell, R. H.	Grafton	Sharp, J. T.	Charleston
Pratt, S. A.	Kingwood	Sharp, W. H.	Parkersburg
Preston, B. S.	Charleston	Shawkey, A. A.	Charleston
Preston, D. G.	Burnwell (new)	Shelton, C. J.	Williamson
Price, H. D.	Parkersburg	Shepherd, W. S.	Slab Fork
Price, R. C.	Morgantown	Shepherd, J. M.	Falls Mills, Va.
Price, N. R.	Marlinton (new)	Sheridan, C. R.	Cumberland, Md.
Price, S. W.	Scarbro	Shields, T. K.	Triadelphia
Price, U. H.	Chattaroy	Shipper, I. H.	Garrardstown
Prichard, Karl C.	Huntington	Shirkey, D. W.	Montgomery (new)
Prickett, I. T.	Parkersburg	Shirkey, W. F.	Malden
Putney, James	Charleston	Shriver, G. W.	Sistersville (new)
Pyle, J. L.	Chester	Shuey, W. A.	Piedmont
Quaintance, R. W.	Rend	Shull, J. W.	Romney
Quesenberry, G. O.	Hinton	Shuttleworth, B. F.	Clarksburg
Quimby, W. A.	Wheeling	Simpson, J. M.	Morgantown
Rader, J. E.	Huntington	Sinsel, C. A.	Grafton
Ramage, C. R.	Fairmont	Sites, J. M.	Martinsburg
Ranson, B. B.	Harpers Ferry	Skaags, H. C.	Kay Moor
Ravenscraft, J. H.	Blaine (new)	Skinner, C. L.	Charles Town
Ray, C. A.	Charleston	Sloan, H. E.	Clarksburg (new)
Reidy, J. A.	Monongalia	Slater, C. M.	Clarksburg
Reed, R. J.	Wheeling	Slater, S. A.	McComas (new)
Reger, C. N.	Roanoke (new)	Slaughter, H. C.	Winifred
Reppard, M. M.	Middlebourne	Slusher, W. C.	Bluefield (new)
Rexroad, C. W.	Harrisville	Smith, F. W.	Bluefield (new)
Reyburn, J. A.	Ravenswood	Smith, Howard F.	Hinton (new)
Richter, O. F.	White Sulphur Springs (new)	Smith, Isaac	Peel Tree
Rickey, J. W.	Moundsville	Smith, L. S.	Gypsy
		Smith, J. W. R.	Academy (new)

Smith, T. C.....	Cresmont (new)	Vinson, L. T.....	Huntington
Smoot, E. W.....	Madison	Vean, H. H.....	Richwood
Snodgrass, F. P.....	Dorfee (new)	Waddell, C. W.....	Fairmont
Staats, O. M.....	Wheeling	Wade, S. S.....	Morgantown
Steere, D. Q.....	St. Mary's	Waggner, C. B.....	Arbuckle
Steenbergen, J. H.....	Huntington	Walcott, W. H.....	Needmore (new)
Stigers, P. E.....	Hancock, Md.	Walden, J. G.....	Wheeling
Stille, W. S.....	Parkersburg	Waldron, T. C.....	Coalwood
Stone, H. B.....	Ashland	Walkinshaw, J. B.....	Wellsburg
Stone, Marvin R.....	Parkersburg	Walker, J. W.....	Winona
Stone, S. M.....	Tombsburg	Wall, D. N.....	Crawley
Stout, H. B.....	Parkersburg	Wallingford, W. W.....	Princeton (new)
Stout, R. D.....	Exchange	Warden, A. R.....	Grafton
Strachan, Hugh.....	Blaine	Warder, A. S. Jr.....	Grafton
Strickler, E. W.....	Kingwood	Warder, J. I.....	Weston
Strother, J. W.....	Belington	Warnock, C. W.....	Huntington
Stroud, C. G.....	Erbacon	Watts, A. J.....	Huntington
Stump, E. H.....	Philippi	Watts, T. H.....	Elbert
Snyder, George.....	Weston	Weadon, W. L.....	Mount Carbon
S. er, H. C.....	Huntington (new)	Webb, J. W.....	Sardis
Sorrell, A. M.....	War Eagle	Webb, W. S.....	Warwood (new)
Spangler, A. M.....	Pageton	Welmer, E. F.....	Clarksburg
Spangler, C. W.....	Thorpe	Weirich, C. R.....	Wellsburg
Spencer, Walter R.....	Barboursville	Weirich, T. H.....	Wellsburg
Sperow, Clifford.....	Martinsburg	Wentz, G. W.....	Chester
Spillman, J. W.....	Wheeling	Werner, Harry.....	Thomas
Spragg, S. L. S.....	Wheeling	West, G. B.....	Sistersville
Stahl, E. J.....	Charleston	West, H. S.....	McMechen
Staton, W. A.....	Peytona	Wheeler, B. B.....	McKendrie
St. Clair, W. H.....	Bluefield	Whisler, H. C.....	Smithfield
Stelle, W. G.....	Keystone	White, G. R.....	Williamson
Steele, S. M.....	Weston	White, I. C.....	Smithville (new)
Suddarth, F. S.....	Grafton	Whitescarver, J. B.....	Grafton
Sutherland, I. H.....	St. Albans	Whiteside, W. E.....	Fenwick
Swann, P. H.....	Huntington	Whiteman, W. R.....	Bramwell
Swimley, G. W.....	Bunker Hill	Whitsett, J. E.....	Bethany (new)
Talbott, L. W.....	Elkins	Williams, C. B.....	Philippi
Talbott, W. E.....	Harrisville	Williams, J. F.....	Clarksburg (new)
Taylor, D. H.....	Wheeling	Willis, C. A.....	Jenningston
Taylor, C. T.....	Huntington	Willis, E. Y.....	Montgomery
Taylor, I. W.....	Mt. Calm (new)	Wilson, Andrew.....	Wheeling
Teter, J. M.....	Riverton	Wilson, E. A.....	Salem
Thayer, A. H.....	Grafton	Wilson, E. K.....	Romney
Thomas, G. H.....	Romney	Wilson, J. E.....	Clarksburg
Thompson, E. H.....	Bluefield	Wilson, J. B.....	Pennsboro
Thornhill, G. T.....	Gulf	Wilson, L. D.....	Wheeling
Thornburg, J. W.....	Man	Wilson, T. L.....	Piedmont
Thornton, I. T.....	Wheeling	Wilson, T. M.....	Elkins
Thornton, D. H.....	Athens (new)	Wilson, W. C. Q.....	Mannington
Timberlake, W. R.....	Page	Wilson, W. H.....	St. Albans
Tompkins, W. W.....	Charleston	Winfield, J. B.....	Johnstown
Tonkins, H. G.....	Martinsburg	Wingerter, C. A.....	Wheeling
Tooley, G. W.....	Huntington	Wise, S. H. D.....	Parkersburg (new)
Trach, J. M.....	Farmington (new)	Wood, A. D.....	Bluefield
Travis, J. W.....	Grafton (new)	Woodford, A. H.....	Belington
Truschel, C. M.....	Wheeling	Woodville, J. B.....	Fayetteville
Trimble, Staunton.....	Orlando	Woofter, A. J.....	Weston
Trippett, J. F.....	Amos (new)	Woofter, J. V.....	Leopold
Tuckweiler, J. R.....	Baxter (new)	Wright, N. F.....	Burlington
Turk, H. A.....	Newell	Wykle, W. A.....	Hinton
Tutwiler, H. L.....	Roderfield (new)	Wyatt, G. L.....	White Sulphur Springs
Vandine, A. C.....	Clendenin	Yeager, J. M.....	Marlington (new)
Varner, H. V.....	Clarksburg	Yeakley, W. H.....	Keverser
Varner, S. W.....	Kingwood	Yokum, H.....	Beverly
Vaughn, C. M.....	Mannington (new)	York, J. F.....	Huntington
Venning, R. E.....	Charles Town	Yost, Guy.....	Huntington (new)
Vermillion, J. R.....	Princeton	Yost, L. N.....	Fairmont
Vick, C. W.....	Wilcoe	Young, H. H.....	Charleston
Vieweg, G. L.....	Wheeling	Young, W. H.....	Sistersville

*Deceased.

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Original Articles

THE TREATMENT OF TUBERCULOSIS.

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(Read before the Spokane Medical Society, November 22, 1911.)

The treatment of tuberculosis should begin at birth. The cause is scattered throughout every civilized country. We are daily exposed to the disease. Indeed from the cradle to the grave our lives are one continuous struggle against tubercular infection. Every practitioner of medicine is bound to come in contact with this disease. The disease will be found among the patients of every branch of medicine; but the great responsibility will rest with the general practitioner.

I have heard physicians remark, "I never treat tuberculosis"; but no one can make the statement if he treats sick people, for the disease is so widespread, that the physician is treating the disease in some form, whether he recognizes the nature of the malady or lets the disease pass undiagnosed.

If this great scourge is ever to be eliminated from the human race, we, as physicians, must make a closer study of the early signs and symptoms, so that we can recognize the trouble while there is hope of recovery. The responsibility of the campaign against tuberculosis rests to a great extent with the medical profession. We

have a contract on our hands that, even if we apply all recognized means, will take several generations to complete. Our hope lies in improving the physical condition of the coming generations and isolating the infection as much as possible. Let each one of us arise to the occasion, and in the future give more time and study to the nature of this plague. Let us organize and demand more from our federal, state, and municipal governments to fight this disease.

The matter of finance is of the first importance in any campaign against the great white plague. Our federal, as well as our state government, is spending millions of dollars in the study of diseases of hogs, sheep, cattle, trees, and other industries; but scarcely anything is appropriated to eliminate disease in man. So little is thought of human life that but few of our law makers ever consider the diseases of his own race. The medical profession should organize as a unit and demand a National Department of Health. Very little will be accomplished until we start the campaign against tuberculosis with a well organized department. Our people should be taught the extent of this disease, which is threatening the very existence of our nation, before we can expect our law makers to appropriate sufficient funds to carry on this work to a finish.

In considering the treatment of tuberculosis I have divided it into two heads, viz., prophylaxis and general treatment.

The general treatment includes the following: Dietetic, rest, open air, hygienic, climatic, sanatoria, and drugs, including tuberculin.

By far the most important is the prophylactic treatment. This, as I have already stated, should begin at the birth of each individual. Everything possible should be done to give the newborn a fair start in the world. The mother's health should be looked after, and, if possible, all babies should be raised on the breast. Mothers should not be allowed to work in factories, nor engage in laborious occupations while nursing a baby. Every child that has a nasal or throat obstruction should have the same corrected as soon as possible. In the congested districts in the large cities, where most of the children are poorly nourished and have almost entirely unhygienic surroundings, something should be done by the authorities to improve its poor and undernourished population. Every scrofulous child should be kept under observation by the board of health, and examined at intervals for lung trouble. All children should be compelled to pass a physical examination before entering school. All schools should receive medical inspection at intervals. All public school teachers should be compelled to pass a physical examination. Sanitary or open air schools should be provided for all children with tubercular tendencies. The children who are hopelessly infected should be isolated in sanatoria. The use of open sleeping rooms should be encouraged for our entire population. The more time spent in the open air, the better it will be for the human race in general.

The effects of excesses of any nature should be explained to all young people. The ill effects of intemperance on tuberculosis should have a conspicuous place in the education of the young.

Tenements, business and public buildings should be so constructed as to admit plenty of fresh air and sunshine. Laws regulating the sanitary conditions of our public factories should be passed and enforced. All child labor should be stopped, for many a child falls a victim to tuberculosis while working in an insanitary factory.

In fact, everything possible should be done to improve the lot of the working population, for the hope of the nation lies in these people, and conditions are often forced upon them over which they have no control.

Many a poor man is forced to work for

hours in the most insanitary surroundings that one can imagine, inhaling foul gases, irritating poisons, and other material that tend to breed disease. Still he patiently toils on for he needs the wages to support his large family. The state must do something for these poor people before there is any relief in many places. All consumptives should be taught how to care for and destroy the infection of the disease.

One could mention many other things that come under the head of prophylaxis, but I have mentioned enough for the study of this subject, and will pass on to the general treatment of the disease.

The most important agents known to us at the present time with which to combat tuberculosis, are pure food, rest, fresh air, supplemented with drugs and tuberculin.

All the laws of hygiene should be strictly enforced and obeyed. The quarters occupied by a patient should be clean, well lighted and ventilated. The place should be cheerful and the comfort of the patient be looked after as much as possible. Each patient should be instructed in the personal hygiene of the disease. I think it would be a great blessing if every incipient case of tuberculosis could spend some time in a well regulated sanatorium. The evils of sexual excesses should be thoroughly explained to each patient with tuberculosis.

The selection of occupation for tubercular people is a very important matter, both for cases that have recovered, and for those suspected as liable to contract the disease. This is one of the questions very often overlooked in the hygiene of tuberculosis. If possible to avoid it, a patient after recovery should never return to the same work and surroundings where he contracted the disease.

Diet.—The most important fighting agent against tuberculosis is an abundant, good, nourishing diet. I believe in giving each patient all the food that he can assimilate, but I do not believe in forced feeding. The diet should be the most nourishing possible, meat, eggs, milk, farinaceous foods, and butter are chiefly recommended. Care should be taken that a sufficient amount of carbohydrates and albumin is given. The food should be thoroughly cooked, nicely served, and made as appetizing as possible. The dining room should be made very attractive. And as far as possible individual

meals should be served. The manner of cooking an article should be changed as often as the kind of food and circumstances permit. Special attention should be taken to keep the patient from forming a dislike to staple foods. Meals should be served at regular intervals. Four meals a day are usually enough; these should be two full meals and two lunches. One cannot give too much attention to the diet and digestion in the treatment of this disease, for upon the patient's digestion and assimilation will depend the prognosis of each case. A tubercular patient with poor digestive powers has but little chance for recovery. I always like to watch my patients while eating, for the manner in which food is relished often gives me more information about a case than I could obtain from a dozen physical examinations.

Rest.—Our second asset in fighting tuberculosis is rest. Not many years ago the advice generally given consumptives was: "Exercise in the open air as much as possible." This advice alone has sent many an unfortunate victim to an early grave. When a patient has a sprained ankle or a fractured limb, what do we do? Place the afflicted member at rest. Now why should we treat a diseased lung, associated with a weak heart differently from any other organ in the body? Common sense should tell us that rest is one of the cardinal remedies in the treatment of tuberculosis. Yet it took many years for the profession to agree upon this simple form of therapeutics.

I have seen a score of advanced and emaciated patients struggling along the city streets of the southern health resorts, when a child should have been able to see that their place was in bed. These poor fellows thought they were doing the best thing to restore their lost vitality; the fever was increased, the heart weakened, and the end hastened. We all know now that such advice was a mistake. But I want to say that the cardinal rule now is: "Remain at rest in the open air when the temperature is above 99°F." I wish I could impress upon you to-night the importance of rest in the treatment of tuberculosis. Even after a patient is well on the road to recovery we must still keep the cardinal rule in mind. Great harm can be done by too active exercise after convalescence is well established. Not until I had made a close study for years

of this subject, did I begin to realize the importance of rest in the treatment of tuberculosis. How closely the exercise of each patient should be guarded can be appreciated only by one who has had much experience with convalescing patients. I have found that some patients whose temperatures had been normal for weeks, could be raised two degrees by a few minutes of brisk walking. In one instance, I recall a boy who, having run a normal temperature for two months, caused a rise of five degrees in his temperature by helping to unload a wagon-load of iron rods. Some time ago I had a young girl under my care who was recording a normal temperature, and, as far as I could see, was on a fair road to recovery. By a mistake she was sent to the laundry one day and after one-half day's work her temperature recorded 105°F. The quiescent disease became active and soon resulted in death. I have found even mild exercise will raise the temperature slightly in most cases.

On the other hand we all know how many patients, when admitted to a sanatorium with three or four degrees of fever, after being placed in bed in the open air, with a regulated diet, will make a good recovery without any other treatment.

Now if I can impress upon you to keep a careful record of all your patients, and apply the principles of rest, I will feel that my coming was not in vain.

Climatic Treatment.—The value of certain dry and elevated climates in the treatment of tuberculosis has been known for many years. We all know the popularity of climatic treatment during the closing years of the last century, when every patient, whether his case was advanced or incipient, was hurried off to some health resort, with the idea instilled in his brain that, if only a certain climate could be reached, the disease would vanish like mist before a July sun. Many patients were shipped on cots, and, alas, quite a few, like Moses of old, died before reaching the promised land.

Such unfortunate results, with the development of the sanatorium treatment, lead to distrust and disbelief in climatic treatment. However, I still think there is virtue in a high, dry climate for selected cases.

Several factors must be considered. First, I do not believe that an advanced case, where there is no hope, should be sent a

long distance from home. The loss of friends and home comforts will be very depressing on such patients.

A second class of patients with strong home attachments should not be sent away from home, as home sickness will far outweigh the good any climate will do for any patient.

One of the first things to consider is the financial condition of the patient. No patient will receive much benefit from climate, when he must be quartered in some cheap lodging house, and must spend fifteen minutes before each meal scrutinizing the bill of fare to see how cheaply he can have a meal served. On the other hand, it is not wise to have a patient seek a distant climate, depending on some benevolent friend or lodge to furnish funds for his support; for even a very close friend will sometimes forget to write, when he thinks a remittance is wanted. A patient should have ample funds for at least three months. It is very difficult to pick a climate that will suit all cases. Some will do well in a high, dry climate, and others in a climate near the sea level. And the only way to find the climate for each individual patient is to give certain climates a trial. It is certainly very cheerful and invigorating to spend some time in a high, dry climate. But after a time this grows monotonous. One longs to see the clouds again, and even in his dreams sees gentle showers. Certain nervous symptoms that are so common to most tubercular people grow more marked, and life becomes an intense strain. One feels as if he is moving on high gear all the time. Under such conditions it is better for the patient to return to a lower altitude.

When seeking a climate in a desert country always try to avoid the wind, for the wind is bound to bring dust which is very irritating to the already damaged lungs. Seek a location by the side of a mountain that will afford protection from the prevailing wind. Great benefit often follows the sending away of those predisposed to tuberculosis, after they have suffered from acute disease, such as measles or pneumonia.

If possible when sending your patients to a distant climate, have them enter a sanatorium for a time. And always advise that a physician be consulted as soon as the destination is reached. The practice of home

physicians trying to prescribe for a consumptive in a distant climate should be condemned. It would be just as wise for an engineer to steam up his engine, open the throttle, and turn it loose unmanned, as to send a patient to a distant climate and allow him at will to roam here and there without the direction of a skilled physician.

In the treatment of tuberculosis certain climates are valuable assets. But the climate must be selected with care for each individual case.

Sanatoria.—The modern sanatorium is an institution having for its fundamental principles the isolation of the patient; the application of food, rest, and fresh air; the judicious treatment with drugs, serum and any other means that can be wisely applied for the benefit of its patients. By means of these institutions we have control of our patients the whole of the twenty-four hours. Here we are able to keep such records and make such necessary observations as will lead to the wise application of whatever we may find to be for the best good of our patients. It is the most satisfactory of all the treatments for tuberculosis. Not only are the sanatoria curative institutions, but they are also means of education, training their patients not only how to take care of themselves, but so instructing them that when they leave the institutions they will act as teachers for the benefit of mankind. The sanatoria movement should therefore have the hearty support of the people. Their presence in a community acts as constant admonition, teaching people to live more temperate and more sanitary lives; to use all its means to improve the general health of the community; extending as well a solemn warning by showing the fate of all who transgress the laws of nature, neglecting the care that is due their bodies. I think it a matter of duty for us to have as many state and municipal sanatoria established as possible.

Drugs.—I am a firm believer in the use of drugs in the treatment of tuberculosis. I believe that the wise administration of certain drugs does much to build up the system and help combat tubercular infection. I believe that each individual case should be carefully studied and drugs given as indicated. I think drug treatment has been sadly neglected in the treatment of tuberculosis. The bowels should be kept

active. I find that small doses of calomel act very well. I am not going to detail the different drugs used in this disease, for any modern work on therapeutics will give a complete list of these. Iron, iodine, arsenic, strychnin and guaiacol are the most common drugs used.

Tuberculin.—It is pretty well established by all observers that tuberculin has no place in the therapy of *advanced* tuberculosis. All observers seem to agree that the judicious administration of tuberculin in *incipient* cases does good. That it has curative properties in incipient cases seems to be the opinion of almost every observer who has used it to any extent. That all cases are not benefited by serum, and that the case should be selected for the administration is also true. The dose should be very small in the beginning and gradually increased, and should never be pushed to a positive reaction. I think that enough good has been established by the use of tuberculin to justify the hope that the near future will see a serum that will act as a specific in tuberculosis.

POPULAR DELUSIONS AS AFFECTING THE PHYSICIAN.

G. D. Lind, M.D., Greenwood, W. Va.

(Read by title at annual meeting State Medical Ass'n, September, 1911.)

The foolish notions and absurd ideas in the minds of the majority of people in regard to disease and its treatment are, in my opinion, the greatest obstacle in the way of successful management of any case we are called upon to treat.

I have been asked the question, "Doctor, can you cure me?" so often that I have come to the conclusion never to use that word cure in speaking of my medical work. I am telling my patients that nature restores and doctors' advice and medicines only help, but frequently to the extent that death would occur if it were not for their help. Moreover, we never know just how much good medicinal or other treatment does, for we do not know how bad we would have been without them and it therefore pays to have scientific and skilled treatment in every case no matter how apparently trivial it may be.

In the case of an ordinary flesh wound, nine people out of ten believe that if nothing were applied, it would never heal. They also believe that a wound must suppurate, or "run," as they term it, before it will heal. If it does, or does not run, it needs something to draw it. It is useless to tell them that a poultice, of some one or more of the thousand and one things that have been used in treating wounds does not draw. They know that it does because they can feel it draw and when the poultice is taken off, there is the "corruption" which it has drawn out. Draw that all out and the wound will heal, they say. How often have we heard it said that every boil was worth \$5.00. Job must have been a very rich man during his affliction. If you tell people that boils are caused by a germ which enters by the side of a hair, in other words they are infected from without, they will not believe you, for they have always heard that a boil was bad material in your blood, working out and needed help in the way of a disgusting poultice.

The majority of people do not recognize the fact that disease is a condition, or a complication of conditions due to a great variety of causes. They have the old idea that disease is an entity, a something which can be driven out by medicines or incantations. The treatment of disease is not an art based upon scientific principles, but merely a question of hitting the right place with something that has been tried and apparently been successful. They believe that the last remedy used was the cure.

Nearly every patient I treat asks me what he shall eat with the medicine. When I ask why he wants to know, the reply is invariably, that he does not want to be salivated. They all believe that sour substances will cause calomel to salivate. The people, of course, have received this notion from the doctors, but how the doctors could have obtained it I am at a loss to know. It is not taught in any text-book, or in any medical college. We all know, of course, that hydrochloric acid is incompatible with calomel for it will react on it and form corrosive sublimate which is a dangerous drug except in minute doses. Wood says, however, that corrosive sublimate is less liable to salivate than calomel or blue mass. There is a minute quantity of hydro-

chloric acid in the gastric juice and probably a small quantity of corrosive sublimate is formed with every dose of calomel. Probably the free hydrochloric acid in tincture of iron has led some physician to fear danger from any kind of acid. But if that is the case the physician does not know chemistry, for hydrochloric acid is the only acid that will react on calomel and people do not use it as a beverage, food or medicine.

The whole matter only illustrates the effects of prejudice. Give a dog a bad name and kill him. An idea once started, be it right or wrong, tends to prevail. It is more difficult to unteach than to teach. When I was a boy on the farm, I was told that a certain plant, the Virginia creeper, would poison the skin, in fact, that this innocent five-leaved ivy was the real *poison vine* which belongs to another family of plants and has three leaves. So firmly was I convinced of the danger of this plant that even now when I run across one I instinctively shrink from it as from a dangerous reptile.

The common notion concerning colds, or taking cold, is a delusion and the physicians are responsible for it. The majority of persons the world over, including physicians, believe that a draft of air will cause a cold. It is true that one often sees a cold following exposure to a draft, but the cause is not the draft, but the condition of the system at the time of exposure. The inhalation of foul air and the depressing effect of warm air lowers the vital resistance to the germ, or whatever may be the cause of the condition known as a cold. It is very probable, although not absolutely proven, that colds are the result of bacterial invasion. There are a few places on the earth's surface where there are no bacteria, the Sahara Desert, the Arctic and Antarctic regions and mid-ocean and in those places no one suffers from a cold. The air which contains the highest percentage of oxygen and the lowest of bacteria is certainly not conducive to colds no matter what its temperature may be. The trouble is with nearly everybody, that they want to keep warm without fire and without sufficient clothing.

There is a universal prejudice against "night air." But since we must have night and air both, we will always have to breathe night air half the time at least. The purest air is that outside of the house as they are

ordinarily constructed. Therefore the more night air we get the better.

Doctors have for so many years been accustomed to giving medicine instead of advice, that almost every man we meet is paralyzed with astonishment when we charge him for advice. He does not come to the doctor for advice, he comes for medicine or treatment of some kind. When he meets you casually, he may ask your advice, thinking, of course, you will not charge him anything for it.

There is a common notion among people and a good many of them are doctors, that one can tell very little about disease in a child too young to express its feelings in language. There is no greater delusion. The child and the animal do not feign a disease or mask symptom. They tell the absolute truth and all we need to know is, how to interpret their sign language.

Across the street from my office lives an old lady who can blow the fire out of a burn of the flesh. This is not strange when we consider the fact that there is no fire there to blow out. Tell this to the majority of people and they will think you are insane, so firmly rooted is the delusion that there is fire in a burn. I lost a good customer once because I told him that there was no fire in the burned flesh. He sent for another doctor and he told the people that the linseed oil they were using was impure and caused the pain. By the time they had succeeded in getting what they supposed was pure linseed oil the pain had ceased.

These are a few of the delusions, prejudices and superstitions which affect the people and indirectly the doctor, but space and time will permit no further discussion. The point to the whole matter is simply this: The doctor must in the future become more and more what the word *doctor implies*, that is, a *teacher*. The physician who is not constantly engaged in teaching the public, not science, but common sense, will soon be a back number. It may hurt our practice in some cases and for a time, if we explain the action of medicines and the nature and causes of disease, here a little and there a little, constantly, every day, line upon line, precept upon precept, but in the end we will be all the better for it. Time was when medicine was surrounded

by mystery and nobody but the doctor was supposed to know anything about it, but that time is rapidly passing. Religion and medicine were once combined, simply because both were mysteries. It is now time for their complete separation because one should be a question of love and obedience and the other a question of science and skill, widely different in methods and one only in purpose and aim, the redemption of the human race.

To be more specific, when John Smith asks you if you can cure him, do not give a direct answer yes or no, but explain to him the nature of his disease and tell him you can do as much toward helping nature restore him to health as anyone else and no more, unless he needs the aid of a surgeon or specialist and you are not such. If Aunt Sarah thinks that a piece of fat meat should be applied to a wound or sore, explain patiently how a wound heals and what hinders it from healing, the danger from infection, &c. If Bill Jones tells you of some remarkable cure made by some would-be-doctor who blows his own horn, by rubbing, or charming, or the application of some magic mixture of his own, tell him that one time all doctors treated disease in that way and that some got well in spite of unscientific treatment, but that doctors who study disease have learned some things in the course of time. If John Brown asks you what he must eat on this medicine, having evidently in mind his notion of the action of calomel, ask him what he means by the question. If he says he has heard that certain foods and drinks would cause salivation, tell him such notions have long ago been exploded. If Mrs. Finicky objects to the open window because she fears it will give her or her baby a cold, tell her to protect the body by sufficient clothing and in cold weather by a fire also and she need not fear the effects of a draft, that the draft is as necessary for the human body as it is for the stove, or grate, that a fire will not burn without air, neither can life be sustained and health restored without a constant supply of fresh air.

If some one says, "Oh, well, nobody can tell anything about a little baby anyway," kindly explain that a baby will not deceive you, purposely or otherwise, and that grown persons often do it; that doctors

study the sign language of a child and are able to interpret it and thus discover where the trouble lies. In all conversations with patrons act the part of a teacher, explain patiently, showing no sign of being offended even though they insult you. Remember that the Great Physician said, "Neither do I condemn thee, go and sin no more." Do not scold patients or nurses. Instruct them in a better way.

Charge a good round price for your advice and for your work, giving them to understand that it is the advice when followed that does the work mainly and that medicine is only incidental. When people understand this they will have a better appreciation of physicians and be more willing to pay a good price. They will not come to the doctor then and ask for ten cents worth of calomel. When they come to me in this way, I tell them to remember that I am not selling drugs, but giving advice as to how they should be used, and explain that if they are going to take the calomel, it may possibly not be the medicine adapted to their case.

Are we destroying our own business? Yes, in a way we are. If we prevent disease, there will be less for doctors to do, but we will get better paid for what we do. As an ounce of prevention is worth a pound of cure, should not doctors be paid accordingly? But there will be more to do in another way. More instruction will be needed. There will be more inspection of sanitary conditions and of children in schools. The physician of the future will be the medical teacher and the guardian of public health as well as the one who helps nature to restore what accidents and disease have destroyed.

THE CURE OF ENLARGED PROSTATE AND URETHRAL STRICTURE BY ELECTROTHERAPY.

The Report of a Case.

R. H. Pepper, M.D., Huntington, W. Va.

(Read at Annual Meeting W. Va. Medical Ass'n
September, 1911.)

There is without doubt no diseased condition so serious in its nature, and owing to its many complications so difficult to

treat, as the affections of the prostate. The site of the lesion, and the peculiarly delicate functions of the adjacent tissues, combine to render extremely difficult the treatment of these parts. One writer upon the subject says: "It seems that the Lord in His goodness was endeavoring to equalize the suffering of the sexes when he made woman without a prostate."

The etiology and pathology of this affection are so well known that it is not necessary to consume your time with their discussion. It will be necessary to state, however, the opinion of Neiswanger, a writer upon this subject, as it differs somewhat from that given in the text-books. He says, "the term hypertrophy used in this connection is rather a misnomer. True hypertrophy is only an enlargement of the normal cells composing the gland, but in the case in question, however, we have not a true hypertrophy, but rather an accumulation of tissue due to an inflammatory process, which comes up between the glandular elements and by pressure *reduces* them in size. The more proper term, then, would be *enlargement* of the prostate. If, as has been stated by other writers, this were a true hypertrophy, then any means tending to actually destroy tissue would be irrational, because such procedure would not decrease the size of the glandular elements, but destroy them. The prostate gland is a sexual organ, and the effect of any interference with its function is apparent to only a casual observer."

Botini's rapid method does not reduce the size of the gland, but only divides it.

Dr. Young of Johns Hopkins, in speaking of this method, says that some of the causes of death following this operation are uremia, shock, sepsis, etc., brought about by the cautery blade burning its way into the rectum and making the incisions too long, resulting in the rupture of the urethra in front of the prostate, and sometimes fatal hemorrhage from division of the perineal vessels. The rational treatment, then, should be some method that will disintegrate and liquefy these inflammatory products deposited in the glandular elements and stimulate their absorption. This can be done by the aid of electro-therapy.

The case which I wish to present to you from practice to-day is that of a gentleman 70 years of age, who states that while sow-

ing his wild oats he contracted a case of gonorrhoea, and was treated with the usual astringent injections followed by the not unusual strictured urethra. This lessened the caliber of his urethra somewhat, but did not render him uncomfortable until *Father Time reached* out and ruthlessly grabbed him for his own. An enlarged prostate behind this stricture made his life one round of misery and suffering, he only obtaining relief by the aid of the continuous use of the catheter, a very small one, which he could with difficulty insert. He presented himself for relief and the following technique of treatment was successfully used.

It was evidently necessary to relieve the strictured urethra first, as it was impossible under existing conditions to insert an electrode for the relief of the prostatic enlargement.

The procedure was as follows: The caliber of the stricture must be taken in the usual manner with urethral sounds, then an olive-pointed electrode, two sizes larger than the caliber of the stricture, is attached to the negative pole of the galvanic current and introduced into the urethra engaging the stricture. The positive pole to a pad the size of the hand, wet with salt solution, is placed on the abdomen. The current is gradually turned on until five (5) milliamperes is reached. No pressure must be used, and in about five minutes the electrode, by its own weight, will pass through the stricture. The current is then turned off and the operation is repeated in five days, each time selecting a sound two sizes larger than the caliber of the stricture, until the urethra is of normal size. In the above case this was accomplished in six treatments with some relief of the patient's symptoms, as he could now more easily insert a catheter to empty the bladder, but was still unable, however, to void his urine naturally. It would dribble from him at all hours of the day and night, adding somewhat to his discomfort.

The next step was to reduce the enlarged prostate.

An electrode devised by Neiswanger was used, consisting of a hard rubber tube closed at the distal end by a plug of the same substance, and bent to a proper urethral curve. Small holes are drilled in the tube for a space of two inches from the distal end. This tube encases the applicator, which con-

sists of a twisted copper wire to the proximal end of which is soldered a socket for the reception of the cord tip. Absorbent cotton is evenly wound on the applicator for about two inches, and after wetting in a solution of potassium iodide (twenty grains to the ounce) it is replaced in the hard rubber receptacle. The electrode is then introduced into the prostatic urethra attached to the negative pole of the galvanic current. The positive pole is applied to a wetted pad as before described, and the current gradually turned on until ten milliamperes is reached and maintained for ten minutes. The action caused by this treatment is the softening, disintegrating, and liquefying effect of the negative pole and also to break up the component parts of the solution. The iodine being an electro-negative, it will be attracted by the positive pole and filter through the tissues of the gland, thereby increasing the absorption of the deposited inflammatory products.

With an enlarged prostate there will always be found a loss of tone in the detrusor muscle of the bladder; the office of this muscle is, by its contraction, to raise the floor of the bladder to the level of the prostatic urethra so that all the urine may be voided. When the prostate is enlarged the prostatic urethra is higher than usual, allowing the floor of the bladder to sag and accumulate residual urine, and the detrusor muscle being too weak to do its work, this accumulated urine decomposes, causing an irritable bladder which does not add to life's pleasures; so the success of the treatment depends as much upon restoring the tone of the detrusor as in treating the enlargement.

To do this, leave the electrode in place after giving the above treatment, and turn on a slowly interrupted faradic current (interrupted by rheotome to fifty per minute), and use for five minutes longer. This not only massages the detrusor but also stimulates the absorbents to take up the products of decomposition set free by the first part of the operation. This technique was used three times a week for two months and twice a week for two months, making five months of treatment in all, restoring the patient to comfort and enabling him to enjoy many pleasures of life which he had been denied, to say nothing of the relief from his sufferings.

These cases are often accompanied by complications that must first be relieved before treatment for the prostatic enlargement can be used.

There may be:

- (1) Stricture (as in above case).
- (2) A hypersensitive urethra.
- (3) A thickened, patulous and easily bleeding urethra.
- (4) A hyper-acidity of the urine.

The first, second and third complications are easily relieved by electro-therapy. The fourth, hyper-acidity of the urine, must be corrected by internal medication to render the urine bland and non irritating. The most marked results you will find will be had in simple enlargements that are not complicated with inflammation.

This paper is not offered as anything new or original; in fact, to the electro-therapist is due an apology for its triteness, but to those of you who never used galvanism in these cases, get busy, and you will receive not only the feeling of gratified success, but many blessings from your more than grateful "old men" patients.

TONSILLECTOMY A HOSPITAL OPERATION.

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*(Read at Annual Meeting of State Medical Ass'n,
September 1910.)*

The ease with which the projecting portion of a tonsil can be clipped off with a tonsillotome has caused the public, and many physicians, to greatly underestimate the importance of tonsil surgery. I want to emphasize the fact that such a procedure has no relationship to a complete removal of the tonsils which modern methods, and results obtained, have clearly proved is the proper operation, when these encapsulated lymphoid masses show a tendency to become the seat of recurrent attacks of inflammation, and thus a well established atrium of infection. The consensus of opinion among those who have most to do with tonsil work is progressively tending towards tonsillectomy *versus* tonsillotomy.

Tonsillotomy as ordinarily done generally corrects that feature of obstructed respiration so often seen in young children, when

the tonsils project beyond the faucial pillars, but are really not diseased, simply non-pathologically enlarged tonsils. Except in this condition, and when the patient refuses the complete operation, I do not think tonsillectomy is ever warranted, and in fact prefer doing a complete enucleation even in these cases. There is a rapidly growing disregard for the so-called physiological function of the tonsils, clinical facts showing it to be a mere negative quantity, no bad effects following their complete removal. When diseased, there is always a marked physical improvement after removal.

Indications for Tonsillectomy.—Impaired nutrition, systemic dyspnoea, and general toxemia, when of tonsillar origin, recurrent tonsillar abscess, or quinsy, benign tumors and new growths of any kind, diseased crypts coexisting with tonsillitis and rheumatism, mouth breathing due to hypertrophy of tonsils, middle ear inflammation, apparently due to enlarged tonsils, recurrent simple tonsillitis, laryngitis, associated with attacks of hoarseness, often due to tonsillar disease. Hence if the crypts are diseased, or the tonsils hypertrophied they should be removed. Follicular pharyngitis, when associated with chronic suppurative follicular tonsillitis is another indication for removal.

Tuberculous infection often begins in the tonsils, and when such a process is demonstrated, or strongly suspected, the tonsils should be enucleated.

The relationship between nasal catarrh and tonsillar disease is not perfectly clear, but marked improvement often follows their removal.

The object of this paper is not to discuss at length the indications for, or methods of doing tonsillectomy, but to show that in view of the importance of the tonsil, from a clinical standpoint, and the possible complications and sequelae following its removal, tonsillectomy should be regarded as a major operation, and when possible would better always be done in a hospital. To do this operation in the home, or in the office, allowing the patient soon afterwards to be taken home, is unsurgical and dangerous.

Pyncheon gives the following classification of difficulties, other than the natural difficulty of operating in a deep cavity, the opening of which is none too large.

(a) Operating in a channel of respiration

which must not be occupied by blood or otherwise.

(b) Occupying the field jointly with the anaesthetist, who should always be given preference.

(c) Operating on a patient who may often be said to be semi-asphyxiated from defective respiration, whereby the blood has become overladen with carbon dioxide and underoxygenated for possibly several years, thereby increasing both the difficulty and danger of anaesthesia.

(d) Operating in close proximity to important vessels, and at all times in a region rich in blood supply, necessitating a field more or less obscured by blood.

(e) Operating in a field the nerves of which, when irritated, may by reflex action through the pneumogastric unfavorably affect the heart action.

The physician who undertakes this operation is making a great mistake unless he is a good dissector, thoroughly familiar with the anatomy of the throat, and knows that he is competent and prepared to meet the surgical emergencies that are certain to present themselves, sooner or later.

The chief danger attending operations upon the tonsils is hemorrhage, which arises from anomalous arterial distribution, or as a result of accidental wounding of an artery in the surrounding tissues. Secondary hemorrhage is not common, but when it does occur it is usually profuse and persistent.

Fatal secondary hemorrhage is rare, and almost invariably it occurs in patients who are allowed to go to their homes soon after the operation is completed. I have never seen a case where hemorrhage was so profuse or persistent as to demand ligation of the common carotid artery, and I believe that in most instances when it has been done, it could have been avoided had the operator caught the persistent bleeding points with long handle Kelly or Jackson hemostats, and tied them with cat-gut just as you would a bleeding point otherwise placed. It is true that this is a difficult thing to do, but it can be done, and the necessary instruments and ligatures should always be in readiness for this step, also those for ligating the common carotid artery. Again, you may be called upon to do a rapid tracheotomy. Should either of the above emergencies arise, I am sure you

would be fortunate to have your patient in a hospital and everything in readiness for prompt action.

Choice of Method.—This is largely a matter of individual skill or preference. Some advocate finger dissection, others dissect with various blunt or sharp instruments, completing operation with snare or tonsillotome. The more daring use only a scalpel, claiming that a clean dissection with a sharp knife heals more kindly than the wound after dull dissection. Any method is a good one if the faucial tonsils are removed in their entirety, without injury to surrounding structures.

I will give a brief description of Tydings' technique, which to me has proven best suited in the majority of cases. Dr. Oliver Tydings of Chicago not only developed this operation, but provided a set of instruments for it that cannot be improved upon.

They are: Tydings' sickle knife, tonsil forceps and snare. You will need two additional instruments. A Stubbs modification of Murdock's mouth-gag, a short-handle tongue depressor. This knife is as nearly perfectly adapted to this work as it is possible to make one. Having a blunt point, it follows the natural line of cleavage, which a sharp instrument will not do. The snare is designed for heavy work, has a lever action, takes a short number 9 wire (five inches long), and one threading does for both tonsils. The position of patient under anaesthesia is different from any I have seen described, but once tried, will be continued. It is a semi-dorsal decubitus with the body on an incline of ten degrees, with head occupying the lower angle. This is done to get the blood and mucus in the upper part of pharynx, when it can be readily wiped out. The face is turned up at an angle of 45 degrees so that your light can be thrown down (not up), the operator standing; mouth-gag introduced, assistant holding tongue down. Seize tonsil with angular forceps, and draw forward and towards the median line. This lifts it from its bed, when not adherent, and maps out the contour of tonsils; then with the sickle knife make an opening through the mucus membrane, which is a good plan for beginners, but after you have done quite a number of these operations you will find it just as easy to include the deeper structures.

Hug the tonsil as close as it is possible. Your effort should be generally directed first to the supra-tonsillar fossa, and when you have freed the vela lobe, then follow along down anteriorly or posteriorly, which ever may look the easier or more convenient to follow. When you have finished encircling the tonsil, you will not only have severed all the mucosa but all tissue necessary to engage the tonsil within the loop. When once engaged press the handle of snare, and the tonsil is shelled out in its capsule, leaving a smooth fossa, free from tonsil tissue.

A common error with most snares is in having your loop too large; an inch loop is large enough for the largest tonsil. By injecting around the tonsil a weak solution of adrenalin chloride m. xx to 5j normal salt solution, one can do an almost bloodless operation.

In adults I frequently add one-third grain of cocaine hydrochloride to the above solution, and with patient sitting on operating chair remove both tonsils in a few minutes with no pain and practically no hemorrhage. Wendell Phillips says the reasons which favor the hospital for this operation are real and tangible.

(1) Asepsis is more easily obtained.

(2) A well equipped operating room inspires the confidence of the surgeon, and thereby favors his technique.

(3) The facilities of the operating room are helpful in controlling temporary hemorrhage.

(4) The continuous rest in bed, for from 24 to 48 hours, minimizes the shock resulting from the anaesthesia, the operation itself, and from the loss of blood.

(5) Finally, the dangers of consecutive hemorrhage are overcome, inasmuch as trained attendants are at hand, and no time is lost in the application of hemostat, or other means of control.

I will add that you can always get a good light in a hospital, and only those who have attempted this work at the patient's home can appreciate the difficulties encountered in getting a satisfactory light.

It is apparent, then, that even with all the facilities of a well-equipped hospital, the operator has both hands and his mind well employed in this seemingly simple, although really serious and difficult operation.

To do a satisfactory tonsil operation is often quite as difficult as to do any other operation in the region of the ear, nose or throat, and it requires as much skill.

The tonsil operation, therefore, is one above all others that should be done by the specialist, and it should be done with great care and deliberation. Whenever possible, insist that it be done in a hospital.

1015 Virginia St.

ATROPIN IN THE TREATMENT OF OCULAR DISEASES.

Indications and Contraindications.

H. R. Johnson, M.D., Fairmont, W. Va.

(Read at Annual Meeting of State Medical Ass'n, September 1911.)

When, a few weeks ago, this subject was suggested to me by your secretary, I was disposed to dismiss it as not being of sufficient importance to bring before this body; but after giving it more careful thought, and with the testimony of my own observation for several years, I was impressed with the timeliness of the topic and decided to bring it before you for consideration.

In the preparation of this paper it has not been my purpose to present any new conceptions, but simply to refresh and re-emphasize what are already known facts substantiated by the experience and observation of clinicians engaged in this work, and to clearly point out to you as general practitioners, the necessity for careful discrimination in the application of atropin in the treatment of ocular affections.

The indications and contraindications for the use of atropin are pretty clearly defined, based upon definite pathological conditions, and, while errors of commission are often followed by positively disastrous results, those of a negative nature, following sins of omission, are no less reprehensible or destructive.

First.—*What are the indications?*

If we will recall that atropin paralyzes the ciliary muscle, and the sphincter iridis, thereby putting the eye at rest, dilating the pupil, relieving all ciliary and pupillary action, we can readily see its rather wide range of usefulness in many affections of the iris, cornea and anterior uveal tract.

In the treatment of iritis it is the *sine qua non*, used for its specific action on the iris. By its properties to dilate the pupil it prevents posterior synechia, breaks up recent adhesions already formed, and squeezes the iris down like a sponge, compressing the vascular supply and throttling the inflammation.

By its properties to relax the ciliary muscle it puts the eye in a state of physiological rest, and acts as an anodyne.

Before atropin is used in a case that presents itself with symptoms resembling iritis, it is necessary to make a diagnosis, particularly between iris inflammation and inflammatory glaucoma; for one of the properties of atropin is to increase intra-ocular tension in a glaucomatous or pre-glaucomatous eye.

The cardinal points in the diagnosis are: in iritis the pupil is contracted and rigid; in glaucoma it is more or less dilated and responds to light feebly or not at all. In iritis the iris markings are indistinct and hazy, the aqueous is more or less turbid, the anterior chamber of normal depth, the tension normal. In glaucoma the iris markings are distinct, aqueous not turbid, iris pushed forward, anterior chamber shallow; the cornea is often hazy, or what is usually described as steamy; the tension is always elevated in inflammatory glaucoma. Vision may be and usually is markedly diminished in both affections, but in iritis the field is not contracted, while in glaucoma it is very perceptibly restricted and usually more to the nasal side. Where ophthalmoscopic examination is practical there will be cupping of the disc. These points in diagnosis, if carefully noted, will prevent mistakes and help you to avoid the dire results that follow the use of atropin in glaucoma. In iritis the failure to use atropin is productive of just as bad results as the use of it is in glaucoma. If the pupil in iritis is allowed to remain contracted, adhesions form between the iris and anterior capsule of the lens and the iris is permanently bound down, and if total, usually results in increased tension and secondary glaucoma. So keep the salient differential points between the two diseases in mind and never allow iritis to pursue its course without the early use of atropin.

I may say in nearly all forms of keratitis, speaking in general terms, atropin is indi-

cated. In suppurative as well as non-suppurative corneal ulcers, and in traumatism of the cornea and iris, atropin is indicated for its anodyne properties and its power to paralyze the pupil and ciliary muscle and put the eye at rest; or, in other words, it puts the eye in a splint. Another reason for its use in corneal inflammation is, that in many of these conditions there is some iritic involvement ranging all the way from slight irritation to actual inflammation.

The administration of atropin in these cases not only improves existing conditions but often prevents the development of plastic iritis with all its disastrous results.

Contraindications: We have already hinted at these, but would further say that atropin is contra-indicated and positively dangerous in certain conditions. Knowing its properties to increase intraocular tension, it should be carefully avoided in all conditions where a predisposition to, or actual glaucoma exists. Age is a predisposing factor, and calls for judgment and discrimination in its application after the age of forty-five. While it is still a mooted question as to whether atropin instilled in eyes passed forty-five years, free from glaucoma or a tendency thereto, is capable of precipitating an attack, it is nevertheless the testimony of our most trustworthy observers, that when these conditions are present it can and does produce violent attacks of glaucoma; hence it can be laid down as a safe proposition that atropin should never be used in an eye of one past middle life that has not been preceded by a careful examination and glaucoma positively excluded. This, of course, calls for careful functional tests, examination of the field of vision, pupil, tension and ophthalmoscopic examination of the fundus. There is a small per cent of cases in which atropin is the most useful agent, but contra-indicated because of its producing increased tension. This is sometimes observed in iritis and corneal affection, and must then be withdrawn; and right here I warn you to be on the watch for increase of pain and tension in the treatment of these troubles in those of advancing years. While conditions other than those mentioned may and do arise, indicating the use of atropin on the one hand and contra-indicating it on the other, those which we have mentioned

include about all with which you as general practitioners will be concerned.

To summarize: Atropin is indicated, first, in all forms of iritis; second, in corneal inflammations, suppurative and non-suppurative keratitis and ulcers; third, in traumatism of the iris and cornea.

Contraindicated in, first, glaucoma simplex or inflammatory; second, in those with glaucomatous tendency; third, in all past middle life until the above conditions are excluded by careful examination; fourth, in all conditions in which its use increases pain, congestion associated with increased tension; fifth, in those individuals in whom it produces acute poisoning or mania.

Too often we hear physicians proclaim that they do not pretend to know anything about the eye, and whose only medication for all eye troubles is a solution of boric acid. Far too often we get cases from these physicians in which corneal and iritic inflammation has progressed unchecked until irreparable damage, if not entire destruction of the visual function has occurred, which could have been avoided if discriminating treatment had been employed.

It is not to be expected that the general practitioner would be as exact in the details of his diagnosis and treatment as the specialist, but it is not unreasonable to demand as much care and judgment in the treatment of these serious eye affections as they devote to the ovary, appendix or gall-bladder. The physician's responsibility here is certainly nothing short of being able to render intelligent first aid with judgment and discrimination.

A CASE OF RUPTURED LIVER.

Presented Before the Clinical Society of
the Elizabeth General Hospital of
Elizabeth, N. J., on Nov. 21, 1911,
by C. E. Grimm, M.D., House
Surgeon.

On the afternoon of September 15, 1911. Mr. O. T., 25, a native of Sweden and a carpenter by trade, came into our institution with the following history:

At one o'clock on the afternoon while working in a planing mill at Carteret, N. J., the patient was struck with a heavy board in the upper abdomen. Severe pain and marked tenderness were experienced in

the right upper quadrant of the abdomen. Dyspnea, thirst and faintness were also prominent subjective symptoms. He did not lose consciousness, however. He was put on the first train for Elizabeth and arrived at the hospital at 3:50 p. m. in the ambulance.

Condition on Admission.—The face was pale and pinched and the skin cold and clammy. His pulse was 120, but of good volume. Respiration 28 and temperature 99.8°. Upon inspection the breathing was found to be of the costal type. No evidence of skin injury was visible. Marked tenderness and rigidity were elicited in the right upper quadrant of the abdomen. Dulness in the flanks was obtainable upon percussion. A diagnosis of intra-abdominal hemorrhage, probably due to ruptured liver, was made, and the patient was hurriedly prepared for laparotomy.

Preliminary to ether anaesthesia a quarter of a grain of morphia sulphate and 1-100 of a grain of atropia sulphate were given hypodermatically. The patient was also catheterized, normal urine being recovered. During the early part of the operation 650 c.c. of normal salt solution was given into the left median cephalic vein.

Operation by Drs. Shaugle and Grimm.—

An eight-inch incision in the epigastrium, slightly to the right of the median line, was made, splitting the right rectus muscle. Upon entering the abdominal cavity an immense quantity of bright blood was encountered, which was, for the most part, removed by sponging. In order to get a better exposure of the under surface of the liver, a transverse incision joining the longitudinal incision was made along over the right costal margin, which almost completely divided the right rectus muscle. A tear three inches long and two inches deep was observed in the anterior portion of the right lobe of the liver. The greater part of the hemorrhage was apparently coming from the rent. The tear was closed with four fairly deep chromic catgut sutures. A small tear in the fissure for the gall-bladder was packed tightly with plain gauze. A tear three inches long and one inch deep on the under surface of the right lobe was closed with three chromic catgut sutures. The other abdominal viscera were then examined and found to be intact. The abdomen

was closed in layers, one piece of packing extending to the tear in the fissure for the gall-bladder. The patient's general condition was as good as it was at the start of the operation.

Progress of the Case.—At 7 p. m. his respirations were 22 and he had a surprisingly good pulse of 88.

At 11 p. m., R. 20, P., 120; T., 101.4°.

For the first 24 hours he received normal salt solution by the rectum, fifteen drops per minute for one hour at three-hour intervals. During the night he vomited ½ of greenish liquid. In the early morning cracked ice was given and a little later the laparotomy series was started. He slept five hours and had a fairly comfortably night. At 8 a. m. R., 24; P., 100; T., 100.8°.

It was necessary to dress his wound at 9 a. m. because of saturated dressings. During the day of the 16th he took three ounces of beer and four ounces of broth.

At 5 p. m. R., 28; P., 104, and T., 102°. The patient was apparently comfortable the greater part of the day. Soft diet was taken on the third day. He had a large formed dark brown bowel movement on the fourth morning after operation as the result of an enema. The drain was removed on the fourth day and the sutures on the fifth day. He took full house diet on the eighth day. Made an uneventful recovery, getting out of bed on the 28th day, and was discharged cured on the 44th day.

An hypertrophied lingual tonsil sometimes causes much discomfort, giving a heavy, sore feeling to the base of the tongue. It may be necessary to remove it. *American Journal of Surgery.*

The differentiation between a specific and tuberculous ulcer of the fauces is sometimes very difficult. As a rule the specific ulcer is shallow, grayish, with a regular margin, not very tender and does not cause dysphagia; on the other hand, a tuberculous ulcer is deeper, more sloughy, irregular in outline, has an outer inflammatory zone, is exquisitely tender and causes great pain on swallowing; laryngeal examination may reveal a tuberculous condition of the cords.—*American Journal of Surgery.*

Selections

TREATMENT OF CROUPOUS PNEUMONIA.

By George William Norris, A.B., M.D.

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(Read in the Section on Medicine, Medical Society of the State of Pennsylvania, Pittsburg Session, October 3, 1911.)

The most important therapeutic indication in croupous pneumonia is to prevent or if this is impossible, to modify the effects of toxemia, and to avert or treat complications. The animal infected with pneumococcus dies of toxic vasomotor paralysis, not of heart failure. If the vasomotors can be stimulated, the heart is perfectly capable of continuing its work. In the human being the problem is a somewhat different one, by virtue of the fact that pulmonary lesions (pneumonia) occur, which can rarely be produced on animals experimentally. Although in the human being we have this added mechanical factor to deal with, yet no one who has had an opportunity of studying many cases of croupous pneumonia can doubt the fact that most of the patients who die do so as a result of toxemia and not as the result of mechanical factors increasing the work of the right heart, or from insufficient aeration of the blood.

Croupous pneumonia is an infectious, self-limited disease, which under ordinary circumstances runs its course in from seven to eleven days, the cure of which can only be brought about by the development of a sufficient quantity and quality of antibodies in the system. With the possible exception of the vaccine treatment, which will be discussed later, we possess no means of hastening this process of antibody formation, or, in other words, of treating the disease directly. Pneumonia may abort itself, run its course, in from one to five

days, but no known drug has any such effect. The idea that it resulted from mechanical factors which produced a localized congestion has long been abandoned, and specific treatment with drugs based on ideas of antiseptics is slowly sinking into oblivion. Both of these methods were based upon erroneous conceptions of the etiology and pathology of the disease.

Pneumonia is a localized manifestation of the general pneumococcus infection. Such an infection may exist with other localizations, such as arthritis, enteritis, peritonitis, endocarditis, keratitis, etc., without any antecedent or subsequent invasion of the lungs. We must also remember that pneumonia may result from the fact that a localized or subacute or chronic focus of infection, such as in the mouth, nose or ear, may undergo an acute exacerbation and infect the blood stream. It has been experimentally demonstrated by Tizzoni and Panichi that the pneumococcus may remain latent in the blood of animals for months after inoculation, regardless of whether or not an active or passive, a partial or a complete, immunity has been developed previous to the inoculation. Edsall and Ghiskey reported a case of symptomless pneumococcemia in man. These results naturally suggest that in some instances an acute attack of pneumonia may be simply an exacerbation of what is really a subacute or chronic infection. This would explain some of the early recurrences of the disease which we sometimes meet. We know that many apparently normal individuals harbor the pneumococcus more or less frequently in their respiratory passages, and when their resistance is temporarily lowered through traumatism, exposure to cold, an alcoholic debauch, etc., the slumbering pneumococcus seizes the chance to arise and assert itself by an infection of the blood. As corroborative evidence of this explanation, Tizzoni and Panichi found that in some animals chronically infected with the pneumococcus, showing no evidence of illness, if the trauma was inflicted, localized infection occurred at the point of injury, sometimes ending fatally.

If, then, no direct treatment avails, we must confine our efforts to assisting a development of antibodies by keeping the patient's general vital forces at as high an

index of functional capacity as possible. A number of means for doing this are at our disposal:—

1. *Rest.* It is, of course, essential that the patient should have as much mental and physical rest as possible. It not only diminishes the work which the heart is called upon to do, but it economizes the number of calories which are consumed by the body. Sleep is essential even if it has to be procured through the administration of an hypnotic, such as one of the bromids, some form of opium or, where the heart is vigorous, trional or kindred drugs. It is much better that we should run the risk of moderately decreasing the patient's excretions in this way than that he should be allowed to exhaust his forces in sleepless anguish or uncontrolled delirium. The pain which is almost universally present in these cases during the first two or three days generally requires treatment. This pain, which generally results from an acute pleurisy, is most effectually controlled by tightly strapping the chest. It has been urged that this method of treatment seriously interferes with subsequent examinations of the patient, and, while doubtless this is true, once the diagnosis of pneumonia has been definitely established, there is little need for daily examination of the lungs during the height of the disease. It is only during the later stages and during convalescence that such examinations are required in order to note the occurrence of complications, such as empyema, abscess, etc. Frequently, however, the local application of an ice bag and, although less satisfactory, a hot-water bag or sinapism will suffice to alleviate the pain.

2. *Fresh Air.* By far the most important recent advance which has been made in treatment is the liberal and constant supply of fresh air. This treatment is often followed by the most brilliant results, both as regards the patient's immediate comfort and his ultimate recovery, results which are obvious no less to the physician than to the patient himself. When this form of treatment is instituted early and properly, the mortality is decreased and the amount of medication required is greatly diminished. The patient is more comfortable, sleeps better, complains less, is less delirious, digests better, requires fewer hypnotics and less stimulation. This treatment should follow the lines which are now generally

adopted in the case of tuberculous patients. If possible the patient should be absolutely outdoors, either on a veranda or in a tent. He should be sufficiently warmly but not too warmly clad. Special attention should be given to keeping the feet warm. This often requires a local application of heat or hot mustard foot-baths. The latter often are followed by brilliant results in producing sleep and diminishing the tendency to delirium, as well as improving the patient's circulation. In all cases it is at least possible to keep the windows wide open; the patient may be protected from direct draught by means of a screen. If there is high wind and much dust, window screens of wire or coarse cheesecloth may be employed. Changing the patients' position in bed at frequent intervals is important, not only for their comfort but especially to prevent the occurrence of hypostatic pulmonary congestion in aged and debilitated subjects. Pneumonia patients may be treated with this fresh-air method, regardless of temperature. Fever patients do not "catch cold."

3. *Food.* Attention to the nourishment of pneumonia patients is extremely important. They not only lose weight rapidly through increased catabolic processes, so that sources of energy require replenishment, but indigestion may act deleteriously in a two-fold manner: First, because the food, fermenting or decomposing in the intestinal tract, does not furnish a sufficient quantity of calories; secondly, and of more importance, through the production of tympanies. The latter is a symptom too frequently seen in pneumonia as the result either of injudicious feeding, indigestion or toxic paresis of the intestines. It is a symptom which should be constantly looked for and promptly treated. Stadler and Hirsch have shown experimentally that tympanites increases dyspnea, which deleteriously affects the heart by mechanically crowding this organ upward and to the left. This is especially the case if the left lung is consolidated. Inasmuch as an exclusively liquid diet often favors intestinal fermentation, a change to a semisolid diet may be advisable. If starches in any form are administered, special care should be taken to see that they are thoroughly cooked. Junket, custard and other foods of the class that is currently designated

"soft diet" are generally useful, and there is no contraindication to finely chopped meat if the patient desires to take it. No benefit accrues from the use of any of the various proprietary foods, which can not be attained by other means. Their cost and alcoholic content is high, and their nutritive value low. In the symptomatic treatment of tympanites a number of procedures prove useful: First, correction of the diet; second, the administration of some aid to digestion, such as diastase or hydrochloric acid, the former with the hope of increasing starch digestion in the stomach; the latter with the idea of increasing the duodenal and pancreatic secretion. I have never been able to convince myself that any benefit followed the use of pepsin, pancreatin, etc., nor is this surprising when we consider the fact that tympanites is generally a manifestation of toxemia in which the digestive organs are only secondarily at fault. Tympanites when present may be more or less alleviated by the administration of physostigmin or by the introduction of a high rectal tube, which may be left *in situ*. Turpentine stupes applied to the abdomen are generally much less effectual than the application of cold by means of an ice bag or, better, Leiter's coil, or the alternate application of heat and cold. Thorough evacuation of the bowels by means of castor oil, or calomel followed by a saline, and high rectal enemas containing turpentine are often employed with benefit.

4. *Pyrexia*. Fever in pneumonia rarely requires treatment. It is an index of the reaction on the part of the individual to the infection. Naunyan and Rosenthal found that rabbits could live for weeks with temperatures ranging between 105° and 109° F. Of course high temperatures may have deleterious effects, such as are witnessed in heatstroke, but such an occurrence is distinctly rare in fevers. We must also bear in mind that culture media raised much above the normal body temperature afford an unfavorable soil for the propagation of the pneumococcus. The fact that birds, whose temperature normally exceeds 104°, are immune to certain infections, but that they can be infected when the bodily temperature is lowered, is significant. According to Bouchard, it has been experimentally shown that the reduction of the pyrexia in

infected animals is entirely without beneficial effect. Occasionally, where extreme grades of temperature do seem to call for treatment, cold or tepid sponging may be employed. There is no more danger in sponging a patient having pneumonia than a patient having typhoid fever. Patients with a vigorous temperature reaction (102° to 105°) are much more apt to have a crisis early and convalescence without complications than those in whom the temperature rises but little above the normal. This is exemplified by the course which pneumonia runs in senile and debilitated individuals as contrasted with that in children and healthy adults.

5. *Toxemia*. As has already been stated, the most important therapeutic consideration with which we have to deal in pneumonia is the treatment of toxemia. In addition to fresh air and diet we need to look after the patient's excretory organs. It is a good practice to treat every case of pneumonia when first seen by divided doses of calomel, followed by a saline, and we should see to it that a daily evacuation of the bowels is produced throughout the course of the disease, either by means of laxatives or enemas, if it does not occur spontaneously or sufficiently freely. Renal excretion is equally important. This will generally, however, be maintained, provided the patient's circulation is adequate and he is given a sufficient quantity of water. At this point it may be well to emphasize the fact that pneumonia patients are apt to be stuporous and rarely ask for water, although they drink it readily if it is offered to them. One dram of potassium bitartrate in a tumblerful of lemonade makes a pleasant refrigerant drink, with considerable diuretic effect. We must not, of course, forget that acute nephritis is by no means a rare complication of pneumonia and, when such occurs, we must treat the patient accordingly. Toxemia may also be combated by the intravenous saline infusion, but much better results are generally obtained through the application of continuous saline enteroclysis. Upon the circulation, toxemia manifests itself by fall of blood pressure, resulting from vasomotor paresis, and by dilatation of the right heart, the former being far more important than the latter. The most successful method of treating this lowered blood

pressure is cold sponging, and it is to its effect on the nervous system and blood vessels, far more than to its depression of temperature, that its beneficial effects are to be attributed. The administration of adrenalin hypodermically will raise blood pressure, but unfortunately its effects are extremely fugacious, necessitating frequent repetition of its administration. The dangers of producing chronic arterial changes upon the vascular system or the heart muscle are slight in the dosage (10 to 15 minims) in which it is employed. Its use throughout the course of the disease, however, can not be recommended. It may be employed as a means of stimulation to tide a patient over the crisis, if there is reasonable probability that such may occur within a day or two.

The use of digitalis is rarely attended by beneficial results. It is slow in action and in my experience singularly unsatisfactory in all cases, not only of pneumonia but also of other infections in which there is much fever. This fact although originally pointed out by Thomas in 1865, and corroborated both clinically and experimentally, is constantly ignored. This inaction of digitalis is not due to the pyrexia, since Brunton has shown that in the heart of the rabbit and probably other mammals a temperature sufficiently high to produce a stoppage of this organ does not paralyze the vagus or the inhibitory apparatus through which it acts. Apparently the effect of digitalis upon the tenth nerve is greatly overshadowed by the action of the disease toxin upon these structures. In sudden collapse, in cases in which the heart is mainly at fault, the intravenous administration of strophanthin in milligram doses, once in twenty-four hours, sometimes produces striking results. It acts promptly in slowing the heart, raising vascular tension and increasing diuresis. The latter is a factor the importance of which can hardly be overemphasized, it being nature's chief channel for toxic elimination. How often the whole clinical picture changes completely, immediately upon an increase in the real output!

Oxygen inhalations are useless if the sick room is properly ventilated. Theoretically they might be of use in cases in which dyspnea or cyanosis is due to partial obstruction of the bronchial tubes through

excessive secretion, but even here a cold sponge or tub will accomplish more by raising blood pressure and stimulating respiration. Gaseous interchange in the lungs takes place according to the law of partial pressures. The air normally contains sufficient oxygen, and merely increasing its concentration will not cause any greater absorption.

It has long been known that the chlorids tend to disappear from the urine of pneumonia patients during the height of the disease and to reappear just before the crisis. This not unnaturally suggested the thought that the salt was needed for some reason by the organism and should therefore be administered as a medicine in addition to the amount taken with food. This reasoning is fallacious. The salt retention is not due to an increased amount of this salt locked up in the pulmonary exudate, nor to decreased absorption from the intestinal tract, nor to an increased amount in the circulating blood, but probably to a diffuse distribution throughout the tissues owing to a relative renal insufficiency.

Strychnin in therapeutic dose has no effect on blood pressure and, though a useful general stimulant, it should be reserved until distinctly indicated, and then used freely. I find an almost universal tendency, on the part of hospital resident physicians and others, to administer strychnin routinely to pneumonia cases from the very outset, with the idea of "keeping up the patient's strength." This method of treatment is just as illogical as it would be for a jockey to whip his horse continuously from the start to the finish of a long race. I have seen many pneumonia patients suffering from an insomnia and subsultus, supposedly the result of toxemia, but really as the result of subacute strychnin poisoning.

Regarding the effects of alcohol there are wide discrepancies of opinion. Certainly there is much less alcohol prescribed to patients suffering with pneumonia than was once the fashion. "Its primary action is on the mucous membrane of the mouth, esophagus and stomach. In virtue of this action it undoubtedly acts reflexly as a cardiac stimulant. This stimulation is neither prolonged nor powerful. After absorption, alcohol exerts its specific action,

dilating the peripheral blood vessels and lowering pressure, thus tending to empty the arteries and filling the veins. On the heart itself, directly, alcohol seems to have no effect at all. In large doses it enfeebles it." (Sherrington.) "Alcohol has a toxic effect on the protoplasm of the heart muscle, in addition to that of the pyrexia and toxemia. The total action of alcohol on the heart being depressant, it is futile to give it in cases of commencing cardiac failure with the idea that you are combating that failure by giving a specific stimulant." Backmann has shown that alcohol possesses no power of sustaining action, in an isolated rabbit's heart, as does, for instance, grape sugar. Hay collected statistics of 150 pneumonia patients; 47 were treated without alcohol, 103 with this drug. Of the former 29.5 per cent died, and of the latter 45.5 per cent died. After subtracting the cases which came to the hospital in the moribund state, there was still a difference of 15 per cent in favor of those who did not receive alcohol. Paessler found that alcohol administered to dogs infected with the pneumococcus lowered blood pressure. Dennig, Hinderlag and Grunbaum found that alcohol lowered blood pressure almost invariably and did so in direct proportion to the amount administered. Crile has shown experimentally that alcohol, far from benefiting the condition known as shock (vasomotor paralysis), actually aggravates it. Horsley and Sturge found that blood, containing only one fourth of one per cent of alcohol, diminishes demonstrably, in one minute, the work done by the heart. Bachern although his experiments indicated that in small doses alcohol caused an increase in the force of the heart and the rise of blood pressure, found these effects to be very evanescent. Wood and Hoyt, on the other hand, found that, although alcohol had little effect on the blood pressure ordinarily, after experimentally produced vasomotor paralysis it did increase pressure. It directly stimulated the heart and increased the volume output. Thus a large amount of clinical and experimental evidence could be quoted without arriving at any definite conclusions regarding the advisability of the use of alcohol in pneumonia. Personally I never use the drug in these cases, except sometimes for habit-

ual drunkards in whom there seems to be some reason for continuing its use. Although the results of Galli and of Hernung in cardiovascular weakness would indicate that some habitual drunkards do better when alcohol is immediately withdrawn.

Regarding the efficacy of the vaccine treatment it is as yet too soon to speak with assurance. Theoretically this method is based upon logical principles. Some points must however be borne in mind. If we use a stock pneumococcus vaccine we should be reasonably sure that the patient really has a pneumococcus infection. If we are unable to obtain a blood culture, or do not wish to wait long enough to obtain a report, the following clinical features are on the whole fairly good evidence of a pneumococcus infection: (a) Sudden onset with chill and pain in the side, (b) high leukocytosis (c) herpes, (d) rusty sputum, (e) pneumococcus in the sputum. The more of these symptoms that are present, the more likely are we to be correct in the above-mentioned assumption.

A more scientific and accurate method, of course, is to make a blood culture, isolate the organism, prepare the vaccine. This not only takes time but requires laboratory facilities and implies the risk of having the first culture prove sterile. Wilcox and Morgan have reported a case which improved rapidly upon administration of an autogenous vaccine which had shown no improvement with a stock vaccine.

During the past winter I have had the opportunity of treating three cases and of seeing about twenty other cases which were treated with vaccine. This is of course a ridiculously small number upon which to base an opinion, but I have been impressed with the fact that a large proportion of these cases had early crises, and that an unusual number of apparently hopeless cases recovered. The vaccine was given hypodermically, as soon as the diagnosis of pneumococcus infection was reasonably established, in doses of fifty million organisms, and the dose repeated every fifth day. There were absolutely no untoward effects, no local reaction, and no apparent increase in toxemia. The treatment was employed simply as an addition to unlimited fresh air, sponging and symptomatic medicinal treatment.

The use of vaccine has also been followed by good results in cases of delayed resolution, and in postpartum pneumonia following infection from the uterus. Leary has reported a series of 83 cases of pneumonia treated with vaccine with only 8 deaths (mortality 9.7 per cent), 34 of these either were in alcoholics or were extremely severe cases. Nearly all of the cases which came under my observation developed a marked increase in leukocytosis after the injections of vaccine. Craig has also reported favorable results in a very unfavorable class of cases.

Serum treatment has been tried and found unproductive of results so far as any decrease of the mortality is concerned, although some observers have thought that the comfort of the patient was improved.

Leukocytic extracts have not been extensively tried but thus far have failed to bring about any brilliant results. Calcium chlorid has been recommended as a heart stimulant in pneumonia by Brunton, Barr, Stephens and others. It was used by Crombie in 1893 (9 deaths in 22 cases, with marked amelioration of the general condition, temperature and local phenomena). One explanation of its effect is as a neutralizer of toxin, a substance containing albumoses and peptones. Peckelhanng's experiments have shown that its intravenous injection neutralizes peptone. It also counterbalances the retention of sodium chlorid, thus establishing a balance between the metallic ions. Another explanation lies in its direct action upon the heart. Calcium salts are necessary for heart and vagus activity. If calcium is withdrawn from the perfused heart or decalcifying salts are added in excess (e.g. sodium phosphate) the organ ceases beating, but resumes activity again as soon as a calcium salt or a mobilizer of calcium, such as carbon dioxide, is added. Under deprivation of calcium salts the vagus stimulation ceases to affect the heart, but the addition of minute amounts of any calcium salt is sufficient to re-establish functional activity.

6. *Remedies Not to Be used in the Treatment of Pneumonia.* If this list were to be made complete, we should, I fear, have to include the majority of the drugs in the pharmacopeia, nearly all of which have been at some time, and are to a certain

extent still, employed in the treatment of pneumonia. A few should, however, be mentioned. If we know anything whatever regarding the physiological action of nitroglycerin or of the physiologic pathology of pneumonia, this drug is directly contraindicated; depressing coal-tar derivatives (antipyrin, phenacetin, antifebrin, etc.) are dangerous and should not be employed, inasmuch as they depress the heart, lower blood pressure and diminish the oxidation of the blood; all drugs which have in the past been vaunted as specifics for pneumonia, such as quinin, salicylic acid, chloroform, veratrum viride, creosote, iodids, mercury (except as a laxative), digitalis (in massive doses, as recommended, especially by enthusiastic therapeutists in Italy), aconite, tartar emetic, and other cardiac or vascular depressants, should be avoided. The jacket poultice, too, is not only worthless but extremely uncomfortable.—*Penna. Med. Journal.*

IODINE AND STRAPPING IN PNEUMONIA.—I recently had a case of lobar pneumonia in a boy twelve years old. He was suffering intense pain with each inspiration. I painted the affected side with tincture of iodine, and when this had dried for a few minutes I applied strips of adhesive plaster as one would for pleurisy or fractured ribs. The pain was greatly relieved immediately and the patient made an uneventful recovery, the crisis coming on the fifth day.

I have never seen this combination used or recommended by others, and as it worked so nicely in this case I would pass it along for others to get the benefit of it. I thought it might be a good addition to your therapeutic column in the *JOURNAL*. I have found that this combination acts equally as well for pleurisy and lumbago also. As this is the season for these diseases, I thought it might help some brother practitioner at this time.

H. R. FAIRFAX.

MELOMAS, W. Va.

WATER IN POST-OPERATION VOMITING.—"I do not believe that water should be withheld after operation even in cases of severe vomiting. Often a copious drink of hot water will relieve the extreme nausea and vomiting and make the retching and wretched distress less severe. In a minor degree, even here it controls the terrible thirst, but this can better be relieved by large amounts of normal saline given by the drop method per rectum. The contrast between the patient who is absorbing large amounts of fluid and the one who is denied them in any form, is certainly very great. Unless there is some special contraindication, this method of injecting large quantities of fluid is advised as a routine for the patient's comfort and to aid elimination."—Dr. Robb in *Iowa Ass'n Journal*.

G. D. L.

The West Virginia Medical Journal

S. L. JEPSON, A.M., Sc.D., M.D., *Editor.*

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Our readers are requested to send us marked copies of local newspapers containing matters of interest to members of the medical profession. Name of sender should be given.

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Editorial

THE COUNTY SOCIETY SECRETARY.

As we have had occasion to say before, the society secretary is the most important man in the society. He it is who makes or breaks the society. If his duty is neglected the society will soon begin to lose in interest and finally go to pieces. His most important duties are, to collect the annual dues early in the year, to see that a good program is prepared for each meeting, to have his minutes written up promptly and in an interesting manner, and to be prompt at every meeting. To have poor programs and to be late in beginning the meetings will kill any society in time, and that no long time either. Members can not afford to go a long distance to a medical meeting with an uncertainty as to time of beginning and character of the exercises. If your secretary fails in the essentials named, displace him and elect another of a different pattern.

At the last annual meeting of the State Association, a resolution was adopted instructing the secretaries to send the JOURNAL at the commencement of the year a list of "subscribing members," that is, the names and addresses of all who could be counted on as members for the coming year. This was for a double purpose, viz., to meet a demand of the Post Office Department that a Journal must have *bona fide* subscribers, and that the editor might avoid sending the Journal to those whose membership had been permitted to lapse. Last year there were a hundred and thirty of the latter class. We have sent over a hundred bills to former members who received the JOURNAL the whole of last year, and but a dozen of these have as yet sent payment. We have thus lost at least a hundred dollars which would have been saved to the Association had we received a complete list of the members of each society at the beginning of the year. It is not desirable that this occur annually. To date but one secretary has sent the list required by the resolution, and we here immortalize him by giving his name—Dr. H. C. Skaggs, of Fayette Society, a man who is always "on his job." We have since sent requests for this list to each secretary and in reply have received many answers and hope for more. Unless they come we will have a loss similar to that of former years. So if any secretary has overlooked this request, kindly attend to it now.

At the end of last year Secretary Butt reported 130 former members in arrears for 1911. We since find that a number of these have left the state, and letters from a number of others state that they paid their dues. The inference is that the local secretary neglected to forward the dues to Secretary Butt. We print the following from an old and faithful member to show how difficult it seems for some secretaries to attend to their duty promptly. The writer is one of those reported in arrears.

January 1st, 1912.

Editor W. Va. Medical Journal:

Please send me statement of amount I owe you for the JOURNAL, as it does not seem possible for me to get an opportunity to pay my society dues. I have been trying a good portion of the season to pay the same, but it seems I can not get to. Then I sent them to the state secretary, and he returned them, saying he could not accept without the consent of the county

secretary, and he had written to him and could get no answer. I would like to remain in the society, but it seems I can't. So all I can do is to pay you for the JOURNAL."

We can not but wonder how many secretaries of the kind here referred to there are in the state. Is it any wonder the State Association does not grow more rapidly? We could name one instance where the dues of a member were retained by a local secretary for over a year before it reached the State Association Secretary. This is not business. It will not help us grow. It is a suicidal policy. The secretary should be a man of honesty, of good business habits, and enthusiastic in the cause of medical organization. We have such men, but unfortunately we have the other kind also. Can we not put into office in all of our local societies men of the type suggested, honest, prompt, business-like? When this is done all over the state, we will take on new life and see our numbers rapidly increase.

S. L. J.

THE OWEN BILL AND OUR DUTY AS PHYSICIANS OF W. VA.

A West Virginia physician wrote recently to his congressman asking about the Owen bill, what was its present status and what the member's views were in regard to it. The congressman replied that he had not read the bill but would do so before he voted for it, and closed by thanking the physician for showing his interest in such matters. We would like to make this the text for a few remarks on the subject of our duty as citizens of this Republic.

If every physician in the state should write his Representatives and Senators in Congress and give his opinion on such matters, it would not be long until the medical profession would have secured the rights which have so long been denied to it. Why had this Congressman not read this bill? It may have been because he was too busy, but more than likely it was because he had received numerous letters and telegrams from members of the "League for Medical Freedom," misrepresenting the purposes of the bill, which misrepresentations he would take for the truth, and perhaps he had decided to vote against the bill without further investigation. Our representatives in legislative bodies are not

by any means all Websters and Clays.

The Food and Drug bill was fifteen years before Congress before it became a law. The "Proprietary Association of America" by means of letters and lobbyists misrepresented the objects of the bill and secured its postponement and defeat for years. Will the Owen bill have a similar history? It will not if we physicians do our duty. We can bring a tremendous pressure upon our representatives if we will, a pressure which means simply that we expect our law-makers to investigate and vote intelligently and not carelessly, which means that we expect them to be uninfluenced by a set of adulterators of food and medicine, swindlers who make unlawful gain by wholesale falsifying in a business which concerns not only the purses but the very lives of the people at large.

The *J. A. M. A.* for January 13, 1912, gives a very good abstract of the Owen bill. The charge that this bill will create a "medical trust" and discriminate between different so-called schools of medicine is absurd, for every intelligent lawyer knows that the right to regulate the practice of medicine, lies in the state and not in the national government."

We venture the statement that all votes against this bill will come from men who have not read the bill but have been influenced by misrepresentations of proprietary medicine venders.

Sit down, fellow practitioner, at once and write a brief note to both Senators and the Representative of your district, telling them that you think the bill ought to pass and express the hope that it will soon come up for a vote.

G. D. L.

We heartily endorse this suggestion of Dr. Lind. Legislators are very human, and quickly feel the influence of their constituents. There are over 800 of us organized into one compact body, and none of us are so selfish as to want an increase of disease for our personal gain. On the other hand, we are quite certain that the establishment of a Department of Health will result in a diminution of sickness throughout the country. Still we want to have the Owen bill become a law. We believe it will be a national blessing and therefore hope to hear that every West Virginia Representative and Senator has cast his vote for it.—
EDITOR.

MEDICAL DEFENSE AGAIN.

As the local societies are considering this subject with a view to final decision at our next meeting, we are seeking to throw all the light possible on it, and with this view present the following correspondence:

WHEELING, W. VA., Jan. 19, 1912.

Dr. A. T. McCormick, Sec'y,

My Dear Dr. McCormick:

Our State Ass'n has been having some very heated discussion over the Medical Defense plan adopted two years ago. It has proven very popular in some sections and quite the reverse in others, or at least in one other. Some excellent members are favorable to making the plan voluntary, many of our members who do no surgery feeling that they do not need any protection. As Kentucky has tried the voluntary plan and, as I am informed, abandoned it, your views on the question will be appreciated. I would like particularly to know the effect on the membership of the Ass'n. We have lost quite a number of members during the past year, but whether on account of the plan or not can not be determined, as each year shows a lapse in membership. We have also gained quite a number who say they have joined because of the Defense Fund feature of our laws. Desirous above all things to promote the growth of our Ass'n, and having no pronounced views on the policy of Defense, I would be glad if you will give me the result of your Kentucky experience.

Fraternally yours,

S. L. JEPSON.

BOWLING GREEN, KY., January 22, 1912.

Dr. S. L. Jepson,

Wheeling, West Virginia.

My Dear Dr. Jepson:

I have your letter whose contents I note with much interest. The volunteer plan of defense was a success as far as it went, but it didn't go anywhere in the neighborhood far enough. In the history of Kentucky, we have had several decisions by our Court of Appeals, on the subject of malpractice suits. Every one of these was adverse to the medical profession, and this was true because of the unfortunate management of the suit in the first court by attorneys who had no experience in malpractice litigation. Under our volunteer plan, 600 of the best men in the State joined the Medical Defense, but in two years there wasn't a single suit against one of them, and there were fifteen suits against non-members of the Medical Defense. We defended a number of these anyway and won every one of them and helped with the others. All of these suits but one were against the general practitioners, and all but two were against country doctors. Our Medical Defense plan became general eighteen months ago. Since then, we have defended five suits, all against country doctors, and have won all of them. We have two pending now, one of them brought two days ago, and this is the first suit that has been brought against a specialist. Our General Coun-

sel is an expert in these matters, and I do not believe there is a single doctor in Kentucky who is opposed to our general Medical Defense. Since adopting it, we have increased our membership to about 2,000, and there are fewer than 300 doctors in the State outside of the Association who could get into it.

Am sending you a copy of the Journal containing the minutes of our last meeting, in which you will find several reports and debates on this subject.

Cordially yours,

A. A. McCORMICK, Sec'y.

While the above is very favorable to the cause of Medical Defense, we are open to arguments or evidence on the other side. To show that the originator of the defense movement in our Association feels as we do on this point, we quote as follows from a recent letter from Dr. Golden:

"I like particularly your remark that you would be glad to publish any facts against the medical defense plan. It may not be amiss for you to repeat the call. It certainly will be much more satisfactory to discuss the matter in the JOURNAL than on the floor of the annual meeting. The discussion is apt to be clearer, more to the point, and more free from 'hot air.' I hope you will continue to scan your exchanges and reprint everything pertaining to medical defense. The members are entitled to know all about it."

So we here again extend an invitation for contributions, original or copied, against the defense plan.

Brooke County reports a discussion on the subject, and a unanimous vote favorable to the plan. A former secretary tells us that the society regards this action of the State Association as "the best thing it has ever done." Let all the societies carefully consider this important subject and so instruct their delegates that acrimonious discussion in our next annual meeting may be avoided. However the matter may be finally settled, all should quietly abide by the decision, that the good work of the organized profession may go on successfully. See notes on this subject in another column, and the report from Marion Co. Society.

S. L. J.

The editors of The Interstate Medical Journal, one of the best of our exchanges, announce that the March issue of the Journal will be devoted entirely to Diseases of the Digestive Tract, and papers on various branches of the subject will be presented, the authors being Herschel, of London, Strauss of Berlin, Kast, Weinstein and

Kauffman of New York, Soper, Meyer, Engelbach and others of St. Louis, Hemmeter of Baltimore, Morgan of Washington and other widely known men. This issue ought to be an exceptionally valuable one.

The N. Y. State Civil Service Commission announce an examination on February 24th, for the position of Junior Physician in the State Hospitals for the Insane. The salary is \$900.00 and maintenance. The salary increases \$100.00 each year to a maximum of \$1,200.00. Any one interested will write to N. Y. State Civil Service Commission, Albany, N. Y.

The National Confederation of State Medical Examining and Licensing Boards will hold its 22nd meeting in Chicago, Illinois, on Thursday, Feb. 29th, 1912, at the Congress Hotel.

The subjects to be considered at this meeting will be: The good a federation of medical boards can do; What should be the qualifications for membership in a federation of medical boards; Methods of conducting state licensing examinations; Medical school equipment and state board license examination; The organization of a federation of state medical boards.

An earnest and cordial invitation to this meeting is extended to all members of state medical, examining and licensing boards, medical teachers, delegates to the Council on Medical Education of the A. M. A. and all those interested.

PUBLIC LECTURES.

DAVIS, W. VA., Jan 10, 1911.

To the Editor:

I am in receipt of a letter from the Sec'y A. M. A. notifying me that "The Council on Health and Public Instruction" had completed its plan for a Speaker's Bureau for furnishing speakers for public meetings to be held under the auspices of our state and county organizations. The council proposes to pay the expenses of the speakers including the hotel and railroad fare." The local expenses, cards, hand bills, advertising and hall are to be paid for by the local organization. The Council hopes to be able to furnish from six to eight public meetings in each state. Our speakers will come from Ky. Ohio, Md., Pa., or Va.

The following is a provisional list of speakers, subject to additions and modifications.

Kentucky.

Dr. W. W. Richmond, -----Clinton.
Dr. W. L. Heizer, -----Bowling Green.
Dr. J. M. Mathews, -----Louisville.

Ohio

Dr. J. H. J. Upham, -----Columbus.
Dr. C. A. L. Reed, -----Cincinnati.
Dr. Clyde Ford, -----Cleveland.

Pennsylvania,

Dr. G. W. Waggoner, -----Johnstown
Dr. T. D. Davis, -----Pittsburgh.

Maryland

Dr. C. H. Jones, -----Baltimore
Dr. E. Novak, -----Baltimore

Virginia.

Dr. E. C. Levy, -----Richmond.
Dr. E. G. Williams, -----Richmond.

It is expected that these speakers will be called for during the first five months.

Now, Brother Secretary, if you have a place in your territory, and I am sure most of you have, where you believe results could be accomplished by having these speakers, please let me know at once. If your territory is well organized, please do not ask for them but give way for those not so fortunately situated.

One word to the secretaries—Don't forget that the meeting is much earlier this year than last, namely, July 10th, 11th and 12th. This means that if we are to make any showing at all you must collect dues earlier than last year. Our membership is about as high as it has ever been, 813 now, and other old members now in arrears will pay for 1911. Another thing, papers for the meeting must come earlier than last year. Only one offered so far. So many of our members put this off until the last moment, and then an occasional one feels hurt if he can not get just the place on the program he would like to have. So get the dues and the papers early.

Respectfully yours,

A. P. BUTT, Sec'y.

MEDICAL DEFENSE.

The Indiana State Medical Society at its 1911 session, adopted the Medical Defense measure which has been in operation in Iowa for the past four years. Some of the features are interesting. We are quite sure the committee will be a busy one if some of the regulations are carried out; for instance, it provided that this committee shall have full authority governing all matters pertaining to the Medical Defense features of the Association; with power to employ counsel, summon and employ expert witnesses and incur such other expenses as in the judgment of the Committee, may be necessary in the defense of members against whom suits may be brought; provided that the total expenditure in any single suit shall not exceed 25 per cent of the fund available at the time suit is incurred. It is difficult to see how a defense can be efficient if the expenditure of money is restricted by rule. We believe after four years experience that it is much better to leave all the details in the management to an attorney appointed by the Committee on account of his special skill and experience in this kind of work and who becomes the attorney for the Society. We have also found it better to allow our attorney to employ local assistants who work under his instructions, and in that way we avoid legal complications which in our earlier experience was expensive and troublesome. In other words, we have adopted the course which corporations have found to work best; of having an authorized attorney in harmony with the Defense Committee. The Committee reviews the medical features and advise our attorneys as to the merits of the case from a medical point of view and the attorney attends personally to the legal features. We have found county society cooperation to be of ques-

tionable value and have abandoned it. We have found that the Committee must look up its evidence in a way which seems to it best so as to get all the medical facts and advise accordingly.—Medical Journal, Iowa Society.

(The criticisms of the Iowa editor do not apply to the provisions of our W. Va. plan, which avoids all the objections suggested.—Editor.)

MEDICAL DEFENSE.

Seventeen State medical societies give to their membership medical defense at one dollar per annum, *but do not pay judgments*. Judging by the experience of the New York society, this plan is better than appears upon its face, for from 1900 to 1910 they defended two hundred and fifty cases with none finally lost, one appealed and no damage paid in any case.

The Medical Society of the State of Pennsylvania proposes to try this plan of one dollar annual assessment per member, although it has at present a small medical defense fund. We are not prepared to fully endorse the plan, since it has not been sufficiently tried out to reveal its value or its limitations. How valuable such insurance may be depends upon a good many factors we need not discuss, but we would like to see the plan tried in Pennsylvania. Its cost is small, and, if it does, no other good, the moral effect will be excellent, and will greatly reduce the number of suits instituted for alleged malpractice. Doubtless, in time, as the fund accumulates, the actual protection to the membership will be adequate. But we would not advise the surgeons and others especially liable to suits to dispense with the protection they are now carrying, nor do we think it advisable for the committee having in charge this proposed experiment of the State society to issue statements in disparagement of the work of the commercial insurance companies selling such protection. These companies have been long in the field and are an assured protection, while the medical society protection is, as yet, experimental. It impresses us that there need be no conflict or disagreeable agitation over the matter. There is room for both plans, and we predict that the society limited protection will ultimately strengthen the commercial companies by rendering more adequate protection than mere defense popular among the profession.—Medical Council.

AN ALLEGED MALPRACTICE CASE.

Since the Medical Defense Fund of the society went into force there have been twenty applications for assistance. *One applicant was suspended for non payment of dues at the time the alleged malpractice was said to have taken place and the rules of the society would not allow the councilors to undertake his defense.* The nineteen other cases were all of such a nature that the council could conscientiously undertake the defense. Few of the cases came to trial and thus far not a single case has been won by the plaintiff. One of the cases has just been decided in Wilkes-Barre and Dr. Charles W. Guthrie, the councilor for the district, is to be congratulated on the good work done for the defendant and

the profession in general—Editorial in Penna. Medical Journal.

ANNOUNCEMENT.

Circular issued by the American Orthopedic Association and the American Pediatric Society in reference to Acute Epidemic Poliomyelitis, and adressed to health authorities and boards of health:—

Anterior poliomyelitis is, so far as known, a communicable disease, being communicated from one patient to another and also through a third person. It occurs in epidemics and tends to spread along the lines of greatest travel. There is reason to believe that it is prevented from spreading by quarantine, and with the very great prevalence of the disease in the summer of 1910 it is the opinion of this committee that it is essential that it should be made a reportable disease in all States in order that its presence may be detected and its spread guarded against.

Of particular significance are the so-called abortive cases, where indefinite ailments occur in children in communities where frank paralysis also exists. These abortive cases of infantile paralysis are undoubtedly a source of infection, and their record and study is of much importance. In a community where cases of infantile paralysis occur, cases of illness with sudden onset of fever and meningeal symptoms should be closely watched and regarded as possibly infectious. In such cases even recovery without paralysis does not establish the fact that the case was not abortive infantile paralysis.

All cases of infantile paralysis should be strictly quarantined, sputum, urine, and feces being disinfected, and the same rigid precaution being adopted as in scarlet fever. This quarantine should, in the opinion of the committee, last for four weeks in the absence of definite knowledge as to when the infection ends. Children from infected families should not be allowed to go to school until the quarantine is abandoned. The transportation or transfer of acute cases in public conveyance should be strictly forbidden. It would be very desirable to adopt provisional quarantine measures in suspicious cases in a community where an epidemic prevails. The report of all cases of infantile paralysis to the public health authorities should be enforced by law, and all deaths from this cause should be properly described and registered. A careful study of epidemics by public health authorities is strongly advised.

(Signed) ROBERT W. LOVETT, M.D., *Chairman.*
HENRY KOPLIK, M.D.
H. WINNET ORR, M.D.
IRVING M. SNOW, M.D., *Secretary.*

CONSUMPTION SPREADS IN DUSTY TRADES.

A warning against the dangers of dust was issued in a statement made to-day by the National Association for the Study and Prevention of Tuberculosis, in which it is shown that the percentage of deaths caused by tuberculosis in dusty trades is more than double that for all employed in the registration area of the United States.

As a result of the dangers from consumption to those exposed to various forms of dust, and at the request of the National Association, the United States Government has recently appointed a commission to work in co-operation with state authorities in making an investigation into the conditions of the metal mining industries in the United States, with special reference to diseases of the lungs. The work of the commission engaged in this special task will follow lines somewhat similar to those worked out by the Royal Commission of Australia, whose report was recently received in this country.

"Dusts are of three kinds," says the National Association; "factory, street, and house dusts." The statement refers to the results obtained through investigations made for the Bureau of Labor, by Frederick L. Hoffman. While among males generally in the registration area of the United States 14.5 per cent of all deaths are from consumption, the mortality among grinders from this disease is 49.2 per cent, and in hardly any of the dusty trades is it below 25 per cent. The percentage of deaths from tuberculosis among those exposed to metallic dust is 36.9 per cent; to mineral dust, 28 per cent; to vegetable fibre dust, 32.1 per cent; to mixed animal and other forms of dust, 32.1 per cent; to street dust, 25.5 per cent; and to organic, or dust coming from articles being manufactured, 23 per cent.

The statement speaks also of the dangers from housedust, especially in rooms that are not well ventilated. The Association warns against dry sweeping, and against the use of the feather duster, or other devices that scatter, but do not take up the dust.

Since the ordinary dust blown about in the streets is impregnated with disease germs, the National Association urges the adoption of methods that will prevent the further dissemination of such bacilli. It also urges for the coming months of fall and winter, more open windows and more fresh air in house, shop, and schoolroom.

CONSUMPTIVES NEED NOT BE STUFFED.

Many traditions with regard to the feeding of tuberculosis patients and with regard to food in general, are given severe blows in a series of articles published in the October number of the *Journal of Outdoor Life*, the official organ of the National Association for the Study and Prevention of Tuberculosis.

Dr. John R. Murlin, of New York, Assistant Professor of Physiology at the Cornell University Medical College, holds in an article entitled, "The Dynamic Principles of Nutrition," that a consumptive will gain weight and do well on three pints of whole milk, eight ounces of cream, five ounces of milk sugar, six eggs and two slices of buttered toast, as a ration for each 24 hours. The entire diet with the exception of the bread and butter could be procured in advance and served for a cost of about 50 cents for the day. Miss Cecilia Flick of the Henry Phipps Institute of Philadelphia, also offers some sample diets which the ordinary family can prepare for even less than 50 cents a day.

Dr. David R. Lyman of Wallingford, Conn.

and Dr. Paul B. Johnson of Washington, D. C., both agree that the ordinary person eats too much, and that the old notions about stuffing a tuberculosis patient at all times and seasons have been proven false. Dr. Lyman holds that eggs are not a necessary article of the consumptive's diet, and that a tuberculosis patient should eat anything that agrees with him that is nourishing. He thinks that a tuberculosis patient should eat only a little more than a person in ordinary good health.

Dr. Murlin compares the food we eat to the fuel used in furnishing steam and power for an engine. In selecting our food he says that we should eat enough to furnish energy for the day's work, but that much more than this is not needed. He holds that the appetite is not a necessity for good digestion. "There is no fallacy of nutrition," he says, "greater than that which supposes that a food cannot be digested and utilized without appetite." Most of the food we eat, fully four-fifths, goes to supply energy for our every day tasks, while less than one-fifth goes to supply building material.

State News

STATE BOARD OF HEALTH.

The last meeting of the board was held in Clarksburg, November 13, 14 and 15. Twenty-three applicants for licensure appeared. Of these fourteen were successful and nine failed to pass. Of the latter two were from the University of Louisville, four from the Maryland Medical College, and one each from the Eclectic Medical College, the Leonard College, and Lincoln Memorial University. The names of the successful candidates are given below:

Name, W. C. Mays, school of graduation, Univ. of Louisville, year of graduation, 1911, school of practice, regular, home address or previous location, Riley, W. Va.; G. E. Smythe, Univ. of Louisville, 1911, regular, Miami, Okla.; C. G. Merriam, Johns Hopkins M. S., 1911, regular, Statesbury, W. Va.; C. E. Watson, Johns Hopkins M. S., 1910, regular, Morgantown, W. Va.; R. A. Salton, Baltimore Med. College, 1911, regular, Welch, W. Va.; F. J. Broschart, Baltimore Med. College, 1911, regular, Baltimore, Md.; W. J. Thomas, Col. P. & S. (Balti.), 1892, regular, Charleston, W. Va.; F. H. Sisler, Col. P. & S. (Balti.), 1911, regular, Sun-W. Va.; C. E. Herriot, Howard Med. Col., 1911, regular, Washington, D. C.; L. A. Hilton, Howard Med. Col., 1910, regular, Charleston, W. Va.; J. H. Boulware, Leonard Med. Col., 1911, regular, Pittsburg, Pa.; E. S. Carr, Univ. Col. Med., 1911, Athens, W. Va.; J. W. Fox, Md. Med. Col., 1911, Athens, W. Va.; B. Ciaffo, Royal Univ. (Italy), 1903, regular, Fairmont, W. Va.

The State Board questions are here given:

OBSTETRICS AND GYNECOLOGY.

1. What structures compose the fully developed funis and how formed? 2. Name the diseases of the fetus in utero. Diagnose the death of the fetus in utero. 3. Name the dif-

ferent presentations liable to be met in obstetric practice. 4. Give symptoms and management of an incomplete abortion. 5. Describe the operation in detail for the immediate repair of complete laceration of the perineum. 6. Describe rectocele and cystocele. State how each may complicate labor, and what should be done. 7. Define salpingitis. Give pathology and management. 8. Compare version with the employment of forceps, and state when each is preferable. 9. Give the technic of the high forceps operation. 10. Give symptoms, treatment and state course of ophthalmia neonatorum.—*Dr. A. N. Frame, Examiner.*

MATERIA MEDICA AND THERAPEUTICS.

1. Define *Materia Medica*; *Therapeutics*. 2. Classify cathartics. Name one or more cathartic drugs under each class, with dose. 3. What are the official names of the following: Epsom salts, Rochelle salts, Glauber's salts. 4. Name some of the most reliable diaphoretics and give the method of administration of each. 5. What can you say of the toxic properties of hydrocyanic acid and the cyanides? 6. Give the strength of dilute hydrocyanic acid and dose of same. 7. Name some of the best anthelmintics; how administered and in what doses? 8. What are the therapeutic indications for the use of diaphoretic medicines? 9. What are the rational indications for treatment in chronic constipation? 10. Give the physiological action of *veratrum viride* and its indication in puerperal convulsions.—*Dr. L. S. Brock, Examiner.*

SURGERY.

1. Name four local anesthetics and give their respective strength for administration. 2. Name two general anesthetics and the proper method of administration. 3. Give the causes and treatment of cellulitis. 4. Give the treatment of fractured patella. 5. Name the structures involved in the amputation of the thigh at the upper third. 6. Give the indications for thyroidectomy and mention the dangers incident to the operation. 7. Describe the operation for localized appendicular abscess. 8. Give the treatment of peritonitis following abdominal operations. 9. Give the indications and contra-indications of the following drugs in surgical shock: strychnin, atropin, camphor, digitalis, nitro-glycerin and morphin. 10. Give the methods of treatment in gunshot wounds.—*Dr. M. V. Godbey, Examiner.*

PHYSIOLOGY AND HISTOLOGY.

1. Define protoplasm and describe its properties. 2. Discuss the composition, formation and circulation of lymph. 3. What are vaso-motor nerves? Give their function. 4. How is the heat of the body produced and regulated? 5. Classify and give function of white blood corpuscles. 6. Describe the events that occur during a single cardiac cycle. 7. Give the function of the third, seventh and eighth, cranial

nerves. 8. "Pupils react to light and accommodation." Give the physiology. 9. Give the histology of a medullated nerve fiber. 10. Describe the structure of a lobule of the liver.—*Dr. C. W. Halterman, Examiner.*

CHEMISTRY AND MEDICAL JURISPRUDENCE.

1. To what salts do most cathartic minerals owe their virtue? 2. What does the presence of an abnormal quantity of chlorin in drinking water indicate? 3. Give the difference between a physical and chemical change, with an example of each. 4. What are proteids? Name some combinations? 8. What findings would lead to a determination of suicide by hanging? 9. What are the signs of death? 10. What is the physician's duty concerning the professional confidence of patients?—*Dr. C. A. Wingerter, Examiner.*

PRACTICE OF MEDICINE AND PEDIATRICS.

1. Give the causes, symptoms and treatment of Bright's disease. 2. Differentiate in parallel columns, gastric ulcer and gastralgia. 3. Hematuria: Give principal causes. How would you determine source of hemorrhage? 4. Diagnose and outline the treatment for obstruction of the cystic duct, and of the common bile duct. 5. What is herpes zoster? Give the cause and treatment. 6. Give the cause and treatment of deficiency in excretion of urea. 7. Intussusception: Define, diagnose and treat. 8. Describe cause, give prognosis and treatment of erysipelas. 9. Symptoms and treatment of chronic enterocolitis in young children. 10. Give differential diagnosis of measles and scarlet fever.—*Dr. H. M. Rymer, Examiner.*

ANATOMY AND EMBRYOLOGY.

1. Describe the liquor amnii. 2. Locate the centers of ossification of the femur and tibia. 3. Describe the arteries supplying the abdominal viscera, including the rectum, and describe the portal vein. 4. Describe the musculo-spiral nerve and name the muscles which it supplies directly and through one of its branches. 5. Describe the muscles of ordinary respiration. 6. Describe the occipital bone. 7. Describe the shoulder joint. 8. Describe the tongue. 9. Describe the male urethra. 10. Describe the anterior abdominal wall.—*Dr. W. W. Golden, Examiner.*

BACTERIOLOGY AND HYGIENE.

1. Describe the cultivation of bacteria, naming the four things (media) most commonly used. 2. Define sterilization and give methods. 3. Describe the most common method of stain-

ing T. B., and its appearance under the microscope. 4. Describe the gonococcus and method of staining. 5. Immunity: Describe it and give four examples. 6. What are spores and how resistant are those of tetanus? 7. What is Pasteurization? Upon what does the quality of good milk depend and how determined? 8. Describe method of disinfecting a room that had been occupied by a patient having a contagious disease. 9. Describe personal hygiene. 10. Name some of the best methods of disposing of urine and feces. What diseases are communicated by them?—*Dr. J. E. Robins, Examiner.*

SPECIAL PRACTICE.

1. Name varieties and give causes of keratitis. 2. Define and give varieties of glaucoma. 3. Differentiate simple and follicular tonsillitis. 4. Give pathology and treatment of pharyngeal adenoids. 5. Differentiate locomotor ataxia and tabes dorsalis. 6. Give symptoms and pathology of tachycardia. 7. Define, give etiology and pathology of angina pectoris. 8. Define arterio-sclerosis. Give signs and symptoms. 9. What is Bell's paralysis? Give etiology. 10. Give etiology, pathology and treatment of mastoiditis.—*Dr. R. E. Vickers, Examiner.*

We regret to announce the death of Dr. J. R. Walker, late of Marmet. This death occurred in October last, but the word has just reached us. The local secretaries are expected to report the death of all members.

Dr. E. O. Thornhill, formerly of Cranberry, was killed on December 31st by Willis Hatfield of Logan county. The young man was under the influence of drink, and became offended at the doctor for refusing to give him a prescription for whiskey. Whiskey and a revolver are a bad combination. Both should be knocked out, and every doctor should help to accomplish this very desirable end.

Another recent death among physicians was that of Dr. J. F. Scott of Medley. The doctor was a member of our association.

Dr. C. W. Ulfert, late of Wheeling, has located in Grafton. Dr. E. S. Holsberry, late of Triadelphia, Ohio county, has removed to Berryville, Barbour county.

Dr. P. D. Barlow of McMechen, who was laid up by illness for quite a time, has so far recovered as to resume his professional work.

Dr. J. McKee Sits of Martinsburg is in New York doing post-graduate work. The doctor is an eye specialist, and not long ago spent some months in Europe in pursuit of further knowledge. He seems to be not easily satisfied.

We take off our editorial hat to "Governor" H. D. Hatfield. This is not a political journal, but those of us who know the doctor well, of whatever politics, could manage to get along with

such a man as H. D. in the gubernatorial chair for a term. We believe he would expect every medical appointee to show enough professional spirit to join the State Medical Association. If not he can't have our vote. How are you as to this point, doctor?

Drs. James Putney and W. W. Tompkins of Charleston have recently spent several weeks in New York in post-graduate study.

Congratulations to Dr. and Mrs. J. E. Cannaday, the proud parents of a son. Long life and happiness to all three.

Dr. S. P. Roberts, formerly of Wood county but absent for some time, has returned and located at Murphytown.

Dr. S. M. Stone of Tomsburg, W. Va., physician to Paint Creek Colliery Company, recently underwent an operation for appendicitis at the Charleston General Hospital. The doctor is convalescing favorably and will soon be at work.

The City Hospital of Morgantown, after recent renovation, has been thrown open to the public and is now ready for the reception of patients. It is under the management of Drs. Hardy and McBee.

Dr. W. Bolling Robertson of Monmouth, one of the most highly respected physicians of that vicinity, is under trial for shooting a miner a short time ago. It is said that the man had repeatedly threatened the doctor's life, and was attacking him at the time of the shooting, with an apparent attempt to kill. Dr. Robertson fired three shots, each of which took effect, but the bullets have been removed and the man is recovering.

President Henry and Secretary Butt planned a trip to the meeting of the G.-H.-H.-M. Medical Society in an effort to stimulate the society, which is now one of the live societies of the state.

The Honorable County Court of Wood county still persists in refusing a proper fee for examining alleged lunatics. They think no dipsomaniacs should be adjudged insane and sent to the hospital, yet they vote to grant licenses to sell liquor and then send the victims to city lockup or jail.

Dr. W. R. Spencer of Cabell Co., has recently had an infected thumb which has compelled a rest for a time. He is at present in Louisville.

Dr. J. E. Rader has been in Florida for some weeks to regain health. He is reported as improving.

Dr. J. R. McClure late of Huntington has removed to Newark, O.

Dr. W. Judy of Webster Springs is spending

two months at the University of Louisville in post graduate study. Dr. J. W. Brown of Hampton, Va., is attending to his practice during his absence. By the way, the genial doctor Judy is fighting a good fight against quack advertising in religious newspapers. He has recently written a very forcible letter to the editor of a leading Baptist paper which indulges largely in this kind of advertising. Success to him.

Society Proceedings

AMERICAN PROCTOLOGIC SOCIETY.

.. (Continued from December Issue).

MALFORMATION OF RECTUM AND PRURITUS ANI, WITH REPORT OF CASES.

By DONLY C. HAWLEY, A.B., M.D.,
of Burlington, Vt.

The facts of modern embryology explain a majority, but not all developmental defects of the rectum and anus.

M. B., female, age 4 weeks, came under my observation in April, 1910. She had an imperforate anus, the rectum opening into vagina in the upper half of the recto-vaginal septum, opening one-half by one-eighth inch in size, the longer diameter transverse; was evidently supplied with a sphincter, as the child had three or four well controlled movements daily. Anal depression was present and the vulva and vagina were normal, except as noted. The presence of uterus was normal or otherwise not demonstrated. There was no distention of rectum, no impulse and no prominence in perineum. The child was nourished and otherwise normal. Operative interference postponed. The child is at present well, and is 13 months old and weighs 22 pounds.

While this defect is sometimes seen, many cases reported as atresia ani vaginalis, are no doubt in reality imperforate anal canal with vulvar outlet, a malformation admittedly of common occurrence.

Cases in which intestine opens well up in vagina are not accounted for on embryologic grounds, the two structures being embryologically dissimilar and independent.

In this discussion I do not refer to cases due to intestinal parasites, errors in diet, etc., in which the pruritus is relieved by proper attention to the causative condition, nor so much to the symptoms as to the pathologic condition of the skin and nerve endings, which condition is pathognomonic. The nearly constant local cause of pruritus ani is abrasion and ulceration of the anal canal, accompanied by blind sinuses underneath or fissures in the mucocutaneous lining. Further, some cases are associated with chronic proctitis, which may be a factor in producing or increasing the anal abrasions or ulcerations.

The treatment I have adopted is as follows: With the patient well anesthetized, the anal canal is dilated, and the ulceration, together with the sinuses and fissures, are thoroughly cauterized with the Paquelin cautery, and also the entire area of chronic dermal inflammation. My aim is to destroy ulcerated areas, the thickened and altered skin and the pathologic condition of the terminal nerve fibres.

Case I. S. H. E., aet. 62, came under my observation June, 1908. He had suffered with rectal troubles for 45 years. Twenty years ago he was operated on for fissure or fistula—was not certain which. He has had almost intolerable pruritis for eight years, and for the past year it has been so constant and unbearable, especially at night, that he has become a nervous wreck, and has lost 40 pounds in flesh and has been unable to continue his business.

Diagnosis:—Chronic pruritis ani. The skin was inflamed, soddened and thickened over a large area about the anus, with many deep cracks, and four or five ulcerations and abrasions in anal canal.

Treatment as outlined. Result, cure and no return up to present time.

Case II. W. A., male, aet. 38. History of pain in rectum for 20 years, and of severe and intolerable pruritis.

Diagnosis:—Chronic pruritis ani. There was a large ulceration in anal canal and three or four blind sinuses, with an area of white brittle and infiltrated skin with large cracks about anus.

Operation, same as in Case No. 1. Result, cure. Other cases less severe have been operated upon during past three years, with satisfactory results.

The treatment outlined is not new nor original, having been advocated by Mr. W. Mitchell Banks, and practiced by Mr. Fred C. Wallis. Ball's operation is designed to render anesthetic the skin over the undercut area. The operation described accomplishes the same end, and besides destroys lesions in anal canal. The former operation has resulted in extensive sloughing. To the latter no such danger attaches.

A Symposium on Constipation embracing seven different parts of subject was presented as follows:

ETIOLOGY OF CONSTIPATION.

By Horace Heath, M.D., of Denver, Col.

Dr. Heath mentioned two groups—miscellaneous and mechanical. Under miscellaneous, the author regarded heredity as unimportant, but attention was called to the faulty instruction of children in certain families. He stated that the constipation of infancy was due to undeveloped muscles; and of old age, to inactivity and atonicity.

Under mechanical causes he considered,—diet, sedentary life, abnormal positions, angulations, coloptosis, and hypertrophy of the rectal valves.

The predisposing diseases mentioned were colitis, stricture, proctitis, fissure, hemorrhoids, fistula, polypi, enlarged prostate, and malignant growths.

PHYSIOLOGY OF CONSTIPATION.

By Samuel T. Earle, M.D., of Baltimore, Md.

In reviewing the Physiology of Constipation in the symposium read before the American Proctologic Society, June, 1911, Earle calls attention to the sensibility of the alimentary canal in connection with its bearing on constipation. It has shown that the stomach and intestines are quite insensitive to tactile and thermal stimuli, but that the esophagus and anal canal are sensitive. The whole of the alimentary canal is, however, sensitive to distension, which produces at first discomfort and subsequently pain. The rectum appears to be more sensitive than the rest of the intestines to distention, so that a large fecal mass produces more discomfort when lodged in the rectum than in any other situation. As a result of this, the normal accumulation of feces in the pelvic colon is unaccompanied by any discomfort, whereas, the entry of feces into the rectum at once produces a sensation, which acts as a warning that defecation is necessary. The discomfort produced by the presence of a large mass of feces in the rectum is partly due to the pressure it exerts on the upper extremity of the sensitive anal canal. Prolonged retention of feces in the rectum leads to a blunting of its sensibility, so that comparatively little local discomfort is present in most cases of confined constipation. But in acute cases or cases of recent origin, in which the rectum is distended with feces much discomfort and occasionally severe pain is experienced. On the other hand, even a very large accumulation in the pelvic colon produces little or no discomfort in the intestine itself.

A large fecal accumulation in the rectum presses directly upon the anterior primary divisions of the third, fourth and fifth sacral nerve routes, as they emerge from the sacral foramina. It may therefore lead to neuralgic pain referred to the sacrococcygeal region. It is liable to cause suffering more from its constant presence than its severity; it is often as severe when the patient lies down as when he takes exercise, but some relief follows flexion of the lumbar spine. The muscles of the buttocks and back of the thigh, which receive a small part of their sensory and motor supply from the third sacral nerve route, may be the seat of similar pain. Neuralgic pain or paresthesia, in the form of tingling or a sensation of heat or cold may occur, in the course of the sciatic nerve, in the back of the thigh, and occasionally the sensation of cramp in the calf is produced. Pain is also occasionally felt in the hip-joint, it receives part of its nerve supply from the third sacral nerve. The roots which supply the muscles of the front of the thigh, are situated out of reach of the distended rectum, so that in the exceptional cases in which pain is produced by constipation in this situation, it must be due to pressure exerted by a fecal mass in the iliac colon on the anterior crural nerve; and it is accordingly only observed on the left side.

That these neuralgic pains are probably due to

the direct presence of a large and hard mass of feces, on the sacral nerve-routes is shown by their instantaneous disappearance on completely evacuating the rectum by enemata, a form of treatment which was already advocated for sciatica by Columnius of Naples at the end of the eighteenth century.

Possibly the erections and seminal emissions, and the frequency of micturition and nocturnal incontinence, which occasionally result from large fecal accumulations in the rectum, are due to direct irritation of the third and fourth sacral nerves, and are not reflex in nature. The spasm of the sphincter ani and levator ani muscles, which has already been described as an occasional complication of the fecal impaction in the rectum, which occurs in constipation, may perhaps be in part due to pressure on the fourth sacral nerve routes.

Neuralgia of the testicles in men and dysmenorrhea in women are sometimes increased by the direct pressure in the rectum on the nervous supply of the testicles and uterus respectively.—*Arthur F. Hertz, on Constipation.*

THE CABELL COUNTY SOCIETY.

HUNTINGTON, W. VA., Jan. 12th, 1912.

Dear Doctor Jepson:

The regular monthly meeting of this society was held last night at the Hotel Frederick.

There was a good attendance. Dr. J. W. Lyons of Huntington read a paper on "The Use of the Microscope, Especially in Examining Sediments of the Urine." The doctor's paper was carefully prepared and instructive.

One new member was elected, Dr. L. A. Williams, of Barboursville, W. Va.

Fraternally yours,

JAS. R. Bloss, Sec'y,

EASTERN PANHANDLE SOCIETY.

MARTINSBURG, W. VA., Jan. 2, 1912.

Editor W. Va. Med Journal:

I am sending you program and short report of our last meeting of the Eastern Panhandle Medical Society, held at Charles Town, W. Va., Dec. 6, 1911:

PROGRAM.

Alcoholism—Dr. W. W. Brown, Shenandoah Junction, W. Va.

Therapeutics—Dr. Howard Osburn, Rippon, W. Va.

Intestinal Obstruction in Children—Dr. R. E. Venning, Charles Town, W. Va.

Intermission.

Report of Secretary and Treasurer for the year 1911.

Short talks by Delegates to State Medical Society—Osburn and Albin.

Medical Defense Plan—Shall we continue same?

Election of Officers for 1912.

The next meeting will be held in Martinsburg on the first Wednesday in March. The meeting yesterday was of considerable pleasure and benefit to the medical men. Papers were freely discussed, especially that on Alcoholism by Dr. W. W. Brown, of Shenandoah Junction. At 2:45

o'clock the meeting adjourned out of respect for the late Rev. Dr. A. C. Hopkins, and to allow those who wished to attend the funeral.

Dr. Howard Osburn, of Rippon, was elected president; Dr. G. W. Swimley, of Bunker Hill, first vice president; Dr. Hirst, of Leetown, second vice president, and Dr. A. B. Eagle, of Martinsburg, was re-elected secretary and treasurer.

Our society is in excellent condition and much interest is taken in the meetings. However, we hope to have a larger and better society this year.

Very respectfully,

A. B. EAGLE, *Sec'y.*

LITTLE KANAWHA AND OHIO VALLEY SOCIETY.

PARKERSBURG, W. VA., Jan. 12, 1912.

Dear Editor:

On Jan. 4, 1912, the L.-K. & O. V. Medical Society met at 7 p. m. at the Chancellor Hotel. First all present partook of an elegant dinner, after which the society held its meeting.

Sixteen members were present. The stormy weather interfered with larger attendance. The treasurer made his annual report, after which the election of officers for the ensuing year took place.

Dr. H. D. Price was elected president; Dr. O. D. Barker, 1st vice president; Dr. B. F. Harrison, Cottageville, Jackson county, 2nd vice president; Dr. E. H. Douglass, Petroleum, 3rd vice president; Dr. M. R. Stone, secretary; Dr. W. H. Sharp, treasurer; Drs. D. C. Casto, M. O. Fisher and S. H. D. Wise, counsellors.

The election of delegates was postponed until the meeting in February, when the subject will come up as to instructions as to the M. D. F., whether it shall be optional or compulsory. There are some in the society who believe it should be optional. Others, using insurance protection, do not want the protection from the M. D. F.

A communication from the superintendent of the city schools relative to time children affected or exposed at home to the various contagious diseases should be barred from attending school. He submitted a schedule of time for the various disease. With some modification it was concurred in. Especially as to diphtheria and scarlet fever the time was lengthened.

No other business, the society adjourned to meet Feb. 1st.

W. H. SHARP, *Treas.*

MARION COUNTY SOCIETY.

FAIRMONT, W. VA., Jan. 6, 1912.

At the last meeting of the Marion County Medical Society, held Dec. 30, 1911, the following officers were elected for the ensuing year:

President, Dr. W. J. Leahy, Mannington; vice president, Dr. L. N. Yost, Fairmont; secretary, Dr. H. R. Johnson, Fairmont; treasurer, Dr. W. H. Sands, Fairmont; board of censors, C. L. Holland, Fairmont; delegate to State Association, Dr. A. L. Peters, Grant Town.

Dr. W. L. Coogle of Rivesville, W. Va., was elected to membership. We gained six new mem-

bers last year and lost three. We want to get every eligible physician in Marion county in the society this year.

I am sending you my list of paid up members of Marion County Medical Society, and think it shows conclusively how Medical Defense has been a decided factor in the prompt payment of dues. Last year 22 members had paid on Jan. 31st. This year 36 of a membership of 40 here paid up by Jan. 31st. This, I think, is sufficient vindication of Medical Defense in our society.

At the January meeting of our Society, resolutions were passed looking to the establishing of a laboratory for the purpose of examining sputum, making cultures of specimens from all infectious and contagious diseases, as well as examination of the water and milk supply. This matter was put in the hands of the following committee:

Dr. W. J. Leahy, Mannington; Dr. C. O. Henry, Fairmont; Dr. L. N. Yost.

It is the purpose of our Society to start a publicity campaign through the daily press, to show the public the prevalence of contagious diseases, and to educate the masses up to the imperative need of such facilities in the management of diseases and the proper inspection of the milk and water supply. We hope to be able to go to the county and municipal officials and demand that these things shall be maintained at their expense, backed by a public sentiment so strong that they dare not turn us down,

With best wishes for 1912, I remain,

Very truly yours,

H. R. JOHNSON, *Sec'y.*

NICHOLAS-WEBSTER SOCIETY.

The regular semi-annual meeting of the Nicholas-Webster Bi-County Medical Society was held in the Yew Pine Inn, Richwood, on Jan. 10th.

The earlier part of the meeting was presided over by Dr. W. E. Whiteside and the first business claiming the attention of the association was the election of officers for the ensuing term, which resulted as follows:

Dr. James McClung, president; Dr. E. C. Bennett, vice president; Dr. J. B. Dodrill, secretary and treasurer. Drs. Judy, Allen and Dodrill were appointed a committee on arrangement for the next meeting of the State Medical Association which will be held at Webster Springs on the 10th, 11th and 12th of July.

The chair appointed the following named gentlemen as members of a reception committee for the state meeting at the Springs: Drs. D. P. Kessler, H. H. Veon, L. O. Hill and W. J. Judy, and upon motion of the latter all members of the society were made members of this committee.

A vote of thanks was tendered Dr. McNeer for his presence and splendid address, and a vote of sympathy was tendered Dr. Echols, who was absent on account of the death of his mother.

At the conclusion of the business session the announcement was made by the president that "we will now repair to the dining-room and partake of some refreshments for the inner man." No second invitation was needed. Dr. McClung, the newly elected president, presided and acted as

toastmaster, and in his short talk thanked the brethren for the honor conferred upon him and said he could congratulate himself that this is "one" time that he was really elected. A number of responses to toasts were made by the parties present, viz.: W. J. Judy, of Webster Springs; J. C. Kessler, Cowen; W. E. Whiteside, Fenwick; McNeer, Baltimore, Md., and E. C. Bennett, H. H. Veon, L. D. McCutcheon, James McClung and Dennis McClung, of Richwood.

TYLER COUNTY SOCIETY.

FRIENDLY, W. VA., Jan. 18, 1912.

At a called meeting of the Tyler County Medical Society, at the Sistersville Hospital, on Dec. 18, 1911, the following officers were elected for the ensuing year:

President, Dr. J. A. Jennings; vice president, Dr. G. B. West; secretary and treasurer, Dr. John Bennett, Friendly. Dr. A. B. Campbell, of Middlebourne, was elected to membership.

Our regular meeting was held on Jan. 8, 1912, at 2:30 p. m. at the Sistersville Hospital. House called to order by President Dr. J. A. Jennings. Members present, seven. The afternoon program consisted of a general discussion of acute indigestion and lobar pneumonia.

Members paying dues were Dr. John Bennett, Dr. C. L. Parks, Dr. V. H. Dye, Dr. G. B. West, Dr. M. M. McCollough, Dr. M. M. Reppard.

There being no further business before the house the meeting was adjourned until our regular meeting day, Feb. 12, 1912, at 2:30 p. m.

Wish the JOURNAL success.

JOHN BENNETT, Sec'y.

Medical Outlook

FOREIGN BODY IN THE ORBIT DISCOVERED BY THE MAGNET AFTER FAILURE BY THE X-RAY.—FRANK A. MORRISON, M.D., Indianapolis, in *Journal Indiana State Medical Association*, June, 1911:

Morrison remarks that the X-Ray has generally been considered decisive in the determination of the presence or absence of foreign bodies in the eye or orbit, but the case presented shows that even in the hands of skilled persons it is not infallible. A blacksmith while pounding iron felt something strike his eye. There was considerable bleeding and vision was rather indistinct, but soon grew better. Two competent oculists made a thorough examination. Two skiagrams were taken by an expert and the three gave the patient a signed statement to the effect that there was no foreign body. Three months later, the patient consulted Dr. Morrison. He found marked ptosis of the lid, opacities in the vitreous and impairment of vision. When the Johnson magnet was approached to within two inches the upper lid bulged markedly and the globe advanced. There being considerable pain, the patient was anesthetized and the upper lid divided vertically. When the magnet was applied a large piece of metal presented in the wound. It was the size and shape of the ring finger nail and weighed 75

grains. Three interesting facts are connected with this case: 1. The absence of a scar showing the entrance, so that it would appear, that the metal entered between the lid and globe and was rotated to the position where found. 2. The failure of the X-Ray to detect the presence of so large piece of metal. 3. Its detection by the magnet. G. D. L.

INTESTINAL PARASITES IN INDIVIDUALS RESIDING IN THE NORTHWEST.—W. E. SISTRUNK, M.D., in *J. A. M. A.*, November 4, 1911:

It is a matter of common belief that organisms in the intestine causing anemia, diarrhea, etc., are rarely seen in persons who have never lived in nor visited southern countries. Sistrunk has examined the feces of 145 patients the past four and one-half months and finds sixty-five persons with intestinal parasites and suffering with chronic diarrhoea, anemia, passage of blood and mucus and obscure abdominal symptoms. Of these sixty-five persons thirty-four had never been in the south or tropics. He concludes that the general notion that only persons who have lived in the south, possess intestinal parasites producing abdominal symptoms is erroneous. It is probable that many of the chronic diarrhoeas of the north are thus accounted for. G. D. L.

VENEREAL DISEASES.—DR. A. RAVOGLI, of Cincinnati, in the *Interstate Journal*, deprecates the scant attention paid to venereal cases in most general hospitals. He describes the Italian laws concerning such cases, and closes as follows:

The advertising quacks have selected this field of medical practice and with their false promises and bombastic assertions in the daily newspapers are misleading the patients, with bad results for them and for public welfare. They promise sure cure, and the patient, in the belief of being cured, remains a focus of infection dangerous to others.

As we have established that the treatment of the venereal diseases is the best prophylaxis against the spreading of the scourge, it is clear that some interstate rules concerning this treatment would be of great advantage to combat their diffusion.

These rules could be formulated as follows:

First. Every hospital (unless it be for special diseases) is compelled to accept venereal patients when disabled.

Second. In every general hospital there must be a department for the treatment of venereal diseases.

Third. In these wards there must be observed complete secrecy and discretion, in order to prevent any publicity.

Fourth. It must be in the power of the health officer to compel any hospital to give treatment to a disabled venereal patient.

Fifth. In large cities the patients must have the benefit of the clinics and dispensaries attached to the hospitals or to the medical colleges.

Sixth. In smaller communities dispensaries must be instituted for treatment of venereal dis-

cases, by order of the county board of health.

Seventh. Medicines and treatment for poor patients must be given free of charge.

Eighth. Physicians in charge of these dispensaries must be specialists well trained in the treatment of these diseases.

ANESTHESIA AND SHOCK.

Gwathmey, who is anesthetist to the Gouverneur, the New York, Skin and Cancer, the City, and the Polylinic Hospitals, states in *International Journal of Surgery* that in hundreds of cases in which anesthetics are given, over 50 per cent are shocked more or less from the anesthetic. He states that in all major operations the injection of normal saline solution per rectum, before the patient is taken from the table, and inhalations of oxygen for thirty minutes after the operation is concluded, are measures intended to assist in getting rid of all the anesthetic that may still remain in the blood, thus preventing postoperative shock. He also advises that as soon as consciousness returns the patient should be allowed to drink as much water as is desired. If it is vomited the stomach is washed out; if it is retained the patient is in better condition with the diluted ether saliva than if the water had not been taken. With the anesthesia properly induced and maintained he holds that there is a tremendous strain upon all the vital functions; to avoid all shock after the operation the room should be darkened, quiet maintained, and the patient allowed to sleep until he awakens naturally. The patient should be able to answer questions intelligently within fifteen minutes after the conclusion of the operation.

Undoubtedly the greatest advances made in modern times in the treatment of shock are in the direction of prophylaxis. The avoidance of hemorrhage, the preservation of the body heat, deft and rapid operating, the limiting of incisions, rational pre-operative preparation, including the insurance of the active functioning of the excretory organs, and, perhaps most important, the tendency to select skilled anesthetists, are factors in the general lessened mortality from shock.

When shock is incident mainly or entirely to hemorrhage the intravenous injections have proven their value. A still more serviceable procedure, one distinctly life-saving in desperate cases, is that of blood transfusion by suturing an artery of the donor into the vein of the donee. This Crile has shown to be perfectly feasible. In the ordinary conditions of shock following prolonged operation Murphy's slow rectal injections of normal saline, combined with the elevation of the foot of the bed, are usually adequate. As a means of determining the onset of shock the careful observation of a skilled anesthetist should prove adequate for ordinary purposes.—*Therapeutic Gazette.*

THE EXTERNAL MALLEOLAR SIGN.

C. G. Chaddock and A. H. Deppe, St. Louis (*Interstate Medical Journal*, October, report their experience with the "external malleolar sign" of Chaddock, which is described as follows: To determine its presence or absence the

patient must sit or lie with the lower limbs extended and relaxed and wholly exposed. Relaxation of the muscles of the legs and feet is very essential in doubtful cases, and is possible the limbs to be tested should not be compressed or touched in any way except at the point chosen for application of the stimulus. The irritation of the skin is best done with a dull steel point (like a dull-pointed nail file). The area to be tested is the groove which outlines the external malleolus. In this groove the point of the instrument used should be drawn from behind forward until the depression between the malleolus and the cuboid is reached. This depression seems to be the most excitable part of the area. The degree of irritation employed should always be varied from slight stroking to rather severe scratching with considerable pressure, though it is never necessary to cause pain. Normally, this stimulus causes no movement whatever of the toes. The abnormal reaction consists of extension or fanning of one or more or all the toes; a movement of flexion observed in a few cases had the same pathological significance, says Chaddock. It may be found with a negative Babinski. A striking peculiarity of the external malleolar sign, says the author, is that with a unilateral Babinski it is the rule to find the external malleolar sign on both sides. In a series of 99 cases of dementia paralytica, Babinski's sign with the ankle sign was found eleven times, the ankle sign was found single or double eighty-six times; neither sign thirteen times. The phenomenon of Babinski certainly occurs without the presence of the external malleolar sign, though rarely, says Chaddock; and thus is shown, as by variations of association, the independence of the two signs. Study of their association and dissociations may afford valuable diagnostic facts.

A NEW POSTURE IN OBSTETRICS.

There is probably no branch of medicine in which the familiar saying that "fools rush in where angels fear to tread" applies as it does in obstetrics, particularly where the "fool" is armed with a new pair of Simpson forceps. The introduction of forceps into midwifery was certainly a great advance in that science, and their use when actually indicated is a great boon to the woman in labor. It is, however, a good rule never to apply instruments while there is a reasonable hope of a spontaneous delivery, and the condition of the mother and child is good. When the head is low down, as long as there is any advance, be it ever so slight, it is far safer to allow nature to take its course. There are, however, certain ways in which nature may be aided without in any way adding to the danger to the patient, one of the most important of which is posture. Max Samuel, of Cologne (*Deut. Med. Woch.*, Oct. 28, 1909), offers a suggestion as to posture which he believes adds greatly in hastening the later stage of labor, when the head has passed the pelvic brim, and the inferior strait is causing the dystocia. Drawing an analogy from the Walcher position, in which by hanging the thighs over the edge of the bed or table, and thus hyperextending the hips.

the diameter of the pelvic inlet is increased at the expense of the outlet, thus enabling the head more easily to engage, the author argues that, when the head has once passed this point and the pelvic outlet is causing the trouble, the opposite posture, flexion of the thighs, will increase the outlet at the expense of the inlet. He therefore advocates in all cases where there is any delay, after the head has reached the floor of the pelvis, that the thighs be flexed and the legs held in the patient's hands, the knees also being flexed. By this process Samuel says that the pelvic outlet is widened, the woman is better able to use her pains, and that the pains themselves are less agonizing. He has made use of the posture in a large number of cases, and believes it to be of considerable value in hastening and easing labor and in preventing the necessity of applying forceps to the head in the outlet. If such a simple procedure really does save the necessity of applying forceps, with their ever-present danger to mother and child, it may prove a valuable addition to the armamentarium of the conservative obstetrician.—*Medical Record*.

IODINE LOCALLY IN SMALLPOX.—Dr. C. S. Rockhill, of Cincinnati, informs us that he has been using iodine locally in the treatment of smallpox in the municipal pesthouse, of which he has charge.

Through the manner of treatment, he says, he has been able to shorten the course of this disease from the usual 25 to 30 days down to 15 days, and when applied frequently enough and with sufficient thoroughness, the disease may be aborted and all characteristic symptoms, especially the disfiguration by pitting, prevented.

The ordinary tincture of iodine is applied diluted with glycerin in the proportion of 10 parts of the tincture to 90 parts of glycerin. This mixture is painted over the pustules two or three times a day. Under its influence the patient's temperature subsides, and no pustular formation or pitting whatsoever occurs. The pustules take on the color of hemorrhagic smallpox, due, of course, to the staining effect of the iodine.

Desquamation is very rapid, while the shedded scales are absolutely sterile. Danger of infection, therefore, has been reduced to a minimum. If the case is somewhat advanced, the pustules on the face are opened with a sterile instrument, and each one is touched with the tincture of iodine, which immediately stops the destruction of tissue going on and reduces the possibility of scar formation.—*The American Journal of Clinical Medicine*, January, 1912.

BUTTERMILK IN TYPHOID.—Edward C. Register, M. D., Charlotte, N. C., in a paper before the N. C. Med. Soc., says:

"In the majority of cases I find that it is more palatable, and many of my patients prefer it. Buttermilk, as an article of food in typhoid is not a new thing; its value has been known almost since the beginning of medical history, but it is only recently that we have fully learned to appreciate it as a food for fever patients. There is hardly any substance that has as great a tendency to check putrefaction as has sour milk, and at the same time is so easy to digest, and gives

us a food of considerable nutritive value. I have observed evidences of bacterial putrefaction in patients, to whom sweet milk was properly given, subside when the buttermilk diet was adopted. In cases where unfavorable symptoms arise, as the result of an excess of fat in the sweet milk, the patient can usually digest sour milk. It is really in cases like this that it is especially applicable." G. D. L.

CONTROL OF TYPHOID IN THE ARMY BY VACCINATION.—According to a report of Major F. F. Russell, M. D., U. S. A., the rate per thousand among the vaccinated is 0.39, while in the army at large it is nearly 10 times as high. The doctor remarks: "As great a difference as this is certainly significant, and justifies us in believing that we have at last a measure which will save untold lives in time of war." G. D. L.

Suppurating arthritides do not always require exposure of the point or even large incisions, irrigation and drainage. Such treatment invites mixed infection and ankylosis. If the pus be very thin—even though of streptococcic origin—thorough aspiration (which may need to be repeated) and immobilization may effect a rapid cure with perfect function. Purulent arthritis and peri-arthritis as it occurs in small children as a complication of one of the exanthemata (often in connection with trauma) is often quite amenable to conservative, and even ambulant treatment: aspiration, or irrigation, and drainage and immobilization. Judgment is needed, of course, to determine what cases are amenable to this conservative surgery, and what point in the treatment it must be abandoned in favor of more extensive intervention.—*American Journal of Surgery*.

The surgeon should keep closely in touch with cases of acute retropharyngeal abscess; as serious edema of the glottis may develop and require tracheotomy for its relief.—*American Journal of Surgery*.

As you wait, you surely may
In the evening of some day
Find that younger shoulders, bearing
All the heavy loads, are wearing
Burdens, honors, bravely, gladly,
While you rest, half-pleased, half sadly—
All the day!

—*Clinical Medicine*.

"Look up and not down,
Look forward and not backward,
Look out and not in, and
Lend a hand."—*E. E. Hale*.

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THE OPERATIVE TREATMENT OF FRACTURES.

John Egerton Cannaday, M.D., Charleston, W. Va.

(Read at the West Virginia Medical Ass'n meeting at White Sulphur Springs, Sept. 20, 1911.)

If more fractures occurred among the surgical profession the subject would have been given greater study and the appendix and the ovaries would not so nearly monopolize professional attention.

There is lack of interest and a feeling that the subject of fractures is so old that it will almost take care of itself. Today other fields of surgery—for example, the abdomen, blood-vessels, and thorax—offer such a large and attractive variety of opportunities for original research and investigation, and the results are so brilliantly and quickly achieved, that it does not seem strange that the slow physiological processes pertaining to the repair of a broken bone should be relegated to the care of those whose time is less occupied, and who are willing to accept this responsibility of what they have been taught to consider a very humble and almost unimportant branch of surgery.

Teachers and surgeons generally appear to be apathetic, and are disposed to leave these cases to the care of assistants or house officers, and it is only after a case has progressed badly that sufficient interest is aroused to demand action on the part of the surgeon.

Not only is less time given to teaching this important and interesting subject, but the study of the clinical aspects of the case, which was thought so essential formerly for a correct diagnosis, has given way to the more easy laboratory findings. The student of fractures today feels that an X-ray report will reveal to him in a moment, and with less trouble, what a careful clinical study, requiring a much greater expenditure of time, would show.

Permitting this impression to grow in the minds of students has had its influence indirectly upon the treatment of fractures in general, and it is only too apparent that the rising generation is lacking in much of the skill and resourcefulness which characterized the older surgeons in the diagnosis and treatment of these injuries.

Concerning Fractures of the Spine With Cord Injuries.—Needless to say that it is only through preliminary neurologic study of these unfortunate patients can misinterpretations of the results of surgical measures be avoided. It is well for us surgeons to remember the pitfalls of the past, such as the reports of immediate restoration of function after suture of an injured peripheral nerve, a physiologic impossibility, of course, in the higher animals at least.

One may conveniently divide these cases into three groups. In the first operation is contra-indicated as spontaneous recovery is probable. The easily recognizable cases of hematomyelia are comprised in this first group; and the spinal palsies accompanied by an acute flexion of the neck such as follow diving accidents, are often of this type.

Surgical measures are contra-indicated in a second group of cases, owing to the futility of intervention; and the mere fact that friends and patients desire it is not a sufficient defense or excuse for operation. These are cases of immediate total transverse lesion, after which a useful, if any restoration of function at all is inconceivable. These cases are usually recognizable, if the patients are seen immediately after the injury, by the sharply cut, upper segmental level of total anesthesia and the complete abolition of the deep reflexes.

Now the third group of cases comprises those individuals with partial lesions from wounds or fractures in which prompt intervention is unquestionably indicated.

There are two points relating to the surgical treatment of these cases to which I should like to call attention. One concerns the care of the bladder, the other the method of entering the spinal canal. An immediate suprapubic cystotomy adds immensely to the comfort of these unfortunates and renders the liability of renal infection far less. In most of these patients the lower part of the trunk is without sensation, and it requires no anesthetic to make the very small suprapubic opening through which a retaining tube is introduced into the bladder. This obviates the dribbling which ultimately would occur and favor the production of bed sores. It obviates, too, the irregularities of catheterization which must creep in the best conducted surroundings. Urethral drainage by no means answers the same purpose.

Now as to the laminectomy. We must not forget that unless the laminectomy is delicately carried out the performance itself may do additional damage to the cord. Rough methods of exposure are much to be decried—methods of the mallet and chisel type. Adherence to such methods is what makes operators so often speak of the "shock of laminectomies." Shock, so-called, arises from the trauma and loss of blood incidental to rough procedures. A laminectomy should be quite a bloodless performance and unattended by jar. It, in the first place, should be a median operation, hugging the spines and laminae, from which the periosteum should be scraped away with care.

After removal of the spines the method of entering the canal which I employ is one

which I can highly recommend to others. Primary entry down to the posterior ligaments is made with a Doyen perforator through the stump of each of the individual amputated spines—five or six, as the case may be, and rarely can a proper exposure be made with less. The perforator is followed by the burr which reams away each spine in turn and much of its adjoining laminae. The lateral bony projections which remain can then be easily nibbled off with delicate sharp-nosed rongeurs, and a broad exposure of the canal is obtained.

The yellow, elastic posterior ligament is then delicately scraped away down to the dura, and this membrane should be opened without injuring the arachnoid. This is an important matter and one I believe that is rarely observed. With the dura open and the bulging arachnoid uninjured the best possible view of the cord is obtained through the thin, delicate, transparent membrane, which will often enlarge the structures as though they were seen through a magnifying glass. I am sure that the emphasis which is laid on the loss of cerebrospinal fluid as an incident to "shock" is without foundation. A patient is so apt to be upset by rough methods of entry at this stage of the operation that the upset is attributed to evacuation of fluid, rather than to the preceding rough manipulations. In all cases, needless to say, the wound should be completely closed without drainage.

Unfortunately we are not all highly trained neurologic surgeons, as Dr. Cushing is; and usually we get very little aid from the neurologists. Most of us who do general surgery have but a limited knowledge of neurology as affecting these particular injuries.

I have formulated this plan for my guidance: in all cases of doubt, open the spinal canal. The opening of the spinal canal itself is not difficult or dangerous, and when I have operated I have not made the patient worse. The wound itself heals well, and I have never had trouble with it. It seems to me for the average surgeon doing accident work, who has not had the advantages of neurologic training, it is best to open the spinal canal and determine the exact nature of the injury.

It is true that all patients with transverse lesions of the cord have died sooner or later; but in partial cord lesions I have had

one recovery, and that is in a case of fracture of the laminae of the fourth and fifth cervical vertebrae, in which the meninges were torn and there was a considerable accumulation of blood. I admit there can be no regeneration of the cord when it has been transversely destroyed.

The patients who recovered were those in whom there was a blood-clot in or under the dura, and the cord was not involved. They might have recovered anyway; but I could not tell positively before operation that there was no cord injury. So I opened them and did no damage.

The patients in whom there was hemorrhage in the cord itself, died; and so far as I have been able to learn from the reported cases, all such patients sooner or later die.

The X-ray plate pictures, except in the hands of the most expert, can give most deceptive results and either exaggerate existing deformities or show those that do not exist. The X-ray tube should be directly over the seat of fracture—and pictures should be made from several points of view, to avoid mis-information. As a matter of record and for protection against malpractice suits I try to have before and after X-ray plates made. These assist materially in the treatment of the case as well.

In thigh fractures it is generally understood that from one-half to one inch of shortening does not of itself interfere with a good result. Angulation and rotation are most disastrous complications. No broken bone will ever be restored to its pristine normal perfect condition. The results in all fractures will be bad, only some will be worse than others.

I do not advocate operation for all fractures—only those in which the bones cannot be retained in correct position by external means. I make the above statement as a general proposition, there must be a number of exceptions, the very young, the very old, the delicate, those suffering from grave constitutional maladies. When we operate on fractures the best results are obtained in healthy, middle-aged patients, who are sufficiently intelligent to co-operate with the surgeon.

A great deal more skill and surgical experience is required for the successful operation of fractures than for the doing of

simple abdominal surgery. The peritoneum can take care of a great deal of infection, but the tissues about a broken bone are often receptive, rather than otherwise as regards infection. Men of vast experience in the handling of fractures like Mr. Arbutnot Lane do not even insert the gloved fingers into a fracture operation wound.

Certain fractures as those of the skull, practically always require operation. In no class of work have the results been more satisfactory than the decompression operation for fracture of the base of the skull. The subtemporal decompression operation of Cushing has saved many lives and is truly a live saving procedure in the face of such a crisis as a rapidly increasing brain compression. Opening the temporal fossa on one side will not be sufficient in all cases by any means, as the principal accumulation of blood may be on the opposite side to that receiving the blow. In several cases of fracture of the base of the skull, I feel that I have saved life by this procedure. The treatment of fractures of the long bones by plate and screws as introduced by Mr. Lane, of London, has easily the preference in the operation fashion plates.

When the broken ends of a long bone are drawn out of position by strong muscular contraction it is in any case difficult and in many impossible to retain the ends in anything like their proper position by external means.

Fractures involving the knee or elbow joints may result in ankylosis and require plate-plastic operations to secure motion. In several cases I have performed the Murphy operation for ankylosis with excellent results.

Fractures of the skull, the shaft of the femur and fractures of the patella, are the ones most commonly requiring operative interference. In operations of the patella itself it is not usually necessary to drill holes in the bone, as linen sutures passed through the periosteum are quite sufficient.

The fragments of a broken lower jaw can usually be retained by splints properly wired to the teeth; this work I usually have done by a competent dentist.

At the recent meeting of the American Surgical Association at Denver, the subject of operative treatment of fractures received

a great deal of attention. Dr. Edward Martin described his method of restoring the length of a shortened limb after vicious union had taken place. He exposes and separates the ends of the bones and makes traction from a canvas loop which is passed over the end of the bone, the other end of the canvas being secured to a rope with pulley and weight attached. It takes from 100 to 200 pounds to draw out the contracted muscles so as to allow the bones to resume their normal position.

The general consensus of opinion was that a great many fractures of the shaft of the femur would have to be plated in order to secure anything like a decent result. When both tibia and fibula are involved, also radius and ulna, operation will be frequently advisable in order to prevent serious deformity and impairment of function.

Many limbs have been and are being amputated that could be saved by intelligent and timely surgical attention. No matter how serious the injury, if the blood vessel and nerve supply is intact try to save the limb. I have saved to working men a number of useful limbs by acting against the usual advice in regard to this condition.

A fracture of the pelvis usually involves the bladder or urethra or both and prompt drainage is required to save the patient's life.

The trachea, while not a bone, is subject to compression fracture. I recently saw a case in consultation. Nothing was done and the patient died in a few days. I feel confident that this fellow's chances for recovery would have been increased 75 per cent by a timely drainage operation.

In removing broken pieces of bone from a depressed fracture of the skull, great care should be taken lest the dura or brain be torn.

In regard to crushing injuries of arms and legs of a severe nature, I cannot do better than quote from Le Jar's *Urgent Surgery*:

"The foot and part of the leg, the hand and a portion of the forearm, sometimes an even more extensive segment of the limb, have just been crushed under a heavy vehicle, under the wheels of a wagon, under a fall of earth, etc. The patient is seen almost at once; he is pale, cold, and partially unconscious, the pulse is feeble, the respiration jerky. He is suffering from traumatic

shock in its most typical form; the depression of the pulse and the subnormal temperature are the two outstanding features. Once more the question arises, what is to be done with the pulpified limb, hopelessly destroyed, contaminated with dirt and dust, and which a few hours later will form a vast focus of infection? It is a grave and vital question."

Do Not Amputate—To amputate while shock is at its worst is to invite immediate death. But once the initial symptoms have subsided, when by the aid of injections of salt solution and caffeine, by the envelopment of the limbs and trunk in wool, by inhalations of oxygen, the pulse has improved and the skin become warmer and the contraindications have disappeared, may we—ought we—to amputate? In the great majority of cases, no. The day of the primary traumatic amputations, formerly the rule, is past; they ought no longer to figure in ordinary practice except under very special conditions. And for special reasons.

Even when the initial shock has passed away, amputations are still dangerous, and the time is evidently very unfavorable for submitting a patient, who has scarcely rallied from one grave injury, to a second traumatism so serious as an amputation through the thigh or a disarticulation at the hip.

This is not, however, in our opinion, the principal objection, and as we shall have cause to say later on, in the face of certain weightier reasons it may justifiably be set aside.

One would be wrong indeed to exaggerate the gravity of the prognosis of primary amputations, at least when performed under modern conditions; by conducting the anesthesia very cautiously, by operating quickly and aseptically, the conditions produced are very different from those which formerly obtained and rendered these operations so deadly.

Personally, in twenty high amputations performed during the first few years I have had only three deaths; one was that of a patient in whom operation was rendered necessary by emphysematous gangrene, and the other two were cases of multiple amputations complicated by serious visceral contusions; and no one of the three patients succumbed until several hours after operation.

There are other weighty arguments against immediate removal of the limb. And firstly, unless amputation is performed very high above the seat of injury, there is the very real danger of secondary gangrene of the flaps. That is an occurrence which is actually more common than is generally recognized; it is to be explained by the existence of distant lesions, vascular lacerations, muscular hematmata, etc., in the areas above sometimes very far above the region directly affected, and due to the primary traumatism.

On two occasions I have seen a stump become gangrenous en masse after primary amputations performed apparently in healthy tissue; after an amputation through the thigh for a crush of the leg, and after an amputation of the leg, at the seat of election for injury to the foot. It will therefore be necessary to amputate very high, and consequently *always to sacrifice too much*—that is to my mind one of the gravest defects of the early operation. Of course, the evil varies according to the level at which the amputation is performed, and it is quite possible to sacrifice a longer or shorter segment in the continuity of the leg, the thigh, the forearm, or the arm, without greatly modifying the ultimate usefulness of the stump. It is a very different matter when it is a question of sacrificing the limb above or below the knee or the elbow, when, for instance, the immediate operation is represented by an amputation through the thigh, while by the other method the knee might be preserved, or again, in a case where immediate operation would necessitate disarticulation at the shoulder, while by waiting a useful intradeltoid stump could be obtained.

These are very important arguments in favor of conservative measures.

As a general rule, and excluding the urgent indications which we shall discuss presently, there should be no hesitation in refusing to follow the old teaching; therefore avoid early amputation, but do all that is necessary to prevent infection.

This sound surgical precept would, however, lose all its value, and indeed would often be equivalent to a death sentence, if it was considered to mean that the crushed limb was to be practically left to take its chance after a very summary cleansing. The surgeon will only be justified in following this method of "spontaneous and conserva-

tive elimination" if he is prepared to devote himself at once to a process of minute cleansing and disinfection of the skin with ether and alcohol. Then attention is directed to the deep area of injury. The fragments of bone bare of periosteum, the tags of muscle, and the loose tendons are removed; then with an irrigator placed at a sufficient height to give good pressure, and filled with boiled water at a temperature of 140° F., a powerful jet of fluid is directed systematically over the entire surface and into all the recesses of the wound, into the smallest corners, between all planes of separation; all clots and foreign bodies are washed away, thoroughly and slowly gone over (Reclus).

Then with swabs soaked with pure peroxide of hydrogen (12 volumes), all the recesses are cleansed anew; gauze wet with peroxide of hydrogen or alcohol is packed into all the planes of separation, around the flaps, into all interstices; the limb is completely enveloped with more layers of gauze also saturated with alcohol, and finally a thick covering of sterilized wool is applied and carefully fixed and closed above and below by a bandage. If there is no rise of temperature, this first dressing is left untouched for eight or ten days.

It may be that the crushed extremity remains attached only by some slender tags of muscle and skin; it will then be advantageous to get rid of it by a few cuts of the scissors. Often, indeed, it will be good practice to limit the area of gangrene by excising the peripheral segment through the dead tissues; the field of gangrene is thereby rendered less extensive, and its disinfection becomes much easier.

After the long-continued, minute, and complete cleansing of the crushed segment with warm boiled water, embalming it in alcohol is an excellent practice which we have often employed with success. I need hardly say that the case must be very closely watched, and that any undue pain, any rise of temperature, any stain coming through the dressing, will indicate the necessity for at once investigating the condition of the wound.

After these injuries, and in every case of a wound contaminated with street dirt, dust, etc., it is prudent to administer prophylactic injections of antitetanic serum. Ten cubic centimetres are injected under the skin as

soon as possible; the injection is repeated after forty-eight hours, and a third time towards the tenth day.

Such ought, as a general rule, to be the line of treatment of crushing injuries of the limbs. There still remain, however, some indications for early amputation.

1. The injury is of some hours' standing; the wound is impregnated with earth and dirt of all kinds, and has received no attention. The injury affects the foot or the hand, and the damage is such that there can be no doubt that the distal portion of the limb is lost beyond hope of recovery. Supposing that it was followed by success—this would be attended by no other advantage than the preservation of a somewhat longer segment of the leg or forearm.

The possible gain is too small, when one takes into consideration the dangers of infection which are incurred in such a case, and the difficulties, the practical impossibility, of adequately disinfecting the wound. It is usually best to amputate at once at the seat of election.

2. The problem presents itself in analogous terms, but even more definitely, when infection is already established and has assumed alarming characters.

Under such circumstances, it is too late to think of trying to save a more or less extensive portion of the damaged limb; it is the patient's life which is to be saved and early and radical amputation is often the best line of action. It may even sometimes be the best means of avoiding more extensive sacrifice of tissue.

The matter may be summed up as follows:

1. In recent crushes—even when there is but little shock, or when its initial phase is past, the set amputation above the seat of injury ought to be abandoned; and for it, minute disinfection of the focus of injury and embalming of the limb ought to be substituted, after the peripheral portion of the crushed limb has been removed.

2. In infected crushes amputation is usually necessary as a life-saving procedure and must be resorted to in good time.

In the *Journal of the American Medical Association*, May 11, 1907, page 1573, there was published an article written by myself entitled "The Conservative Surgery of Arms and Legs." Since this has a bearing on the subject of this discourse, I quote:

"The simplest way to treat a badly injured limb is by amputation, but the simple and direct method, if it involves too much sacrifice, may not always be best for the patient. In certain cases amputation is slightly safer, as the attempt to save the limb may be attended with some danger to the patient, while amputation shortens treatment and conservative treatment is tedious and may extend over many months. What patient will not accept a small chance of risk of life rather than the certainty of loss of limb? In times of such great national calamity as war when available hospital space is overcrowded, when proper nursing and dressing are at a premium, many limbs must, of necessity, be sacrificed. At such times both more radical and more conservative surgery must often be practiced than would be deemed desirable in times of peace.

Great stress has recently been laid by Reclus and other French surgeons on the value of systematic conservatism in the treatment of injuries of the extremities, some of them going so far as to lay down the rule that no primary amputation should be done. They believe that bleeding points should be ligated, the injured parts irrigated, dressings applied, the general condition of the patient looked after and amputation, if needed, done later when the patient has recovered from primary shock and has accumulated strength with which to combat the dangers of anesthetic and operation. Whenever the circulation of a part distal to the injury is at all fair, there is surely considerable reason for believing that the limb can be saved. The brilliant work of Carroll and Guthrie in the anastomosing of blood vessels gives promise of something better in the future than has been known in the past for limbs whose main vessels have been divided. The restoration of continuity of tendon and nerve has given most signal functional results in many cases. Extensive laceration of the soft tissues combined with comminuted and other serious fractures constitute a most serious condition and one that will tax the care, the ingenuity and the skill of the surgeon in his attempt to restore anything like a normal condition. The young and healthy individuals will have chances for a restoration of the circulation by the collateral vessels far in excess of the older patient whose circulatory capabilities are on the retrograde. Both the radial and

ulnar arteries of the forearm may be severed and yet the circulation be sufficient to save the limb; the femoral artery has been severed and yet the collateral vessels maintained the life of a member. In all accident cases I try to give the patient the benefit of the doubt and make an earnest effort to save the limb, though it not infrequently happens that I have to resort to amputation later. By carefully watching the patient and by the exercise of surgical judgment but little risk to life is assumed by the waiting. Prior to 1877 the amputation after compound fracture was the universal rule. Volkman was the first to secure satisfactory results by other means.

The application of a tourniquet often seriously impairs the vitality of the part, especially so if the constrictor remains in position for any considerable length of time. It is an easy matter to pick up and ligate most bleeding points. A compress held in place by a bandage will control most cases of bleeding. When possible to avoid it the tourniquet should not be used, as the deprivation of blood supply to the distal part entailed by its use exercises a most malign influence on the tissues. The skin may be almost entirely stripped from a limb and yet the chances for restoration be excellent because the blood vessels are uninjured. No matter how large the defect, the covering can be restored by skin grafting. It is always best to delay operation until preparations can be made to do the work by a carefully planned and perfected technic. Two or three days' waiting can hardly do harm provided the limb is properly looked after. Many advantages may be obtained by this delay. The patient has ample time to recover from the primary shock and we can tell to a certainty whether or not amputation is required.

Do not probe or disturb the interior of the wound before applying first-aid dressing. If this does not control the bleeding, apply tourniquet and blanket splint and get the patient to the operating room. The ordinary methods of cleansing pursued are prone to carry much new infective material into the wound. Scrub from, not toward, the wound, be careful not to allow soap, water or other solutions to run into the the wound while the limb is being cleaned. Turpentine, gasoline, benzin or soap and

water followed by alcohol or ether are all effective and their varying use is only a matter of choice. Lastly I apply to the limb 0.5 per cent iodine solution. I irrigate the wound thoroughly with hot normal salt solution.

If the circulation is good and the condition of the patient warrants it, the fractured ends of the bones are united by suture of 30-day chromicized catgut of large size, No. 3 being preferred. If wire is used, it should be removed after it has served its purpose, for the reason that any foreign body left in the tissues, of necessity, acts as an irritant. Bronze wire is the best, having great tensile strength; iron wire is fair, but silver wire is too brittle to be of service. Severed tendons are sutured, drainage provided for and splints applied. On the other hand, if the vitality of the part is at all endangered there should be just as little interference as possible; useless manipulation may cause much injury to the soft tissues by the cutting done by the sharp fractured ends of the bone. Drainage should be provided, the wound irrigated and the bones held in place by traction or splints or both. Tendons, nerves and bones are better sutured some time later after the circulation of the part has been restored in a measure.

When the fracture is comminuted or oblique, simple wrapping is probably one of the most effective methods of holding the fragments in proper position. Plating is an excellent method of treating some varieties of fractures. All detached bone fragments should be removed, as they will otherwise act as foreign bodies and promote suppuration. Whenever possible the periosteum should be preserved that regeneration of bone may take place. The wound should be carefully searched for bits of foreign material, and one should see that no soft tissues are interposed between the ends of the bones. When there has been much dirt contamination it is well to give an immunizing dose of tetanus antitoxin as a safeguard.

The after-care of these cases is a great tax on the technical skill and ingenuity of the surgeon. Splints and other appliances for immobilization are too numerous to mention or discuss, a sad commentary on their unsatisfactoriness. The problem of immobilization requires much ingenuity, since no treatise, however complete, can give directions that will cover every contingency

that may arise. The varied requirements are practically innumerable. Prevention of motion with fair approximation and apposition of the bone ends must be secured if possible. Frequent changing of the splint in compound fractures has its serious disadvantages and should be overcome if possible. Where there is much mobility an excessive amount of callus will form and may include or press on some important nerve trunk. A fenestrated plaster dressing suits many of these cases and it can be protected from the wound discharges by some of the numerous methods in vogue. A few of these cases, those that are strictly clean and can be kept so, are better off without drainage. Men doing referred practice sometimes blame the physician who gave the first aid for the infection. The wound is often infected before the case is seen by a physician, the conditions often being such that infection is unavoidable, being carried in at the time of the accident from the skin or clothing or from the traumatic agent.

Most of these cases need drainage, and gauze strips are usually effective except for hemostatic purposes. Rubber tubing (split or fenestrated) is not only satisfactory as drainage, but is a great convenience when we wish to irrigate the wound. These drains should be placed, whenever possible, so as to get the assistance of gravity. Infected wounds should have ample provision for drainage and irrigation. When there has been extensive laceration of the skin and muscles it is best not to attempt to close the wound completely. There is great liability to suppuration because of the lowered resistance of the traumatized tissues and by reason of the excellent culture media furnished by the extravasated blood and serum and the frequency of initial infection.

I have discontinued the use of peroxide of hydrogen and have never used bichlorid of mercury solution in the irrigation of wounds. I am satisfied that both promote rather than decrease wound secretion. Warm normal salt solution is a good mechanical cleanser and is non-irritating to the tissues. A weak solution of iodine is possessed of a maximum bactericidal power combined with a minimum toxic and irritant effect. It not only has a destructive effect on pus germs, but to a great extent will seal the ends of the lymphatic and blood vessels against the absorption of septic material.

The fractured ends of the bone may give trouble by necrosis, in which case the necrosed bone may be removed from time to time without much difficulty. In gangrene without infection amputate at the point of fracture and regulate the length of the stump later. In gangrene with infection removal of tissue must be radical and extensive. The after care of many of these cases is tedious and prolonged. Necrosed bone will have to be removed from time to time. There will often be chronic suppuration and the patience of both operator and patient will be severely tried. In cases in which trauma has been severe sloughing will usually be extensive and infection almost certain. Antiseptic solutions should not be used on bone, as they are very destructive to the periosteum.

There are certain disadvantages that may accompany the retention of crippled limbs, such as contractions of tendons and fascia, ankyloses of joints, chronic edema from inclusion of blood vessels in callus or scar-tissue, and disturbances of innervation from pressure on nerve trunks, and the treatment is lengthy and expensive. On the other hand, the expense of an artificial limb is saved, contractions and joint stiffness may be largely prevented and overcome by passive motion. Complete ankylosis has been relieved and the joint made mobile by the plastic interposition of fascia between the bone ends. Brilliant results have been achieved in nerve surgery, even after the lapse of many years from the time of the accident, and tendons are transplanted with ease. True, amputation gives in most cases far quicker results, but who does not prefer the arm or leg God gave to some clumsy device contrived by man?

Trauma of joints is often followed by infection. Open treatment by irrigation and packing with iodoform gives good functional results, though ankylosis is apt to result. There is an increasing tendency on the part of men who have successful technic to resort more and more to the open treatment of joint injuries and fractures. Bier's method for production of artificial hyperemia has saved many joints from resection.

Conclusion.

1. The conservative treatment of severe injuries to the arms and legs is essentially modern, and we should not do primary am-

putations (except in case of a limb held by only a few shreds), but wait for shock to pass and for the patient to regain strength.

2. We should avoid the use of antiseptic solutions for irrigation and use instead normal salt solution.

3. Bones should not be permanently sutured and we must not be in too great a hurry nor attempt too much in the beginning.

4. Moist gangrene calls for radical treatment.

5. Drainage is usually necessary and the rubber tube is to be preferred.

6. Good functional results may be obtained against great apparent odds, and a saved limb is preferable to an amputation stump.

SHOULD THE STATE MEDICAL SOCIETY HAVE INCREASED POWER?

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(Read at annual meeting of W. Va. State Med. Ass'n, Sept., 1911.)

We are conscious of the probable public misinterpretation of this query. Those outside of the society, whether from ignorance, or for a purpose, seem to believe that every effort of medical men to even organize or to attempt to improve medical legislation, is for the sole purpose of securing some unfair advantage of the people for our own gain, forgetting that most of the medical legislation upon our statute books is not directly for the personal benefit or pecuniary advantage of the physician, but rather for the public good. Notwithstanding the demonstrated fact that no other profession has ever done so much, at such personal sacrifice and financial loss as has the medical profession, yet we are perhaps the least understood and most abused class of men now in public service. We are abused by those in the profession, as well as those outside, by the beneficiaries of our work as well as those who have suffered at our hands. The fact that every other profession or vocation can secure a patent, or proprietary right, in any invention, device or discovery, and appropriate the same to his own use and emolument, while no physician can maintain his medical standing and appropriate to his

own use any such knowledge, but must freely give the same to the public for their benefit, is too little understood and far less appreciated by the public.

We indulge in this prelude in order to ward off the subtle attacks and criticisms that may be attempted upon us when we advocate our beliefs or suggest our needs.

Since no aggregation or organization has had committed to its care more fully the physical good of the people than has the State Medical Association, it is but just and in keeping with our responsibility that we be given the means whereby we may best perform the duties imposed upon us. Whether we will or not the duty is laid upon us. Our calling, education and experience more thoroughly equip us for the duty, and by this reason we are forced to assume the liability.

To us the public looks for the best preventive and curative measures. We are expected to prescribe the best methods of sanitation, hygiene and general prophylaxis. We are expected to plan for the sanitariums, hospitals and medical colleges; for the initiative in medical legislation; to act on boards of health; to institute quarantine measures; and to serve as a general advisory committee on all measures that tend to prevent sickness or promote health.

It is with some degree of satisfaction that we point to our medical laws, which, though yet imperfect, are a great improvement over the past. The standard of medical practice is much more elevated and the requirements to be admitted to the field of practice are much greater than in former years, and the people are thereby to some extent protected from the irregular or incompetent. Still our requirements are by no means ideal in their demands, and much less perfect in their enforcement. That these conditions may be met and obstacles overcome, it is necessary that our medical society be increased in numerical strength and be given more power to enforce the needful remedies. This society should be made so strong that no self-respecting physician can afford to keep outside its membership; and the public should be taught that the physician who willfully withholds from his medical society that support and encouragement which properly belong to a good medical society is not up to the present day standard, and will

therefore not be classed with the up-to-date physicians. We assume that the most progressive medical men are members of their county, state and national societies. Upon them the burden and responsibilities are placed. Why should not the means to carry into effect the best methods of work be placed in their hands? That this may be done and the work more perfectly performed, two things are of vital importance.

1. The medical laws must be revised and improved so as to be adequate to accomplish the work needed. Our medical practice laws are especially imperfect in their enforcement, in that the incompetent and irregular are not prohibited from practice. Our American people seem to like to be humbugged, and as they fail to regard what is for their own good, those who are a danger to the public should be just as forcefully restrained and prohibited as we enforce our quarantine laws. The *itinerant*, the *touch doctor*, and the herb vender should be required and compelled to comply with the law, and thus prevented from imposing upon a too credulous public. The insane "cure-alls" should be as sedulously prohibited as is smallpox or diphtheria.

2. The board of health and board of examiners, whether it be the same or composed of different members, is the executive body for the physicians of the state. They execute the health laws, say who may practice and give the tone and character to the medical standing of the state. They are largely responsible for our standing not only at home but abroad. If they are wideawake, scholarly and efficient, we have a rating and reciprocal accommodations with others. If they are not in sympathy with our society, are inefficient, lax in enforcing the laws, careless as to the manner of admission to the right to practice, or indifferent as to our standing, the whole status of our medical rating is imperilled. We have no special fault to find with our present governor for the manner in which he has used his power in our state, but we do claim that our present system is not the best and should be changed so as to give the medical society a means whereby it may be enabled to the better utilize the most available influence it may have in giving force to the very means by which it can best perform the logical responsibilities that come to the society from the

reciprocal relations that should exist between the people and the society. If we must be the sponsor for the laws governing the practice and for the health measures that effect the masses, should we not have the facilities to carry into effect the measures we may adopt for our efficiency and for the common weal?

In the appointment of our State Board of Health, which is also the examining board, our state has adopted the most generally accepted method, which is to give the governor the exclusive right to appoint whomsoever he may, whatever may be the wishes or preferences of our society.

It may be interesting to state here that 29 states give the governor the exclusive right to appoint the board of health; in 8 states the members of the board are nominated by the medical society and appointed by the governor; in 3 states, appointed by the state society; while the 8 remaining states have different methods. In some the governor appoints, by and with the consent of the state senate, while in others the state officers constitute a part of the board, while in others still, so many are appointed from the legal and political parties while the remainder are appointed from the medical societies. While in Alabama the State Board of Health is legally the State Medical Society acting through its board of censors, and is also the examining board and licensing body. The plan, as you will see, in force in our state is the one in use in a majority of the states, and some hold the view as expressed by the secretary of the Council on Health and Public Instruction, Dr. Frederick H. Green, in which he says: "Personally I think the best plan is to make the governor responsible for all of his appointments and then bring such pressure as possible to bear on him to appoint good men. Any plan by which the responsibility for appointments is divided up among three or four individuals only leads to the shifting of responsibility and generally to bad results. While occasionally the governor may appoint poor men, in the long run I think the best plan is to make your governor responsible for his appointments and then see that you get a good governor." While this view of our national secretary is more suggestive than anything we may suggest, yet we are forced to disagree with his theory as it is worked out in

its practical results. The theory of electing a good man for governor and of using such force upon him as will compel him to appoint good men is very nice, almost ideal, but wholly impractical in that we know by sad experiences of the past, we are not always able to elect good men and less able to influence them in their appointments. We have had governors who appointed men who are not known so much for their medical skill as their political efficiency, not because they were good medical men, and members of our society, but who are non-members and not in sympathy with our organization or its purposes. If the medical society could select the governor or control his actions this theory would be faultless.

Governors are usually politicians, selected and elected by politicians and generally subject to their demands. The governor of a state has so many matters to occupy his time and his mind that he cannot possibly give that thought to health matters, boards of health, etc., that their importance demands, and consequently the burden should not be placed on him, neither for his own good nor that of the community.

Various methods have been suggested and many tried, but so far no one of the plans in use has been wholly satisfactory. We believe that, however selected, no man who is not an active member of his state medical society should be eligible to membership in our State Board of Health, and personally I am of the firm belief that for the best service and the more thorough cooperation the State Medical Society, whether by the body as a whole or by the board of councilors, should at least have the power to nominate a list of eligible and acceptable men, from whom the governor shall appoint the members of the board.

Another great injustice has been the practice of appointing men to take charge of our state institutions who are not only not members of the State Medical Society, but occasionally not even citizens of the state. This abuse of the privileges should be so controlled by law that it could not be repeated. We frankly admit that if West Virginia did not possess the men of required ability, this prohibition might be improper, but judging by the ability of those imported there certainly can be no difficulty in finding men of equal if not superior ability to those appoint-

ed. This action is an affront to every physician of this state, in that it seems to indicate that our men are deficient, hence those qualified are sought abroad.

In conclusion we would candidly submit that if these obligations are upon us and we believe they are, should not the society be given the means to best meet the requirements?

Surely we should be best informed as to the qualifications and abilities of our members, and therefore our society should have the legal right to select the men of our number best equipped to carry into effect the best approved methods for the most harmonious and efficient enforcement of the medical practice laws of the state. We should demand this right as a justice to ourselves and as a source of better protection to the public.

(Note—Since this paper was presented the author has removed to Frankfort, Ind.—Editor.)

(The following editorial remarks from the *Journal of the Minnesota State Association*, based on a paper called "Why Doctors Are Unpopular," may afford some explanation for the just complaint of Dr. Irons that greater consideration is not given by legislators to the demands of our profession for legislation.—EDITOR.)

Professional men, particularly doctors, frequently have an erroneous conception of their relationship to their fellowmen and are often governed by obsolete views concerning an ethical standard. The writer was astonished to learn that the members of the Legislature consider any bill endorsed by the medical profession as unsafe to present to and difficult to pass this worthy body. The suspicion is still present, delusional or hallucinatory, that whenever a doctor advocates a reform that will be for the benefit of the public at large it must result in pecuniary benefit to the physician.

The influence of the physician, of whatever school, is condemnatory rather than uplifting; hence it is very evident that the profession will have to engage a publicity committee who must educate the people through the daily press; and to reach the press one must lower his dignity or stand accused of self-advertising. At least, this is the attitude of the law-maker and the majority of the people. It is generally conceded that the physician in the family is a worthy and safe advisor, while his goodness of heart appeals to the patient, and his faithfulness and earnest and painstaking care of the sick make him a lovable friend in time of need; but the moment he steps into the public arena and gives his expert opinion, based upon his study and experience, he falls from his insecure pedestal, forfeits his dignity, and becomes a charlatan! The time will come when the physician will study his political friends

and will make himself and his advice invaluable when he is better understood.

The fear of becoming undignified has been a bugbear to the profession of medicine, and it is time this false modesty be cast aside for a broader aim in life, that he may be known, not only as a good physician, but as a good citizen. The public, it is true, are often just in their criticisms, and the profession of medicine must change its ways before it will gain a wholesome and much-needed respect for medical men.

Let us remember the careless and indifferent methods of life insurance examinations; the failure to keep up with medical advancement by not reading books and medical journals; the lack of interest in medical societies; the coarse and one-sided testimony in court cases; the farce of so-called consultations; the needless operations performed; the misrepresentations of conditions to patients and anxious friends; the vulgar and ungentlemanly comments upon patients, fellow physicians, and new schools of treatment; the indifference of the methods of hospital internes and nurses toward the sick or refined patients who are led to expect courtesy, respect and protection; the elastic or exorbitant fee system that is supposed to guide us in our work; our slack and unbusiness-like methods of collections and our negligence in paying outstanding bills; the reputed division of fees and the fear that the druggist pays tribute for prescriptions; and a host of other things that were formerly or are now a basis of criticism. Is it, then, a wonder that medical men are sneered at, ridiculed and their kind offices and opinions discounted by the public at large?

We have much to learn and must work hard and loyally before we can be placed in the proper light before public and business men. It goes without saying that many medical men are honored and trusted, and that their opinions are valued and appreciated, but it will be some time before doctors as a whole will occupy a conspicuous and prominent position in state and national affairs.

The true physician must be clean, physically and morally; and his surroundings, his methods and his associates must demonstrate his cleanliness. He must be active, energetic, earnest and honest toward his patients, and he must show his skill and ability toward all classes. He must study and read and broaden his mind by contact with general subjects and association. He should be trained in business ways, in order that he may treat his patient and his creditor with fairness and promptness. He should interest himself in public and municipal affairs and prove his fitness to discuss public questions. All of these things he may do if he will, but his tendency to systematize his methods can be accomplished only by effort. When the medical man reaches this plane he will be a power that cannot be ignored, but will he reach it?

Local applications of tincture of iodine is one of the most satisfactory treatments for small chronic ulcers.—*American Journal of Surgery.*

VESICAL URINARY RETENTION.

C. L. Holland, M.D., Fairmont, W. Va.

(Read at annual meeting of W. Va. State Med. Ass'n, Sept., 1911.)

The frequency with which the general practitioner meets this condition, either as a complication of or a sequence to various pathological, and occasionally psychological conditions, makes it worthy of consideration. In presenting the subject before this body it is not our purpose to advance any new ideas but simply to review it briefly, leaving the finer details to be brought out in your discussion.

The means to be adopted for the relief of urinary retention will depend in many instances on its etiology. In any case of retention, however, provided there is no imminent danger and the patient is tractable, the ordinary domestic means of inciting urination may be successfully employed. Chief among these are allowing the patient to hear the sound of running water, the sudden plunging of one or both hands into a basin of cold water, the placing of the patient in a prolonged, hot sitz or general bath.

If, within a reasonable time, 15 to 20 minutes, these measures fail, recourse must be had to the catheter. In some instances the patient may, through fear of pain or for some other reason, decline to submit to the catheter without the administration of an anesthetic and it may in rare cases become necessary to anesthetize.

A prolonged hot hip or general bath may be all that is necessary to relieve the retention. Moreover, while it is being given the physician has time to inquire into the cause of the trouble and formulate his method of procedure. Furthermore, the bath tends to equalize the circulation, thereby relieving the local congestion which always accompanies and aggravates the condition, and though frequently it fails of success it renders subsequent treatment easier.

While the bath is being given ample time is afforded for the sterilization of instruments that may be needed subsequently. Before proceeding to instrumentation it is always well to make a physical examination of the parts, not forgetting a bi-manual palpation with the index finger of one hand in the rectum while the fingers of the other

hand palpate the pre-vesical region. In this manner it may be possible to determine whether or not an enlarged prostate contributes to the retention. Examination per rectum will also in many instances enable the examiner to estimate the quantity of urine in the bladder, and determine whether the failure to void is due to a vesical retention or to a failure of the upper urinary tract to deposit urine in the bladder.

In many cases of retention, palpation and percussion, and quite frequently simple inspection, will show a greatly distended bladder extending well up into the abdomen and apparently on the point of rupturing, which, however, is an accident that rarely occurs.

Diuretics and diluents are always contraindicated in this condition, since they, by increasing the quantity of urine, can only aggravate the existing difficulty.

Lydston recommends the administration of opiates and antispasmodics in certain cases, while Valentine and others mention their use only to condemn, setting forth the argument that they reduce the reflexes which are an essential stimulus to urination. It is only rarely that major surgical procedures are required to relieve a urinary retention, though they may be necessary to relieve the basic cause.

The length of time which a urinary retention has persisted is not a safe guide to the necessity for instrumental intervention. In some cases the patient's anxiety is so great when he at first discovers his inability to urinate as to cause the secretion of a large quantity of urine. This so-called hysterical urine still further distends the bladder and adds to his distress.

Among the various conditions which may cause or accompany a urinary retention, or which may be complicated by a retention, are certain general febrile diseases of which typhoid fever is a type, and certain affections of the motor nervous system, notably locomotor taxa.

The practitioner may occasionally encounter a case of simulated retention, in which an individual either male or female feigns retention for the masturbatory effect which they obtain from catheterization. Lydston relates some very interesting cases along this line.

Certain females, patients afflicted with hysteria, may have a urinary retention dur-

ing the attacks. Some individuals in which there is no pathological condition, either of the urinary apparatus or of the nervous system, may develop a retention simply from delayed urination.

The act may be deferred in obedience to social demands, or because suitable accommodations are not at hand. The first impulse to urination being easily controlled, a sort of temporary tolerance of the increasing vesical distention is established. It occasionally happens that the first thing to call the patient's attention to his condition is an ineffectual effort to empty the bladder on retiring.

In other instances he may suddenly remember that an unusually long time has elapsed since he emptied the bladder. Failure to empty the bladder under these circumstances will, as a rule, cause some physical suffering, and not infrequently the patient's mental suffering is very great. Urinary retention is not infrequently developed by certain individuals while in the midst of an alcoholic or sexual debauch, and this in an individual with an apparently normal urinary apparatus.

In certain inflammatory conditions of the urinary tract, acute gonorrhoea for example, the patient involuntarily suppresses the impulse to urinate because previous experience has taught him to fear the pain, and though you may irrigate with warm solutions and assure him that urination will now most probably be free and easy, he is still unable to void.

In all of these conditions the retention will most likely yield to some of the measures already outlined in the beginning of this paper. If, however, the retention is due to a neglected stricture the condition will be more difficult to overcome.

The contraction of a stricture with consequent narrowing of the urethra may be very gradual and the patient may have experienced little or no trouble until after an alcoholic or sexual debauch he may suddenly find himself unable to empty the bladder. In other cases the engorgement of the strictured region of the urethra and consequent retention may take place without any obvious exciting cause. The condition must in any case be promptly relieved.

In instrumental intervention every effort should be made to relieve the condition with-

out wounding the urethral mucosa. The most approved method of procedure is to irrigate the urethra as far as possible with hot boric acid solution, 4% strength, then attempt the passage of a large blunt soft rubber catheter.

When the obstruction is reached, press the instrument gently but firmly against it for a few seconds; if it does not yield withdraw the catheter and select a smaller size, repeating the process until four or five instruments have been tried. If not successful, this method should be abandoned because of the possibility of wounding the tissues and adding to the congestion of the parts.

At this juncture some advise the use of woven, highly polished, conical, olivary catheters, proceeding as with the soft rubber instrument. In the event that these also fail, an attempt should now be made with the Delafosse or Phillips rat-tail catheters. The strictured region being usually of soft tissue will very probably yield to the gradual increase in the size of these instruments, provided the small terminal end can be made to pass the contracted region.

If successful in traversing the urethra by any of the above means, we should not allow a too rapid evacuation of the bladder contents because of the possibility of serious hemorrhage from its mucosa.

Valentine recommended the withdrawal of 60 cc of urine which are saved for examination. He then by means of a syringe injects 30 cc. of 4% boric acid solution, and again allows 60 cc. of the bladder contents to escape, repeating this process until the bladder is empty or contains only the boric acid solution.

Nor should the instrument be too early withdrawn, since by allowing it to remain for a time in the canal the patient gets the benefit of its pressure on the strictured portion.

When all efforts at catheterization fail, the next recourse is to filiform bougies. A number of these are advised to be used either straight or bent in various shapes, such as bayonets and corkscrews, and then dipped in collodion which, on drying, maintains the given shape.

The urethra is now filled by means of a syringe with a 10% solution of iodoform in glycerine. As many of the filiforms as the

urethra will admit readily are now inserted and guided down to the obstruction without using any force. When they are arrested, select one and advance it gently, then another, taking each filiform in turn until one eventually finds its way past the strictured portion.

In using the corkscrew filiforms, they may be rotated from right to left and vice versa until one finds its way past the obstruction. When a filiform has traversed the passage drops of urine will soon begin to find their way along its sides, and after a few hours the instrument will be found lying loose in the strictured canal.

A catheter may now be passed as a rule, and may be advantageously anchored in place and used for irrigation and drainage if examination of the urine should indicate such procedure.

The filiform may also be used to conduct a Gouley's tunneled catheter when there is need for a more rapid evacuation of the bladder, or as a preliminary or a guide in internal or external urethrotomy.

When all the above efforts have failed suprapubic puncture, in Retzi's space, with a trocar and cannula, may save the patient from major surgical procedure.

In individuals with an enlarged prostate a sudden retention may be induced by the same exciting causes as in the case of stricture. If the condition is of short duration a prolonged hot bath will frequently relieve the patient without resorting to instruments. If, however, after 10 or 15 minutes he is unable to void, resort should be had to the catheter.

The best instruments in these cases are Mercier woven catheters with the terminal ends bent at various angles. After selecting and lubricating an instrument it is guided down to the prostate. When it impinges on the enlarged gland the instrument together with the penis is depressed between the thighs. This manipulation will enable the catheter to surmount the elevation of the gland and pass into the bladder. Failure in this maneuver will be due possibly to the angle of the instrument being too small, in which case one with a greater angle should be tried, continuing until successful.

In some cases it may be found necessary to use a catheter having two angles. In other cases, especially those in which there

is a spasmodic condition, the metal prostatic catheter will be found necessary to relieve the condition.

In all cases the bladder must be emptied slowly, and in case there is no infection irrigation should be performed with 4% boric acid solution. If infection be present a 1 to 5,000 solution of silver nitrate should be employed.

In cases that are very difficult to catheterize and those that are complicated by an infection of the bladder or the upper urinary tract, some authorities advise that the instrument be anchored *in situ* that it may afford continuous drainage.

In cases that cannot be relieved by the catheter because of an immense enlargement of the prostate or an extreme irritability of the urethra, supra-pubic puncture may be performed to relieve the emergency; but in cases that are infected it is not free from danger and should not be often repeated. These cases should as soon as practicable be subjected to radical surgical procedure.

Tumors in or near the bladder may sometimes prevent the passage of urine. Ordinarily this may be overcome by the catheter temporarily, but operation should be done for permanent cure as soon as circumstances warrant.

Among other minor causes of retention that may be mentioned are a tight meatus found occasionally in the new-born. This may be relieved by promptly doing a meatotomy. A tight prepuce may provoke spasm with a resulting retention, which is relieved by circumcision or in emergency by simply slitting the fore-skin.

Phimosis and paraphimosis may likewise induce retention by provoking a spasm of the compressor.

Foreign bodies in the urethra or bladder may preclude the passage of urine. They may have been produced within, as calculi, blood-clots, or globules of dense mucus, or introduced from without as in the case of a broken catheter or some object used in the act of masturbation.

The subject of foreign bodies is too broad to warrant an attempt at discussion at this juncture. The size, shape, nature and location of the object will make each case a problem to be solved on its own merits.

These stray thoughts gleaned from my own observation and reading of the litera-

ture on the subject, are not offered as an exhaustive discussion of the subject but with the hope that they may provoke discussion and comment that will be of service to many of us when confronted, as we frequently are, by some of these trying conditions.

LABORATORY METHODS IN DIAGNOSIS.

H. L. Robertson, M.D., Charleston, W. Va.

(Read at annual meeting of W. Va. State Med. Ass'n, Sept., 1911.)

Until a physician commences to conscientiously and systematically keep case records, putting down in writing his clinical findings, and summing them up in the diagnosis, he little realizes how frequently cases pass out of his hands without a definite diagnosis, improved or without benefit, by a symptomatic treatment. And again, even though a diagnosis is made, how embarrassing it would be, should the question be raised, "On what grounds have you made your diagnosis?"

I was present recently when a consultant asked the physician in charge, "How do you know your patient has diphtheria?" The doctor was astonished, for the case seemed most obvious. But when pinned down to facts, had none that would stand argument, and virtually had to admit that he only *thought* it was diphtheria but could not prove it. His physical findings were sufficient to recognize a diphtheria but insufficient to eliminate other possibilities, as no culture had been made.

Are we (professed experts in diseases of the human body) doing honestly by our patients and ourselves when we deal in guess work on inconclusive opinions, when methods are at hand by which, in a large percentage of cases, a diagnosis can be established with certainty?

The laity do not know what resources we have to solve the difficulties their cases present, and must accept our conclusions in good faith, taking for granted that we are giving them the best modern medical education affords. Too often cases are not conscientiously studied, and it is small wonder

we hear so many slurring remarks made by them about us and our work, for we have not given them what they can reasonably expect of us, an opinion based on scientific facts. Unless our clinical findings are sufficient and accurate, the diagnosis must necessarily be only a surmise, unsatisfactory to the patient, and detrimental to ourselves. Medicine is no longer an art but an advanced science, and the wilful neglect of the scientific problems and adoption of empiricism, speaks badly for our standing as competent physicians. An accurate diagnosis is often impossible, and faulty ones may be excusable, but a diagnosis, right or wrong, without sufficient clinical findings to make it reasonably secure against contradictory argument, is open to criticism.

With the growth of knowledge of pathological conditions differentiations have multiplied in all branches of study, but our facilities for making these differential diagnoses have increased accordingly, so that at present so vast is the field of diagnostic methods, that it would require a superhuman mind to be versed in all their technicalities, and a working knowledge of the principles involved is all that can be expected of the general practitioner.

Perhaps next to the physical examination, the laboratory is the greatest diagnostic aid we have. It is no longer a mere accessory to accurate work, but an indispensable necessity. Is there anything that will give us the certainty to our conclusions or the real substantial evidence to substantiate the hypothetical diagnosis as will the clinical laboratory? And yet it is the most abused and neglected of any of the diagnostic helps.

This is partially accountable because of unfamiliarity with the significance of laboratory findings, by physicians who claim they have neither time nor opportunity to keep such matters fresh enough in their minds to be of any practical value. And again by those who, because of uncertainties in their findings, find it unsatisfactory and finally neglect it almost entirely.

If we go into the majority of offices from which such complaints arise, the reason is obvious. We find a laboratory equipment of a few test tubes, urinometer, litmus paper and a few reagents to test for albumin and sugar. No microscope, or if there is, insufficient microscopical equipment to carry out any examination to a satisfactory conclusion.

Supposing albumin is discovered in a urine with such an equipment, of what significance would it be without further means to determine its origin? And the same applies to any laboratory finding. It is virtually useless unless the examination is carried out completely and accurately.

For example, let us consider in a cursory manner some of the simpler chemical tests we see used daily as routine practice in almost every doctor's office. A specimen of urine is to be tested for the presence of glucose. Usually Fehling's or Hines' solution is boiled and a few drops of the suspected urine added, and the copper is precipitated in a heavy yellowish red color. Glucosuria is the verdict. As a matter of fact the reaction simply proved the presence of some body in the urine capable of reducing the copper in the solution. This may be glucose or some of the glycuronic acid compounds which are formed after the use of chloral, chloroform, morphine, camphor, phenol, thymol, etc. A positive reaction is sometimes obtained after the use of salicylic acid, benzoic acid, salol, santonin, rhubarb, phenactin and many other drugs. In addition to the above-mentioned reducing agents might also be mentioned uric acid, urobilin and mucin.

The copper tests are undoubtedly very valuable because of their simplicity, delicacy and positive action, but are abused by the misinterpretation of their true meaning in that they react to many other substances besides glucose. Where certainty is required the phenylhydrazin or fermentation tests will readily settle the question. These may seem unnecessary from a therapeutic standpoint, but from a diagnostic point of view only proven facts can be accepted, and the reaction in the copper tests does not prove the presence of glucose by any means.

An incident may be mentioned here which demonstrates the injustice that may be done a patient by neglecting to find out what has caused the copper precipitation, when testing for glucose in urine. Mr. H. applies for insurance, and is refused because of glucosuria, the findings based on the results of the copper tests. In consequence he has been repeatedly and persistently refused insurance by other companies. Repeated examinations since, by more accurate tests, fail to reveal even a trace of sugar, although at

times harmless reducing elements were found in the urine.

The same criticism may be extended toward the usual tests for albumin. A specimen is filtered clear (and sometimes even this essential is neglected), acidulated and the upper third of the column heated. A cloud appears in the heated portion, and albumin is pronounced "positive." Perhaps to make the findings still more positive, a contact test is made with nitric acid. The white line appears at the line of contact and the question seems settled. But is it? True serum albumin under such circumstances will coagulate, but there are other substances that behave in a like manner. For instance, the resinous acids, seen frequently after the injection of tolu, cubebis, turpentine, benzoin, copiaba and balsam of Peru. Besides these, there is nucleo-albumin, the albumose bodies, urea nitrate, urates and other more easily distinguished substances that are most easily confused with serum albumin, especially when the reaction is slight.

Again, should no reaction take place with the above crude tests, it is still uncertain that albumin is not present. The urine may have been too acid or too alkaline, too concentrated or too low in salts, or perhaps a faulty technique obscured the reaction. My point is this; that when laboratory methods are employed and we are unable to verify our findings we are no better off than when we started, and although the findings are positive, and we are unable to determine their origin, we are still little better off. So that it seems reasonable to say that where laboratory methods are inaccurate and incomplete, they are not only useless, but what is worse, misleading.

Many forget that it is not so much in the advanced and unmistakable cases where we get the most perfect reactions, that we need the assistance of laboratory work. Here the diagnosis is evident and laboratory findings almost superfluous. But it is in those indefinite, incipient cases, with indefinite physical findings where the most accurate technique is required to demonstrate the pathological condition of the specimen or furnish us information of any value.

There is another class of men who neglect the laboratory in their diagnoses, because of disappointments originating from their exaggerated conception of laboratory possibilities. They are the men who send a

specimen to a laboratory with the hope that the report will positively establish the diagnosis for them and save the time and trouble of a more complete study of their cases. They have no definite scheme of differentiation in sending the specimen, consequently feel disappointed in a negative report. The laboratory findings may furnish an undisputable fact which leaves no doubt in the diagnosis, as the finding of the tubercle bacillus, the plasmodium malariae or the cylindrical cells of carcinoma. This class of findings leaves no room for doubt and establishes a diagnosis per se. The findings may be suggestive of various diseases, as seen in a nephritic urine, an increased or diminished leucocyte count, and may furnish a clue to the diagnosis or together with the physical findings furnish the missing links in our diagnostic chain of evidence.

Again, the findings may be entirely negative, but are equally valuable, because they assist us in the elimination of other possibilities that the physical findings, or case history, may have suggested.

If, when sending a specimen to a pathologist for examination, there is some definite purpose in view, something to be assured or refuted, there would be satisfaction and help in every laboratory report.

It is not within the scope of this paper, nor is it my object to suggest or propose any method which is known to be accurate or satisfactory in laboratory technique. The field is too large and further, it would be unnecessary, for our libraries abound with works which set forth clearly efficient methods, and point out the stumbling blocks one finds in all pathological work. There is no special talent required to do laboratory work and but a very modest equipment is necessary to get satisfactory results. But it is foolish to presume to do reliable work without sufficient study and application to insure sufficient knowledge to distinguish with certainty the various findings. The same remark applies to laboratory work that is applicable to many other things; "a little learning is a dangerous thing."

Conclusions.

1. A diagnosis based on insufficient or unsubstantial clinical findings, approaches the border of empiricism.

2. Where laboratory methods are employed as diagnostic aids, the findings are useless or misleading unless they are known to be

correct and are sufficiently extensive and comprehensive to make them useful as a diagnostic aid.

3. Cases with indefinite symptomatology are frequently elucidated by accurate laboratory findings, but may be still further obscured by an inaccurate, unreliable report from the laboratory.

4. All laboratory reports are valuable in substantiating a diagnosis, eliminating a suspicion, or furnishing collateral evidence to other diagnostic findings.

Selections

CHRONIC JOINT AFFECTIONS.

By Gwilym G. Davis, M.D., Philadelphia,
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Joint affections may be classified as follows:

Traumatic—Occupation or wear arthritides, contusions, sprains and non-infected wounds.

Infectious—Pyogenic—from wounds, or through the blood; Gonorrhoeal; Acute Articular Rheumatism, Typhoid Fever, Exanthemata—Tuberculosis, Syphilitic.

Trophic—Atrophic or Rheumatoid Arthritis, Hypertrophic or Osteo-Arthritis, Gouty Arthritis, Hemophiliac Joints.

Neuropathic—Charcot's Joints (ataxic), Syringomyelia, etc.

In briefly considering these affections, more especially from the standpoint of their recognition and conservative treatment, let us begin with the Traumatic class. Their recognition is usually easy, but at times traumatism may be mistaken for disease. This is sometimes so when cases of painful feet, suddenly developing from overtaxing the part, are mistaken for rheumatism. Sometimes it is impossible to say where the effects of traumatism cease and disease begins. Thus distinct chronic troubles follow injuries, sometimes fractures, in the neighborhood of the joints (especially the wrist). Fractures of the hip are frequently followed or accompanied by stiffness of the knee. In these cases the trauma seems to act as a starting cause of a chronic trouble, which appears to be of a distinctly rheumatic char-

acter and which persists long after the traumatism is apparently healed.

In the treatment of traumatic cases conservative methods are especially suitable. We have to deal with the results of violence without infection. The indications are—first to quiet the reaction caused by the violence by 1 Rest, by abstinence from the causative occupation; by splints and bandages; 2 by position, as elevation of the injured limb; 3 by cold, as ice cap or in the case of sprains by the local use of ice-water, which in recent cases will reduce the swelling almost immediately. Later, means must be taken to restore the normal use of the part by massage, passive movements, exercise, baking and finally the use of some support in the shape of splint, brace or bandage, which will protect the part from a repetition of the traumatism. This is especially the case in the knee, and its lack is the reason why injuries to the knee are often so long in healing.

Infectious Diseases.—The recognition of an infectious element in joint troubles is important, but not always easy. It is not always possible to draw a sharp line of demarcation between inflammatory joint affections, due, presumably, to some infection, and those due supposedly to trophic disturbances, as in some cases usually characterized as rheumatoid arthritis. Especially when a joint trouble is non-articular a focus of possible infection should be sought. If necessary, the tonsils should be removed; the accessory nasal sinuses should be examined; the teeth properly fixed; the intestinal tract cleared out, etc. The joint condition may possibly be kept alive by poisons being continually poured into the system by one of these foci.

In joint infection due to traumatism and pyogenic organisms, conservatism is not to be carried too far. If distension takes place tapping, under strict antiseptic precautions, should at once be resorted to. If after two or three tapplings reaccumulation occurs, and especially if the fluid is purulent, the joint may be washed out through the tapping cannula with salt solution; carbolic acid solution, 1 per cent.; bichloride solution, 1 to 4,000, or even iodoform glycerine, 10 per cent., may be injected. My experience with this line of treatment has been very satisfactory.

If open incision becomes necessary, then the Bier congestion treatment, by means of a constricting rubber band, may benefit and alleviate pain. Vaccine or bacterine treatment is regarded as being unsuitable for employment in acute cases.

In *gonorrhoeal* cases, where effusion is not marked, and if the part affected allows of its use, Bier's congestive method should be given a trial. In other joints, as the hip, a plaster of paris splint should be applied for purposes of immobilization. Hot water bags and the use of narcotics may be necessary.

In *pneumococcic*, *typhoid* and *exanthemata* infections, effusion with tension frequently occurs early and has a marked tendency to produce pathological luxations. For this reason operative rather than conservative measures should be resorted to, and the joint should be tapped and even washed out with or without an antiseptic fluid. When a typhoid infection attacks the spine, it gives rise to considerable pain and quickly proceeds to a more or less complete ankylosis. These cases should be kept quiet with plaster jackets, etc. For the ankylosing and stiffness of the joints of the extremities following infections the usual means of massage, passive movements, bakings, etc., must be employed.

In joints suspected to be *syphilitic* a Wassermann reaction should immediately be sought for to aid in forming the diagnosis. The affection manifests itself especially in children, and should be treated by splinting the joints, applying mercurial ointment to them, and giving the usual constitutional treatment internally or the newer remedy of Ehrlich, salvarsan.

In *tuberculous joints* treatment can only briefly be alluded to. There are certain main principles which are of vital importance. Conservative treatment is pre-eminently suitable for children, but radical treatment is usually preferable for adults. There is practically only one way of curing tuberculous joints in childhood, and that is by rest. Even if operative means are employed rest and absolute quiet are essential. The success of the treatment depends on the efficiency of the means used to keep the joint quiet. This point is not sufficiently appreciated. If a child is not improving put it at once to bed and strap it down to keep

it from moving. I am convinced that it is a mistake to attempt to improve a tuberculous joint by attention mainly to the general health and neglecting the local condition. A movable tuberculous joint will continue in a more or less active condition, notwithstanding an apparent improvement in the general condition. I have seen this many times in the children sent for a few weeks to convalescent homes. Their joints returned worse than when sent away. It is for this reason a rubber band often improves tuberculous disease of the extremities, but beware of baking and hot applications; they aggravate the disease. Sinuses are to be treated by injections of soft white vaseline, to which about 2 per cent. of iodoform or bismuth subnitrate has been added. This may be melted and injected twice a week. Here the vaccine treatment is suitable and may be found of service.

In *rheumatism*, even when the acute symptoms have more or less subsided, the salicylates or other antirheumatic remedies may be given a trial, but do not continue them indefinitely. Give them in fairly large doses for one or two weeks, and if no effect is noticed discontinue them.

Bier's congestive treatment is often efficient in relieving pain. Encircle the limb with a rubber bandage until the distal part looks congested, but is not painful; allow it to remain for 10 or 15 minutes twice a day and then gradually increase until it can be left on the major portion of the day.

Rheumatic attacks are apt to leave not only stiffened joints, but also weakened hearts, and such people are bad subjects for subsequent treatment, especially under anesthesia, which may be necessary to restore the lost motion.

A point to be noted in making passive motion is that violence will cause the local symptoms to reappear and the joint to stiffen more than ever. Coaxing rather than forcing is the motto. Baking is allowable, and is valuable preceding moderate passive movements and massage.

Trophic Affections.—Those grouped under the terms: rheumatoid arthritis, rheumatic gout, osteo-arthritis, arthritis deformans, etc., are by some regarded as the result of infectious processes. They are the most troublesome of all joint diseases. Their

origin is obscure, and their treatment frequently unsatisfactory.

The so-called rheumatoid arthritis so often seen in young people certainly often acts as though it were an infectious and not a trophic disturbance. Hence it is one's duty to examine the economy thoroughly to recognize and eliminate all sources of possible infection. This having been done, attention is to be paid to the alimentary canal. It should be cleaned out with salines and attention paid to the diet.

As regards more or less specific remedies, tablets of thymus gland or thyroid gland may be tried. They have appeared to be efficient in some cases. Five-grain tablets of one or the other may be given three to four times daily, and even increased. Exposure to the X-rays has lessened the pain in some instances and may be worth a trial. Iodide of potassium in the chronic cases appears at times to be an efficient remedy. In this class also, especially when single joints are affected, massage and electricity to the part with moderate passive motion is often of service; tonics, cod liver oil and nutrients generally and a building-up regime, with out-of-door life and not too laborious occupation should be advised. Baking helps some cases. If the joints are very painful put on a plaster cast and keep the patients more quiet. I recently met a medical friend whose hands were somewhat stiffened by this disease, and on inquiry he informed me that he had had the trouble several years. At first he thought it was going to seriously cripple him, but that on a building-up treatment and attention to his diet and habits, the disease had become stationary and had so remained for a long time. This should encourage us to persist in treatment which at first may seem of little effect. In some cases the joints, particularly the hip, may be so loose as to cripple the patient. Here apparatus ingeniously devised will often be of the greatest value.

Concerning hemophilic joints, attention may be called to the use of thyroid extract, as advocated by Dr. Wm. J. Taylor in bleeders.

In *neuropathic diseases*, like the loose joints which occur in locomotor ataxia, much may be done with supporting apparatus. There is much temptation to resort to some operative measures, but do not do it, as healing is liable to be had. Remember

that perforating ulcer is one of the complications of this affection and everyone knows it is difficult enough to heal. Tapping and drainage are more dangerous procedures than in other affections. In the shoulder, great benefit was once obtained by using a simple elastic shoulder cap, and the man continued his occupation as a trombone player. Loose knees are also much benefited by supporting appliances.

1814 Spruce Street.

—THE MEDICAL COUNCIL.

TWENTY REMEDIES SUFFICIENT.

From time to time various medical men have made statements, either by word of mouth or in type, to the effect that they believed it possible to practice medicine with a small number of remedies and to exclude a host of others without disadvantage to their patients. We have even heard of some who have gone so far as to state that it was possible to practice successfully with only five remedies. The latest communication in regard to this matter is made by a correspondent to the *Boston Medical and Surgical Journal* of March 24, 1910, who quotes a French book in which twenty remedies are named, which the author considers an adequate armamentarium. He also points out that Huchard has recently published a book entitled "The Therapeutics of Twenty Medicaments," but a careful examination shows that this title is incorrect, in that he writes of twenty forms of medication or treatment, and one of these forms covers the chief specific serums, vaccine therapy, and all other measures other than drugs designed to combat disease. The list provided by the first author, Martinet, contains a number of drugs which are duplicated by Huchard; the first 14 remedies named by each author are identical. They consist in sodium salicylate, mercury, potassium iodide, digitalis, iron, arsenic, opium, belladonna, potassium bromide, purgatives, ergot, and antipyrin. Both authors seem to have confidence in some of the newer silver preparations, but the last six remedies in each list are materially different. Thus, Martinet thinks he could get

along with antidiphtheric serum alone; Huchard includes all the specific serums. Martinet has confidence in theobromine and caffeine; Huchard only in theobromine. The first believes in phosphorus; the second does not mention it. Martinet includes chloral and antipyrin, but Huchard does not. On the contrary, he includes bismuth, sodium bicarbonate, the nitrites, and glandular therapy.

Both of these lists show how impossible it is for any one to gather together into one list a limited number of drugs which will prove useful in dealing with all the conditions which are met with by the medical practitioner. For example, Huchard apparently considers that none of the hypnotics like chloral, veronal, trional, sulphonal, or paraldehyde need be included, nor any of the anesthetics, local or general. He likewise excludes the antiseptics. It will be noted that neither author includes any of the coal-tar products save Martinet, who only mentions antipyrin, a drug which American practitioners comparatively rarely employ, preferring as a rule acetphenetid and acetanilide. There are certainly a very large number of remedies of infinite value, which neither author mentions.

That the promiscuous prescribing of many remedies has been in the past one of the faults of the profession cannot be denied, and particularly is the so-called "shot-gun prescription" or practice of polypharmacy to be condemned. There can be no doubt that in a considerable number of instances the best results will be obtained by choosing the best remedy for a given case, and giving only one. On the other hand, there can be no doubt that on certain occasions the combination of drugs for joint effect is most useful, as in the case of the iodides and mercury in the treatment of syphilis; or the use of calomel and quinin in malaria; or, again, the use of sodium bicarbonate and the salicylates in the treatment of rheumatism.

In this connection it is interesting to note the curious difference in the attitude of French and German physicians concerning drugs. French chemists and physicians during the last fifteen or twenty years have produced practically very few remedies, and most of these have usually failed to maintain the place which was claimed for them, notably the cacodylates. At the same time

the French school of therapeutics seems to be extraordinarily optimistic and frequently reports results obtained from plans of treatment which physicians in this country cannot obtain. This is in face of the fact, asserted by the contributor to the *Boston Medical and Surgical Journal*, that the teaching of therapeutics in the French schools is extraordinarily deficient, with the result that the average young medical man in France begins his practice hopelessly ignorant as to what to give, and how to give it. To quote again from this contributor, when we reflect that the ultimate object of medicine is to cure the patient, it becomes a source for wonderment that this condition of therapeutic incredulity should be so firmly inculcated into developing minds by a body of teachers who must know that it will be a millstone around their pupils' necks which will cost them years of strenuous endeavor to partially get rid of.

It is also true so far as we know that the teaching of therapeutics in most of the German schools is deficient, and it is certainly true that the Germans manifest less optimism in regard to the therapeutic effects of the older drugs than do their French colleagues. Nevertheless, German chemists and physicians during the last thirty years have presented new drugs or remedies, not by the score but by the hundreds. It must be confessed that a small proportion of these have become valued remedies all over the world, as, for example, several of the coal-tar products and the various hypnotics which have come into vogue since Liebreich first introduced chloral. An examination of the German journals will reveal that there is an extraordinary degree of optimism in regard to most of these synthetic drugs. The early reports concerning all of them are practically always favorable, and one wonders how much this is due to commercial influences and how much it is due to the enthusiasm which is often connected with a novel thing. As a matter of fact, those who read the French and German articles dealing with drugs, and then try them in their own practice, have long since learned that disappointment not infrequently is their lot, but they cannot afford to cast to one side all new Gallic or Teutonic remedies as useless, because now and again one is found which proves most valuable.—*Therapeutic Gazette*.

THE COMMON COLD.

A cold in the head has from time immemorial been a subject of jesting. Even the comic poets have not neglected the subject and *Punch* and kindred journals have not failed to depict the unfortunate victim with his feet in a tub of hot water, an expression of comical misery on his face and a mitigating glass of something hot—Scotch, perhaps, in his hand. But a common cold is far from being a jest. Since the invasion of this country twenty-five years ago by the influenza bacillus it is often a very serious affliction. It may be the beginning of a broncho-pneumonia. Middle ear trouble, mastoiditis, empyema of the maxillary antrum, suppurative processes in the accessory sinuses all have their origin in a common cold. The phrase "catching cold" is not without truth, for a cold is the result of infection by a number of different micro-organisms aided by a lowered resistance which is due to sudden surface chilling. A brilliant but unsound popular writer on medical subjects has stated that exposure to drafts of cold air has nothing whatever to do with "catching cold," but that it is an infection pure and simple. There are, however, aside from the personal experience of every medical man, biological facts which substantiate the belief that sudden chilling of the surface is certainly a contributing factor. Thus chickens are immune to anthrax, but if chilled by cold water they lose their immunity and become susceptible. Environment always plays its part in the loss of immunity, which precedes many diseases. At the same time we must recognize that the prime factor in the disease is infection. Arctic voyagers on returning from their year or more in the sterile regions of the north invariably come down with a severe coryza on their return to civilization. Who has not noticed the autumnal colds which we are prone to contract on our return from the mountains and the seashore? Like the travelers from the Arctic, we succumb to the infection in our change from an uninfected to an infected zone. This element of infection has been too little regarded by the profession and not even thought of by the laity. A pupil with a cold in the head is as much a subject of temporary quarantine as a case of chicken-pox. The sequelæ of acute

coryza far exceed in number and fatalities the sequelæ of varicella, yet no one thinks of secluding the child with a cold. In the family circle sneezing and coughing are indulged in without restraint until all the members of the family group have contracted the contagion. "We have all been down with influenza," is a common greeting.

In face of all these facts the medical profession has never explicitly taught that colds are distinctly and primarily infectious and that they are transmitted from infected to healthy individuals by the spray of the open sneeze and open cough. So far as the writer knows, it has never been suggested that children with colds are proper subjects for quarantine. No one has ever suggested that there is more danger in an open sneeze or cough than in expectoration. Our boards of health have recognized the danger of promiscuous spitting, and most municipalities have passed ordinances against a filthy and unsanitary practice. We cannot, from the legislative standpoint, of course, draw a parallel between the open cough and sneeze and spitting, because spitting is a voluntary act, whereas coughing and sneezing are largely involuntary and therefore not under the control of the will and not to be penalized. The medical profession can, however, enlighten the public on the real danger of the common cold and instruct them to abandon the open sneeze for the sneeze into the handkerchief. This would, to a great extent, prevent the spraying of the surrounding air with millions of germs to infect healthy individuals. When one thinks of it a sneeze or a cough is far more potent in spreading the organisms of the respiratory tract than is spitting. It is necessary for sputum to dry before it can communicate contagion, and by that time the influences of light and oxidation have done much to deprive it of its contagious properties. Who would think of going into a room which was being sprayed through an atomizer with a mixed culture of the bacillus of influenza, the pneumo coccus, the micrococcus catarrhalis and various pus organisms? Not the most hardened bacteriologist would willingly submit to such a test of his index of humanity. Yet this is exactly what happens to the bystander when an individual with a cold sneezes. No one thinks of contagion, but every one goes home and by

and by announces that "he has caught cold." Evidently there is room for education here, not only among the people, but more particularly among the profession. We ought to recognize first that the sequelæ of the common cold are most serious, and that they are of frequent occurrence. These sequelæ are broncho-pneumonia, lobar pneumonia, middle ear disease with its attendant mastoid complication, sinus infections; second, that a common cold is sufficient reason for exclusion from school or public assemblies; third, that the open sneeze and cough are not only bad manners but bad hygiene and dangerous to others. We used to laugh at the mosquito as a nuisance. We now recognize the insect as a peril. We still joke about a cold in the head. It is time that we recognized it also as a peril.—New York State Journal of Medicine.

THE SALICYLATES, SYNTHETIC AND NATURAL.—For years I have been using sodium salicylate made synthetically and have invariably obtained good results when used as indicated by the conditions present. I was a student and teacher of chemistry for about seven years and always believed that the medical properties of a substance depended upon its composition, solubility, molecular structure and other chemical characteristics and were entirely independent of its origin. For example, iron pyrophosphate is an iron compound with characteristic chemical properties and no matter whether it be made from the blood of a negro man or from a mineral dug from the bowels of the earth, its chemical properties are the same and its action as a medicine should be the same. However, one does not care to associate the two ideas and if there would be any difference it would be a psychic one.

For many years interested manufacturers and purveyors of drugs have made their claims for the superiority of the salicylates made from oil of wintergreen over the synthetic products and most of us have believed them, although the text books on materia medica make no such distinctions, except that some of them recognize the fact that the synthetic product is slightly more poisonous, believed to be due to the greater osmotic properties of the natural product causing it to be eliminated more rapidly. The question is now definitely settled by the Council on Pharmacy and Chemistry. They have experimented on animals and proved conclusively that there is no difference in the physiological effects of the two products. But so long as there is a difference of seven or eight dollars a pound between the two preparations, there will be some one ready to stand up and declare the dearest product to be the best, just as we have known merchants to sell two kinds of coffee out of the same bag by simply asking a cent more on the

pound to certain customers.

G. D. LIND, M.D., Greenwood, W. Va.
MEDICAL DEFENSE.

CHARLESTON, W. VA., Feb. 27, 1912.
Ed. W. Va. Med. Journal.

MY DEAR SIR:—I have read carefully the recent articles published from time to time in defense of the so-called "Medical Defense" and while you say Dr. McCormick's letter "*is very favorable to the cause of medical defense,*" I failed to find one word in his letter that was favorable, or rather that was in its defense.

As you well know, I have been opposed to this measure ever since it was first brought to the attention of the State Society and my opposition has always been based upon the moral aspect of the subject and not from any selfish motive.

What right have we to band ourselves together in a body and say to the public, "*Here we stand like the rock of Gibraltar, fire away with your pop guns?*" How often do we see in the daily press where the medical profession is referred to as the "*Medical Trust?*"

Those who are opposing the Owen bill at Washington, as you know, call us the "*Medical Trust,*" and are distributing, among members of Congress, literature to show that we are a "*Medical Trust,*" and to prove their assertion show copies of the constitution and by-laws of State Medical Societies, wherein the members are banded together to prevent the laymen from suing to recover for even the grossest malpractice. It would seem from this that we are aiding the *defeat* of a very meritorious measure by advocating the adoption of a measure by our State Medical Association that can be of absolutely no benefit to us.

Allow me to show a little injustice in *our* by-laws relative to Medical Defense. The by-laws say the assessment must be paid by the first of February or the member will receive no benefit from the Medical Defense fund, and yet he is *compelled* to pay the same in order to retain his membership in the State Society and the American Medical Association.

Of course I realize that the advocates of this measure look upon those who oppose it as dispensers of "hot air," as one of them recently said, but I believe that every man who does oppose it does so from a conscientious standpoint and *not* from a *selfish* one.

This measure only gives the member the *moral* support of the State Association at \$1.00 per, which certainly marks it down to a "*selling out at cost price,*" from that great unpurchasable position held by the old school *physicians*, but which is being superseded by the commercial *doctors* of today.

I realize that some will call me "*old fashion*" and out of date, but I must humbly thank them for not classing me as one with the modern commercial *doctors* who have no higher standard for their profession than the almighty dollar.

Hoping this is sufficiently "*more free from hot air*" to suit the supporters of this measure, I remain,
Yours very truly,

V. T. CHURCHMAN.

The West Virginia Medical Journal

S. L. JEPSON, A.M., Sc.D., M.D., *Editor*.

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Our readers are requested to send us marked copies of local newspapers containing matters of interest to members of the medical profession. Name of sender should be given.

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Editorial

If you are going to attend a post-graduate school in New York, we can save you a little money. Write us.

THE LAW AND THE PHYSICIAN.

There are about 1,600 physicians practicing in West Virginia. Fewer than one-half of this number are members of the State Medical Association. At least a dozen of them are practicing without license. We have a law in West Virginia supposed to be for the regulation of the practice of medicine, but the law is not enforced. Offenders are not prosecuted because no one but a physician is interested directly in having the law enforced, and he is slow to make any movement because popular opinion is on the side of the violator of the law. The offender must be prosecuted in his own county, the initial proceeding instituted by the prosecuting attorney and a grand jury of his neighbors. The offender is generally an adept at making friends with the officers and his neighbors who would likely be on

the jury. We have known of a number of cases reported to the State Board of Health, which body has no authority to prosecute offenders. The Board refers them to the prosecuting attorney of the county in which the offender resides and that is the end of the matter. Should a case by any means get into court it is doubtful if anything could be done, because the statute defines the practice of medicine in an ambiguous way, leaving a loophole for escape. The law of West Virginia says one must call himself a doctor, or put M.D. to his name and prescribe for the sick. He must do both or he is not violating the law. Thousands are prescribing for the sick and denying that they are doctors. Every cross-roads general store carries a big stock of patent medicines, and the merchant is ever ready to prescribe some of these, with the hope of a sale. Those who call themselves doctors in many cases use no drugs and claim it is not prescribing for the sick unless drugs are used—the faith doctors, Christian Science followers, osteopaths and the like. There are a few who use drugs and practice in all respects like regular physicians and call themselves doctors, plainly violating the law, yet have so many friends among the people that no one cares to take the matter up unless it be a physician, and then he is said to be jealous and his actions are malicious in the eyes of the people.

The supreme court of the State of Missouri has just given a decision which apparently clearly defines the law. The court ruled: "The practice of medicine is not confined to the administration of drugs; nor is surgery limited to the knife. When a physician advises his patient to travel for his health he is practicing medicine. Broadly speaking, one is practicing medicine when he visits his patient, examines him, determines the nature of the disease and prescribes the remedy he deems appropriate."

But is not this ambiguous? He leaves it to be inferred that one must visit the sick, examine the patient, determine the nature of the disease and prescribe a remedy—that is, we must do *all* of these things or he is not practicing medicine. Why doesn't he use "or" instead of "and?" Why doesn't the statute of West Virginia use "or" instead of "and" in its definition?

The next legislature of West Virginia

should revise the medical practice act, making it include every possible action which can be a part of the broadest, clearest and most concise definition of the practice of medicine. Is it not prescribing to sell a drug or compound which contains on the label or wrapper or in the advertisement given within it advice to the sick? It is nothing more nor less than indirect prescribing. We prosecute the saloonkeeper for selling alcoholic beverages even though he may claim that he does not advise people to drink, and we wink at the dealer who prescribes over the counter such stuff as acetanilid, which no regular physician would prescribe without restriction. All these dopes are said to be "Guaranteed Under the Pure Food and Drugs Act," which statement is a palpable falsehood. That law contemplated no such thing as a guarantee of anything. It is a law to prevent misbranding—that is, it compels the manufacturer, if he puts dangerous drugs in his mixture, to state the percentage of such drug. It has but little effect with people who do not know that drugs are dangerous. The law should be revised now to the effect that the manufacturer should be compelled to state that the compound contains such and such a percentage of poison, naming the poison, and prohibit the use of the word "guaranteed." I have heard merchants remark, "Why, this medicine is all right. It is guaranteed by the United States government." The scoundrel manufacturers are making capital out of a law which is intended to restrict their misconduct and protect the people from its consequences.

In this connection we cannot refrain from quoting from an address before the Kentucky State Medical Association by W. W. Anderson, M.D.:

Does some one say, "How about the quack doctor? How about that insatiate vampire that lives by the blood of its victims—that unmitigated villain who robs the foolish and the suffering of money and of life itself?" Are we charged with his deeds? Better charge Christianity with the hypocrite. For have we not cast out the quack? Have we not ostracised him? He is none of ours. And when we have done with him has not the protecting arm of the law been thrown about him and is he not received into the bosom of the church? Does he not sit in the congregation of the saints, and do not even your religious papers befool themselves with his lying and disgusting advertisements? Have not the courts again and again given him the advantage of every known technicality and quibble that he might not have

impaired his most sacred liberty of fleecing the people?"
G. D. L.

Dr. Oscar T. Schultz has taken the place as editor of the Cleveland Medical Journal of Dr. William H. Weir, resigned on account of press of other duties. The Cleveland Medical Journal is one of the best of our exchanges, and we wish it continued prosperity under the new editorial management.

We are glad to note the improved appearance and quality of the Medical Review of Reviews under the management of a new editor, Dr. A. C. Jacobson. It is a live and interesting journal. May it have abundant success.

OPENING OF THE DISPENSARY BUILDING OF THE PHILADELPHIA POLYCLINIC AND SCHOOL FOR GRADUATES IN MEDICINE.

The opening of the new dispensary building of the Philadelphia Polyclinic and College for graduates in medicine, Eighteenth and Lombard streets, was celebrated on the afternoon of February 5th, 1912, by a formal reception tendered by the president of the board of trustees, Mr. Herbert L. Clark, to the board, the incorporators of the hospital and the members of the medical staff.

This institution was organized in the year 1882, for the purpose of meeting a long-felt demand for post-graduate teaching in the city of Philadelphia. It was the first institution to devote its labors to this work in Philadelphia, and it continues to be the only institution of this character. In the various years of its existence it has extended instruction to many students from all parts of the country as well as from all parts of the world.

At the close of the present year the official records of the institution show that in the year 1911, in its out-patient service, 17,769 new patients have been treated, with a total number of 78,386 visits; that in its accident emergency ward 8,706 new patients have been treated, with a total of 9,104 visits, and that in the wards of the hospital there have been treated 1,746, and that 1,167 operations under ether have been

performed. This enormous service began to overtax the capacity of the institution several years ago. Its board of trustees, appreciating this fact, in 1907 undertook construction of the building which was formally opened February 5.

SHALL WE APPLY THE REMEDY?

The Journal A. M. A. states editorially (January 20, 1912, p. 198):

"The efforts of the Council on Pharmacy and Chemistry to protect the medical profession against frauds and misrepresentation in proprietary medicines are rendered largely abortive because the council is purely an advisory body and its findings do not result in the penalizing of the concern found guilty of fraud or misrepresentation."

The Journal suggests, however, that the profession has the means of applying a penalty which would quickly create respect for the decisions of the council, namely, by refusing to use any proprietary remedy not accepted by the council.

The means by which it is proposed to make the work of the council effective is eminently appropriate and may well be said to "fit the crime." It is also bound to be effective, for nothing is so convincing to the business concerns as a shrinkage in trade. Before the remedy is applied, however, physicians may properly ask whether such action on the part of the medical profession would be just, not only as concerns the manufacturer, but also as concerns themselves and their patients.

A careful reading of the council's rules shows that all proprietary medicines are eligible for inclusion with the list of "New and Non-official Remedies" if their composition be given, if they are advertised truthfully, if they have some probable therapeutic value, and if their use be not detrimental to the interests of medicine and public health. These requirements are fair and liberal, and we hold that manufacturers who cannot, or will not, meet them deserve no consideration or sympathy from us.

But are there preparations on the market which we should use, in justice to ourselves and our patients, even though they have been refused recognition by the Council? We have given some attention to the articles accepted and rejected by the council, and as a result we believe that the medical profession may have entire confidence in the impartiality and competence of the council. We cannot imagine that by limiting the prescribing of proprietary remedies to the articles accepted by the council physicians will experience more than a passing inconvenience, and we are equally confident that the public will not suffer thereby. On the other hand, when we consider the revision which has been made in the advertising claims for some of the newer arsenic preparations, such as atoxyl, arsacetin and salvarsan—largely at the instance of the council—we must conclude that a more complete endorsement of its work by the medical profession would have prevented many a disaster, untoward action or disappointment in the use of these new proprietary remedies.

THE NEW YORK ACADEMY OF MEDICINE VS. FEE SPLITTING.

The following notice has been sent to all members of the New York Academy of Medicine:

At a stated meeting of the New York Academy of Medicine held October 5, 1911, the following resolution adopted by the council on May 24, 1911, was read, and it was unanimously voted that this resolution be endorsed by the academy.

Resolved, That the secret division of a fee or fees with any person or persons who may be instrumental in influencing a patient or patients to apply for operative care or professional advice is unworthy of any member of the medical profession.

Resolved, That if such a division of fee is made by a member of the New York Academy of Medicine it should be counted as of sufficient ground for the expulsion of the member.

Resolved, That the council considers it its duty to investigate charges against members made on the basis of such division of fee, and on receipt of proof of offense the council may either permit the resignation of the person or expel him from the academy.

This is a move in the right direction and one which is commended to the various county societies. The first step toward the correction of an evil is the public recognition that it is evil and deserving punishment. Now that so influential a body as the New York Academy of Medicine has put the stamp of its disapproval on the practice and signified its intention of expelling such of its members as are found guilty of dividing fees, whether as giver or taker, it is to be hoped that the county societies will in like manner signify their disapproval *and act*. We may well learn a lesson from the lawyers who, through their local bar association, discipline members of the bar for unethical conduct. In the medical profession it is a very rare occurrence for discipline to be administered when it is clearly demanded. Everybody takes to the woods when the matter comes to the question and dives behind the nearest bush. A twenty-five dollar consultation looms larger than the honor of the profession. So the lay press have taken to lecturing us on our misdeeds and the board of regents threatens to take a hand and do our duty for us. It is a condition of things which is utterly discreditable to a profession that in former times deserved the respect of the public and possessed it. Let it not be said that we are utterly callous and unashamed or too cowardly to mend the evils we admit.—Editorial New York *State Journal of Medicine*, Nov., 1911.

CONSUMPTIVES CAUSE HALF A MILLION LOSS.

An actual money loss in wages and institutional care of \$500,023.00 was sustained by the city of Boston and by 500 male consumptives studied by Dr. Edwin A. Locke and Dr. Cleaveland Floyd of the out-patient department of the Boston Consumptives Hospital. This is but one of many interesting conclusions presented by these physicians in the *March Journal of the Outdoor Life* (New York), the official organ of the National

Association for the Study and Prevention of Tuberculosis.

In order to ascertain the actual economic loss from tuberculosis Drs. Locke and Floyd selected at random 500 male cases, men who had visited the dispensary during the last five years. Two hundred and forty-four of the cases studied were dead when the investigation was begun and 256 were living. Over 41 per cent of the men were between the ages of 20 and 39.

It was found on May 1, 1911, the date of the investigation, that the 244 dead men had each lost on an average of 58.03 weeks of work from the time of the onset of their disease until death. The average weekly rate of wages of these men was \$11.89 and their total loss in wages amounted to \$170,965. The 256 living cases each lost on an average 89.3 weeks of work at an average wage of \$11.38, or a total loss of \$255,074, making \$426,039 lost in wages alone by both groups.

In addition to this large sum, it cost the city of Boston \$73,984 to care for these 500 men in its public hospitals and other institutions. This community loss is exclusive of the large sums that were spent by private organizations on 406 out of these 500 cases.

Four hundred and twenty-two of the 500 men had families with an average of 4.32 members. Commenting on this phase of the problem, the investigators say:

"The direct result on the family income of the disability of the chief bread winner is well shown by the comparison of the total and average weekly income of the 422 families before the onset of illness and after the beginning of the stage of complete disability. In the first instance the total weekly income from all sources was \$6,807.29, or an average of \$17.50, while in the latter the total weekly income was only \$3,055.60, or an average of \$7.86, a decline of 65 per cent. One hundred and sixty-one families were without income of any sort during the period of complete disability of the patient, while the total weekly income previous to this stage was \$1,877.75."

If to all of these losses were added the "capitalized value of the earnings cut off by death," Drs. Locke and Floyd estimate that the loss of the 244 dead cases alone would bring the total up to nearly \$2,000,000. And if to these 500 cases actually studied were added the 15,000 living cases in Boston, they estimate the loss to the individuals and the city would amount to many millions of dollars.

These figures of the economic loss caused by tuberculosis, they conclude, present the most complete justification for the money Boston has spent in tuberculosis work, and show why other communities should not hesitate for fear of expense to attack the tuberculosis problem.

THE WASHINGTON HERALD ON THE DOCTOR.

Of all the servants of mankind the physician is apt to be the most abused. We criticise him and pigeonhole his bills, but at the first twinge we are jangling his bell in alarm. Only a few days ago a special train was dashing across this continent because a rich man, dreading blood-poisoning,

wanted his own doctor. This, in a superlative degree, is in the nature of the country boy riding the plow horse to town at a gallop to gasp at the doctor's door: "Pa's fell off the haystack and broke his leg." The physician is the man who must be ready always. Neither minute hand nor hour hand describes a time when he is not on duty. If he gets a whole night's rest it is because the community happens to be free from aches and pains. He is the slave of telephone, night bell, door bell and office bell.

After a hard day's work another man goes to bed with the sense of having earned his rest; but the probabilities are that the physician will be asked to respond to some one's beck and call. He is altogether a special kind of person. His illusions are few. His inside information is enormous. If now and then he wears a superior smile forgive him. He has probably just heard some remark which he knows to be hypocritical. Again, his jokes are likely to be a bit technical, and his views of life materialistic. But if he has a brand of idealism you can put your trust in it, for he has learned it in a hard school. He has faced the worst and can still believe the best. If he has a religion it will be worth while, for he has wrested it out of the actual battles of good and evil in a life seen at close range.

The lawyer we take into our confidence occasionally; the clergyman we admit to parlor and dining room; but the doctor goes into bedrooms unannounced. If what he sees there surprises him, he does not let it be known. In the healing of bodies he has opportunity for healing souls which could never come to a priest. He is the lay father confessor, regardless of creed. He always fits in. He is a safe man on committee; he can turn his hand to any public business, and if left alone discharge it creditably. He knows more psychology in five minutes than the philosopher in a week, yet he is the least emotional of men.

When the lawyer is in tears before a jury, and the parson is pathetic from his pulpit, the doctor is keeping his nerve. The peculiar thing about him is that while fighting his grim and silent battle with death, without the applause of a crowd, often without pay, and sometimes without gratitude, he seems superior to all these considerations. He's responding to a higher sort of noblesse oblige which is almost unintelligible to the average man. Somewhere, either in this world or the next, he will reap his deserved reward.—*Journal of the Delaware State Medical Society.*

A PLEASANT, EFFICIENT LAXATIVE.

The desirable qualities of a first-class laxative are efficiency and freedom from unpleasant taste. The lack of either to just that extent disqualifies the product for use in the treatment of chronic constipation. That it is difficult to find a palatable and efficient laxative in the same medicament is a pretty generally accepted fact. It is possible to do so, however, and Cascara Evacuans may be cited as proof of that possibility. This preparation is pleasant in taste, and in doses of 15 to 30 minims in water it performs its duty quickly and well, without incidental nausea or distress. That

is why children rarely object to taking it and adults prefer it to other preparations.

To avoid confusion with other so-called aromatic cascara it is well to specify clearly "Cascara Evacuant, P. D. & Co."

Our readers will note in this issue the artistic advertisement of Palpebrine, the safe and reliable remedial agent in all external inflammation of the eyes. This product is manufactured by the Dios Chemical Co., who have during the last quarter of a century manufactured exclusively for physicians, diovibunnia, neurosine and germiletum, the reliability of which is generally recognized.

No new and untried drugs enter into the composition of these specialties, and their formulæ have always been communicated to the profession. Palpebrine will fill a long felt want of the general practitioners, who can themselves treat with this product safely and successfully external inflammation of the eyes.

The Dios Chemical Co. of St. Louis will mail free trial bottle of Palpebrine on application. It contains boric acid, bichloride of mercury, morphia, sulphate of zinc, glycerine and camphor water.

State News

Dr. H. H. Young, of Charleston, has gone on a visit to Texas.

Dr. Griffin, of Lincoln county, has located in North Carolina.

Dr. W. E. Lawson, of Hampton, Virginia, has located in Winden, on the Buffalo Creek & Gauley R. R.

Dr. W. W. Tompkins, of Charleston, has returned from a two weeks vacation in New York.

Miss Lelia Florence Eccles, of Bluefield, W. Va., has been appointed superintendent of the Charleston General Hospital.

There has been a very serious outbreak of smallpox at Dana, a few miles east of Charleston, but it is now said to be somewhat under control. The epidemic has been of a mild nature, and so far but one death has been reported.

Dr. T. E. Park has located in Charleston, and has rooms in the Coyle and Richardson Building.

Dr. G. H. Barksdale, of Richmond, Virginia, has recently located in Charleston. The doctor has offices in the Bowen Building.

Dr. G. F. Grisinger has removed from Dana to Powellton, W. Va.

Dr. A. W. DeBell, who was formerly located at Powellton, has left the State.

We call attention to the new advertisement of Dr. L. O. Rose of Parkersburg. The doctor is one of the best pathologists in the state. He is devoting his whole time to laboratory work, and deserves the active support of the profession and the public. He has recently enlarged his laboratory and equipped it with every appliance needed to enable him to do efficient work in his speciality. We wish him abundant success.

passed the following resolution at its meeting in November, 1911.

WHEREAS, Many of the papers of applicants for license to practice medicine in the State of West Virginia show a lamentable ignorance of even the rudiments of elementary education; and,

WHEREAS, Many such applicants are from schools which, in their advertising literature, profess to require a fair preliminary education, some of them being members in good standing of the Association of American Medical Colleges, and consequently pledged to a minimum requirement of a high school certificate; therefore, be it

Resolved, That the attention of all medical colleges, considered as now acceptable by this board, be called to these facts to the end that they may enforce strictly their professed requirements, thus keeping faith with the public and with the profession; and further

Resolved, That it is the sense of this board, that after January the first, 1912, the board would be justified in striking from the lists of colleges now acceptable to it, all those institutions whose graduates in their examination papers evince imperfect preliminary education;

Resolved, That these preambles and resolutions be published in the West Virginia MEDICAL JOURNAL and in the *Journal of the American Medical Association*, and that a copy of them be sent to the various colleges interested.

COPY OF A MANUSCRIPT ON ANATOMY FROM A GRADUATE OF A COLLEGE IN CLASS A 1911.

1. Name the bony prominences of the elbow and the ligaments of the elbow joint.

The bony prominences of the elbow are the Elequanan process of ulnar. the carnaid process of unar are intenal and extenal, canidies of the Humeres. and the Head of the Radius.

Legiments of the Elbow Joint air Anteriar and Pasteriar legimentss as around the Head of the Radius but would Hardeley be counted of belonging to the elbow.

2. Give articulations of the first cervical vertebra.

the articulation of 1 cervical vertebra air above with the occipital hair, below with the acus or 2nd, cervical vertebra.

3. Where is the spleen and what are its uses?

The spleen is setuated in the Left Hypercundim region of the abdomen Laying against the Ribs to the left of the vertebra colum. and below the Diaphragm. Its uses are Theaiaticut, Some claims it is the graveyard few the Red Blood cells. Some cliams it furnishes an internal secrecion and some thinks it is apart of the general Lymphatic System and others claims it has to do with the formation of corpuscles. I really don't know which is its functions.

4. Describe the two principal arteries of the forearm and tell how they form the palmar arches.

The two, principal archeties of the forearm air Radial and Ulnar arteries the Radial runs down along the inner side of the Radies bone comencing just below the bend of the elbow it

gives off branches as it passes down to supply the muscles of the inner side of fore arm. When it gets down to the wrist it passes beneath the capsular Ligaments or the wrist and the its terminal branch forms the deep palmar arch it is a medium sized vessel. Ulnar artery commences at the bifurcation of the Brachial and is a medium sized vessel much smaller than the Radial it passes down along the ulnar, rather along the outer side of the bone to the wrist and terminates in the superficial palmar arch. The superficial palmar arch is formed by the ulnar artery crossing from the ulnar to the radial side of the hand and anastomosis with the Radialis carpalis a bunch of the Radial all, sometimes the ulnar anastomoses with the superficialis volii of the Radial this completing the superficial arch. The deep palmar arch is found by the radial passing from the Radial to the ulnar part of the Hand through the palm of the hand it anastomosis with a branch of the ulnar artery to complete the arch also receives some communicat brachs from the intersossi arties.

5. Of what does a vertebra consist? Name the processes and tell what their object is.

A vertebra consists of a body of pericles and Laminae two transverse processes 4 articular processes of these latter above named 2 superior and 2 inferior and 1 spinous process the 2 transverse processes are intended for leavers for the muscles and Ligaments to attach to and also the Dorsal articular with the ribs the 2 superior articular process of the vertebra above it the inferior articular process articulates with the superior articular surface of the vertebra below the spinous process serves for the attachments of the Ligamentum subflava and at the spinal Ligaments and the muscles of the back.

6. Describe the Stomach.

Stomach is a pouch or dilation of the alimentary canal, its shape is something like this

Its capacity is about three pints it is covered by peritoneum is composed of muscular fibers and mucus tissue lining it and as stated above covered by peritoneum. External muscular coat is longitudinal to the organ inner muscular coat is oblique or circular around the organ. External to this external muscular coat is connective tissue covered by the serous coat internal to the muscular coat in the submucosa and beyond this is the mucus composed of columnar epithelium cells, and has glands or crypts running down to submucosa coat the inner surface of the stomach is rugated or in folds or rugae the stomach has a fundus and opening into this fundus is the Oesophagus opening guarded by the circular muscular fibers cardiac End of the fundus of the stomach is the largest part of it the pylorus is smaller than the Fundus and opens into the duodenum the commencement of the small intestine and this opening is guarded by a large circular band of muscle fibers. of course all the muscle tissue of the stomach is involuntary.

7. Give brief description of Facial nerve.

The facial nerve arises from its deep nucleus from the floor of the 4th ventricle and from some fibers to the ganglion between the olivary and Restiform body on the side of medulla then it leaves enters the petrous part of the temporal

bone passing through the Foramen and internal auditory meatus in the auditory meatus it gives off the chorda Tympani branch. It makes its Exit from the skull through the mastoid foramen and passes under the parotid gland. Just below the External auditory meatus and here forms the pes anserinus or sesamooid crou foot it divides up into branches which supply the superficial muscles of face and neck also the occipital frontalis muscle it is a motor nerve of expression.

8. Name the muscles of the shoulder and arm.

Air. Deltoid, pectoralis major and minor, subscapularis, supraspinatus, infraspinatus, teres major and minor, air Head of the Biceps, triceps, coracobrachialis, Brachialis, anticus.

9. Name the sutures and fontanelles in foetal head.

Sutures of foetal Head are the lamboid, sagittal, coronal, squamous. Fontanelles are the Anterior and large, sphenoidal, Posterior, as small fontanelle.

10. Give difference in foetal and adult heart.

Foetal Heart is of variable larger size according to the body weight than an adult. It has an opening the foramen ovale between the two auricles so the blood can pass from the right to the left guarded by the Eustachian valve; this is closed up in an adult and the Heart in a foetus is situated more horizontal in the chest its apex is higher up 4 cent space while adults is in 5 cent space an placed in chest more obliquely.

Society Proceedings

AMERICAN PROCTOLOGICAL SOCIETY—Continued from Feb. Issue.

BACTERIOLOGY AND URINARY FINDINGS OF CONSTIPATION.

By JOHN L. JELKS, M.D., of Memphis, Tenn.

The author advances no new theories, but expresses his views of the importance of both chemical and microscopic investigation in connection with clinical proctology, and the value of these examinations in cases of atonic constipation.

He refers to the importance of either finding, or eliminating, the presence of intestinal parasites, that are known to produce lesions in the intestinal coats and ports of entry of bacteria or their toxins. He expresses the belief that the destruction wrought to the sub-mucous structures, the infiltration of plastic material and the contracting, distorting, scarred portion of the bowel, as also the consequent destruction of, and interference with the secreting glands, their ducts and the nerve supply may become important factors in the atonic condition of some patients.

The author believes it is important to make microscopic examinations in all cases of this character, both of the crude and washed specimens, and of scrapings from the intestinal wall or from any lesion found in it. He also examines the urine chemically and microscopically, believing this important, owing to the relationship and association of diabetes, kidney insufficiency

ency and diseases of the kidney with cases of atonic constipation.

These examinations of the urine aid in determining the proper course of treatment, especially is this true when indicanuria, casts and sometimes traces of albumen, indicate the vicarious overwork of the tired and irritated kidneys, as also the intestinal fermentation and coprostatic auto-intoxication, which results in some cases.

The author refers to the importance also of examination of the stomach contents after test meals have been given as these may furnish in some cases a clue to etiologic factors.

Blood examinations he finds quite important in determining the amount of opsonic resistance as also for finding infections in the blood, which matters by lowering the vitality may become factors in the atonic conditions which were being discussed.

PATHOLOGY AND DIAGNOSIS OF CONSTIPATION.

By WM. M. BEACH, M.D., of Pittsburg, Pa.

Pathology of constipation is naturally considered under two general heads, namely:

1. Stasis due to altered secretions.
2. Stasis due to mechanical obstruction.

The first may be the result of neuroses, and acute fermentative indigestion, or a bacillary infection. The anaerobes may attack the contents of the bowel or the gut wall itself, leading to varying degrees of inflammation in the colon, as ulceration, hypertrophic and atrophic catarrh. The color impaired functionally or traumatically leads to stasis and consecutive inhibition of the fecal excursion. Such impairment further disturbs the physiologic lines of defense against the auto-intoxications, as

- (a) The intestinal mucosa, itself;
- (b) The liver, and
- (c) The antitoxic glands.

Collateral with these phenomena in constipation, are such factors as cholelithiasis, hypochlorhydria, cholangitis and appendicitis, as altered secretions incident to coprostasis.

Mechanical obstructions to be reckoned with include:

1. Enteroptosis or Glendard's disease;
2. Gastropotosis;
3. Dilatation of the colon;
4. Certain extra-mural and intra-mural sources of obstruction, as pelvic tumors and displacements, nephroptosis, enlarge glands, intussusception, malignant disease, etc.;
5. Acute angulation at the recto-sigmoid junction, hypertrophy of O'Beirne's sphincter, and stiff rectal valves;
6. Disease in the anal canal.

Diagnosis resolves itself into an analysis of the above conditions; to differentiate acute or chronic obstruction and the ordinary functional stasis which may also be accompanied by the various forms of colitis.

SEQUELAE OF CONSTIPATION, INCLUDING AUTO-INTOXICATION.

By ALFRED J. ZOBEL, M.D., of San Francisco, Cal.

In this paper the writer mentions many of

those conditions which seem to have their origin in chronic constipation with auto-intoxication. He states that experimental evidence has not as yet demonstrated that they actually do so, but close observation and clinical experience tend strongly to confirm the theory.

He writes that while all constipated individuals do not necessarily suffer from those symptoms ascribed to auto-intoxication, yet in his experience most patients with auto-toxic symptoms are constipated. This may be without their knowledge, and they often deny in good faith that they are so; but proctoscopic examination generally proves the sigmoid and rectum to be loaded with fecal matter.

A report is given of the proctoscopic observations made on a number of cases of hypertrophic arthritis. In almost every instance the lower bowel was found filled with a fecal mass, although most of the patients positively stated that they had had an evacuation within an hour or two previous to the time of examination. Thorough colonic flushings invariably brought about relief from pain, and in time marked improvement in their general condition.

These observations are in line with the theory advanced by various authors that arthritis deformans may be due to intestinal auto-intoxication.

Mention is made of the various muscular, arthritic, and neuralgic pains caused by absorption of toxins from the bowel. These are often misunderstood, and treatment instituted for rheumatism.

Congestion, irritation, and various disturbances, both functional and organic, of the uterus, tubes and ovaries in the female; the vesicles, urethra, and prostate in the male; and the bladder in both; may result from chronic constipation. This is due both to the proximity of these organs to the lower bowel and to their close physiological relationship.

It is noted that albuminuria may arise from intestinal stasis, and mention is made of the opinion advanced by various clinicians that a nephritis may even be caused thereby.

The role of constipation with auto-intoxication as causal factors of epilepsy, neurasthenia, and various mental conditions, as claimed by certain well known and competent observers, is stated here without comment.

The influence of these conditions on the heart, blood-vessels, and the blood; and its effects on the eye, ear, nose and throat are dilated on in this paper, and in support of these statements quotations are culled from the literature that has appeared on this subject during the past five years.

The writer further briefly mentions a few more of those conditions that are supposed to arise from chronic constipation with auto-intoxication, and concludes by agreeing with the trite observation of Boardman Reed that, "when we except the exanthems, malaria, syphilis, tuberculosis, and the diseases caused by traumatism, by metallic poisons, and by a few other toxic agents or infections from without, practically all the remaining maladies which afflict us and cut short

our lives are now directly or indirectly traceable to auto-intoxications."

BARBOUR-RANDOLPH-TUCKER SOCIETY
ELKINS, W. VA., Jan. 27, 1912.

Editor *W. Va. Medical Journal*.

Below find a program of our last meeting, held at the Hotel Wilson, Elkins, Jan. 30th:

Afternoon Session, 2:30 P. M.

Business meeting. Reports of cases.

Evening Session, 8:30 P. M.

Faith and Medicine, Rev. C. F. Magee.

External Application in Surgical Conditions, Dr. E. J. Horgan.

Internal Applications in Medical Conditions, Dr. F. B. Murphy.

Historical Sketch, Dr. A. S. Bosworth.

Refreshments.

The B.-R.-T. Society is having very interesting meetings. Harmony is prevailing and good-fellowship reigns supreme. Our meetings, as one member recently remarked, are uplifting and refreshing.

We are going to make the year 1912 the biggest, busiest and best in the history of the Barbour-Randolph-Tucker County Medical Society. United we stand on all moral issues working for the elevation of mankind and for the dignity of the medical profession.

Many thanks for suggestion received some time ago from you relative to the method of Ohio County Medical Society in the collection of dues. I have used this information to great advantage.

Yours fraternally,
E. R. McINTOSH, *Sec'y.*

THE CABELL MEDICAL SOCIETY.

HUNTINGTON, W. VA., Feb. 9th, 1912.

Dr. S. L. Jepson, 81 Twelfth St., Wheeling, W. Va.

DEAR DR. JEPSON:—The regular monthly meeting of this society was held last night in the Hotel Frederick. The evening's program was an address on "The Treatment of Diseased Prostate," by Dr. J. E. Cannaday, of Charleston. The address was very instructive and much enjoyed.

A resolution was passed asking that the Regents of the University restore the medical department, that the State Board of Health require a high school education as a preliminary to medical study, and another asking the senators from W. Va. and the congressman from this district to support the "Owen Bill" and work for its passage by congress.

After the evening's program a Dutch lunch was served in the cafe.

Fraternally yours,
JAS. R. BLOSS, *Sec'y.*

GRANT-HAMPSHIRE-HARDY - MINERAL SOCIETY.

BURLINGTON, W. VA., Feb., 12, 1912.

Editor *W. Va., Medical Journal*.

The G.-H.-H.-M. Society met in Keyser, in the parlors of the Reynolds Hotel, on the 30th of January at 2:30 p. m.

The meeting was especially enjoyable owing

to the presence of President Henry, Secretary Butt and visitors from Cumberland, Md.

Dr. Simpson, of Morgantown, was also present in the interest of the medical department at the University of West Virginia. He stated the conditions and after discussion, the following resolution was offered and unanimously passed:

"Resolved, That we disapprove of the discontinuance of the College of Medicine at the W. Va. Univ. and we hope that the regents will reconsider the matter at their earliest convenience. We feel that the people of our state should furnish the same opportunities to future physicians as to other professions; further be it

"Resolved, That the State Board of Health should make the completion of a four year high school course a prerequisite to coming before the board for examination for license."

Dr. Henry made a very interesting talk on the benefits of being a member of the county society and State Association.

Dr. Brooks read an interesting and instructive paper on "Hypertrophied Tonsils and Adenoids."

Dr. Abbott, the newly elected president, read a paper presenting some Personal Observations in Urinalysis.

Resolutions of respect for our deceased fellow member, Dr. J. F. Scott, late of Medley, were adopted

Dr. Babb resigned as treasurer and the secretary was made the treasurer also. This was done to expedite the business and to relieve Dr. Babb from so much of the society work, as he is assistant editor of the *Bulletin*.

The *Bulletin* published by the society is, we think, quite a help to society work, allowing those who cannot be present at the meetings to read the papers in print.

After the meeting adjourned the members and visitors were delightfully entertained at a banquet given by the Keyser physicians, held in the dining rooms of the hotel.

Our next meeting will be held in Romney in April.

W. F. WRIGHT, *Sec'y-Treas.*

KANAWHA COUNTY SOCIETY.

CHARLESTON, W. VA., Jan. 30, 1912.

Editor *W. Va. Medical Journal*.

In reply to your postal to Dr. Robertson, I wish to say that at the meeting of the Kanawha Medical Society, December 5, 1911, the following officers were elected for the ensuing year:

President, Dr. H. H. Young.

Vice President, Dr. G. B. Capito.

Secretary, Dr. P. L. Gordon.

Treasurer, Dr. G. A. MacQueen.

Councilors, Drs. Charles O'Grady, B. S. Preston, W. S. Robertson and H. G. Nicholson.

Respectfully yours,

P. L. GORDON, *Sec'y.*

LITTLE KANAWHA AND OHIO VALLEY SOCIETY.

PARKERSBURG, W. VA., Feb. 3, 1912.

DEAR EDITORS—On February 1st the L. K. and Ohio Valley Medical Society met at the Chancellor Hotel. In spite of the extreme inclemency of the weather 15 members were present. The essayist of the evening, Dr. C. W. Albert, read

an interesting paper on Otitis Media, Symptoms, Causes Immediate and Predisposing, paying particular attention to those conditions of the naso-pharynx that favor these inflammations of the middle ear, and describing the different pathological germs that invade this region.

The subject of treatment was not dwelt upon, being left to some future occasion. The paper was discussed by several of the members, most fully by Dr. Mark O. Fisher, who exhibited to us some new instruments devised by Dr. E. O. Holmes, of Boston, a naso-pharyngoscope for the illumination of the naso-pharynx, and others for treatment of the diseased conditions there which seemed of much interest.

Dr. Campbell reported a successful operation, recently performed on an infant for imperforate anus and non-descent of the rectum. Child 2 or 3 days old. It was necessary to dissect up $1\frac{1}{2}$ in. before reaching the rectum. Dr. Sharp reported a case operated upon by Dr. Harris and himself some years ago, where was absence of anus and rectum opening into vagina in a child several months old. Result not favorable. Child some months after died of other disease. Dr. Wise reported seeing a similar case where the woman was married and had a child. She told Dr. W. that husband did not know of her condition. Drs. Campbell and Sharp entered into the embryology and varieties of these malformations.

Dr. Douglass reported a case of late development of septicaemia in patient following labor treated successfully with autostreptococcic serum.

Dr. H. D. Hatfield joined us later in the evening and joined in our discussions. He addressed us fully on the influence the medical profession could exert in this state if they would act as a unit; the high character of the profession here, the excellent work done in all sections. He particularly dwelt upon the necessity of the state giving us a medical school at the University, where our young men could get a part if not the whole of their medical education, while the state had its law school, its school of agriculture, engineering, etc.

Mr. John T. Harris, who was also present by invitation, testified to the high position the students from the school had taken at the College of P. & S., Baltimore, under the former arrangements.

Dr. Steinbeck, of Parkersburg, and Dr. Grey, of Williamstown, were admitted to membership.

Yours truly,

W. H. SHARP, *Treas.*

PRESTON COUNTY SOCIETY.

DAVIS, W. VA., Feb. 3, 1912.

Editor W. Va. Medical Journal.

This notice was sent to me from the Preston Co. secretary:

"The Preston Co. Medical Society held their regular meeting at Rowlesburg, W. Va., Jan. 25, 1912, and elected the following officers:

President, Dr. B. S. Rankin, Tunnelton.

Vice President, Dr. W. H. Post, Masontown, W. Va.

Sec.-Treas., Dr. G. C. Blake, Tunnelton, W. Va.

Board of Censors, Dr. E. W. Strickler, Kingwood, W. Va.; Dr. F. M. Fogle, Rowlesburg, W. Va.; Dr. W. F. Daly, Terra Alta, W. Va.

Delegate to State Convention, Dr. R. F. Scott, Terra Alta, W. Va.

Alternate, Dr. W. H. Post, Masontown, W. Va.

Fraternally yours,

A. P. BUTT.

(This is a rather unusual way for the JOURNAL to receive a report of a society meeting, but we welcome it, since so many societies fail to send reports by any route.—Editor.)

THE TYLER COUNTY SOCIETY.

FRIENDLY, W. VA., Feb. 19, 1912.

Editor W. Va. Med. Journal.

The regular monthly meeting of this society was held in the reception room of the Sistersville Hospital, Feb. 11th, 2:30 p. m. House called to order President Dr. S. A. Jennings, minutes read and accepted. The meeting was declared open for regular work. The meeting was well attended. The program was responded to quickly by each member.

Under head of good of the society, was taken up medical protection. A vote was taken as to what standing the Tyler County Medical Society would take as to the medical defense plan. Every member present voted in favor of the state medical defense plan and you may expect our delegates to support that vote at Webster Springs at our next meeting.

Program for our next meeting, March 11th, at 2:30 p. m.:

"The Cause of Death and Treatment in Different Forms of Pneumonia," by Dr. S. B. West.

"Diseases of the Throat," by Dr. M. M. Repard.

Meeting was closed in due form.

Fraternally yours,

JOHN BENNETT, *Sec'y.*

OHIO COUNTY SOCIETY.

Dec. 18, '11.—Dr. M. B. Kelly read a paper on the Blood-clot Method in Mastoid Operations. He reviewed the various operations employed in mastoid work, endeavored to show the great advancement in this department of surgery, then described the operation under consideration as employed by many leading specialists. He said that nuclein in the clot is a germicide, and that nothing should be used that tends to destroy it, as carbolic acid, bichloride of mercury or alcohol. In reply to Dr. Wingerter as to the per cent of successes he said that 75% are successful. Drs. Schwinn and Quimby added to the discussion.

Dr. W. S. Fulton next read a paper on Tuberculin. After a historical statement he gave an estimate of the diagnostic and therapeutic value of tuberculin. In the human subject 85% react to it, in the bovine 97%. Dr. Reefer, V.S., next gave his experience with tuberculin in veterinary work. It is used for diagnostic purposes only, having no place as a therapeutic agent. He explained the mode of administration, the reaction, etc. No bad result is ever seen. But two herds here are tested, and he is positive that 10% of all

cows from which milk comes to this city are tubercular. Dr. Reed thinks that the profession should endeavor to have the herds of all dairymen who bring milk to the city tested, and all animals which show a reaction should be killed. Dr. Schwinn showed a rare case of a man with a dislocation of cervical vertebra. Paralysis in some parts, and paresis in others was shown, and the doctor gave physiological explanation of the symptoms. (The case was later operated on with some improvement. The operation verified the doctor's diagnosis.)

Jan. 8th, '12.—After the reading of last minutes, Dr. Wingerter read a most interesting paper on Pulmonary Hemorrhage. (The paper will appear in THE JOURNAL.) Dr. Osburn agrees with the author on the importance of securing mental quiet of the patient. Had seen good results from veratrum and digitalis. Dr. Noome attaches much importance to nitroglycerin in these cases. Dr. Barra referred to the alleged good results of animal serum in hemorrhage, and asked the essayist if he knew anything of it. Dr. Quimby spoke of the chloroform treatment. Dr. Jepson would use amyl nitrite or nitroglycerin, and after the active stage is passed the erythrol tetranitrate. It may be given in doses of a half to two grains. Its action is similar to but milder and more prolonged than that of nitroglycerin. Dr. Schwinn states that small hemorrhages are caused by capillary oozing, and generally cease with rest without other treatment. Dr. Gillespie gave a written report with chart of an unusually interesting case of typhoid fever with hemorrhage from bowels. The case excited very general discussion.

Jan. 22nd.—V. P. Spragg called the meeting to order. Dr. Hupp reported a case of fracture of the olecranon process, exhibiting the patient, and an X-ray photograph of the case. He explained the technic of wiring so that the wire would not encroach on the articular surfaces. The arm was placed at a 15 degree angle and motion commenced on the 15th day. Discussion by Drs. Noome and Fulton. Dr. Burns gave a lecture on the Leucocyte Count and Its Interpretation. He told how to secure the drop of blood, the accuracy with which it must be placed on the slide, etc. With the aid of a blackboard he explained the normal leucocyte finding in a single drop; then cited some exceptional abdominal cases, and showed how valuable the blood picture is in some obscure conditions. Discussion by a number of the members.

Dr. Staats then read a paper on The Mechanics of Abdominal Drains. He mentioned the various kinds of drainage material, and gave his preference in different conditions. Gauze is his preference for most conditions. He called attention to the three abdominal basins and the best drainage in each.

Dr. Covert (visitor) stated that drainage is not used as generally as formerly and he thinks that better results are generally secured without it. In exceptional cases only is it useful. Dr. Schwinn stated that the exudate forming before a perforation occurs should not be drained, as it is serous and is nature's method of protection.

But after a perforation occurs the purulent infection occurs which makes drainage necessary. Dr. Noome thinks that after 24 hours have elapsed it is impossible to drain the abdominal cavity.

Dr. Noome reported a case of sarcoma of the large intestine without any obstruction. Dr. Hildreth 3rd reported a case of glaucoma. Adjourned.
E. F. GLASS, Sec'y.

Reviews

A HANDBOOK OF PRACTICAL TREATMENT—By many writers. Edited by JOHN H. MUSSER, M.D., LL.D., *Professor of Clinical Medicine in the University of Pennsylvania*, and A. O. J. KELLY, A.M., M.D., *late Assistant Professor of Medicine in the U. of P.* Vol. III. W. B. Saunders Company, Publishers. Price, \$6.00 per vol.

This volume completes the most pretentious work on the treatment of disease ever issued from the American press. Eighty-two eminent writers contribute to the work. Among these we may name Albutt, Anders, Barker, Bloodgood, Brunton, Cabot, Dereum, deSchweinitz, Dock, Fletcher, Hare, Hektoen, Janeway, the Mayos, Moynihan, Schamberg, Spiller, Stengel, Tyson, and many others are equally entitled to a place in the list. What could result from such a combination of writers and authors than a work that is bound to prove a brilliant success. It is brought down to date. Not only are all forms of medical treatment here set forth, but electric, hydropathic, mechanical, and all forms of external treatment are fully considered by experts. We have noticed former volumes in the Journal. The present volume includes treatment of constitutional diseases, respiratory, digestive, urinary, nervous, mental, muscular, etc., including the surgical management of such as have a surgical side. As a whole the work stands unrivalled as a book on treatment, the most vital part of our profession. He who possesses this will not soon need any other book on practice.

INTERNATIONAL CLINICS—A quarterly of illustrated clinical lectures and papers. Edited by H. W. CATTELL, Phila., assisted by OSLER, MUSSER, BILLINGS, ROTCH, MAYO, CLARK and others. J. B. Lippincott Co., Phila. \$2.00.

This is Vol. IV of the 21st series of this excellent line of publications. It is a volume of over 300 pages, and contains articles by many eminent men of this country and Europe. This volume embraces papers on Treatment, Diagnosis, Surgery, Otolology, Pediatrics, Ophthalmology, Medico-legal medicine, etc. Without going into detail, we can truly say that this is one of the very best volumes of the long series.

THE SURGICAL CLINICS OF JOHN B. MURPHY, M.D., AT MERCY HOSPITAL, CHICAGO.—Vol. 1, No. 1. Paper 6 numbers a year. W. B. Saunders, Pub., Phila. \$8.00.

In Murphy's "Clinics," the profession of this country is presented with something new in medical publication—a verbatim stenographic re-

port of the public clinics held by Dr. Murphy, at Mercy Hospital, Chicago, for physicians only.

The work, a combination of journal and textbook, is to be published bi-monthly and each issue is to represent the views of the author on the special subjects treated.

In the first number nineteen surgical conditions are considered, each in the practical, thorough fashion of which Dr. Murphy is past master.

Any one who has attended this famous clinic has invariably carried away a lasting impression of it and was filled with regret that he could retain but a small portion of the feast of good things offered. In reading this first report one easily imagines himself again in the Mercy Amphitheater, and is held by the same logic and force and charm, which characterize the clinical teaching of this distinguished surgeon; and it is indeed a keen satisfaction to have transferred to the printed page these remarkable Wednesday and Saturday lectures, that they may be read and reread, and preserved for reference.

It is certain that the series will be in great demand and that this unusual opportunity for practical and useful clinical instruction will be widely embraced.

R. J. R.

Medical Outlook

THE CAUSES OF ASCITES.—Richard C. Cabot, M.D., of Boston, has an article in the January, 1912 number of *American Journal of the Med. Sciences* on this subject, being a review of 5,000 cases.

Cabot starts out by saying: "I recently made a series of wrong diagnoses in cases of ascites. These failures which were shared by some of the best diagnosticians in the country, suggested to me a study of the causes of this symptom." His summary and conclusions are:

1. Among the possible causes of extensive ascites we must not lose sight of the small solid tumors of the ovary.

2. Pleural effusion may be produced by an extensive ascitic accumulation. This association may lead to a false diagnosis of pleural and peritoneal tuberculosis.

3. The cure of both pleural and peritoneal effusions may result from excising a benign ovarian tumor.

4. Among all causes of ascites, tuberculous peritonitis may sometimes be recognized by the greater slowness of its accumulation of fluid.

5. Intestinal obstruction ranks fifth, and diseases of the female genitals sixth, among the causes of ascites, being surpassed only by cardiac disease, nephritis, cirrhosis and tuberculous peritonitis.

6. Besides the causes just mentioned, abdominal neoplasms and adherent pericardium are the only factors of importance in the production of ascites.

G. D. L.

GOSSYPII CORTEX.—John C. Scott, M.D., of Philadelphia, has been experimenting with *gossypii cortex* to determine its action on uterine contraction. Experiments on cats proved that

strong uterine contractions were produced, both in the excised uterine muscles and in the uterus with the blood supply intact. He concludes: "In view of the extremely uncertain properties and keeping qualities of ergot and its preparations and the fact that *gossypii cortex* is stable and very active as shown by the trial on the cat's uterus, I think it deserving of extensive use in the cases where it is indicated."—*Therapeutic Gazette*.

WHAT IS NEEDED FOR PSYCHOTHERAPY?—Skill in technique of psychotherapy is not hard to achieve after psychopathological data have been acquired. But to attempt psychotherapy without knowing to what it is being applied is as fatuous as the grossest empiricism in any other part of medical or surgical art. Just as the surgeon requires, first, a minute knowledge of anatomy and pathology, secondly, the good sense to apply this knowledge clinically, thirdly, the acquaintance with the practice of technical advances in his art, so the psychotherapist requires first, a minute knowledge of psychology, and psychopathology (I exclude here all metaphysical notions, which, unfortunately, are rife in much which has been written on psychological medicine); secondly, the acumen to use this knowledge clinically in diagnosis; thirdly, an acquaintance with and the practice of technical procedure as they improve.

TOM A. WILLIAMS, Washington, D. C.

"I treat no case of chronic pulmonary tuberculosis without guaiacol carbonate and arsenic, and am doing well. Nor in chronic pulmonary tuberculosis only. I treat no tuberculosis of bones or of glands without them. In bone inflammations, such as of the vertebrae, fingers or ankles, I have given phosphorus besides, since Wegner's experiment and experience."—A. JACOB, M.D., LL.D.

G. D. L.

THE PLACING OF A PRELIMINARY PERINEAL STITCH PREVIOUS TO DELIVERY.

So much interest has been created in Laphorn Smith's recommendation to place a perineal stitch previous to delivery in cases that promise certain tearing, that the following description by the author is of especial value:

"Just before the child's head comes down on the perineum, the patient is anesthetized and brought across the edge of the bed with the feet held by a twisted sheet or leg holder. The perineum is sterilized with a soap and brush and mercuric bichloride, and then with the large curved perineum needle on a handle, furnished by Chapman of Montreal, held firmly in the right hand, and with the thumb of the left hand in the anus and the left forefinger in the vagina the needle is entered at the base of the lesser lip on the patient's left, taking in the levator ani muscles and passed rapidly under the vagina, and about two and one-half inches above the fourchette, coming out at the corresponding point on the woman's right side. A silkworm gut suture is threaded into it and the needle is withdrawn, followed by the silkworm gut, the two ends of

which are caught up with two Pean forceps. A second one is passed in the same way an inch lower down, but taking in the muscles of the perineum. We can generally tell beforehand, by the rigidity of the perineum, whether the tear is going to be a bad one or not. In the former case we can put in a third stitch, which would take in the sphincter and on each side of the middle line. Delivery can now go on naturally or artificially, but as soon as the placenta has been delivered the perineum is inspected under a good light and a stream of water, all clots being rubbed off with the finger; the stitches are tied from above downward, when we will find that there is absolutely accurate coaptation of the separated parts.

"Speaking of the light in the confinement room, especially of the poor, we should always take steps before delivery to provide a good light for two reasons: That we may see how dirty the place is and second to see what we are doing. As a rule, a darkened room means a dirty and badly ventilated one. In the daytime, arrange the patient so that the perineum will be facing a bright window; and if the confinement is likely to take place at night provide beforehand for a good light easily available for examining the perineum. When we hear physicians say they have never seen a tear of the perineum they may be telling the truth, because they have attended all their patients in a dark room. The presence of the silkworm gut stitches, placed as stated before the head comes through the perineum and hanging loosely attached by their ends to a Pean forceps, does not interfere with the termination of the labor in any way, not even when the forceps is required. If by keeping the pain under control and the head well towards the symphysis, there has happily been no laceration of the perineum, no harm is done by their having been introduced, you simply take off the forceps and draw them out, while if the perineum has been lacerated more or less, it is a great advantage to save time by having them already in, but still more by having them exactly in the right place to bring the lacerated surfaces together, just as they were before the delivery. The placing of perineal sutures before the tear occurs is an instance in which 'an ounce of prevention is worth a pound of cure.'"—*Med. Record*, July 29, 1911.

GLUCOSE IN URINE.

The defects of the usual tests for glucose in urine are noticed by S. R. Benedict, New York (*Journal A. M. A.*, October 7). He shows that the presence of a strong alkali in Fehling's solution may, under certain circumstances, interfere with its power to demonstrate small quantities of sugar, and it contains compounds, chiefly creatinin, as pointed out by Maclean, which seriously interfere with the detection of glucose. While a solution containing copper sulphate, Rochelle salts and sodium carbonate is more than ten times as delicate a test as is Fehling's solution, and also more specific, not being reduced by the non-carbohydrate substances which readily

reduce copper in the presence of the stronger alkali, it rapidly deteriorates. He offers a formula of a solution which contains sodium or potassium citrate instead of Rochelle salts, which is free from this disadvantage and is not appreciably reduced by creatinin, uric acid, chloroform or the simple aldehyds. It can be kept indefinitely in uncolored glass or cork-stoppered bottles. The formula is as follows:

	gm. or c.c.
"Copper sulphate (pure crystallized).....	17.3
Sodium or potassium citrate.....	173.0
Sodium carbonate (crystallized).....	200.0

One-half the weight of the anhydrous salt may be used.

Distilled water to make.....1,000.0

"The citrate and carbonate are dissolved together (with the aid of heat) in about 700 c. c. of water. The mixture is then poured (through a filter if necessary) into a larger beaker or casserole. The copper sulphate (which should be dissolved separately in about 100 c.c. of water) is then poured slowly into the first solution, with constant stirring. The mixture is then cooled and diluted to 1 liter." By modifying the composition of the solution, it can be applied to an accurate and rapid quantitative estimation of sugar in urine. In this method, instead of the reduced copper being precipitated as the red suboxid which obscures the end-point of the reaction, it is precipitated as cuprous sulphocyanate, a snow-white compound which rather aids the accurate observation of the disappearance of the last trace of blue color. In addition to the substances contained in the above-given solution, the solution for quantitative determination contains potassium sulphocyanate and a small amount of 5 per cent. potassium sulphocyanate and a small amount of 5 per cent potassium ferrocyanate solution. The amounts of the ingredients in the former solution are also slightly raised. The full description of the use of this method for quantitative employment is given by the author.

TREATMENT OF POST PARTUM HEMORRHAGE.

Summarized, my treatment of post-partum hemorrhage is as follows: 1. Always exercise manual compression of the uterus until the hemorrhage ceases and until continued uterine contraction ensues; 2. Employ the hot vaginal and, if necessary, the intra-uterine douche; 3. The intra-uterine gauze tampon, with supplementary vaginal packing; 4. In suitable cases, forcible ante-flexion and compression of the uterus; 5. In patients in which the abdominal aorta can be readily felt, compression of that vessel; 6. Give hypodermically a full dose of ergot at the onset of every case of post-partum hemorrhage.

The after-treatment is plain. Keep the head low and the pelvis elevated. Apply heat to the feet and limbs. Employ hypodermic injections of strychnine and adrenalin as a cardiac stimulant, and saline injections to counteract collapse from anemia.—Dr. R. Ferguson in *Canada Jour. of Med. and Surgery*.

Miscellany

THE SURGEON.

By ANNE McQUEEN.

As high priest, teaching an acolyte,
He watches over each holy rite,
The flame and water to make them clean—
Body, and garment, and weapons keen—
With sacred care for a sacred strife;
To rout a foe in the House of Life!
For blade and body must both be pure,
And hand be steady, and eye be sure,
And weapons purged in the fiery glow,
Whenever he wars against a foe.

With joy of battle his soul is rife.
Behold! He enters the House of Life!
His flashing blade, it is dripping red—
He follows fast where the trail has led,
To the sacred shrine with ruby throne
Where Life has fought with the foe alone.
As the high priest's hand may lift the Veil,
He boldly enters the holy pale;
His hand is steady, his weapon bright—
The foe is vanquished and put to flight!
And Life Awakens, with anguished breath;
For Man has grappled and beaten—Death!
—*Current Literature*, Jan., 1912.

A SUGGESTION FOR MEDICAL SOCIETIES.—W. F. Howatt, M.D., Pres. Indiana State Med. Assoc., in a recent address makes the following valuable suggestions: "By a division of work—each taking on himself the special line most to his taste; by extensive reading and study as time and opportunity permit; by as wide a collection of facts in different spheres as possible, and by presenting from time to time a resume of their findings, the special knowledge of each may become available, in a measure, to all. This week one member gives the report on the advance in knowledge, and the latest findings in neurology, another (it may be at another time) in pediatrics, another in pathology, and so on along the list of special studies." G. D. L.

THE PHYSICIAN HIMSELF.

Physicians of this day may take a hint from the following, written a century and a half ago: "Smollett was now settled in London and commenced his career as a professional man. He was not successful as a physician, probably because his independent and haughty spirit neglected the by-paths which lead to fame in that profession. One account says that he failed to render himself agreeable to his female patients, certainly not for want of address or figure, for both were remarkably pleasing, but more probably by a hasty impatience of listening to petty complaints and a want of sympathy with those who labored under no real indisposition. It is remarkable that, although very many, perhaps the greatest number of successful medical men, have assumed a despotic authority over their patients after their character was established, few or none have risen

to pre-eminence in practice who used the same want of ceremony in the commencement of their career. Perhaps, however, Dr. Smollett was too soon discouraged and abandoned prematurely a profession in which success is proverbially slow."—*Sir Walter Scott, in A Memoir of the Life and Writings of Smollett.*

"I'll tell you what," the master said; "I know something about these young fellows that come home with their heads full of 'science,' as they call it, and stick up their signs to tell people they know how to cure their headaches and stomach-aches. Science is a first-rate piece of furniture for a man's upper chamber if he has common sense on the ground floor. But if a man hasn't got plenty of good common sense the more 'science' he has the worse for his patient.

"I don't know that I see exactly how it is worse for the patient," I said.

"Well, I'll tell you, and you'll find it's a mighty simple matter. When a person is sick there is always something to be done for him, and done at once. If it's only open or shut a window, if it is only to tell him to keep on doing just what he is doing already, it wants a man to bring his mind right down to the fact of the present case and its immediate needs. Now, the present case. As the doctor sees it, it is just exactly such a collection of paltry individual facts as never was before—a snarl and tangle of special conditions which it is his business to wind as much thread out of as he can. * * * If a doctor has science without common sense he treats a fever, but not this man's fever. If he has common sense without science he treats this man's fever without knowing the general laws that govern all fevers and all vital movements. I'll tell you what saves these last fellows. They go for weakness whenever they see it, with stimulants and strengtheners, and they go for over-action, heat and high pulse and the rest with cooling and reducing remedies. That is three-quarters of medical practice. The other quarter wants science and common sense, too. But the men that have science only begin too far back, and before they get as far as the case in hand the patient has very likely gone to visit his deceased relatives."—*Dr. Oliver Wendell Holmes, in The Poet at the Breakfast Table.*

"'Knowledge comes, but wisdom lingers,' and in matters medical the ordinary citizen of today has not one whit more sense than the old Romans, whom Lucian scourged for a credulity which made them fall easy victims to the quacks of the time, such as the notorious Alexander, whose exploits make one wish that his advent had been delayed some eighteen centuries. Deal gently then with this deliciously credulous old human nature in which we work, and restrain your indignation when you find your pet parson has triticates of the 1000th potentiality in his waistcoat pocket, or you discover accidentally a case of Warner's Safe Cure in the bedroom of your best patient. It must needs be that offenses of this kind come; expect them and do not be vexed."—*Dr. William Osler.*

The above quotations, copied in a leisure hour, some physician "seeing, may take heart again."

G. D. L.

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Original Articles

THE MEANING OF CONSERVATISM IN MEDICINE AND SURGERY.

Chester R. Ogden, B.Sc., M.D.
Clarksburg, W. Va.

(Read at Annual Meeting State Medical Association, Sept., 1911.)

The present day slogan in medicine and surgery is conservatism. The unanimity of opinion among the leaders of the profession points to this beacon light as our guiding star in the treatment of disease.

In the ascent of the Mountain of Purgatory, Dante, after a long and difficult climb, reached a high terrace encircling a hill; weary, he sat down facing the East, and, calling to his conductor, said: "All men are delighted to look back." Looking back from our high terrace of achievements upon the history of our art, so full of vicissitudes and struggles, so rich in lessons of self denial and sacrifice, and so signal of triumphs in the end, we find it but a history of conservatism wrought step by step through centuries of toil. But we are too prone to review past achievements in medicine and surgery with a feeling of satisfaction and contentment, rather than to face about and anticipate the prospects in the future. While there is little doubt in the minds of the profession as to the value of this ideal, there is still much difference as to the interpretation of conservatism as applied to medicine and surgery. Quoting exactly from the leading authority on the language,

"conservatism is the preserving or the saving of existing things; or, if any of them needs be changed, then keeping the changes within the narrowest possible limits." Conservatism is not opposition to progress, for to progress is to conserve, but, rather opposition to radicalism and destruction. It is to be admitted that the interpretation of conservatism is governed largely by the personal equation and from the individual standpoint; for, what might seem to one conservatism, to another would be radicalism. The conservatism that conserves is not necessarily conservative medicine or surgery, but that form of treatment or procedure which most nearly approaches the interpretation of the word as given—that which offers to the sick and the afflicted the greatest promise of life, health and happiness in the world. By what means, then, are we to decide what is conservatism and what is radicalism in our treatment of disease? How are we to justify our acts toward afflicted humanity? What force or power is it that will help us to determine what our attitude should be when called to the relief of the man in physical distress—There is no one who has gone far enough in the practice of his profession to realize the burdens of human life, or has stood at the altar of his marriage, or looked into the cradle of his children, or has laid away his dead in precious and hallowed graves, but is brought to a halt in the midst of his busy, active life, to ask himself the question, "am I my brother's keeper?" Conservatism calls for the application of the golden rule, do unto others as you would have them do

unto you. Conservatism asks if in our breasts there dwells a lion's heart. It entreats us to forget self and think only of the object of our professional care. It asks if we can honestly reconcile ourselves to the belief that we are by temperament, training and experience able to give to our afflicted brother the benefit of the golden rule. Conservatism calls for a profession with clean hands and clean hearts.

Standing in the dawn of this great day for medicine and surgery, we must surely recognize that the pure heart has been the great factor in the successful treatment of afflicted humanity, that nearly all hospitals and charitable institutions of every kind are but the results of christian influence, and that every really great advance in medicine and in surgery is but the outward expression of the clean heart within—of man's humanity to man. Conservatism offers to the object of our attention the fullest protection to life, the greatest conservation of parts, and ultimately the promise of the most happiness and usefulness in the world.

If we can save life though the afflicted one be a confirmed invalid, we should save the life; if we can save life, prevent chronic invalidism and restore and conserve functional organs and parts, we will then have done the most and the best our art can afford. The first fundamental is that silent, moral force, which, above all others, is the saving grace of the profession today, and the one thing that will lead us into higher paths of usefulness, for, without this, we would be satisfied with our present acquirements, we would not progress, and, not respecting the charge of our being our brother's keeper, would fall into a state of lethargy, become lax in our methods of treatment, and cease to advance in the profession whose clarion call is onward and upward.

The second fundamental, clean hands, carries with it all the name implies. The history of medicine and surgery though traced down through the centuries all the way from Hippocrates and Galen to the present, is really but the history of a few years. Surgery, as we understand it, dates its real beginning from the advent as asepsis and antisepsis, from the discovery of germ life and its relation to disease.

The history of ancient surgery is indeed beautiful as is the history of the old Bible days, but, as that Rich Discovery made by those shepherds watching their flocks in old Judea made old thing new and wiped out, so far as the salvation of the race is concerned, the teachings of that ancient book, so Pasteur, Lister, Koch and others of like fame, by their discoveries wiped out ancient surgery and rendered all those beautiful teachings and experiences of the past, of no practical value in the present day treatment of disease. The history of true surgery is the history of clean surgery. The same is true of medicine. When the medical profession began to apply the same methods in investigating problems as were used in the exact sciences, many rich discoveries were made which rendered past teachings obsolete. But a few years have passed since the true cause of many diseases—and their corresponding treatment—was reduced to an exact science, viz: diphtheria, tuberculosis, yellow fever, cerebro-spinal meningitis, syphilis, pellagra, infantile cerebral disease, and numerous others. Up to and within the memory of each one present the history of these diseases was a history of failure.

To these important discoveries may be added numerous other findings in this scientific research, all of which are to become the rich inheritance of future years. I have no desire, and indeed be it far from me, to fail in my appreciation of those of our profession who led lives of usefulness and blazed the way for our coming. They are among the honored dead and the records of their lives remain as an inspiration to us today. I mean no reflection on such men of by-gone days when I say that their teachings and experiences are, aside from a few exceptions, of little practical value today, and to quote a recent writer on the subject, that, "scientific medicine is less than a half century old."

There is a difference between not knowing anything and knowing something. We do know today that clean heart, clean hands, clean everything is the true basis of modern surgery. The evolution of medical science is to be noted always with interest and certain facts finally gain a residence, or, the position of so-called principles. All of such facts are based on incontestable evi-

dence confirmed from time to time in clinical experience. It is natural for honest skepticism to arise in the adoption of any new induction which sometimes delays the adoption of a principle, till overwhelming argument and confirmed proofs accumulate in such abundance as to dispel the doubts. This seems to be apparent as regards the use of the so-called antiseptics in surgery. Notwithstanding the numerous contributions to science concerning the inefficiency of certain commonly used germicides, as for example, bichloride of mercury, it still holds an important place among the adjuncts to most operating rooms. One of the most valuable contributions to the literature of this subject appeared in the March issue of *Surgery, Gynecology and Obstetrics*, in a report on the action of antiseptics with special reference to osmosis, by Drs. Seelig and Gould of St. Louis. A point of value in the consideration of artificial destruction of bacteria, is the fact that these organisms are not always found free on the body or on wound surfaces, but occur deep in the skin or tissues or even in blood and exudate. Furthermore, the bacteria themselves, according to these authors, have a more or less resistant exterior that serves as a protective armor to their vital protoplasm.

It is evident, therefore, that a germicidal solution can not be thoroughly effectual in the surgical sense, unless it possesses the power of penetration. The germicidal power of antiseptics is likened to the projectiles and the armor plates of vessels. The efficiency of a projectile depends upon the power of the driving force behind it; and, so with a germicidal, it must possess, in addition to the power of killing, the property of penetrating the tissue in which the bacteria lie. This power is osmosis and the task set for the authors referred to, was to determine the relationship existing between osmotic power and germicidal efficiency.

Extensive experiments were made with various common wounds by the use of 95% alcohol. In nearly every case there was perfect antiseptis. The explanation is that the alcohol reached and destroyed the germs by penetrating into the deep layers of the skin.

In studying the comparative efficiency of

germicidal solutions from the view point of their osmotic power, experiments were made through animal and celloidin membranes. Capsules were filled with broth cultures of various bacteria and then immersed in various watery solutions of the commonly used antiseptics. In intervals of ten minutes to twenty-four hours a loopful of the various cultures was removed from the capsules and plated. The germs were unaffected from every watery solution with one exception, and that exception was iodine.

When iodine was dissolved to a strength of twelve and one-half per cent in water and potassium iodide, it sterilized the contents of the capsule in twenty-five minutes. The next experiments were with alcohol. Grain alcohol was used of varying strengths from 99 to 50 per cent. The results were astonishing. Above 94 per cent the contents of the capsules were sterilized in from three to ten minutes. Eighty per cent alcohol acted more slowly and so on through the weaker solutions with fifty per cent having no apparent strength after twenty-four hours immersion.

The next series of experiments was directed toward ascertaining whether the action of alcohol was intensified by dissolving germicidal drugs in it, such drugs, for example, as bichloride, carbolic acid, Harrington's solution and iodine. Here again unexpected results were encountered. With one exception, namely, iodine, the unadulterated alcoholic solution acted as rapidly and as efficiently as did the alcoholic solutions of the germicides. The next line of procedure was on animal membrane, live skin, live mesentery and live omentum. The animal experiments tallied with the celloidin. Alcohol was effectual as a germicide in direct proportion to its strength. Tincture of iodine penetrated and killed more rapidly than strong alcohol. Authorities are gradually veering to the point of view that the field of operation is best prepared by the simple application of the tincture of iodine without preliminary washing with soap and water. The observation that water used immediately before operation is against thorough sterilization was confirmed by the experiments mentioned. It was also proved that the reason usually assigned

was faulty. It is an established principle in osmosis that the process goes on best when the fluid on one side of the membrane is thoroughly soluble in the membrane. Alcohol is soluble in the fatty constituents of the cell, and the more of the fat there is present the more complete is the osmotic power. It was further found that by rubbing the skin with castor oil, vaseline or some other like oily substance, the passage of the alcohol through the membranes was markedly facilitated. Preliminary washing of the skin with soap and water is to be discredited, solely for the reason that it removes the fatty constituents of the skin, and not because it destroys the epithelium, as was formerly supposed. Murphy states that iodine in proper dilution to serve its purpose as an antiseptic, does not damage the tissues, but on the contrary it acts the part of a useful tissue stimulant, producing a healthy phagocytosis. Beginning about one year ago the surgical staff of St. Mary's Hospital, Clarksburg, has used the tincture of iodine almost entirely in the surgical work. I have observed its effect in a large number of abdominal and other important operations done by my associates and myself with uniformly better results, fewer stitch abscesses, and with more ease and comfort to all concerned than when former methods of preparation were observed.

One of the great aims of the profession of late is to conserve every injured organ or part possible to be saved. We have been able to obtain some splendid results in our service at St. Mary's hospital, results that seemed almost unreasonable to expect in the way of conserving fingers, hands, toes, feet, arms and legs. Space and time will not permit the report of individual cases, some of which could be mentioned as exceptional examples of what conservatism may accomplish toward the repair of injured parts. The question may be asked, how are we to know just how far we may go and how far we can take risk in our attempts at conservation of injured organs and parts. This comes largely from experience, a knowledge of the regional anatomy and the possibility of blood supply. Experience has much to do with the problem of conservation, for a few successful attempts in saving legs, hands, feet, fingers,

toes, etc., will give encouragement to further attempts. In injured cases it is important that the bandage or the tourniquet so usually applied to control bleeding is not too tight or remains not too long in position, before proper attention is given. I have seen the parts sacrificed because of this reason. It is much better, if severe bleeding is actually present, to slip on a few hemostatic forceps to the free ends of the bleeding vessels rather than apply the tourniquet, for, above or quite near the wound the bleeding vessel may have a branch, which if not injured by the bandage may be sufficient to keep circulation to the extremity.

Bone surgery, as has been told us in a former paper, is being hastened to an exact science. With a better understanding of nature's repair of bones, with our improved methods of diagnosis and surgical interference we are now able to conserve many injured parts to be useful and functional, which in days gone by were sacrificed.

The invention of Mr. Lane, of London, of the bone plates has added much to the successful treatment of these conditions. With a healthy circulation to the distal extremity and proper attention to cleanliness, it is but true conservatism to make honest attempts to save many injured parts. Were all the fractures reduced by the older methods in closed wounds put under the X-Ray, many startling revelations would be made, for, well reduced as they might seem, the injured bones in many cases are not properly coapted and deformity is present. There is no denying that really good bone setting is difficult if not impossible to perform in a great many cases without the X-Ray, and, in cases of multiple, compound and comminuted fractures without some other assistance, most preferably the open method and Lane's splints, we will fail in conserving the parts.

Lane operates on nearly all fractures as soon as they come under his observation, and Cotton, in his excellent work of recent publication, states that accurate reposition is almost never obtained except in open operation, and more important, good functional results. While his results are in a manner convincing, I am not yet ready to subscribe to this statement, and am rea-

sonably sure that many, very many, good, practical results in bone setting are obtained in caring for fractures by the usual methods. It should be emphasized and remembered in this connection, that, given a patient that is being cared for by the general practitioner without special surgical training and equipment, and, negligent of surgical cleanliness, the treatment must be conceded without discussion; and, further, that while the qualified surgeon with good service, good technique and good equipment may get, in most cases, brilliant results by operation, with ease and comfort to his peace of mind that will not be experienced by the former, the Lane operation should be encouraged only in suitable cases, under the most favorable surroundings, and in the hands of the experienced surgeon. I believe in the value of the open operation, and in selected cases in the use of the Lane splints, but as a profession, or at least until proofs are more convincing and experience more assuring, we should discourage the use of all unnecessary hardware within the tissues of the body. For the experienced surgeon to do the open operation and use the Lane splints would no doubt be conservatism, while for the untrained surgeon to do it would be radicalism.

Late advances in the surgery of the respiratory tract led by Meyer of New York, surgery of the vascular system and the wonders of transfusion by Crile, Bloodgood, and more recently by the French surgeon Carrell, are to be mentioned as among the triumphs of modern surgery, which offers to the profession powerful aid in the conservation of human life. The greatest struggle in the present day surgery is to prevent and relieve infection.

Since the adoption of rational methods of meeting this deadly foe, surgical operations have obtained signal success in almost every department of activity, and the best efforts of this scientific world are turned toward the accomplishment of conservatism when working in surgical fields.

To conserve is to do good surgery whether the methods be radical or conservative, for good surgery is conservatism. If a child were standing on the brink of an awful precipice with a storm approaching

in that direction, would it be conservatism to trust to the winds of heaven to change and blow the child back from danger, or would it be conservatism to reach out a strong arm and bring it back to safety? If our patient has a ruptured appendix, would it be radicalism to open the abdomen and remove the source of infection, or would it be radicalism to trust to the powers of nature to throw out a bulwark of protection about it with the hopes of saving the patient? Would it be conservatism to permit a patient to go with obstructive jaundice till a stage of profound toxemia be reached, hoping nature might do something, and would it be radicalism to remove the obstruction, stop the poison, and permit the patient to get well? I take my stand from the view point of the surgeon, but, looking to the future rather than upon the achievements of the past, I can see that little we are coming to have a new view of the doctor's duty to his patients, and that it is no stretch of the mind to discern, or even a far cry from the present to the day when it will not be our great pride to contemplate how well and how quickly we may unsex the infected female, remove an injured arm or leg and repair degenerate organs of the body, but rather, how well and how completely we can conserve such injured parts, and how well and how completely we can prevent all those infectious and degenerative troubles which today are rendering so many lives unhappy and sending so many precious souls to premature graves. The leaders of the profession in the laboratory and at the bedside, in the fields of hygiene and sanitation, are pointing us to the breaking of the light ahead—the dawning of a new day when sickness and disease shall be conquered by prevention. I can do no better than refer you to the very timely editorial in the August number of the *West Virginia Medical Journal* to illustrate the point I desire to present. In this excellent article on the progress of preventive medicine, valuable statistics are given in which it is convincingly apparent that the medicine of the future is to be preventive medicine.

The pendulum, in the recent past, has been swinging far to the side of the sur-

geon, so far that at times the other side of the profession has been prone to think that theirs is to be the neglected and the forgotten art: but, loath as I am to yield and to concede the change, the signs of the times mark the swinging back of the pendulum to the median line where it rightfully belongs, and by the coming of preventive medicine and preventive surgery, these contending forces will meet upon a line of equality, and, marching side by side, each recognizing the other's importance, will forever vie in rescuing stricken humanity from the terrors of disease.

To prevent destruction and change is to conserve. In this hour of advanced thought and practical application, what are we doing to hasten this glad day, and wherein are we applying this present knowledge to our respective fields? The call is for workers—those who will do and dare.

PROTECTION OF THE PUBLIC BY STATE AUTHORITY.

Eugene Davis, M.D., Charleston, W. Va

(Read by title at Annual Meeting of State Medical Assn., Sept. 1911.)

There are four functions of the medical profession: The recognition of disease, the cure of disease, the prevention of disease and the advancement of knowledge pertaining to the prevention of disease. The second of these functions is performed in West Virginia in a fairly satisfactory manner, although there are many instances to the contrary; yet, as a whole, the physicians of our State are fairly well trained, are conscientious and faithful in their attendance and treatment of individual cases of ill health.

It is indeed not wonderful that this is true, for it is in the performance of this function, peculiarly, that the physician reaps his reward in obtaining the means of livelihood. Therefore this duty is not neglected, for truly "the ox knoweth his master's crib." But the treatment of individual outbreaks is not the highest function of the physician. As a church or a school is a more effective moral agent than a penitentiary or jail, because it prevents the occurrence of crime instead of punishing it, so is he the greater physician who prevents

diseases rather than he who cures. Likewise he who discovers and promulgates method of cure to be put in operation for benefit of all succeeding generations, greater than he who merely applies to particular case principles already discovered and methods already advised. And the practice of medicine is a profession and not a trade, its members should never lose sight of these higher and more ennobling functions. For it is the performance of these upon which the world with a correct understanding sets the highest value.

The student who disregarding the pecuniary emoluments of the moment, sets himself to work for the benefit not only present but of future generations, has always obtained a more abiding fame than who, however skillful, has merely set himself to the treatment of isolated and individual cases for which he was to be paid a reward.

The prevention of disease can be accomplished in two ways: First, the actual removal of the causes of disease, and second, the education and encouragement of the public to remove such causes for themselves. The causes of diseases susceptible of removal in this State are numerous throughout the State; and particularly in our mining towns and camps unsanitary and unwholesome conditions exist to a remarkable degree. Few of them have any system of sewerage whatever; the most crude and primitive form of privies are found everywhere, tainting and poisoning the atmosphere with nauseating gases. They remain unclean for long periods of time. And finally, when they are cleaned, their contents are thrown into small streams whose flow is not only obstructed by the excrement, but by the materials from the mines and decaying vegetation along the banks, so that what were once limpid and sparkling streams have become black and stagnant pools, scattering disease upon every hand. The natural agencies of health are thus themselves converted into a means of disease. The homes of the people are often dirty, dark and ill-ventilated. Light air and cleanliness are gifts within the reach of everyone. They are not the boon only to the wealthy, but are the gift of nature to all. The only price required is

derate industry and the exercise of small knowledge. But when we see how few of the people of our State, particularly in the rural districts and small towns, possess these valuable gifts of nature, we cannot explain such dereliction upon the ground of pravity or willful neglect. It can be nothing but ignorance. The removal of these unsanitary conditions and the education of the people to remove them for themselves, are duties belonging peculiarly to our profession. As every physician and the more intelligent laymen know, such conditions as these are breeders of typhoid, tuberculosis and many other diseases. In fact almost every pathological condition can be traced to the existence of conditions which were at one time within the control of the victim. Disease is not a visitation of Providence or an accident, but is merely the natural consequence of a violation of natural laws. No thing exists without its cause, and, fortunately for the human race, the causes of disease are generally within its control. To exercise as much control of these conditions as we ourselves can, and to train and encourage the laymen also to exercise such control, is a duty that no high minded, conscientious physician can carelessly pass by.

The duty to advance a knowledge of the methods of cure and prevention of disease by making new discoveries of the causes of disease and devising new methods for its prevention and cure, is also ours. Every professional man owes it as a duty to the world, in return for that respect and consideration with which his fellows treat him and the faith they repose in his knowledge and skill, to do something to advance the cause of medical science. This science is inductive. Before we can either cure or prevent any distemper, we must know the causes which produce it, its nature and the manner in which it operates. This knowledge is obtained by a vast number of observations. The physician sees where other disease exists. He notes the conditions under which he finds it. Another does likewise, and finally from a great number of these observations, we find the conditions which are common to all. And, as we find always in a particular disease that it is accompanied by certain conditions, we

at last come to the conclusion that those conditions must be its cause. Then, having this knowledge, we devise the easiest and most practicable method for their removal. Thus, having the knowledge of the cause, and upon this foundation having worked out a method for the prevention, our labors become the possession of all posterity and we are entitled to the gratitude of countless generations yet unborn. Likewise by a great number of observations we find out the manner in which disease works, the part of the body which it affects, the manner of its operation, and thereby the means of concentrating it. Here then we have discovered a method of cure, and the cause of science becomes advanced by this item which we have had the honor to add.

But these things cannot be done by the physicians alone. They must have at their command the authority of the commonwealth, the sovereign power of the State, by which the selfish, the unscrupulous and the ignorant may be coerced and prevented from endangering the lives and the health of their fellow beings.

The average physician thinks that when he has treated a case or brought a new life into the world, he has done his duty. There is not a physician here, of any practice at all, who does not violate a moral and conventional duty almost every day. If one of us has a genuine case of typhoid does he, aside from treating the case, investigate to find how the disease was contracted? Does he go from house to house preaching the laws of sanitation? Does he try to instill into the minds of the ignorant what ventilation and sanitation mean? Do we always report births, deaths and diseases to the proper authorities. No, we fail in all things. We may do some or all these things sporadically, but never regularly or systematically. Indeed, we may go further. In every city and town in our State there are some of our profession who will for a small fee write a prescription for opium, cocaine, whiskey, or whatever else the self-styled patient may desire—thus increasing instead of diminishing diseases and making worse conditions which it is their highest duty to better. Meanwhile reputable physicians look on, afraid to make a move against such

a creature, for fear that they may be accused of jealousy.

We cannot go upon a man's promises and compel him to remove or clean his privies. We cannot require careless and indifferent persons to give us their observations. We have not the means to clear the stagnant streams or to diffuse knowledge among the masses. To do these things requires the power and the money of the State. And, as we need the power and the means of the State to effect these things, so is it the duty of the State to furnish them. To protect the living and to better conditions for coming generations, is the natural function of the commonwealth.

In the bulletin of the State Board of Health of Kentucky of March, 1911, it is said: "Prof. Fisher of Yale, the world's greatest authority upon the subject, tells us that the value of a human life gradually rises from \$90 in the first year, to \$4,200 when in full vigor, remains nearly stationary for a long time and then gradually declines until it becomes negative. He places the average value of lives sacrificed by preventable diseases in this country at \$1,700. Making this the basis of the calculation and applying it to the 13,337 deaths from eight of these diseases last year, gives the sum of \$22,672,900. Adding this to the \$12,191,398 which it costs in various ways to care for those sick of them gives a total loss for the year of \$34,854,298. Enormous as these figures may seem at first sight it is believed that they underestimate the money saving which is entirely possible every year, if all the people of Kentucky could and would observe the laws of health, as now known to the scientific world, in their daily lives. This cost of sickness is just as much a tax upon the people as if paid into the county, municipal and state treasuries, but no benefits are returned from it as is the case more or less with other taxes. It was this economic feature of sickness mainly, the useless and senseless drain upon the material resources and vitality of their respective nations, which induced Gladstone, Disraeli, Bismarck and others of like prominence in public affairs abroad, to recognize and crystalize into laws and governmental policies the truth that 'the care of the public health is the

first and highest duty of the statesman.' It will be noted that preventable sickness is discussed here purely as a business matter no consideration being given to the inconvenience, suffering and sorrow it brings into the homes of the people."

Indeed it is hardly necessary to argue this point, for our State has, through its Legislature, recognized these duties; recognized, I say, not performed. By section 1, chapter 150, Code of W. Va., 1906, it has provided for the appointment of a State Board of Health, and by section 6, the appointment of local Boards of Health. Section 5 sets forth a most comprehensive scheme for public sanitation and for the collection of medical knowledge. It provides:

"The Board of Health shall take cognizance of the interests of the life and health of the inhabitants of the State, and shall make and cause to be made sanitary investigations and inquiries respecting the causes of disease, especially of epidemics and the means of prevention, the sources of mortality and the effects of localities, employments, habits and circumstances of life on the public health. They shall also investigate the causes of diseases occurring among the stock or domestic animals in the State; the methods of remedying the same; and shall gather information in respect to these matters, and kindred subjects, for diffusion among the people. They shall also examine into and devise as to the water supply, drainage and sewerage of cities, town and villages; the ventilation and warming of public halls, churches, school houses, workshops and prisons; the ventilation of coal mines, and how to treat promptly, accidents resulting from poisonous gases."

But a subsequent section (Sec. 15, ch. 150) mocks at the whole grand scheme, for it provides:

"The secretary of the State Board of Health shall receive a salary to be fixed by the Board, but not to exceed the sum of five hundred dollars; he shall also receive his traveling and other necessary expenses incurred in the performance of his official duties within the limits of this State not to exceed, however, one hundred dollars. The other members of said Board shall each

receive four dollars per day for each day actually and necessarily employed by them in the discharge of the duties of their office. But the whole of the expenses so incurred, the salary of the secretary, and the per diem of the members of the Board, shall not exceed the sum of fifteen hundred dollars in any one year."

Here truly a most magnificent pyramid of bricks is designed, but how little straw is provided.

Sections 6 and 7, which provide for the payment of local Boards, impose on the County Court the duty of appointing a physician who, in connection with two laymen, the President of the County Court and the Prosecuting Attorney, shall constitute a local Board of Health. If our County Courts could arise to the opportunities which this act gives them, much could be done in the way of public sanitation; but we know that County Courts, like all other public offices, are but the creatures of the public, and while the people themselves are ignorant, careless and indifferent as to the public health, we cannot expect that the County Court, which is dependent upon them for power, would be willing to incur their displeasure by laying taxes for the carrying out of a scheme which only the intelligent can comprehend and appreciate. The great evil to be remedied is the ignorance of the people, and we cannot reasonably expect that this ignorance shall be removed through taxes laid by officers immediately dependent upon that same ignorance.

Furthermore, unsanitary conditions are often productive of pecuniary profit through some influential person in the community. The public health is sacrificed to the profit of some man or set of men who are influential politically. Local officers and Boards dare not incur their displeasure. A courageous man may do it, but the succeeding term of his office will be filled by another.

So the end of it all is that every physician here knows that as to matters of public health and sanitation, West Virginia is far in the rear of many States. So far is she from requiring private individuals to take proper precautions, that she herself in her own institutions is a most fertile procurant of diseases.

In the report of the State Board of Health to the Governor for the years 1907 and 1908, I find the following:

"The State by its institutions is one of the greatest offenders. One only of its institutions is equipped with a sewerage plant, and that far from being satisfactory; thousands and thousands of gallons of raw sewerage being dumped daily into the streams from these institutions, thus endangering the lives of the inhabitants who are compelled to use this water for domestic purposes."

Our State penitentiary is also a prolific breeder of tuberculosis. It has long been noted among the observant how strong, robust men, particularly the mountain moonshiners go into the penitentiary, and in a year or two come out pale, anaemic, and die in a few years, after having perhaps planted the germs of the disease in their own homes; the State thus promoting the spread of the disease instead of its prevention.

The State has failed to get its collection of information as to the cause, nature and treatment of diseases. It is indeed provided by statute (Sec. 6, ch. 150, Code 1906) that physicians shall report to the County Court as to births, deaths, and all infectious and contagious cases treated by them, and their failure to do so is made a misdemeanor punishable by fine of from twenty to a hundred dollars. But this, like all other health laws, has never been enforced, because the State has never provided the funds or the proper machinery.

In writing this paper I endeavored to obtain complete vital statistics of the State so as to have more intelligent basis for discussion, but such figures as I could obtain were manifestly incomplete and unsatisfactory, so that if I have not been able to obtain as complete data as I should wish, this should not militate against the suggestions I desire to make; for the very fact that I have been unable to obtain this information should argue more eloquently for the establishment of an adequate health bureau than any words of mine could do. Our State Board of Health is made up of competent and conscientious men, and they have done well considering the means placed at their disposal, and this failure is not

to be placed upon them, but upon the State, which has mapped out for them a comprehensive program, but withheld the means of carrying it out.

In order that the medical profession and the State may adequately perform the duties which I have attempted to set out, there should, in my opinion, be established a State Bureau composed of at least two competent physicians, a head physician and an assistant, together with such clerical help as may be necessary. These officers should not be permitted to engage in private practice, but be required to devote their whole time and attention to carrying out the provisions of adequate health laws, for which they should be paid a proper compensation; they should be invested with authority to require reports of all deaths, births and sicknesses upon which any physician may attend, and to institute prosecutions against such as may fail to comply with the requirements of the law. They should also be given funds and authority to disseminate information upon hygienic subjects among the people by means of circulars, lectures and such other means as they may find expedient. They should have the right to employ competent agents to assist them in this work, and in the local work of removing causes of diseases. A tax should be laid by the Legislature itself, so that these final matters may not be left to the carelessness or indifference of the local authorities which might be responsive to immediate popular opinion and therefore inefficient on account of the ignorance and short-sightedness of their constituents.

It is not my purpose here to endeavor to give a draft of a proper law for this purpose, but merely to emphasize the need of such laws. To block out in a large way some of the essential requirements to frame a proper law will indeed require the combined efforts and intelligence of many men who should examine into the laws of other States, consider our own conditions, and then endeavor to produce something adequate to the needs of our State.

As I have said, the essential would appear to me to be the following: First, a central bureau composed of a sufficient number of competent physicians, who should give their whole time to the work,

being paid an adequate salary and be given full authority for the obtaining of information under compulsion of law, to disseminate popular information upon hygiene and sanitation, oversee in a general way all local measures for the prevention of disease, and have at their disposal sufficient funds for these various purposes; second, local funds and officers provided for by the authority of the State through its Legislature, and not dependent upon the local government should such local government fail to enforce the laws; these local authorities having funds and power under State commissioner of health to take all needful measures for the prevention and protection of the health of the people. To my mind these are the essentials. There may be indeed differences of opinion as to how they may be worked out, and upon these details I do not care to enlarge, nor should intelligent men stand upon any such differences. The one point I wish to emphasize is, that the medical profession in this State may arise to the full height of its duties and insist through organized and individual effort that the State shall do these things. The State has indeed the authority, and it is its duty to do them, but, after all, the State is nothing more than the people in it, and we, as that portion of the people educated and skilled as to medical matters, should not forget that it is our peculiar duty to call attention to the needs of the State, and to insist that it shall not be recreant to its trust.

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BLEEDING FROM THE LUNGS IN TUBERCULOSIS.

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(Read before Ohio Co. Medical Society)

It is important that physicians should be prepared at all times to treat this condition. Their knowledge of it is generally needed in an emergency. The life of the patient may be at stake and the reputation of the physician is always in jeopardy. Every case of illness is going to demonstrate what the general healing power of nature can do, but in this emergency there is an undeniable call upon human skill to show what it can do. The physician is weighed

in the balance. If he delays and evades the conflict, merely fighting for time, and leaving the task to nature unaided, he will be judged a failure. Some positive, even dramatic results, are expected of him, therefore it is needful that he be prepared at all times to give the aid which human science can give to reinforce the natural power of recovery.

The first thing to be done without loss of time, and while preparations are making for more specific help, is by his manner, tone and words, to allay the excitement in the sick room. The sight of human blood coming suddenly from the human body is always accompanied by more or less psychic shock to the patient and to those about him. The fear of death looms large at once. The presence of the physician should bring with it reassurance. This of itself causes relaxation of the capillaries and lessens intra-pulmonary pressure.

Secondly, the comfort of the patient must be secured by loosening the clothing and placing him in a semi-recumbent position; this will facilitate the expectoration of blood and mucus; will help keep the blood from the other lung; and will prevent too strong a heart action. Comfort is further insured by insisting on the patient remaining absolutely quiet, on the back or on the affected side, thus leaving the healthy lung free to functionate and safeguarding it from regurgitation into it.

We must have clearly in mind pathological pictures, which means an understanding of the causative factor, if our treatment is to be rational. There are three types of pulmonary hemorrhage:

1. Capillary bleeding:—hyperaemia of bronchial membrane or lung tissue, relaxed or eroded membrane.
2. Arterial or venous bleeding:—destruction of lung tissue, eroded small or medium-sized vessel or vessels.
3. Severe bleeding, from rupture of large vessels.

Some exciting causes of type 1, to which by far the most cases belong, are:—sudden chilling of the body, pneumonia or pleurisy, over-exertion or excesses, exposure to wind, hill climbing, high altitude, cardiac disease, disturbances of portal circulation, overdistension of stomach, and vomiting, alcohol-

ism, vasomotor influence and menstrual disturbance.

These three types may, for purposes of diagnosis be further reduced to two categories:—cases of rupture, where a large vessel is opened, and cases of erosion, where capillary or small vessels supply the blood which is brought up. The following points will help us to distinguish between rupture and mere erosion. In rupture the bleeding is sudden and copious; the blood is of dark color and contains air bubbles, and is mixed with purulent sputum; the blood is consistent; the blood spurts or gushes; the case is an advanced one.

In instances of erosion the bleeding is intermittent and moderate; the blood is red, containing few or no air bubbles, little or no sputum; the blood is thin; the blood is always coughed up; the case is an early one.

When, as may sometimes happen, a physician is called into an emergency case of bleeding from the lungs, under conditions that leave him absolutely deprived of the desirable medical agencies, he may even then be of much service by using tactfully the following means:—he can procure for the patient *rest* in a semi-recumbent posture; by *kind and encouraging words* he can allay the mental anxiety of the victim; he can place an *ice-bag* (covered with a cloth) over the heart or the affected lung; he can administer *common salt* in teaspoonful doses, given dry on the tongue. The action of the ice-bag and of the common salt is hard to explain on physiological grounds; their use is empirical but seemingly helpful at the bedside, effectual in actual practice, and the explanation of the benefit from them will doubtless come to us as our knowledge increases. Finally, he can *bind the extremities*, binding close to the trunk tightly enough to prevent the return of the venous blood, as in Bier's passive hyperaemia. The good results of this latter procedure, sometimes very striking, are explained easily by the consequent loss of the *vis a tergo* and the comparative stasis in the pulmonary system.

Medical Treatment.—If the physician has at his command a choice of drugs he will find the most useful in case of bleeding lung are morphine, atropine and the nit-

rites. These three should be associated intimately in our minds with the trouble, so that they will unconsciously come to mind at the mere thought of pulmonary hemorrhage. We are not to use them empirically nor blindly. Always must we have before us the pathological picture; the action of the drug we are using must be clear to us, so that in imagination we can follow it into the body, foresee its action, foretell its effects, and gauge our remedies by results.

There is no direct hemostatic for blood coming from the lungs, because of the inaccessibility of the bleeding-point. The formation of a blood-clot must be brought about in a more or less indirect manner through the medium of the *heart*, by reducing its force (aconite); or of the *arteries*, by diminishing their pressure (nitrite); or of the *lungs* by limiting their activity (opium); or of the *blood* itself, by increasing its coagulability (calcium salts); or by reducing its bulk (saline cathartics).

Of these four methods of treatment at our command, two only are of use to us in emergency where prompt action is needed to be of value to the patient. To reduce the force of the heart is not advisable in a disease where the vitality is already low. This method is useful in early cases of congestion only. To reduce the bulk of the blood is likewise not to be thought of; the hemorrhage itself will do that—the very thing we are called upon to treat. To increase the coagulability of the blood takes time, and we cannot command time in a moment of emergency, for time is one of the enemies we are fighting. In early cases only, with time at our disposal calcium lactate may be used.

Thus there are left to us in severe cases two methods only, namely, to limit the activity of the lungs; and to diminish the pressure of the blood in the arteries.

When we ask ourselves what drug in our armamentarium is theoretically best adapted to lessen the activity of the lungs, the answer is—opium, or morphine. On using it, we find that not only does our bedside experience bear out our theoretical decision, but that, moreover, the drug reveals itself as even more potent than we had at first

thought, from a study of its physiological properties. Not only does it lessen the respiratory movements of the lung, but it also quiets the turbulent heart and circulation, diminishes cerebral activity, and lessens the mental anxiety of the patient.

Its effect on the circulation is important: it reduces the mean caliber of the arterioles, and thus the average volume of blood thrust into the capillaries is diminished.

If to the morphine we have added a moderate amount of atropine, by means of which the blood-propelling power of the arterioles is enhanced, we have further helped the patient, by diminishing the amount of blood in the lungs. In using it we must bear in mind, however, that atropine is a stimulant to the respiratory center, and therefore we should use just enough to control the depressing effect of the opiates upon the lung's activity.

At every stage it is needful to keep well in mind the picture of what our remedies are doing.

The testimony of two clinicians will be given to confirm these statements, which can be further confirmed by all here present.

In *Therapeutic Medicine*, Sept. 1907, Dr. Robinson writes:

"For pulmonary hemorrhage there is no drug in the entire materia medica equal or even comparable to morphine. And a hypodermic injection of morphine should be administered immediately, as soon as the patient has been put in the proper position. We usually administer $\frac{1}{4}$ gr. of morphine sulphate combined with 1-120 gr. of atropine sulphate. Some physicians give the atropine as high as 1-40 or even 1-30 of a gr., but we have never employed such high doses and do not consider them necessary. The effect of the morphine in this condition is wonderful; it exceeds by far anything one would expect from a knowledge of the drug's physiological effects only."

In the *Jour. A. M. A.* of Sept. 28, 1907, Dr. J. M. Anders writes:

"Unless there be obvious danger of inundation of the uninvolved lung tissue, as in cases of profuse hemorrhage, the cough should be arrested by the use of codeine, or, if troublesome, by morphine adminis-

tered hypodermatically. It is necessary to stop disturbance of the bleeding point by coughing, in order to give opportunity for the formation of a clot—Nature's own way of arresting hemorrhage. Hot drinks and alcoholic stimulants, if previously taken, must be intermitted.

"The single contraindication to the use of opium has been pointed out, and if we except the small class of cases in which it obtains, morphine or opium in some form, rightly administered, is the most serviceable single remedy at our command; its single virtue, I repeat, being ascribable to the remarkable enhancement of a coagulum at the seat of bleeding. I feel confident that the perils, near and remote, incident to copious or otherwise protracted bleedings, can be most successfully obviated by its judicious employment. My earnest plea is for a wider use and closer attention to the practical application of this sovereign agent.

"The importance of controlling the cough receives striking confirmation from the investigation of Dobell. J. B. Walker also emphasized the value of opium in the treatment of hemoptysis in a paper read in 1889."

There is another group of drugs of positive value in this condition of bleeding from the lung, the nitrites. We may study amyl nitrite as most useful in this trouble. In the *Lyon Medical*, Feb. 12, 1906, and the *British Medical Journal*, June 2, 1906, Pic and Petijean detail their laboratory experiments with nitrite of amyl, characterizing it as the most useful pulmonary hemostatic, always rapid and certain, and with little toxicity. Their laboratory findings were borne out at the bedside.

Their researches showed that the useful dose varies from 3 to 9 drops by inhalation; that the latent period is short—from half a minute to three minutes; that no pulmonary vasodilation succeeds the vasoconstriction; that no case of fatal poisoning occurred, and that the hemostatic action resulted either in the early congestive stage, or at the period of cavitation.

In the laboratory a curarized dog was kept alive by artificial respiration. The fall of artificial pressure in larger circulation was first noted. The color of the lungs

was observed before and after an injection of nitrite of amyl. After the injection the normal rose color gave way to a white anaemic tint, beginning in patches, which extended and coalesced so as to involve the whole parenchyma of the lung. This lasted for about eight minutes, and was so marked that if a deep section of the lung were made at the time of the injection, at the end of the latent period the bleeding ceased almost as if a ligature had been applied. A trochar, placed on the pulmonary artery so as to give a pressure-tracing, showed a marked rise of the blood-pressure after the injection, a rise which was maintained for ten minutes. It is not pretended that amyl nitrite is a certain specific for hemoptysis. It is admitted, for instance, that in cases where the hemorrhage is due to pulmonary congestion due to enlargement of the right side of the heart, digitalis is likely to give a better and more permanent result; but the authors believe that their experiments have shown enough to give amyl nitrite the first place among the vasomotor drugs in hemoptysis.

For clinical experience bearing out the laboratory experiments of Pic and Petijean, I shall bring forward two or three only of the clinicians available.

F. Hare (*Lancet*, Nov. 24, 1906) says that his experiment has convinced him of the value of the drug. The author now has records of 34 cases of hemoptysis, and in all but one the bleeding ceased immediately upon nitrite of amyl inhalations. The quantity used has been from 3 to 34 minims. It would seem that the vasomotor influence of the drug, at any rate upon the pulmonary circulation, is more enduring than has been suspected.

A. Braga (*Gazetta degli Ospedali*, Dec. 22, 1907; *Jour. A. M. A.*, Feb. 15, 1908), reports that he has used amyl nitrite fifteen times in seven cases of hemorrhage from tuberculous lungs, and each time he has been impressed with the prompt action of the drug and its efficiency in these conditions. The hemorrhage was arrested as if by magic; blood ceased to accumulate in the bronchial passages, and thus the evil effects of the decomposition were avoided. Five or six drops of amyl nitrite on a wad of cotton were inhaled, and the

hemorrhage ceased at once and did not recur in the majority. The inhalations were repeated several times afterwards during the day. It proved effectual, even in those cases in which no other measures had been given for relief. The writer supplemented the nitrite by the slower acting action of an enema of gelatine to which calcium chloride had been added, with fluid extract of hydrastis internally. Since this technic has been adopted no patient has succumbed to hemoptysis, and whenever it appears it is speedily controlled.

George A. Crace-Calvert (*British Journal of Tuberculosis*, July, 1908) in summing up the point in favor of the treatment of hemoptysis by amyl nitrite, says that it acts instantly, producing an immediate fall in blood pressure at the bleeding point, thus giving time for clotting to take place, while the bleeding usually ceases at once. It apparently produces an instant anemia of the lung parenchyma, without any reactionary hyperemia, such as follows the use of adrenalin. It does not interfere with coughing, and so enables the patient to get rid of the effused blood as soon as possible, which might otherwise diminish the already impaired respiratory capacity, or lead to septic pneumonia or a rapid extension of the tuberculous mischief. Capsules can easily be carried by the patient, who can then inhale the contents of one as soon as ever the hemoptysis begins, thus treating the case at once, and so preventing a worse attack. The writer usually gives patients who have had one attack a capsule or two to carry about with him, as he considers it the most efficient drug in the treatment of such cases, and by far the best one to administer first.

Any discussion of treatment is inadequate without at least a reference to the ideal treatment by prophylaxis. Preventive measures are unduly neglected. The importance of rest and avoidance of stimulants can not be too highly appreciated. A residence away from the sea-coast, and a cold, dry, aseptic air are beneficial, as pointed out by Curtis, and emphasized by Anders.

F. S. Minns, in the *Am. Jour. of Clin. Med.*, June 1910, (Toronto), details his experience and methods in prophylaxis in over six hundred cases of pulmonary tuber-

culosis in residence, with the treatment carried out for nearly two years to test its efficiency. He uses nitroglycerin in doses of 1-100 of a grain given four times a day for two weeks at a time, and concludes that while this treatment has not proven to be an absolute preventive, still, in the large majority of cases, with a previous history of hemoptysis, or the occurrence of the same while in residence here, it has been clearly proven to be efficacious in reducing the frequency of the complication and in lessening the amount of blood lost when it does occur.

Summary.—The preparedness of the physician is never more important than in cases of bleeding from the lung.

In treatment he must ever keep the pathological picture well in mind.

The very moment of his advent at the bedside should bring reassurance to all who are there, and thus have a therapeutic value.

His presence and manner and words; the procuring of the patient's comfort and rest; the use of the ice-bag, and of common salt; and the binding of the extremities, are all potent measures which he can use when drugs are denied him.

When he has a choice of drugs he will find morphine, atropine and the nitrites most useful.

There are four methods of treatment at his disposal.

Of these only two are available in urgent, severe cases. The first is to limit the activity of the lungs, and opium is most valuable for this purpose. The second is to diminish the pressure of blood in the arteries, and the nitrites are best to attain this end.

Prophylaxis has been unduly neglected, although we have very efficient preventive measures at our disposal.

A distinguished foreign physician called upon Prof. Brieger of the Berlin Medical Institute and watched his absorbing labor with interest. The professor's attention seemed to be anxiously concentrated on a vessel which was enveloped in smoke and steam. "Guess what I'm boiling here in this pot?" said the professor. The visitor began to enumerate the various classes of microorganisms. "Micrococci?" "No." "Gonococci?" "No." "Spirochaeta?" "No." "What then?" "Sausages," replied Brieger.

A BABY PASSES THROUGH TWO "PELVES."

Some Remarks On the Position of Women at the Time of Labor.

Thos. R. Evans, M.D., Huntington,
W. Va.

This case is reported to show the hardi-
hood of mother and child at the time of
labor.

A multipara, a Polish or Russian woman, got on a train at Kayford, W. Va., about 4 o'clock A. M. on the morning of the 12th of January last. The train does not leave that station until after 7 A. M. Soon the pains of labor seized the poor woman and she shut herself in the toilet room. Whether she squatted over the floor or whether she sat on the porcelain receptacle is not known. There were no other alternatives, for the room is very small. There is a small window to the toilet room, but it is not supposed that she raised it and threw the baby out. The presumption is that it passed through the porcelain route. It was discovered in the snow after an indefinite time of exposure, a large boy baby. The train had moved, and the mother was recognized to be on it by a man, Mr. Blank, who saw her go to the toilet room, and was a very unwilling witness of the sounds of her travail.

The train took the woman a part of the way towards a house into which the baby had been carried, and the conductor escorted her to the house, while blood trickled from her. It seems that neither baby nor mother suffered any immediate ill effects. The local doctor was called.

I got on the train two miles from the scene of the occurrence and was curious to look into the little "sitting-in" chamber, but the conductor had locked the door and he did not invite an inspection. He said, probably exaggeratingly, that blood covered the floor to the extent of an inch in depth.

During confinement in England the woman lies upon the left side, in Germany on the right side and in the United States on the back, or on the left side. These customs most frequently prolong the suffering, because they oppose vital mechanics, and should not be enforced, except in cases of primiparae, when attention should be devoted to the perineum, and perhaps even primiparae from ages 20 to 25 are usually safe from rupture. There are the best of reasons why natural positions should be taught in cases of labor. For the acts of defecation and of parturition are similar, and for similar purposes, to part with that which has become foreign to the

body. The modern low spring bed is a great nuisance for the purpose of delivery. The lithotomy position is instinctively assumed by a woman during the last expelling attempts in labor.

The squatting position on the floor, or upon a hard level surface gives all of the advantages of the lithotomy position, and more, to the woman in labor. In the first place, there is the great advantage of gravitation. In addition she can powerfully assist with the compression by her thighs, and they can compress the uterus not only *laterally* but *in front and downwards*. Indeed it is evident to me that the main reason for the creation of the soft, yet powerful thigh of a woman is to materially aid in her delivery. They are genital. She does not need such bulky levers purely for locomotion. The softness of the tissues of the thighs in woman prevents damage to the uterus when used for its compression. In this attitude the thighs, when brought to press upon the uterus, tend to correct its usual early obliquity, and the *inclined planes* are *inclined*. Also the sufferer perhaps instinctively accommodates the container to the thing contained, or by the sensation of pain and pressure changes the angles and axes of her pelvis by contortions, which she can do with greater advantage than on a bed.

Some women prefer to kneel during labor, with the thorax forwards, and next to the squatting attitude, this favors speedy and safe delivery. The attitude of supplication exercises a moral effect during the fears and pangs, particularly if the woman is pious. She can compress the uterus with hands and arms, and should be encouraged to do so, but not violently.

Neither the kneeling nor the squatting posture should be recommended when the physician is not present, in primipara cases, on account of dangers to the perineum, although I have in emergency so delivered a primipara with speedy and with good results.

In my experience at coal mines, where a barren woman is a curiosity, the perineum is very seldom ruptured, and I do not support it in the cases of multiparae to prevent its rupture, but to assist the delivery. The books have made a bugbear of the rup-

tured perineum, but definitions modify the matter. A gynecologist of a business turn may call a slight nick a rupture; on the other hand when a man is not intending to make an extra charge for putting one suture in or through mucous membrane, he does not use the word rupture.

The damage of a ruptured perineum when the woman is in the squatting attitude is more apparent than real; the danger is less. But it will at once be apparent to the canonical doctor that the postures mentioned might give rise to hemorrhage, but hemorrhage at the time of labor is not promoted nor prevented by attitude.

The vascular system in the uterus is peculiar. The uterine sinuses have no valves to be affected by the kneeling or squatting position, and after the secundines are out of the uterus the woman is usually safe. To sustain contraction and retraction a teaspoonful of the fluid extract of ergot should be given very soon after the placenta and membranes have been removed.

As labor is much expedited by the squatting or kneeling attitude, uterine inertia is less likely. Should there be too much hemorrhage it would sooner be discovered if the woman's hips are not sunken in a bed in a darkish corner, and she can be better attended on a mat on the floor. That fortunately rare condition, concealed hemorrhage, more quickly exposes itself when the woman is squatting or kneeling. She the more quickly shows evidence of faintness. The similar guide was used in the age of phlebotomy. With these positions less would be heard about adherent placentae from our younger brethren.

Among the poor much washing of bed clothes could be dispensed with were women not confined in bed. Indeed the word confinement means that the woman is constrained—to the bed. When either of the above postures is suggested to our women about to be delivered, after they slightly recover from the surprise, they will naturally choose the kneeling posture, and the doctor will stoop behind at the critical time. Should the labor prove difficult the woman easily changes to the suggestive, or undignified posture of the squat, when she can,

with great advantage bring into play the great thigh levers in compression.

Such a position, *increases by three-fourths of an inch* the external diameters of the pelvis. But it is seldom necessary that the kneeling posture be changed, and the same diameters of the outlet are secured by it.

This paper is not written with the confident expectation that many will soon follow its suggestions. To a great degree we are bound to fashions, slaves to modes. Such natural modes of delivery are not new.

The ancient Hebrews in Egypt facilitated childbirth by employing a stool, but the two Hebrew midwives told a "whopper" to Pharaoh when they reported that the Hebrew women were so "lively" that they delivered themselves of boy babies before they could be assisted.

Let the women "stoop to conquer"

Probably Apollo, the god of medicine and of music, was "stooped out." For cruel Juno chased his mother into the woods, and after she had been in labor for nine days, she seized the branch of a tree and Apollo was born.

Of course in operative labors the woman must be put to bed, as for turning, etc.

In the squatting position the woman holds on to some firm object, and it is a simple matter for a carpenter, under the direction of a doctor, to make a device adapted to women in labor. However, the iron frame at the foot of the modern low bed admirably serves the purpose when no such device is at hand.

But I favor the kneeling attitude. The North American squaw when in labor seizes a sappling, or an upright pole, and in a squatting position delivers herself.

In the pursuit of obstetrics, which word suggests that the bed was not used in labor, there is more than one cause of undue alarm. These are illustrated in the case above reported. Why was not the woman's uterus inverted? Because such an occurrence happens only once in about one hundred and forty thousand cases.

She did not have the benefit of ergot, yet she sat around, rode on the train, and walked a considerable distance.

If the baby was not frozen, why did it not die from umbilical hemorrhage? Be-

cause the cord was ruptured and not cleanly cut. It is, however, probable that death from hemorrhage of the cord is rare, although in a late book by Grandin, Jarman and Marx as many ligatures are advised as there are authors of the book. However, one of the three ligatures is used for the purpose of a guide to the descent of the placenta.

It is probable that French doctors first used the bed for confinements, hence the word *Accoucher*.

(In this connection the following case from one of our exchanges may prove of interest.—*Editor*.)

ACTED AS HER OWN MIDWIFE.

L. Buckle, M.D., New York.

Some time ago I was hastily summoned to a case of hemorrhage during the third stage of labor. On reaching the lying-in room I saw stretched on the bed a small, pale, emaciated middle-aged woman, bathed in a pool of blood. At her feet lay a baby covered with part of the quilt which was on the bed apparently prepared for the mother to cover with. The cord was already tied and divided. The placental part of the cord was hanging out of the vagina, indicating that the afterbirth was still to be removed. Except the husband there was no one in the room.

Without asking any questions I at once tried to express the placenta by the usual method, but this increased the bleeding, and I had to introduce the whole hand to remove it. It was quite adherent.

When I was all through I succeeded after much questioning in eliciting from her bit by bit the following rather interesting and unusual history:

While still a girl of about the age of 18 years she happened to be present at the child-birth of her sister. She noticed how the old woman, a midwife, tied and cut the cord, and how she gave her an empty bottle to blow into in order to expel the afterbirth. She concluded that midwifery was all so easy, and when, a year later, she herself gave birth to a baby, she acted as her own midwife. She was entirely successful and at each succeeding childbirth (six in all) acted as her own accoucheur.

I was particularly interested to know whether she found it very hard to tie and cut the cord, but she said that after the child was out she experienced no unusual difficulty in doing it. To my question whether the pains were very strong, she feebly repeated, "Strong enough, strong enough."

I asked her whether she would do it again were she to give birth to another child, and she naively said, "Well, yes; I never had any trouble. Perhaps if I had blown a little longer into the bottle the afterbirth would have come. But my husband got scared more than I."

When I left the house I could not help thinking a long time what a remarkable feat this little pale woman performed.

AMOEBIASIS—REPORT OF CASE.

Dr. J. B. Whittington, Resident Physician
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Hansford, W. Va.

T. S. P.—Male; white; age 24; family history negative as to tuberculosis and malignancy; past history negative; was born and spent all of his life up to two years ago in southern states; has been troubled with chronic dysentery, especially in summer months, for past five years. This dysentery is of the recurrent type; for the past two years has passed some blood. This present attack started about two months ago. He was admitted to the hospital February 1st, 1912. On examination he looked emaciated and says he has lost about 20 pounds in last two years; has no cough; eyes, head and neck appear normal; examination of chest negative as to heart and lungs. Abdomen shows no irregularities but on palpation was tender. Blood examination shows red cells 4,500,000 white cells, 6,800, hemaglobin 80%, eosinophiles 6%, urine negative. On examination of feces after administering a saline cathartic the amoeba *hystolytica* was found.

Treatment.—On the morning of February 9th I gave my patient one ounce of magnesium sulphate. His diet that day consisted of milk and soup. That night at 9 o'clock I gave him 40 grains of powdered ipecac in capsules which were coated with salol. The object of the salol coating is two-fold. The first and primary reason is that salol is not dissolved in the stomach and therefore does away with the nausea and vomiting which the ipecac would produce. In other words, it carries the ipecac to the field of battle before turning it loose. The second and in my opinion very unimportant action is its antiseptic action on the bowel. It requires about 40 grains of salol to coat six capsules containing 40 grains of powdered ipecac. This may seem to be an excessive dose of salol, but I have had no bad results. The next day my patient was given soft diet. This ipecac treatment was given every other day for three weeks. At the end of this time his dysentery had stopped and on two separate examinations of stools no amoebae were found.

In reporting this case it is not my object to present anything new either in condition or treatment. It is not a rare condition and the treatment is by no means new, but in

this section of the country amoebiasis is rare, and it might be well to regard all cases of chronic intermittent diarrhoea with suspicion, especially all patients coming from the southern states.

(That the treatment of the above case was the best that could have been given is shown from the following conclusions drawn by Capt. E. P. Vedder, M.D., U. S. A., who gives the results of his treatment in the *Bulletin of the Manila Med. Soc.*—EDITOR.)

1. That ipecac is a powerful amoebicide, since the weakest preparation used (with the exception of the de-emetized) killed in a dilution of 1-10,000.

2. Different preparations of ipecac on the market vary greatly in their ingredients and in the power of killing amoebae.

3. Emetin is a powerful amoebicide, killing amoebae in dilutions of 1-100,000 which is double the dilution that was amoebicidal when fluid extract of ipecac was used.

It is probable that the power of any given specimen of ipecac to kill amoeba is directly dependent upon the proportion of emetin contained, though we cannot prove this at present owing to the fact that there is another alkaloid, cephaelin, in ipecac. It seems probable that cephaelin may be lacking in amoebicidal properties for the following reasons. If cephaelin were at all active it would be possible to judge the amoebicidal properties of a preparation by estimating the total alkaloidal content. This, however, does not appear to be the case, since the ipecac No. 2, with a total alkaloid content of 0.885 appears to be fully as powerful as ipecac No. 1 containing 1.8 total alkaloids. It has also been noted as a clinical fact that the ipecacuanha root from Brazil gives the best results in the treatment of dysentery, and Paul and Cownley found that Rio and Carthagena ipecacs do not differ materially in total alkaloids, but that in the Brazilian root emetin is the dominant alkaloid while in the Columbian root cephaelin predominates, and that the roots are not therapeutically identical. Since we have shown that emetin is an exceedingly active amoebicide, it is probable that this large emetin content is the reason for the greater excellence of the Brazil root, and that cephaelin is comparatively inert. It is not believed that the action of ipecac is due to other less active components such as resin, gums or ipecacuanhic acid, since these elements were present in the ipecac *sine* emetin tested which was almost inert; and the action must be more or less specific to ipecac since the fluid extracts of such drugs as opium, ergot and hydrastis fail altogether to kill amoebae in dilutions of 1-2,000.

In conclusion I would state my belief that the ipecac treatment of dysentery caused by protozoa should not on light grounds be set aside in favor of any other, but that in using this treatment great care should be taken to make sure that the dysentery is truly caused by protozoa and

is not bacillary, and also to obtain an ipecac that is shown by actual analysis to contain its proper amount of emetin, and when this is not possible, to insist upon obtaining the Brazil root.

Selections

THE DELUSION OF THE TONIC AND STIMULANT EFFECTS OF ALCOHOL.

Under this title Dr. Carothers of Hartford has an interesting paper. After giving a historical review he gives the results of laboratory and scientific research.

As early as 1845, when alcohol was beginning to be used as the great stimulant drug in disease, a number of observers denounced it and called it a depressant and narcotic. Several English physicians in the sixties and seventies denied that it had any stimulant or tonic action, basing their conclusions on studies and comparisons of cases treated. Laboratory work began about this time, and the enthusiastic claims of the value of alcohol as a medicine were found to be unsupported by laboratory researches. Dr. Richardson, in his Cantor Lectures in the seventies, called attention to the depressant and anesthetic action of spirits, and explained their peculiar fascination and delusional effects as due to this action specifically. Attention was thus called anew to the supposed value of alcohol in medicine, and a number of eminent men opposed the claims of its supporters.

Finally, Kraepelin, of Heidelberg, took up the subject. He assumed that if alcohol in its physiological action on the body was a stimulant or tonic this effect could be most readily seen in a study of the senses. Under the influence of alcohol the latter should show greater acuteness and strength, which could be measured by instruments of precision. He selected a number of healthy total abstainers for a period of many days, in order to secure an average of the normal condition of each one. With this as a basis for comparison or control experiment, he gave to each one at intervals of one or two days small doses of ethylic alcohol of known purity and strength. From forty to sixty minutes after the alcohol was taken careful measurements of the senses were

made and tabulated. These experiments were continued over a period of two or three weeks, and the results of the measurements compared with those in the normal condition. It was found that in no instance did alcohol, even in dram doses, increase the activity or acuteness of the senses, but, on the contrary, that it invariably depressed them. Thus, the sight, hearing, smell, taste, and touch were all deranged and lowered to an extent that was measurable by instruments of precision and could be stated in exact terms. This condition followed in less than an hour after the spirits were taken, and there were no exceptions; in no case did alcohol act as a stimulant on the senses, or even as a tonic. There was an exactness in this study which could not be mistaken, and its repetition since that time, in many laboratories and in practical work, has been confirmatory.

Over a dozen different observers have taken up this subject, first finding some normal condition of personal equation and then giving spirits and comparing the effects with the condition that had existed before. One of these studies was a measurement of the muscular output of laborers and workmen with and without small doses of alcohol. At the first, irritant effects were evident in all cases. The heart's action was increased, the blood-tension was raised, and there was an apparent increase of muscular power; but this was convulsive, of short duration, and followed by great depression, so that the output of work was greatly lowered instead of being increased. Alcohol was shown to diminish muscular energy, increase fatigue and feebleness, and in no way could be called a stimulant or tonic. Very curious and suggestive studies were made to determine the action of alcohol on the mind and nervous system.

Time-reaction, ability to discern impressions made on the senses, and to reason as to their significance, was found to be always diminished, and to an extent that was measurable, even in small doses, where the personal equation had been eliminated. There were slowness of thought and mental activity, loss of control and ability to recognize sudden unusual conditions. The memory was enfeebled, and this was measured and

shown to be the direct result of the anesthesia of spirits. The heart's action was increased, and with it the circulation of the blood in the brain. With this there were confusion and want of clearness, control, and power of concentration, in some unknown conditions. The apparent stimulation was simply irritation, and not increased power or capacity. A great number of experiments have been made along these lines, evidently by persons who were not sure that the theories of the past were unfounded.

One very extensive experiment was made with typesetters in a government printing office in Germany. Alcohol was given in small doses at intervals and the output was measured with great care. Sources of error were eliminated, and the results found were increased errors, lessened work, greater exhaustion, and a measurable anesthetic action. Alcohol did not increase the ability to set type or give the men greater tonic powers to continue the work. The same elaborate experiments were made among sharpshooters in the army. The object was to determine whether small doses of spirits increased their accuracy and efficiency. Comparisons of persons, both abstainers and non-abstainers, who were given small doses of spirits before the trial, and under exactly the same conditions, during a period of many days, showed the same results exactly,—depression and anaesthesia. In all there were lowered sight, deranged muscular activity, and enfeebled power of control, and the accuracy of the work was greatly diminished.

In this country, under the direction of Dr. Kellogg at Battle Creek, a great variety of similar experiments have been made, confirming and verifying the results of the European observers, and showing the same physiological, psychological, and pathological depression and anesthesia, leading up to final paralysis. Dr. Hodge, of Clark University, showed that alcohol produced degenerations and retarded muscular and mental activities in animal life, and his experiments have become classical, as demonstrating the anesthesia and cell disturbances resulting from small quantities of alcohol. Recently Dr. Downs, of Philadelphia, has published the results of some very striking

experiments on the action of alcohol on the heart muscle. Small doses were shown by the tracings not only to depress the heart's vigor, but to derange and lower its activity.

* * * * *

Evidence still more conclusive has been slowly accumulating from clinical and statistical studies. It is a curious fact that a large part of the literature regarding the value of alcohol as a stimulant and tonic is based on tradition, personal opinions, and the superficial views of many good men whose scientific acumen rests on prejudices and preconceived views. The teachings of prominent authors are accepted without question.

One of the first breaks in this delusional evidence was furnished by mortality tables which showed clearly a higher death rate where alcohol was used as a tonic or stimulant. In pneumonia, according to an old theory, the stimulant action of alcohol on the heart was essential, and yet comparisons showed an increased death rate wherever it was used. A number of recent authors have asserted that statistical studies showed that alcohol could not be a stimulant and tonic. In the treatment of diphtheria when alcohol was given as a germicide and heart sustainer, the mortality rates and the complicating diseases were increased and the entailments following far more serious. The same facts were brought out in a study of tuberculosis, with the addition of diminished duration and greater intensity of the symptoms.

* * * * *

Chloroform and ether represent the exact physiological effects of spirits in all forms and doses, differing only in degree. The exhilaration and irritation preceding the anesthesia are the same. They may be very brief or of long duration, but their character is identical in the action of every form of drink in which spirit is the basis. The first effect is irritation, excitement, and this may be very short, but the second effect of depression is sure to follow. Therefore, clinical studies most amply confirm laboratory researches and conclusions, that alcohol in its action on the tissues in health or disease is purely an anesthetic and narcotic. The fact that the heart is roused to greater ac-

tivity is not evidence of new force or power. The effect of this impetus, extending to the nervous system and acting in a convulsive way, indicates derangement and paralysis rather than stimulation and increased vigor. The scholastic tradition and delusion that alcohol in some form will bring out some quality of the brain not existing before, or will give strength and vitality, should pass away as unsupported and incorrect. To imagine that spirits loaded with ethers, taken as a beverage at a banquet, will rouse into activity latent forces not otherwise available is equally fallacious.

Some conclusions may be stated with great positiveness: *First.* Alcohol is an anesthetic, dehydrating, depressing toxin. Its apparent stimulation is irritation,—a convulsive, tetanizing exhibition of energy, associated with and followed by depression, diminished vitality, and loss of motor and sense impressions.

Second. In disease it is a toxin, acting on nerve-cells and nerve-centers, checking their normal activities, and deranging and breaking up their movements of growth and elimination.

Third. The toxicity of alcohol is general, beginning with depression, lessened vitality, and feeble resisting power. It limits and destroys cell life in an unknown way and degree, and is cumulative, uncertain, and dangerous.

Fourth. Like other delusions in medicine founded on misconception and false reasoning, with the accumulated prejudices of ages, the erroneous idea of the action of alcohol continues tenaciously, dying very slowly. The bar of scientific research calls in question the evidence and demands the facts on which the ideas are based, refusing to accept the theories and traditions of the past unless they agree with the teachings of science at the bedside and in the laboratory.—*Monthly Cyclopedia*, July 1911.

CLINICAL AND BACTERIOLOGICAL EFFECTS OF THE POST PARTUM VAGINAL DOUCHE

O. Burckhardt and K. Kolb (*Zeitschrift f. Geburtshilfe und Gynaekologie*, Volume 68, No. 1, 1911) compared the clinical course in 350 women who received a

douche, with 350 who did not receive one. They excluded all pathological labors, since these were always followed by a douche.

In the douched patients:

- 34 had a one-day temperature,
- 6 had temperature several days, but below 102°.
- 2 had temperature several days, but above 102°.

A genital morbidity of 6½ per cent.

In the non-douched patients:

- 39 had a one-day temperature,
- 13 had temperature several days, but below 102°,
- 7 had temperature several days, but above 102°.

A genital morbidity of 8.6-10 per cent.

From these tables they conclude that the clinical results are in favor of douching, though there were only very few patients with temperature lasting over one day in either series. For douching they used a one-quarter per cent. solution of chlor-m-kresol, it having a bactericidal power five times as strong as a two per cent. lysol solution and possessing none of the destructive powers which bichloride exerts on the vaginal epithelium.

In fifteen douched and fifteen non-douched patients the lochia were examined bacteriologically on the first and seventh post partum days. Smears were taken as well as cultures the latter grown aerobically and anaerobically and examined at the end of twenty-four and ninety-six hours.

Smears taken on the first day showed bacteria in both classes of cases, but many less in the douched patients.

Smears taken on the seventh day showed bacteria in both classes with no appreciable difference as to the number.

Cultures taken on the first day showed a growth in all the non-douched patients and no growth in three out of fifteen of the others. When there was a growth it always showed more markedly in the non-douched than in the douched.

Cultures taken on the seventh day showed no difference in the two classes of patients. Burckhardt and Kolb therefore conclude that the post partum douche retards bacterial growth for a few days.

As to the kind of organism, they found cocci and bacilli of various types; the latter

were usually saprophytes.

Smears taken on the first day showed bacilli in twelve of the fifteen douched patients and in all of the non-douched ones.

Smears taken on the seventh day showed bacilli in all thirty patients.

Cultures taken on the first day showed bacilli in only three out of the fifteen douched patients, while they were found in twelve out of the fifteen non-douched patients.

Cultures taken on the seventh day showed no difference as to bacilli between the two classes of patients.

These two observers therefore claim that the original douche diminishes the number of bacilli or causes them to disappear entirely for a few days. The clinical results which they obtained are better in the douched cases; they therefore hold that causing bacilli to disappear is an advantage and not a disadvantage as many other observers claim. The latter hold that bacilli hamper the growth of the more infectious bacteria and are therefore useful. Burckhardt and Kolb not only claim that they are useless but harmful.

As regards the effect of the vaginal douche on pathogenic streptococci they admit their experiments have not proven the douche to be of benefit, but refuse to admit that it is useless.—*Med. R. of Reviews.*

TYPHOID SPINE; WITH THE REPORT OF TWO ADDITIONAL CASES WITH BONY CHANGES IN THE VETEBRAE.

Thos. McCrae (*Johns Hopkins Hosp. Bull.*, March, 1911) reports two interesting cases of "typhoid spine," and makes the following remarks: Formerly regarded as a neurosis, but on account of the organic changes which occur in "typhoid spine," it is now considered a spondylitis. The proportion of cases with bony deformity, or shown by the X-rays to have bony changes, is comparatively large.

The various changes which are considered are:

1. *Local Swelling.*—Redness has been present in a few cases, tenderness in many more, sometimes over the spine, sometimes over the adjacent muscles. Rigidity of the spine has been quite common and may be

considered to be almost invariably present.

2. *Changes in the Spine.*—Kyphosis is often present scoliosis in some cases; alteration of the lumbar curve is not uncommon.

3. *Evidences of Involvement of the Nerve Roots.*—These, while variable, still are suggestive of organic changes. Sensory disturbances are common, and alterations in the reflexes occur in a large proportion. In some cases the symptoms evidently are due to changes inside the spinal canal, causing pressure on the cord.

4. *Radiograms.*—These have shown definite evidence of bony changes in a sufficiently large number of cases to support strongly the view that organic changes are the rule in typhoid spine. It must be remembered that many cases of spondylitis do not show any definite bony changes. Some of the findings which have been noted are definite deposits of new bone in the lower spine, slight curving of the spine to the left at the juncture of the first and second lumbar vertebrae. In this case, the curving had disappeared when a second plate was taken. On the left side of the spine no line of separation between the bodies of the first and second vertebrae could be made out, the bone was denser than normal, and there was a shadow between the transverse processes which represented a deposit of new bone. In another case the skiagram showed a synostosis between the second and third lumbar vertebrae with loss of height from disappearance of the intervertebral space.

As regards prevention it is important to remember the influence of trauma, and warn the patients convalescent from typhoid fever to exercise care in engaging in any occupation which might throw strain on the spine. When the condition is established it is well to carry out active treatment at once. The use of vaccines as in the prevention of typhoid fever is recommended, the dosage being the same as that employed in the anti-typhoid vaccination. Two points to be kept in mind are the relief of pain and the protection of the spine, which is often structurally weak. The pain is usually lessened by immobilization of the spine, as any movement causes great suffer-

ing. This may be secured by the use of a brace or plaster jacket being careful not to fatigue the patient or injure the spine. Also avoid anything that will compress the chest. If the jacket fails to give relief or before some appliance can be applied the use of counter-irritation, especially the Paquelin cautery, may be of benefit. Sedatives seem to be without effect on the pain. The fever, which is often present, sometimes diminishes as soon as fixation is carried out, if it be due to spondylitis.

The author concludes as follows: It may be regarded as established that "typhoid spine" is a spondylitis or perispondylitis with definite local changes which may lead to the formation of new bone and so result in more or less fixation of the spine. Judging from spondylitis generally, this permanent change is less likely to occur if the proper treatment is instituted early. Many cases of spondylitis clear without permanent changes.—*Old Dominion Journal.*

Correspondence

A TWO WEEKS' VISIT TO MCKENDREE HOSPITAL—A USEFUL INSTITUTION.

Editor W. Va. Medical Journal:

McKendree, W. Va., a station on the C. & O. R. R. in Fayette county, was of so little importance to the railroad company that it was discontinued. We write of it as a surgical station. Several years ago the State of West Virginia wisely built three hospitals in its then three congressional districts and named and numbered them Miners' hospitals 1, 2, 3.

McKendree is No. 2, and without invidious comparison, it probably starts first in the quantity, quality and more successful results in technical surgery.

Be it known that the law allows the miners' hospitals, under certain conditions, to do gynecology and other work not pertaining to accidents in mines. Many women have been under the scalpel in McKendree, and have been saved from certain and untimely death, and given new life. The average number of operations performed is two daily, and the number of admittances

for the past year was five hundred. The average large city hospital does not exceed this.

The Superintendent is Dr. B. B. Wheeler, formerly a Clay county, W. Va. country boy. He is ably assisted by Drs. Miltbee, Goodman and Lemmon. The last two formerly country boys of Virginia. We mention the fact that they were country boys because cities are usually given credit for producing the most progressive men.

There is a little town in Minnesota, Rochester, which is the mecca of the surgeons in the United States, and occasionally surgeons from abroad visit it. Most wonderful surgery is seen there. McKendree, under the dark and sublime cliffs of New River mountains, is rapidly becoming famous. Today there are only two inhabited houses in McKendree, one the theater of the merciless yet saving knife, and the other a house which takes people who come to visit wounded and convalescent friends. We were about to write that one house "takes people in," but to the evil minded this might be suggestive. Mr. Adkins, who keeps the boarding house, "entertains," to use the old word, or a portion of the old word, used in connection with taverns. He does not give cold storage eggs, but eggs fresh from the storage of hens.

The hospital maintains an excellent training school for nurses, and the class is unusually bright and happy, but not snappy.

The late Captain Jos. Beury presented the "bench" of land on which the hospital is situated and there be no more fitting monument to his memory. How much better than to present a community with books and then tax the community one-half. It would have been and would be far more to Mr. Carnegie's credit if he would endow hospitals instead of houses, and as the first portion of his name means flesh, surgical hospitals should find favor with him.

The capacity of the hospital is only fifty beds, and it should be speedily enlarged.

It has been unfortunately the case in our state that such positions as superintendencies of hospitals are awarded out of political favoritism.

The political spoils system in this country originated with Andrew Jackson, but if

old Hickory could "revisit the glimpses of the moon" and see an immense tumor removed, together with the uterus, and an ovary, inside of forty minutes, and with the *loss of only about an ounce of blood*, and *without any signs of shock*, which the writer saw, and if the young operator, Wheeler, was not of his political household, yet skill would dominate the old and fiery President.

A very remarkable feature in connection with the hospital is that, although there are but fifty beds, yet no surgical patient when brought to it, is declined. And yet no patient is prematurely sent home, and there are but few deaths.

As above stated, there are nearly two admittances daily. How are they disposed of? By skillful operation, and **by diligent** attention the convalescent soon leaves the hospital.

There is another very unusual feature namely, minimum fees are charged for operations upon those who do not come under the original provisions of the hospital benefit, and the fees are turned over to the State. No person is received from another State. The comparative shut-in situation of this hospital from direct sunlight, its obscure situation and up to this date, the comparative ignorance of the public regarding its brilliant and beautiful work, reminds of the poet's jewel and flower:

"Full many a gem of purest ray serene
The dark unfathomed caves of ocean
bear,
Full many a flower is born to blush un-
seen
And waste its sweetness in the desert
air."

THOS. R. EVANS, M.D.

THE MEDICAL DEFENSE AND THE CHURCHMANS.

CAMERON, W. VA., March 27, 1912.

Editor *W. Va. Med. Journal*:

DEAR EDITOR:—Dr. V. T. Churchman of Charleston, in a letter published in the last number of your Journal, has found it necessary to again attack the Medical Defense measure which is considered both a necessary measure and a "good thing" by the majority of the members of our State Med. Association. I, for my part, consider this measure, for reasons which I shall outline further on, of such importance that I deem it my duty to take issue with Dr. Church-

man for his remarkable views which he expressed in his letter. Of course, the stand this gentleman has taken with regard to the "Defense ever since it was first brought to the attention of the State Society" need not surprise us at all, because it is a matter of common observation that whenever a measure which is capable of leading us to advancement is brought out and advocated by some progressive spirit, you will always find some one opposing it—not from "any selfish motive" or personal animosity, mind you, O, no—the opposition is merely "based upon the moral aspect of the subject." How the thing has anything to do with morality is not always clear, but morality is the anchor to which such objectors always cling. Well informed people assure me that Dr. Churchman's opposition to the Medical Defense is, more than anything else, based upon the fact that the measure emanates from a "Golden" source, but Dr. Churchman claims it is morality and Churchman "is an honorable man."

It is characteristic of a certain type of opposition, to which Dr. Churchman seems to belong, to first wilfully create false premises and then build their arguments upon them. The arguments may frequently be correct, but they rest upon wooden legs, and the moment you attempt to test their foundation with test-hammer of logic, they crumble to pieces.

In opposing the Medical Defense measure Dr. Churchman bases his arguments mainly upon the strange supposition that in adopting this measure we are "banding ourselves together to prevent the laymen from suing to recover for even the grossest malpractice." He does not tell us by what charm we could accomplish such a wonderful thing as the preventing of people from suing us altogether; he merely makes this assertion obviously because it just suits his purposes. But as it is neither our purpose nor in our power to do so, the assertion that the members of our Association are capable of entering into a conspiracy with each other for the purpose of beating somebody out of a just claim is strongly reflecting upon the honor and integrity of our Association and the character and honor of its members, and is such an insult to both that it amazes me to see it coming from a man, who, as a physician and a member of our Association, and one who has been honored by election as President, surely must know that such an accusation is entirely false and wholly without any foundation. Blind opposition, however, has led many a man to making assertion which he had cause to regret afterwards. Dr. Churchman himself very well knows that the advocates of the measure pursue no other end with it but mutual protection against unjust malpractice suits which may be brought against *any one of us* and *at any time* by *deadbeats, blackmailers and agents of a mean competitor*. I mention the last category of possible trouble makers because I am convinced that not a few of the malpractice suits which have been brought against innocent doctors were instigated for the sole purpose of injuring their reputation so that a com-

petitor, a hypocrite, might profit by the injury—and that competitor was the instigator of the suit.

With the adoption of the Defense measure we do not mean to form an offensive and defensive alliance, we are not "banding ourselves together in a body and say to the public: "Here we stand like the rock of Gibraltar, fire away with you pop guns;" we simply tell the public: "We are adopting the Medical Defense measure for the purpose of mutual protection, we need such protection, for we know by experience that we are constantly menaced by a bad element which is seeking to gain by our weakness. Single we are powerless, united together we can protect ourselves." And the public, whose workmen form Unions and whose merchants form Protective Associations, says: "You are right." We want to render more secure the position of each individual member of our Association and to do away with the intolerable conditions which have prevailed heretofore, when without a moment's warning we could be thrown into the trouble and expense of defending a malpractice suit, even when entirely innocent of any wrong doing.

Dr. Churchman claims that "the measure can be of absolutely no benefit to us." Since he has declared it to be immoral in principle, it is not for him to consider whether the measure is of benefit to us or not, for an immoral measure should not be accepted even if it benefits us. But as I am convinced that it is in full accordance with a high standard of morality, I declare this measure to be, from the standpoint of practical benefit, the best single measure our Association has even adopted.

If we only picture to ourselves for a moment the lonely and despairing condition of a non-member or a non-participant in the benefits of the measure against whom a suit for malpractice has just been brought, and compare with this the hopeful condition of a member in like circumstances who, under the terms of the measure is assured of our sympathy and protection, we soon get to realize what this measure means to everyone of us.

I think this measure has the power to draw into the Association every reputable practitioner in the State. Without this feature a membership in our Association has been regarded by a host of doctors who are located at a distance from the railroad as of little benefit to them, and, therefore they have failed to join us. But with this feature included, no matter where located our Society is of direct value to them.

In conclusion I wish to say, I hope none of the old-school physicians share the views Dr. Churchman entertains with regard to our Medical Defense measure, but if some of them do—well, anyone who has views so fossilized deserves to be Oslerized.

Fraternally yours,

DR. ELIAS BARG.

Thermotherapy in inflammatory conditions seems to prove most effective when applied in the form of moist heat.

The West Virginia Medical Journal

S. L. JEPSON, A.M., Sc.D., M.D., *Editor.*

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All communications to this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the State. Notices of deaths, removals from the State, changes of location, etc., are requested.

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Editorial

MEDICAL DEFENSE IN CONCLUSION.

During the past few months we have diligently sought information that would tend to throw light on the operation of the medical defense regulations in other state medical societies than our own. Our sole effort has been so to inform the members that they might vote intelligently on a subject that seems not yet to have been finally determined in our own state association. We have not tried to exert any influence by arguments of our own, nor sought information solely favorable to the defense plan. As will be seen from the correspondence given below, our letter having been sent to the secretaries of five state societies that have had the defense plan in operation for several years, we have rather endeavored to find arguments against the plan. Thus far we have failed to elicit from any source, except as contained in the

letter of Dr. Churchman in our March issue, any adverse criticism, or any facts indicating that any but the best results have followed the operation of the plan of defense. We print below the letters received in reply to our inquiry, which is given here just as sent to the different state secretaries. While we still hold our columns open for adverse criticism, with a view to the utmost fairness in the discussion, yet we feel that it is not necessary to burden our Journal with further evidence in favor of the defense laws of state societies. It is of interest here to note that in the eighteen months that have passed since our society introduced the plan, not a single suit for malpractice has been entered in our State. We have positive evidence that the plan adopted has prevented one suit for \$10,000 damages against one of our best members. This was prevented by an honorable fellow-member making known to the plaintiff that he would have to fight the whole organized profession of the State were a suit entered. It too often happens that suits are started by the connivance of some small, dishonest doctor, if not at his suggestion. If a sense of honor to a brother practitioner will not serve to deter men from such detestable conduct, they should reflect that the very next shot may be in their direction, and this ought to have a most decided influence. (Read article below, "Ethics")

It will be well for each local society to take a vote on this subject at an early day, instructing their delegates how they desire them to vote on this subject when it comes up in the House of Delegates. If this is done acrimonious discussion will be avoided and much time will be saved the society. Before proceeding with the voting, the Secretary of the county society should read to the members present at the meeting all the matter on this subject in the last few issues of the Journal, including the present one. Also members who may not be present at the meeting should be given an opportunity to vote by postal card. In writing to the members asking for their vote, their attention should be directed to the articles in The Journal for information, urging them to read these before mailing their vote. In this way every member will have an op-

portunity to express his views, and the result will be more satisfactory.

Wheeling, W. Va., March 1, 1912.

MY DEAR DOCTOR:—Our State Association has adopted the plan of defense against malpractice suits. Some of our members desire to repeal this provision of our laws. Can you in brief give me your views on this matter, and especially any objections that may have developed since your society introduced the plan?

Thanking you in advance, I remain,
Fraternally yours,

S. L. JEPSON,
Editor West Virginia Journal.

REPLIES.

Athens, Pa., March 4, 1912.

MY DEAR DR. JEPSON:—Yours of March 1st at hand. Medical defense has now been in force in this state six years. Thus far twenty-two applications have been made, not counting one application made by a member who was suspended for non-payment of dues at the time when the alleged malpractice occurred, and who was not reinstated until after he had been sued. Of the twenty-two cases the jury has disagreed in two cases, and there the matter has been dropped, probably for all time. In two cases the plaintiff has had a compulsory non-suit. In one the plaintiff entered a voluntary non-suit. In two cases the jury has returned a verdict of no cause for action. Other cases have been scared off when it was found that the defendant was ready to put a stiff fight. Thus you see we have lost no case.

It takes time for the membership, who are often indifferent, to understand the value of this protection and the proper method of procedure. We have been handicapped a little by members employing a lawyer before making application to the society. This has rather increased the office work and expenses of the defense. Such things will adjust themselves only by time and improvement in methods as we learn from experience. It has been our plan to look after cases so carefully beforehand that they will not come to trial. In no case do we consent to any settlement, and it is our plan to carry any case with a reasonable show of success to the highest court, if occasion requires.

Very sincerely,
C. L. STEVENS,
Sec'y Penna. State Society.

* * *

Baltimore, Md., March 5th, 1912

DEAR DR. JEPSON:—In reply to your letter concerning the defense against alleged malpractice suits I would say, that I have not heard a single member of our society state that he would like to have the By-Laws concerning it either repealed or changed. *It is generally considered to be one of the most valuable feature of our society work in relation to the benefit given to members.* We have had quite a number of suits, some of which were settled out of court, some of which have been tried; and we have been unanimously suc-

cessful so far. Some of the cases are still pending.

I am a great believer in the State Societies protecting their members,

Very sincerely,
JOHN RUHRAH,
Sec'y Medico-Chirurgical Faculty of Md.

* * *

Battle Creek, Mich., March 6th, 1912.

DEAR DR. JEPSON:—Replying to your query of March 1st, our Defense plan has now been in operation two years and has been a decided success. We have about 2,223 members, and out of these we now have eight members who seem to be holding out on account of the defense. We have lost some members, and some good ones, too, but when this plan was put into effect we had but 2,021 members. The first year we lost 42 members; now you see we have more than made up our loss and 200 extra. The greatest complaint comes from our University city where some of the professors are not in private practice; but we consider our defense plan as a matter of education more than as a matter of mutual defense. It is a question of educating the public as to what constitutes malpractice. It is a matter of educating the legal profession as to what constitutes malpractice. And it is a matter of educating our members not only as to what constitutes malpractice, but as to the requirements upon the medical profession.

I sincerely believe that there is not one percent of our members who now desires to repeal the By-Laws putting this plan in operation. It has worked splendidly...It has been actual defense, and we know of case after case which would have been started but have not been, because of our defense plan. I know of two such cases in this town, and there are other cases in other towns of the state. The only objection that has been raised at all is, that the work might be confined largely to benefiting members in Wayne county, our largest county; but this has not proven to be the case.

Very sincerely,
WILFRED HAUGHEY,
Editor Journal Mich. Medical Society.

* * *

San Francisco, Cal., March 6th, 1912.

DEAR DR. JEPSON:—Replying to your letter of 1st instant, I would say that Medical Defense in this state has been completely successful and distinctly satisfactory. No objections that I know of, of any kind, have been raised. A large number of threatened suits have been stopped, and four or five suits that came to trial have all been won by the defendant.

Cordially yours,
PHILIP MILLS JONES,
Sec'y Cal. State Society.

* * *

Madison, Wis., March 8th, 1912

MY DEAR DR. JEPSON:—Your letter should have been answered sooner. As to our Medical Defense, plan, *we regard it as one of the very strongest features of our society.* and of 1,650 members, I do not believe there are a score who

would vote for its repeal. The assessment is one dollar, and since we introduced the plan, four of five years ago, it has met all expenses and we have a large reserve fund already. It has been years since any active opposition has appeared. *It is my opinion that the plan has aided materially in holding in line many physicians in the more sparsely settled parts of the state, and has been an attraction towards membership in many cases.* I trust you will not repeal the measure until you have given it a good trial. Thus far no case has gone against us.

Fraternally yours,

CHARLES S. SHELDON,
Sec'y Wisconsin Medical Society.

The above letters, it will be noted, are from states, as Maryland, in which most of the physicians are in cities, and, as Wisconsin, in which many practitioners are in small towns and few in large cities. The plan of defense has therefore been applied to varying conditions and has proven satisfactory in all. It seems, therefore, scarcely necessary for us to occupy valuable space in *The Journal* with its further consideration. Unless, therefore, some opponent can find arguments against the defense plan better than any yet presented, we shall seek no further light on the subject, believing that sufficient information has already been presented to satisfy the minds of our readers touching the wisdom of our plan of defense.

S. L. J.

MEDICAL DEFENSE.

It is only necessary to add that the plan of Medical Defense has proven to be a complete success. It is no longer an experiment but an every-day working part of the machinery of the State Society. Do not waste time wondering "if it will work out;" it has worked out; it is a perfect success.

It is the belief of the Council of the State Medical Society that the scheme which it has undertaken will be extremely beneficial to its members. Convinced as we are that the vast majority of these cases are conceived in blackmail, we are satisfied that litigants and their attorneys who know that behind the defense of any practitioner who may be accused of malpractice is the entire State Medical Society, together with attorneys whose fees are paid by the Society, that that fact alone will cause any person to hesitate before commencing an action.

We are led to believe that doctors sometimes pay a small sum of money to avoid these claims, upon the theory that they would have to expend that much for the fees of an attorney to defend a suit. This encourages a very bad practice and we believe that the present plan of the Medical Society of the State of California will do away with it.

Since July, 1909, a great many threatened suits have been avoided and every suit that has been filed has been successfully defended. And all this at absolutely no cost to the members in question except the small amount of their dues. We have an attorney in San Francisco and another in Los Angeles, both of whom are retained yearly by the State Society. These gentlemen have made a special study of just this sort of work and are far more able and competent to defend such actions, or direct the work of defense if a suit is tried in some outlying place, than any ordinarily good lawyer who might never have encountered such an action before in the course of his experience.—*Cal. State Assn. Jour.*

MEDICAL DEFENSE ADOPTED.

The adoption of the plan as briefly outlined indicates that the Indiana State Medical Association has taken a progressive step which will prove advantageous to each and every member of the Association. Medical defense is a feature of several state medical societies, and so far as we know it has proved satisfactory wherever tried. In some states the expense has not averaged more than 50 cents per member, and it is hoped that by careful management the 75 cents per member in our Association will be sufficient to carry on medical defense in all deserving cases.

Hereafter it will be a matter of considerable importance for all members of the Association to pay dues promptly in order to maintain good standing in the Association and thus secure the advantages of medical defense suits for malpractice.—*Jour. Indiana Society.*

ETHICS.

THE TONGUE.

The duty of man to man, the duty of brother to brother, is exemplified in no walk of life more than in the medical profession. The practice of medicine at best is difficult enough: the responsibilities and cares of the doctor in properly attending his flock are burdens indeed, without multiplying them. The Medicolegal Committee in its last report has this to say: "Our attorneys believe that every threat of malpractice arises from the jealousy of a rival physician. While we do not hold such radical opinions, we do know that some other physician is at the bottom of very many suits and threats of suits, and can prove it in many instances."

How frequently in conversation do we hear one doctor speak disparagingly of his neighbor. How frequently does one doctor speak lightly of another to laymen. How frequently, when called to a new patient and told of the previous treatment done the doctor answer by a shrug of the shoulders.

In times happily past—a generation or so ago—it was the custom for doctors to fight, to belittle each other. Those were the days of the family physician in all his vengeance, when each doctor had his following in the community. The patients would swear by their doctor and would admit no good in his competitor. In those days doctors were competitors.

Now we are not competitors; we are confederates; we are brothers. Years ago when called to see a patient who had been under the care of another, the doctor promptly and ostentatiously threw his predecessor's medicine out of the window—he had few good words for the other doctor.

The conditions of the profession is better. We do not do these things so much now; but has the old-time custom entirely disappeared? The inference from the report of the Medico-legal Committee is, obviously, no.

For two years past the Michigan State Medical Society has been conducting the defense of its members in civil malpractice cases. We have no condition written in fine print in the policy which will allow us to decline to defend our members as has been done by some commercial companies to the sorrow of the insured. We defend any civil malpractice suit within the statute of the limitations, *unless the member was in arrears for dues when the cause for action arose.*

Our defense plan is not entirely a selfish one. We are not defending our members for the sole purpose of giving them defense at cost and dividing that cost among the whole of us. Our plan is an educational one primarily and ultimately. Malpractice suits are altogether too frequent. The law of malpractice is poorly understood by the profession, the laity and the lawyers. The defense is costly and lawyers know that the unprotected doctor will frequently settle rather than stand the expense of suit and the publicity. Too many suits are threatened with no other object but settlement. We aim to teach the law of malpractice and remedy this condition.

By uniting in mutual defense we hope to encourage closer and more brotherly feeling, and by this association better fit ourselves to care for our people. Every malpractice suit brought against any member of our society costs each one of us a certain sum for its defense; every malpractice suit brought against a member is, to the uninformed laity, an unfavorable reflection not only on that member but on every one of us who aids directly or indirectly in his defense, whether there are grounds for suit or not. Our defense plan will teach our members what we are required by law and custom to do for our patients.

There are two ways in which we can lessen the number of malpractice cases, an ethical and economic desideratum: First, each one should make himself competent to handle any case he accepts; second, we should so act that we may never be even unknowingly, the cause of starting a suit against another.

This work of the Michigan State Medical Society (and this same work is being done in over twenty other states), is principally a work of education. It is a practical demonstration of medical ethics.—*Editorial in Jour. Mich. State Medical Society.*

MEDICAL IMPRESSIONS OF AMERICA.

Lange of Munich pays high tribute to the orthopedists of America and the many points in which they lead the world. He describes his visit here as guest of the annual meeting of the Orthopedic Association in Washington last year, and extols a number of features of medical education and institutional work. He remarks that the students of a good school like Harvard and Johns Hopkins are much better informed and better skilled in surgery and orthopedics than the corresponding students at the German universities—stating that he had ample evidence himself of this. Even in most of the other branches, he continues, according to the judgment of professors who have taught both at German and American universities, the average American student is superior to the German, and he thinks that this fact should cause the Germans to pause and ponder.—*Jour. A. M. A.*

FROM VEST POCKET ESSAYS.

By GEORGE FITCH.

The eye is a delicate and ingenious organ, by which man is enabled to see. The normal man has two eyes, which are placed just beneath his lofty brow, and this number enables him to see enough to keep him mad most of the time.

The eye is composed of a large number of parts, including the iris, the retina and the optic nerve. The eye is not detachable and is more exclusive than our best American society, resenting the intrusion even of foreign bodies. The optic nerve connects the eye with the brain, thus enabling tourists, not only to see new countries, but to remember them briefly. A good many eyes, mostly owned and operated by chorus ladies, have entirely too much nerve, however.

There are many colors of eyes, including brown, black and blue and sometimes in case of trouble, red, green and yellow. The color of the eye hasn't anything to do with its capacity to see, although sometimes when an eye is red enough, it can see snakes in Ireland and pink elephants in St. Louis. But some colors of eyes are a good deal easier to look at than others.

Eyes are used in a vast variety of ways, of which the most popular are reading, sight seeing and husband getting. The eye is supposed to be used to seeing only, but many young women have trained their eyes to talk in the most eloquent and persuasive fashion.

Eyes are so useful that men who have no eyes are to be considered most unfortunate. They must make their living by weaving baskets, tuning pianos or by acting as chiefs of police in a wide open town. This latter job is a very fine one for a blind man, as a chief of police who can go through an administration without seeing any signs of gambling can frequently make large sums of money.

Blind men are happier than deaf men anyway. This is partly because they do not have to look at car signs, billboards, other people's automobiles and women's hats.

Eyes are very delicate and get out of repair easily. They must then be helped out with glass-

es. There are two kinds of glasses—the kind that hook over the ears and the kind that straddle the nose. The latter are much more stylish and fall off every fifteen minutes at the rate of \$9.75 per fall.

Man is well protected with eyes in front, but must rely on automobile horns behind. Man's eyes are so placed that he cannot see his own face, which accounts for the many startling varieties of whiskers which are worn—*Reprinted from the Record-Herald.*

(Copyrighted, 1911, by George Mathew Adams.)

A CURIOUS LABORATORY ANALYSIS.

Some time ago a ruddy faced man, well dressed, bejewelled, and otherwise showing signs of affluence, presented himself at our laboratory bringing a bottle of whiskey he said he wanted analyzed for poison. He had no objection to charges and would pay after he found out what the whiskey contained.

He seemed very much exercised and no amount of questioning could elicit more than his name and telephone number. He was thoroughly convinced, however, that the whiskey was poisoned. He left after receiving our promise that report would be sent in due time.

The fluid in the bottle had the appearance and odor of whiskey. It was subjected to distillation, and was found to contain about 30% of alcohol. The usual strength of whiskey is from 40% to 42%. To look for an unknown factor in such cases the imagination is usually drawn upon, and poisons looked for which are easily accessible to the laity. We looked for cyanogen, arsenic, mercury, for morphine and strychnine, but all gave negative results.

Recalling that Spanish Fly is frequently used in love potions, I thought that possibly fragments of shimmering wings of the insect might be found; accordingly, we centrifuged the residue after the distillation and looked for a 2/3 Objective.

Imagine my surprise in finding a lot of squamous epithelial cells, patches of mucosa, etc. This opened up a new field of investigation. Chlorides were found also a decided trace of urea. Since urea is found only in urine and the guano of birds, I concluded my unknown factor to be a female urine, and so reported to our client.

After a few weeks the man returned to pay his bill, and thanked us for the accurate report on the "poisoned whiskey," also volunteered the information as to how the urine got into the whiskey bottle. His story was this: "You see, we have been friends for many years, and recently we had a lover's quarrel: To drown my sorrow, I drank more whiskey than was good for me, and in one of my stupid moments, I called on my friend. While there, she offered me some whiskey from a bottle which I accepted, but she acted so suspiciously, and the stuff tasted so peculiar that at once the idea possessed me that she was trying to poison me.

"When I brought to her attention the result of your analysis, and questioned her, she admitted that she had consulted a clairvoyant in an at-

tempt to win back my love. The clairvoyant advised her that in order to bring this about it was necessary to have me drink some of her urine at the time of her menses."

Laboratory Note:—She evidently carried out the clairvoyant's instructions to the letter, for there were not only ordinary epithelial cells present, but patches from the vagina and the labia majora, and cells from the Bartholinian glands.

Did she win back his love?—M. F. SCHLESINGER, 3rd Ave and 10th St., New York.

THE DOCTOR A TEACHER—Casey A. Wood, M.D., of Chicago, in a paper on "Some Lessons From the Life and Labors of Helmholtz," has this good advice to give the profession:

"During his long and eventful career Helmholtz, in pursuance of belief that salvation of the race lies chiefly in the rational application of painfully acquired knowledge, found time to give popular lectures to those he thought would appreciate them. These lectures were prepared with great care and were fully illustrated, often by experiments. The text of these lectures, both in the original and in their translation, is a model of literary style, while the subject matter is inspiring and instructive. I have long felt that, as medical men, we have been very derelict in our duties as teachers and as guides of public opinion. There is at least some ground for this accusation in the fact that we have not merely failed to act as instructors of the laity in such vital matters as private, municipal and federal hygiene, eugenics, the regulation of the food supply, etc., but we have also neglected to furnish the public with rational answers to many medical questions which they have a perfect right to ask, and to supply it with such medical news as we are able to wrest from the hidden world of physiologic and pathologic truth.

"Until quite recently it would not be incorrect to say that the average citizen gained his idea of biology, therapeutics and sanitary science from purely commercial enterprises, from quack advertisements, from yellow journals, from sensational magazines, and from novels whose authors drew upon an overwrought imagination for their medical ideas. I fear that the medical profession is much behind its duty, even at this late date." * * * "I look confidently forward to the time when there will be a widespread, organized, and effective campaign on the part of the medical profession to teach the whole citizen-mass such work-a-day truths in biology, medical sociology, sanitation and rational therapy as will enable them to render intelligent judgments when called upon to exercise their franchise."—G. D. L.

If on transillumination the maxillary antra are dark, it does not necessarily mean that pus is present. Thick granulations may be covering the antral wall.—*American Journal of Surgery.*

State News

Dr. G. C. Corder, of Palmer, who has been acting as assistant to Dr. W. J. Judy, of Webster Springs, has recently experienced an attack of typhoid fever, from which at last report he was convalescing.

* * *

We regret to learn of the ill health of Dr. W. M. Dent, of Newburg, an ex-President and charter member of our association. Because unable longer to attend meetings or even to read the Journal, the doctor has dropped from our ranks. Although no longer one of us, he sends his "kind regards, hoping the society may continue to prosper." In return we wish for our venerable friend a happy and peaceful close of his long career.

* * *

Dr. H. S. Castleman, of Martinsburg, was recently found dead in his office, about 10 o'clock p. m. He was not in good health, having recently undergone a surgical operation in Baltimore. His death was attributed to cardiac disease.

* * *

Dr. J. C. Irons, late of Elkins, although now an Indiana practitioner, still retains interest in our association. In a recent letter he sends pay for the Journal, and says: "I certainly cannot dispense with the regular visits of the W. Va. Medical Journal. I want to keep in touch with my former friends and co-laborers."

* * *

Dr. E. L. Sincindiver and Dr. S. W. Hammond, of Martinsburg, are new members of the Eastern Panhandle Society.

* * *

Died—On March 15th, very suddenly, John M. Wilson, only son of Dr. L. D. Wilson. Mr. Wilson was for many years a sufferer from rheumatic cardiac disease. To such an extent had the disease progressed that for years he was incapacitated for work of any kind. He was a graduate of Wash.-Jeff. College, Pa., a young man of the finest character, and through all of his protracted disability was so patient and uncomplaining that he won the sympathy of all who knew him well. His funeral was attended by a remarkably large concourse of people, indicating the high standing of the deceased, and the great sympathy felt for his sorrowing father.

Society Proceedings

AMERICAN PROCTOLOGIC SOCIETY.

(Continued from March Issue.)

NON-SURGICAL TREATMENT OF CONSTIPATION.

By DWIGHT H. MURRAY, M.D., of Syracuse, N. Y.

Dr. Murray stated that chronic constipation and its results was one of the worst of the foes

to a healthful human race.

He had never known any medicine to cure cases of constipation. As primary causes of all cases of constipation he considered CARELESSNESS, IGNORANCE, and LAZINESS to be of first importance. The whole medical profession should teach their clientele how to care for themselves, and to train their children in order that constipation could be eliminated by educational and prophylactic methods.

Medicines for the use of constipated people have increased until their number is almost countless. Advertisements which extol particular cathartics exploited by this or that pharmacist, are well nigh bewildering.

He makes the claim that all cathartics finally leave those who use them worse than before. He does not entirely interdict the use of drugs, as there are cases where they must be used, but almost wholly for temporary relief. He says that a mistaken notion exists in the minds of the laity that the feces is composed largely of debris of food. This, however, furnishes only a comparatively small portion of the fecal mass, the larger portion being deposited in the large intestine as the ash resulting from the products of metabolism.

He mentions various exercises, massage, deep breathing, climbing, rowing, electricity, etc., as being helpful in the treatment and cure of these cases.

Sigmoid injections of pure olive oil, castor oil or medicinal paraffin oil were recommended as aids in the treatment.

He says that hours could be spent over the various drugs and methods in detail; after it all we would be obliged to say, that eternal vigilance as to the regularity on the part of the patient must be exercised or a cure would not result.

The keynote of his paper is, education and regularity as to periodicity of the first daily stool. Finally he believed that the whole profession had a profound duty to perform for mankind in an educational way for emancipating the race from this insidious foe.

* * * *

THE SURGICAL TREATMENT OF CHRONIC CONSTIPATION

By LOUIS J. HIRSCHMAN, M.D., of Detroit, Mich.

Constipation is divided into two great classes; the one class being due to a lack of functional activity, i. e., dietetic error, improper habit, neural or tropic influence. The other class, which some of us have been pleased to designate as obstipation includes all cases whose impaired activity is due to mechanical interference with the normal peristaltic movements and expulsive function of the bowel.

Obstipation, or obstructive constipation may be caused by:

1. The presence of any foreign body, occlusion, contracture, hypertrophy or accumulation in the intestinal canal.

2. Displacements, acute angulations, distensions, neoplasms, adhesions or compressions of the bowels.

3. Developmental defects and congenital deviations from normal.

In as much as the surgical treatment of constipation, due to easily recognized local conditions, is obvious, they are dismissed with mere mention. Coloprotic constipation represents such a large per centage of cases of mechanical constipation that its discussion involves the most important field of surgery in the treatment of constipation. All patients with ptotic colons are not constipated, nor do all constipated patients suffer from coloprosis. There must be in addition to ptosis of the cecum, transverse or sigmoidal colons, a condition of functional inactivity due to atony of the bowel muscle.

Suspensions of ptotic colons by means of fixation by adhesions to the abdominal wall are unnatural and interfere with peristalsis. Restoration should be accomplished by shortening the natural support—the mesentery. Lateral anastomoses between the most dependent loops of ptotic bowel is sometimes indicated. Above all, massage, both abdominal and internal rectal, is of primary importance in restoring function, and should be used along with either dietary or hygienic measures to restore bowel function.

* * * *

A PAPER: INTESTINAL STRICTURE FOLLOWING ILEO-RECTOSTOMY. REPORT OF A CASE WAS READ.

By FRANK C. YEOMANS, M.D., of New York, N. Y.

J. X., a man 46 years of age, was always strong and well but suffered from severe constipation of many years standing. In October 1909, an anterior sigmoidopexy was proposed for "prolapse of the sigmoid." Temporary relief followed, but three months later "peritonitis" developed. The same surgeon operated again, freed numerous adhesions, divided the ileum just proximal to the colon, closed the abnormal end and implanted the oral end of the ileum into the rectum. Relief of the constipation was prompt but when he first consulted Dr. Yeomans, in July, 1910, it had returned in an obstinate form with all the symptoms of a marked auto-toxemia superadded.

The proctoscope passed easily, but no opening could be discovered in the rectum or the sigmoid. An excellent radiograph, by Dr. L. G. Cole, proved the colon and sigmoid to be unobstructed.

Concluding that the feces, following the path of least resistance, were accumulating in the colon, Dr. Yeomans did an appendicostomy at the N. Y. Polyclinic Hospital, December 16, 1910. Irrigations through the appendix relieved all symptoms for ten weeks. Constipation and toxemia then returned, however, and he performed an exploratory laparotomy March 14th, 1911. The ileum ran down into the left side of the pelvis and was lost in a mass of dense adhesions. A broad lateral anastomosis was made between the ileum, just above the adhesions, and the sigmoid. The patient reacted well from the operation, but developed a double pneumonia, 18 hours later, to which he succumbed on the fifth day. The urine was suppressed the last 24 hours of his life. The bowels moved on the second day, and, thereafter three or four times daily. At the autopsy

no peritonitis was found. The specimen removed, consisting of ileum, sigmoid, and rectum intact, showed perfect union of the recent lateral ileo-sigmoidostomy. The remarkable feature of the old end-to-side ileo-rectostomy was that the opening was so constricted that it would scarcely admit a 16 F. catheter and physiologically amounted to a stricture.

The noteworthy features of this case were:

1. Reverse peristalsis of the colon, evidenced by the large quantities of feces expelled by the irrigations through the appendicostomy.

2. The radiograph was valuable in demonstrating a patent sigmoid and colon, thereby proving that the obstruction was in the small intestine.

3. Failure of the proctoscope to reveal the site of the opening does not discredit the diagnostic value of that instrument but shows the extreme degree of contraction of the opening.

4. The many actions of the bowel signify clearly that the physiological function would have been permanently restored had the patient survived the pneumonia. The practical lesson derived from a study of the case is that lateral anastomosis is superior to end-to-side union, especially in the presence of inflammation.

**CLINICAL SOCIETY OF NEW YORK
POLYCLINIC MEDICAL SCHOOL
AND HOSPITAL.**

Meetings of December 5th, 1911, and
January 8th, 1912.

STRANGULATED HERNIA OPERATED UPON UNDER COCAINE.—Case presented by Dr. Robert Brennan.

Patient was a man of 41 years of age and is single. His hernia was noticed at birth, and for sixteen years he wore a truss. At 16 he discontinued its use, but after four years became engaged in laborious work and had to put it on again. One week ago the hernia came down, and in spite of his efforts, he could not replace it. Three days after it came down, he began to vomit, and this continued for two days, until he entered the hospital. He had a marked mitral lesion, which suggested the desirability of cocaine anaesthesia. On cutting down, the sac enclosing the hernia was liberated, letting out bloody fluid, and a knuckle of black gut. Under hot applications to the gut the color became restored in about an hour, and the wound was sewed up. His pulse promptly dropped from 140 to 100 after the operation, and has remained normal since.

Dr. Morrow said he had been interested in cases of strangulated hernia, from the fact that discoloration of the gut is often due to traction upon the vessels, and that time might be saved by promptly replacing the gut in the abdominal cavity. He had demonstrated that normal gut when constricted at the femoral ring for a short period of time, would promptly lose its color and become black, and would regain it when shoved back into the abdomen.

THYRO-GLOSSAL CYST.—Case presented by Dr. J. A. Bodine.

Dr. Bodine showed a specimen of thyro-glossal cyst, which he had removed from a case in its entirety. The case was somewhat uncommon. He had noticed from former careful observations with Dr. Myles, that these cysts had a way of returning after operation, or at least leaving a suppurating condition in the neck. To obtain success, the cyst must be dissected from the base of the tongue to the thyroid gland, including the ducts. The cyst wall was thin, and nothing should be left if success was to be obtained and a cure promised.

Dr. Morrow said that he had never operated upon a thyro-glossal cyst, but had a case of bronchial cyst, which came under the class of congenital malformations. This case was very difficult because the wall of the fistula, which opened into the pharynx, was adherent to the deep vessels, and it was very hard to separate them, but this was finally accomplished.

AMPUTATION OF FINGER TIP WITH REPLACEMENT AND RECOVERY OF FINGER.—Case presented by Dr. J. A. Bodine.

Dr. Bodine showed a case of a little fellow who, while working at a cloth-cutting device, in a clothing shop, caught his finger tip in the machinery, cutting off the finger about half an inch from the tip. The boy was badly frightened, and had run to the hospital, leaving the finger tip on the floor in the shop. A friend was sent after it, and returned two hours later, bringing the tip which was rather dried up, but softened after soaking in normal salt solution. The tip was put in place and bound up. The finger showed complete healing, and a round line of scar tissue, where the junction had taken place.

CASE OF TUBERCULAR IRITIS.—Presented by Dr. E. S. Thomson.

The case was interesting as one of primary tubercular iritis. The patient was an Italian, 21 years of age, two years in the country; he has three brothers living and well and one sister who died at the age of seven. No family history of tuberculosis.

He reacted positively to the Von Piquet test but otherwise shows no evidence of tuberculosis.

Eye Symptoms.—Besides the usual adhesions of the lens he shows a well marked grayish nodule, projecting from the periphery of the iris, which is rather characteristic. The three growths on the iris which it is most important to distinguish are sarcoma, so-called summa, and tubercular.

Sarcoma is usually a dark distinct mark, which is characteristic; summa is usually on the margin and is associated with a good deal of inflammation, but clears up very rapidly under mercuric; tubercle most frequently occurs at the limbus. In this case one can see a cheesy mass extending from the limbus to the adjacent structures. With the Von Piquet reaction and the clinical appearance it seems a fair clinical conclusion that it is tubercle of the iris.

These cases are generally secondary to some process of the lung, and the primary cases that

have been reported are open to question. The prognosis in this case appear favorable and the patient will probably recover if properly treated.

In response to a query as to what treatment would be effective, Dr. Thomson said he had been impressed with the value of tuberculin, and would start that treatment immediately. He would take the precaution, however, of having a Wasserman test made. Surgical treatment was not indicated.

Dr. Lynch said he supposed that the same principles would hold good in this case as in other types of T. B. viz: Good hygienic surroundings and good food.

CASE OF SALPINGITIS INFECTION FOLLOWING CONCEPTION.—Case presented by Dr. Morgan.

Dr. Morgan showed a case of a woman 31 years of age, married with one child 11 years of age, and a history of several miscarriages. Her husband stated that she was exposed to gonorrhoea but she gave no history of inconveniences. Four weeks before admission to hospital she called her family physician, who found her in pain and bleeding. She said she had missed one period, and was afraid she was going to miscarry. Bi-manual examination showed a mass posterior to the uterus, and a diagnosis was made of a probable ruptured ectopic pregnancy. When seen a little later, there was a tremendous mass. On consultation she had been removed to the hospital and a laparotomy was performed, and a pregnant uterus found. There was nothing to indicate a sub-mucous, or an intra-mural fibroid. Further examination brought to light a tubo-ovarian cyst on the right side, and a chronic pyosalpingitis of the left tube with the fimbriated extremity closed. The tube and ovary on the right side were removed, and the left tube also. Dr. Morgan was amazed that the woman was pregnant. She began to menstruate after a rest of two weeks in bed. The interesting feature was that the woman became pregnant after an infection which apparently closed both tubes.

BARBOUR-RANDOLPH-TUCKER SOCIETY
ELKINS, W. VA., March 7, 1912.

Editor W. Va. Medical Journal:

We had a most interesting meeting of the Barbour-Randolph-Tucker County Medical Society March 6th, 1912, at the Gassaway hotel, Elkins, W. Va. Fifteen members present.

Afternoon program 2:30:

The following papers were read: "Diet in typhoid fever" by Dr. G. C. Rodgers.

This paper was well received and brought out many novel points and was well discussed.

In the evening at 8:30 the society was treated to two excellent papers, viz.: "The Surgical Aspects of Dyspepsia," Dr. A. P. Butt. This subject was novel and elicited a great deal of discussion.

The last paper on the program, "Anaphylaxis" by Dr. J. E. Horgan, was filled with interest and was most ably discussed. Two new members were given the right hand of fellowship in the society—Dr. Hull, of Durbin, W. Va., and Dr. Lawson, of Wildell. The next meeting of the

society is to be held the first Wednesday in May at Elkins. Our society is growing in interest and attendance right along.

Yours fraternally,

E. M. McINTOSH, Sec'y.

EASTERN PANHANDLE SOCIETY.

The Eastern Panhandle Medical Society held its quarterly meeting in Martinsburg, March 6th, convening at 12 o'clock at Hotel Berkeley. The meeting was unusually well attended and correspondingly interesting. Dr. Emmert Stewart, of Winchester, Va., read a paper on "Abdominal Pains," and Dr. G. W. Swimley, of Bunker Hill, read one on "A Breath."

The local members of the society entertained the visiting brethren at a fine dinner at the Berkeley at 1:30 o'clock.

The following physicians were present at the meeting besides the two mentioned: Howard Osbourne, of Rippon; J. N. Miller, Charles Town; W. E. Perry, Halltown; W. B. Brown, Shenandoah Junction; Fred Cochran, Clearbrook; B. B. Ranson, Harpers Ferry; J. Glass, Winchester; W. H. Yeakley, Keyser; S. T. Knott, Shepherdstown; C. C. Lucas, Kearneysville; E. B. LeFever, Inwood; J. H. Shipper, Gerardstown; A. L. Grubb, Berkeley Springs, and E. P. Fry, Hedgesville. Local physicians J. W. McSherry, J. McKee Sites, J. Nelson Osbourne, W. T. Henshaw, Robert W. Miller, H. G. Tonkin, E. H. Bitner, A. Bruce Eagle, Clifford Sperow and M. V. McCune.

In addition to a discussion of the papers read, and other business attended to, the following resolutions were reported as to the very sudden death of our fellow member, Dr. Henry S. Castleman, who died when alone in his office in Martinsburg, about 10 o'clock p. m. The resolutions were unanimously adopted.

WHEREAS God in His providence has removed from among us one of our faithful and esteemed fellow members, Dr. Henry S. Castleman, and

WHEREAS, In his death the medical profession and the community in which he lived have suffered a great loss, it is eminently befitting that we record our appreciation of him. Therefore,

RESOLVED, That with deep sympathy with the bereaved relatives of the deceased, we express our hope that even so great a loss to us all may be overruled for good by Him who doeth all things well.

RESOLVED, That hereby we record our appreciation of our deceased friend; as a man, genial, true-hearted, whole-souled; as a fellow physician, efficient, progressive and courageous.

RESOLVED, That the removal of such a life from among us leaves a vacancy that will be deeply realized by all, and will prove a serious loss to the community in which he lived.

RESOLVED, That a copy of these resolutions be sent to the family of the deceased, and to our State Medical Journal, for publication.

J. MCKEE SITES,
R. E. VENNING,
W. W. BROWN,
Committee.

Next meeting will be at Charles Town, W. Va., May 6, 1912

Very respectfully,

A. B. EAGLE, Sec'y.

OHIO COUNTY SOCIETY.

Jan. 29.—Dr. Hildreth III. read a paper on "Yankauer's Operation for Closure of the Eustachian Tube in Chronic Otitis Media." After anesthetizing and washing out with carbolic acid solution, this consists in passing probe into the auditory canal to isthmus, follow with a curette clear to attic and middle ear. This operation is applicable to 20 per cent of cases. It can be used as a preliminary step where objection is made to the radical mastoid operation, or where no bone disease of middle ear exists. Dr. Quimby spoke of a case where bony sclerosis, pus in mastoid, or necrosis of bone could be shown by a skiagraph. Dr. Kelly considered the operation worthless unless other means are taken to relieve other conditions, such as steatomata, etc.

Dr. Schwinn reported a case of aphasia following head injury. Patient unconscious on Jan. 1st for 18 hours. Later he was rational but could not talk connectedly. Suggillation over left ear, with some depression. Waited one week when he opened the skull through squamous portion of temporal bone and part of parietal; removed portion of dura. There was little effusion. He replaced piece of bone 1 by 1¼ inches in size. This contained no periosteum. It healed in, and the aphasia and paralysis of left facial nerve disappeared. The doctor gave illustrations of agraphia before and after operation. After third day could write wife's name with errors; after fourth day without error. Eight days after could write a correct account of injury and operation. Is now about well. Patient shown. The doctor then gave an exposition of cerebral localization, the origin of which was in 1861, when Broca reported two cases of aphasia with identical brain lesions, thus establishing the speech or Broca's center.

Dr. Noome congratulated Dr. Schwinn on the beautiful physiological expose; spoke of vitalization of bone flap by Haversian canal and by mere contact, where the periosteum was wanting. Dr. Jepson reported a case of aphasia from cerebral hemorrhage in a lawyer at 50 years. The patient was reeducated by a lawyer neighbor, who began with the alphabet, and persevered until the patient was able to converse fairly well, and he lived for twenty years.

Dr. Osburn spoke of the advantage of cultivating ambidexterity in defective children. Dr. Schwinn closed with a few remarks on the technic of bone-flap operations, and the nutrition of detached bone.

Dr. L. D. Wilson reported case of a man 62 years of age, in good health taken suddenly ill about 8 o'clock in the morning; was seen about 9 o'clock. He had had an attack of what was diagnosed catarrhal jaundice about 8 years previously. Recovery was protracted but complete. Had been in excellent health ever since. On the morning in question, he ate an unusually hearty

breakfast, and on leaving the table went up stairs to the bath room. While there he was suddenly seized with a severe and most acute pain in the epigastric region. He became rapidly collapsed, pale, cold surface, and rapid shallow breathing. When seen, in addition to these symptoms, he had a very weak pulse, an acute pain above and a little to the left of the umbilicus, very great tenderness over entire abdomen, but much greatest about mid-way between the umbilicus and ensiform cartilage. Had vomited two or three times—stomach contents and afterwards mucus; *no blood*. Felt no relief, restless and felt that he must sit up. Morph. sulph. gr. $\frac{1}{2}$ by hypo. gave much relief, but general condition not improved. Vomited several times during the day. Condition at 6 p. m. about the same. Weak, restless and still inclined to sit up on the side of the bed. At 11 p. m. another hypo. of morphia was given, after which he expressed himself as much relieved; thought he could sleep. but no improvement in pulse, respiration or general condition, which seemed most grave. Rested better for a few hours; about 3 a. m., asked for and drank a cup of tea, which was soon vomited. At 4 a. m. while sitting on edge of bed, trying to change his underwear he suddenly fell back into syncope and died. Attack lasted 20 hours. Autopsy five hours afterwards. Body very fat and well nourished. Heart, lungs, liver, gall-bladder, stomach, intestines entirely normal. Right kidney very small, size of an egg, but normal in appearance. Left kidney fully twice usual size and normal in structure. Appendix rudimentary. There was some free blood in the peritoneal cavity, most in the retropancreatic space. A large extravasation and infiltration of blood about, and in the substance of the head of the pancreas.

The case was freely discussed by a number of the members. In the discussion Dr. Fulton reported a case in man aet, 32, with pain in region of gall-bladder, with digestive disturbance, jaundice, etc. Temp. 102 on second day. On third day he opened abdomen, found healthy gall-bladder and appendix but a mass near head of pancreas, which proved to be purulent. The microscope showed the presence of pancreatic juice. Patient is recovering. Adjourned

E. A. HILDRETH, II., *Sec'y pro tem.*

Reviews

THE HEREDITY OF RICHARD ROE, A DISCUSSION OF THE PRINCIPLES OF ENGENICS—By DAVID STARR JORDAN, *Pres't. of Leland Stanford, Jr. University.* Boston Am. Unitarian Assn. Price \$1.20.

Although not written by a physician nor put forth by medical book publishers, this little book is a veritable mine of valuable treasure for the medical man.

Richard Roe is the lawyer's name for any human being. The same principles of "being well born" apply to all living things—animals and plants. The book is a condensed encyclopedia Rays.

of all that is known of the subject of heredity as applied to man. As a writer Pres. Jordan stands at the top round. The book reads like a romance, yet is bewildering almost in its profusion of facts and pithy statements. One can scarcely go wrong, were he to quote from the book at random, as the leaves fall apart, if he were going to select passages to illustrate its power and value. For example: "It is not true that 'genius is a disease of the nerves' as certain writers have insisted, if by genius is meant forcefulness of any sort. Real effectiveness arises from the continuous effort in high directions. We are sometimes astounded by a single product of a man capable of continuous thought, but the world is not moved by such men, nor has the literature of the ages been produced by them. Great men live great lives. The great work is the great life's impression. There is nothing occult, nothing mystic, nothing mysterious in greatness of mind or heart. Disease of the nerves is not genius; still less is it an attribute of greatness. To do great things in life, to think nobly, to write clearly, to have a sincere feeling for beauty and grace, it is not necessary to have broken any of the Ten Commandments." And this: "Drunkenness does not involve inheritance of drunkenness. The son of an inebriate does not inherit inebriacy. He may, however, be stricken with epilepsy. Drunkenness for the most part is simply a result of weak-mindedness. To inherit weak-mindedness may be to fall back into the grasp of drunkenness again. Like conditions produce like results with like people. But it is the weakness, not the drunkenness, the cause, not the effect, which is inherited."—G. D. L.

PRACTICAL ELECTRO-THERAPEUTICS AND X-RAY THERAPY—By J. M. MARTIN, M.D., *Professor of Electro-Therapeutics and X-Ray Methods in the Medical Department of Baylor University, in the Medical Department of Southwestern University, and in the State Dental College, Dallas Texas; Member of the Texas State Medical Association, American Medical Association, American Roentgen X-Ray Society, Etc.* Containing 219 Illustrations. St. Louis. C. V. Mosby, Company, 1912.

This volume of some four hundred pages embodies the latest accepted facts in the practice of Electro-Therapeutics and X-Ray therapy. It finds no space for theories and technical points and is written in a style that is understandable by all.

In a brief description the author gives the working principles of the simpler electrical modalities as well as one of each type of the heavier machines. Only the therapeutic and diagnostic phases are described that have been tried and found effectual—questions yet in doubt are omitted. Many of the photographs illustrate the writer's own cases.

The contents embrace nearly every phase of electricity as applied in medicine, especially Electrostatics and Magnetism, Electrolysis, Phototherapy, High-Frequency Current, and lastly the diagnostic and therapeutic application of Roentgen

While the work is not exhaustive on any one subject, its great scope and conciseness makes it a desirable book to the beginner and busy practitioner.—W. A. Q.

OPHTHALMIC MYOLOGY—A SYSTEMATIC TREATISE ON THE OCULAR MUSCLES—By G. C. SAVAGE, M.D., *Prof. of Ophthalmology in the Medical Department of Vanderbilt University.* 84 Illustrations, 2nd edition, revised. Published by the author, 137 8th Ave. N. Nashville, Tenn., 1911.

The author has limited himself in this book to a special part of the work of the specialist in medicine, as the title implies. In his preface to the first edition he says: "Art cannot succeed when principles are unknown or ignored. The mechanical or surgical art of readjusting the ocular muscles, when there is a mal adjustment or imbalance, should be based on the scientific principles underlying ocular rotations, else such art should not be practiced. In his preface to the 2nd edition he confesses that his teaching concerning the fundamental principles of ocular rotations, not being in accord with the immortal Helmholtz, has placed him at a disadvantage. The first chapter sets forth clearly these fundamental principles, which once mastered, will enable the reader to comprehend the subsequent chapters. The author invites criticism, remarking that he "would not promulgate nor perpetrate errors if he knew it." This treatise should be of especial value to the ophthalmologist for there seems to be no superfluous words in it. The writer goes direct to the point in clear, beautiful language which in itself compels admiration. The mechanical part of the work is also beyond criticism, clear, large print on enameled paper.—G. D. L.

BLAIR'S POCKET THERAPEUTICS—A PRACTITIONER'S HANDBOOK OF MEDICAL TREATMENT.—By THOS. S. BLAIR, M.D., *Neurologist to Harrisburg, Pa., Hospital, Etc.* 373 pages, limp leather. \$2.00. The Medical Council Co., Phila.

This book contains a brief discussion of the best modern methods of treatment, with occasional formulas. The latest ideas are incorporated. The author is a man of high standing, and the book may serve a good purpose as a pocket companion that may be consulted hastily in emergencies. It is a safe guide.

THE TAYLOR POCKET CASE RECORD.—By J. J. TAYLOR, M.D., 252 pages. The Medical Council Co., Publishers. \$1.00.

The object of this book is to encourage more accurate observation and study of cases by supplying a convenient form for a condensed record of each important case. 120 cases are provided for.

A COMPEND OF GENITO-URINARY DISEASES AND SYPHILIS, INCLUDING THEIR SURGERY AND TREATMENT.—By CHAS. S. HIRSCH, *formerly Asst. in the genito urinary department Jefferson Medical College, Hospital, etc.* Price \$1.25

This is one of the Blakiston series of Quis Compendis, which have a high standing. It is

one of the best. In a space of over 300 duodecimo pages the diseases under consideration are well and fully presented. A number of illustrations are used. The last chapter of 18 pages is on the salvarsan treatment of syphilis.

NERVOUS AND MENTAL DISEASES.—By ARCHIBALD CHURCH, M.D., *Professor of Nervous and Mental Diseases and Medical Jurisprudence in Northwestern University Medical School, Chicago; and* FREDERICK PETERSON, M.D., *Professor of Psychiatry, Columbia University.* Seventh edition, revised. Octavo volume of 962 pages, with 338 illustrations. Philadelphia and London. W. B. Saunders Company, 1911. Cloth \$5.00 net; Half Morocco, \$6.50 net.

It has been but three years (March, 1909) since the sixth edition of this excellent work was reviewed in these columns. The fact that a new edition, the seventh, has been called for so soon is sufficient testimony to the value of the work, and the favor with which it has been received by the profession. In the preparation of this edition, the work has been thoroughly revised. Much additional matter has been added and several chapters largely rewritten. The section on Mental Diseases has been wholly rearranged. Some matter no longer useful has been left out and much new matter added. As in the previous edition, the work is really two books in one, Dr. Church dealing with nervous diseases, and Dr. Peterson with mental diseases. Without going into detail it is sufficient to say that the authors, in their work, have made accessible to the profession the very latest developments of scientific progress in their respective departments. Every practitioner needs a work of this kind. Early diagnosis means so much in mental and nervous affections, and times without number he will be thankful for the help which such a one can give him. We can confidently commend this volume as a storehouse from which his needs can be amply satisfied.—W.

Medical Outlook

ACUTE DILATATION OF THE STOMACH.

John E. Boyd, M.D., of Jacksonville, read a paper on this subject before the Florida Medical Association in which he takes the ground that the disease is not nearly so rare as generally supposed. Thinks the disease is commonly overlooked and the symptoms attributed to other causes. His attention was called to the subject by the loss of two patients in which he had grave doubts as to the correctness of the diagnosis. One followed mechanical emptying of the uterus at four months for pernicious vomiting. The second was in connection with an operation for perinephritic abscess. Both cases were diagnosed as gastric hemorrhage. Since then he has had three cases, the diagnosis being confirmed in two by the stomach tubes, in the third by a post mortem.

He says: "The mortality rate in this disease up to the present time has been appalling, but it

is believed by those who have studied the condition most closely that such a mortality is not necessary. They consider that it is mainly due to the fact that the disease has been recognized late in its course. They believe that if diagnosed early and proper treatment instituted, a great many cases can be saved. The condition has been so recently recognized and so often confused with other troubles that a majority of the cases so far reported have had a fatal termination"—G. D. L.

OPERATIVE TREATMENT OF WOUNDS OF THE HEART.

Brewster and Robinson (*Annals of Surgery*, March, 1911) quote Grisogono's statistics and note with some surprise that of the total of 177 heart injuries only 24 were produced by bullets. In the tabulation of the cases the bullets usually wounded both walls of the ventricles. The knife wounded but a single wall. They conclude their study by calling attention to the usual complicating pleural or lung involvement, and hold that operative rather than expectant treatment is indicated in the large proportion of cases. They reject osteoplastic flaps and prefer intercostal section with or without subsequent division of ribs; they also advise in case of large wounds permitting of violent hemorrhage at the time of suture, and interrupted manual compression of the superior and inferior cavae.

Differential pressure with apparatus is by no means a *sine qua non* in all operations for wound of the heart, although it must be regarded as a valuable agent to control the respiratory function, to regulate the heart-beat, and to reinflate the lung at the end of the operation.

Air-tight closure of the pleural cavity with inflation of the lung should be employed when possible; the intercostal incision followed by a pericostal stitch is a successful method of securing tight closure.

Drainage of the pericardium is unnecessary.—*Therapeutic Gazette*.

UTERINE FIBROMYOMATA.—*Jour. Indiana State Medical Asso.*, SIMON J. YOUNG, M.D., of Valparaiso.

Young's conclusions are:

1. Our treatment should be based on potential pathology rather than on individual symptoms.
2. Statistics teach us that degenerations and complications are very common and widespread.
3. From 12 to 15 per cent of cases not operated on will probably die as a result of the tumors.
4. Inasmuch as mortality from operation in favorable cases is very low (probably 1 to 3 per cent), we should make it a rule to advise operation unless contraindication exists. [Contraindication: grave anemia, pelvic infection, pregnancy (unless tumor is liable to complicate delivery)—these are examples]

Finally, I would have you bear in mind that I said "make it a rule" to advise operation. Every rule has its exceptions, and here, as elsewhere,

the exceptions should be determined only by an experienced operator.

In the discussion which followed Dr. Young's paper, Dr. Griswold questioned if it would not be better to remove the uterus entirely. Many, many times," he said, "in the removal of these fibroids, you have an apparently healthy uterus behind, and if you took out that uterus and dissected it you would find similar fibroids distributed through it."—G. D. L.

THE PUPILS IN PHTHISIS.

J. L. Tuechter, Cincinnati, (*Journal A. M. A.*, February 24), says that a pupillary difference as a symptom in unilateral pulmonary tuberculosis has been recognized for some time and is of some importance, deserving more attention than it has received. It is not always present, but if there is a difference it will be noted that the dilated pupil is sluggish, reacting slowly. From observation of a larger number of cases Tuechter is satisfied that a comparative dilatation of one pupil signifies an enlargement of the bronchial lymph-nodes on the corresponding side, and as such glandular involvement is usually tuberculous and occurs at a time when the lung itself does not show destructive changes, he feels that the sign is most valuable in the early diagnosis of pulmonary phthisis. It is necessary, of course, to rule out ocular conditions, which may cause the difference and certain conditions of the thorax, such as tumor or aneurysm. Several cases illustrating that the pupillary difference not due to pathological conditions of the eye is a valuable early sign in phthisis, with or without other symptoms, are reported. As it is due to bronchial gland involvement, it is not necessarily dependent on any condition of the lungs.

HYDROCELE AND ITS RADICAL CURE BY THE INSERTION OF CATGUT.

C. H. Whitney, Boston, *Boston Medical and Surgical Journal*, August 10, 1911.

Whitney reviews the anatomy and clinical aspects of hydrocele thoroughly. Excluding the open radical method for the cure of hydrocele, he believes that the insertion of catgut, as recommended by Van Schaick, is the best. This consists in the insertion of about eight to sixteen inches of sterile catgut into the sac through the canula while the sac is being emptied. Soon after the operation the sac begins to refill and is red and tender. The pain is moderate and does not require opiates. In 96 hours the swelling begins to absorb, and a period of four to six weeks, is required for complete absorption. Of 118 cases operated upon by this method, there were nine recurrences. Ten could not be followed. A case was regarded as cured if there was no recurrence after six months. Whitney also reports his results after the injection of pure carbolic acid. Of 61 cases, there were eight recurrences, while 12 patients were lost sight of. The author regards the injection of iodine as less satisfactory.

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Original Articles

POLIOMYELITIS.

L. D. Wilson, M. D., Wheeling, W. Va.

(Read before Ohio County Medical Society.)

The fact that in the five years preceding 1904 300 cases, and in the five years following 1904, more than 8,000 cases were reported of a disease which had theretofore been met with only occasionally, has made the subject of poliomyelitis, or infantile paralysis, as it used to be known, a very pressing one. The further fact that about five-sevenths of the cases occurred in the United States, in some parts of which it prevailed to the extent of a serious epidemic, has turned the attention of the profession most seriously to the study of its nature, causes, and management. Up to 1907 some thirty-five epidemics of the disease have been recorded. Fifty years ago Heine first described it, giving it the name infantile spinal paralysis. During the past twenty-five years it has prevailed epidemically in various parts of the world. In Norway it was epidemic in 1887, 43 cases, and again in 1895, 20 cases; in Rutland, Vermont, in 1894, 126 cases; Queensland in 1904, 108 cases; Norway again in 1905, 540 cases; Vienna in 1908, 226 cases; Wisconsin in 1908, 352 cases; Westphalia in 1909, 500 cases; New York City in 1907, 2,500 cases; Nebraska in 1909, 1,036 cases.

In addition to these there have been within this period, epidemics in Massachusetts, Pennsylvania, Virginia, Michigan,

Minnesota, Iowa, Kansas, California, and Idaho.

To those of us who in years past only occasionally met with a case, this enormous increase in its prevalence seems almost incredible. A curious fact about these outbreaks is that they are almost entirely limited to the northern parts of both hemispheres. And, another is that the period of greatest prevalence is in the summer months, the coming on of cold weather having the effect of arresting the spread of the disease. One might infer from this that the Southern States would be the section that would suffer most from these epidemics, but the fact is that they have thus far escaped almost entirely. I have seen no record of any south of Virginia, although there have been cases noted in Cuba. Perhaps the visitation of this part of the country is yet to come. The peculiar prevalence and spread of these epidemics suggest at once the idea of contagion, and when we consider that the outbreaks in the United States are closely related to the stream of immigration from the Scandinavian peninsula, where the disease had previously prevailed, it would seem that the source of the invasion may have been determined.

Numerous instances might be cited where local epidemics seemed to originate from a single case. These evidences of a contagious infectious agent have been greatly expanded by recent observation and study. It has been found that the disease may be spread not only by direct contact, but that it may be carried by intermediaries; the well carrying it from those affected to

others, without themselves being affected, in this respect resembling small-pox, diphtheria or scarlatina.

The studies and experiments of Flexner and Lewis in this country, and Landsteiner and Levaditi in France, at last, have dispelled all doubts on this subject, and have demonstrated conclusively that the disease is transmitted by a specific contagion. The investigations of Flexner and Lewis are very remarkable, both in their range and results. Convinced that the disease was infectious, they set themselves to the task of first demonstrating the fact, and then, if possible, discovering the infecting agent. In both their efforts have succeeded. After many unsuccessful attempts with other animals, they finally succeeded in infecting monkeys with the disease, and after a series of carefully elaborated experiments, have not only proved its communicability, but have almost cleared up the questions of its period of incubation, the route by which the contagion enters the organism, and the pathological changes which it causes.

The isolation of the infective agent cannot as yet be said to have been satisfactorily accomplished, although much has been learned about it. So far as known, its characteristics are as follows: It is very minute in size, ultra-microscopic, and passes readily through the pores of the finest and densest porcelain filters. It is not yet certain that it has been seen. "If an aqueous suspension obtained by filtering an emulsion in distilled water of the spinal cord of an infected animal be examined microscopically under the dark field, bright dancing points devoid of definite size and form, and not truly motile can be seen, but it is not established that these particles are the micro-organisms of poliomyelitis." Yet these filtrates are very virulent, and very small quantities when injected into the brain of monkeys are sufficient to cause paralysis. The virus is highly resistant. It withstands glycerination for months, and shows little reduction in potency after drying over caustic potash for weeks. If kept frozen at from 29° to 26° Fahrenheit it retains its virulence for weeks, but it is destroyed by exposure for half an hour to temperatures from 113° to 122°. It is also destroyed by a 1 per

cent. hydrogen peroxide solution and by menthol. It is still not certain yet that the virus has been cultivated outside the animal body on culture media."

In the body of an affected person the virus is found in the cerebrospinal axis, the mesenteric and other lymph glands, the nasal mucous membranes, and the saliva. The experimental disease in monkeys, and numerous fatal cases in man have afforded opportunities for the study of the pathological phenomena of the disease. In the experimental disease the period of incubation between the time of inoculation and the onset of paralysis varies from three to thirty-three days, the average being eight or nine. In the disease as it affects human beings the period is given as four to fourteen days. A similar close correspondence exists in the lesions found after death, but there is a wide difference in the death-rate of the two. In the inoculated monkeys the deaths were 50 per cent., while in the epidemics in man it is about 10 per cent. The lesions found after death in the inoculated monkeys and in man are very similar. Their principal seat of course is in the cord, although they may be found also in the brain. They are chiefly in the grey matter and membranes, but may also be found in the white matter.

The meninges show diffuse infiltration with round cells especially about the blood vessels, of which the adventitial coat alone is involved, the lumina, however, may be, and often are, lessened by compression. The meningeal cellular infiltration does not lead to exudates on the surface, and is almost exclusively composed of mononuclear cells. The anterior and posterior horns of the grey matter are affected, the anterior more markedly. The perivascular spaces are the seat of cellular infiltration and edema, and occasional hemorrhages. The nerve cells undergo degeneration and necrosis. Like changes, but in less degree, may occur in the white matter, the brain, and in the intervertebral ganglia. The pathologic process appears to be as follows: The virus gains access to the leptomeninges especially in the region of the cord and medulla, where it sets up cellular infiltrative changes that are most marked in the perivascular lymph spaces of the arteries

entering the nervous tissue. The vascular lesions constitute the primary causes of the lesions of the nervous tissue, the severity of which is determined by the particular vessels affected and the intensity of the involvement. The central arteries entering the anterior median fissure and supplying the anterior grey matter of the cord invariably become affected, which accounts for the constant and greater lesions of the anterior horns. The posterior horns escape with a less degree of damage because the vessels supplying them are not so freely distributed.

The richer the blood supply, therefore, the greater the damage to the part when it is affected. This accounts for the fact that the cervical and lumbar enlargements of the cord are so liable to severe lesions. Variations in the involvement of the two sides of the body is probably explained by an irregularity in the branching of the central artery. While the brain commonly escapes, it nevertheless is often the seat of lesions. Paralysis of the cranial nerves may be caused by them, and lesions may occur in parts of the brain which do not show themselves by paralysis.

Flexner's experiments seem to establish the conclusion that the paralyzes, for the most part, especially when not permanent, are caused by deficient or intercepted blood supply. The causes of this are all outside the lumina of the vessels, which are simply reduced in caliber through pressure. Thrombi do not occur, although focal hemorrhages and edema do. Where these lesions are not too severe they may, in whole or in part, be recovered from; by resolution of the infiltrate and re-establishment of the lumen of the vessels, by absorption of the edema and hemorrhage, and restoration of mildly degenerated nerve cells, but the severer degenerative lesions by which actual necrosis is produced are not restored, and on these the paralyzes that remain permanent depend.

Flexner and Lewis seem to have established the fact that the infection effects its entrance by the mucosa of the nasopharynx. In this respect it resembles the diplococcus intracellularis of cerebrospinal meningitis, and it is also not improbable that the virus escapes from the body by

the same membrane, in this way furnishing the contagion which may be conveyed to others.

Some have surmised that the virus may be introduced by the bites of insects. This may be possible, but it has not been demonstrated. The onset of the disease is sudden, characterized by marked prostration, headache, pain, and rigidity in the back of the neck and along the spine, tenderness and pain on motion of the extremities, fever, usually mild in degree, but may reach 103 and may last from a few hours to several days, rapid pulse, sometimes vomiting, and usually rather obstinate constipation, rarely there is diarrhœa. Where the brain is affected there are convulsions, delirium, and stupor. After a period varying from a few hours to a few days, the characteristic paralysis appears. The affected muscles become flaccid, there is loss of reflexes, and the reaction of degeneration is present. Sensation is not affected, except perhaps some pain and hyperesthesia at the onset. The lower extremities are most frequently affected. In order of frequency, one leg, both legs, both arms, legs and trunk, one leg and one arm. The entire muscular apparatus from the neck down may be affected. It must be remembered, too, that in those known as abortive cases, the characteristic paralysis does not appear at all.

During epidemics it is not unlikely that many cases of obscure illness of short duration may be of this character. The diagnosis is usually not difficult. The diseases with which it is most likely to be confounded are influenza, typhoid fever, rheumatism, intestinal antointoxication, and epidemic cerebrospinal meningitis. The last named presents the only serious difficulty. Lumbar puncture, with the absence of the diplococcus in the fluid obtained, would determine in favor of poliomyelitis.

Rurah gives the following table of diagnostic symptoms for each:

<i>Poliomyelitis.</i>	<i>Cerebral Meningitis.</i>
Onset sudden, with fever, coma, convulsions. Convulsions rarely repeated after first few days.	Onset sudden, with fever, coma, convulsions. Convulsions liable to be repeated.

Paralysis flaccid, associated with atrophy.

Paralysis widely distributed, possibly involving all the extremities, or limited to one member or even to a single group of muscles.

Electric reactions altered (R. D.).

Deep reflexes diminished or lost.

Intellect never permanently involved. No epilepsy.

Paralysis spastic, no atrophy; associated with rigidity and contractures.

Paralysis generally hemiplegic, sometimes diplegic, or paraplegic. Monoplegia rare.

Electric reactions normal.

Deep reflexes exaggerated.

Intellect often involved. Epilepsy frequent.

This contrast of symptoms does not seem to be especially illuminating. Most of the symptoms given are late ones, too late to be of much value in a case of doubt.

When the paralysis appears, it is so significant that there can be little trouble about the diagnosis. After a few days, three or four, generally, the fever and general disturbance subside, leaving the paralysis as the only remaining symptom. This reaches its height sometimes in a few hours, but usually in a few days. It then tends to remain stationary for a variable time, usually from two to six weeks, when signs of improvement begin to show themselves. The first improvement occurs in the parts last affected, and gradually progresses until at the end of two or three months, as a rule, recovery has taken place in all parts except those permanently affected. This, however, is not invariable. Sometimes gradual improvement may go on for as much as a year, but after that time the conditions then remaining are apt to be permanent. There are exceptions to this also, one case under my observation maintained a steady and gradual improvement for almost three years to practically complete recovery.

The electric reactions in the paralyzed muscles are significant. Excitability may be affected in varying degree, the diminution may be slight or it may amount to complete loss, but in some degree the reaction of degeneration is always present, and is usually fully developed by the end of a week, sometimes by the fifth or sixth day. The state of muscular reaction is valuable as prognostic. In proportion to the response to the current

is the probability of recovery of function, where no response is obtained the paralysis is permanent. The permanently affected muscles become flaccid and toneless, and in two or three weeks, wasting begins, which gradually, and at times rapidly increases, until they have lost all semblance of their former outlines. As the disease passes into the chronic stage, grave deformities may be produced owing to the permanent shortening of the muscles opposed to the paralyzed ones.

The prognosis, so far as life is concerned, is usually good; the mortality as before stated being about 10 per cent. The deaths all occur at the onset of the disease. In all other cases, there is always improvement, and as before stated, some go on to seeming complete recovery. After two or three weeks, the probable degree of improvement to be expected may be estimated from the electrical reaction. Generally, however, at least some paralysis is left. McClanahan, of Omaha, Nebr., who had a large experience in the Nebraska epidemic, has described five types or varieties of the disease: Spinal, bulbar, meningeal, polyneuritic, and abortive. The spinal is the form commonly met with. In the bulbar type there is involvement of the muscular centers in the medulla. In this type there is paralysis of some one or more of the cranial nerves, and a fatal termination is probable. The meningeal type is characterized by fever, pain, often headache, rigidity of the neck, and more or less unconsciousness. This type is apt to be mistaken for meningitis, and only lumbar puncture can differentiate it in the early stage. In the polyneuritic type, there is hyperesthesia with pain, sometimes intense, usually in the lower limbs or back. In the so-called abortive type, the diagnosis is not decisive. The attack presents all the symptoms of the onset of the disease, but after a few days illness complete recovery takes place without any paralysis. In the presence of an epidemic, especially if there are other cases in the same family, it would seem justifiable to consider such cases as abortive. That the disease is communicable is undoubted, but the degree of contagiousness is rather mild. It is estimated to be about half that of scarlet fever. In view of its contagiousness, all cases of

the disease in the febrile stage should be strictly isolated, the secretions disinfected, and the mouth and nasal cavities cleansed frequently with antiseptics. The fact that a 1 per cent. solution of hydrogen peroxide destroys the germ would suggest frequent spraying with such a solution. At the termination of a case the bed clothing, room, and furniture should be fumigated as after a case of scarlet fever or diphtheria.

An attack of the disease seems to confer immunity against a second attack. In but a single instance have I seen any mention of a recurring attack. The literature of the subject seems silent on this point. The instance to which reference is made is that of Eshner, who described a case in which he thought the inference justifiable that there had been a second attack. The first attack was clear and unequivocal, but the second, which followed a number of years afterwards, was so ill-defined, and the symptoms so vague, that in the complete absence of any record of any such observation on the part of others, we are forced to doubt the diagnosis.

Flexner has been experimenting on this subject, and thus far has been unable to reinfect monkeys that had recovered from an experimental attack.

Lastly we come to the subject of treatment. There is, as yet, no specific treatment for this affection. We are to understand that, besides the characteristic disturbances of the nervous system, there is a general infection involving more or less the functions of all the organs of the body. Therefore, there are likely to be many symptoms to which attention should be given even if we are powerless to cope with the specific lesions.

The fever, if high, may be moderated by cold or cool baths, constipation relieved, pain alleviated, sometimes by warm baths or opiates. The skin and kidneys may be encouraged to increased action with a view, vague indeed, and without much to base it on, of eliminating the infective agent. Headache may be relieved by the bromides. It has recently been recommended to administer hexamethylenamin at the onset of the attack. This was suggested by the fact that after its administration the drug could be detected in the cerebro-spinal fluid. It

is well tolerated, and while not much evidence of its usefulness has been shown, it is worthy of trial. It may be given in doses of 2 or 3 grains every two or three hours, during the acute stage, that is, during the first two or three days. Many clinicians, however, advise little or no treatment of the acute stage—Hare and Mitchell among them. It must be evident that treatment can only be symptomatic, and in such cases, as a rule, the less drugging the better. As the infective agent, in the present state of our knowledge, seems to be proof against our means of elimination, there remain but two other means that offer much prospect of successfully combating it. These are, by increasing the resistance of the cells to its injurious action, or by introducing from without, or by inducing the production by the cells internally, a substance or substances that will neutralize its virulence.

The success that has attended the experiments with serums in the treatment of a number of diseases of infectious character offers much of encouragement in the quest for a serum or vaccine that may be remedial in this affection. Without going into details, it is enough to state that Flexner and his co-workers have been directing their energies and skill to this end. As yet the effort has not been successful, but enough has been accomplished to give a reasonable hope that success eventually will be achieved.

The diet in these cases should be regulated to the needs and digestive powers of the patient, rest and quiet should be especially insisted on, and of course, good ventilation and cheerful surroundings.

After the acute stage has passed off, the question comes up what to do for the sequelæ, the paralyzed limbs, the wasted and contracted muscles, and the deformities thereby produced. It seems useless to attempt to treat the lesion of the cord. As Sachs says, "So far as we are at all able to influence the spinal lesion itself the enforced rest in bed, and, in the earlier stages, the application of an ice-bag will help as much or as little as any other measures."

Counter-irritation is painful, and if one will only call to mind the lesions of the cord which have been described, it is easy to

see how little could be expected from any such measure.

Galvanization and faradization of the spine have been recommended by some, and condemned by others. It is pretty safe to assume, where there is such direct conflict of opinion in regard to a plan of treatment, that neither the benefits nor the disadvantages are very much in evidence. So electrical treatment probably would be better left off until a later stage. Massage and gentle friction are useful in aiding the circulation and nutrition of the paralyzed muscles. After two or three weeks, electrical stimulation of the paralyzed muscles may be begun. As these muscles and nerves always, in some degree, show the reaction of degeneration, they will not, except in the mildest cases, respond to the faradic current, but will to the galvanic.

As the object of this treatment is to get the muscles to exercise, the rule to be followed is to use that form of current that will give the best contraction with the least current.

Passive motion of the limbs should be practised from the beginning, and as soon as the paralysis begins to pass away, the patient should be encouraged to use his muscles in whatever way he can. For the neuritic and muscular pains of this stage, aspirin alone or in combination with codeine is useful. The iodides and ergot have been recommended in the late treatment, the former perhaps because they dilate the capillary vessels, and the latter because it contracts them, a fine example of the logic that is so often applied to questions. Strychnia and arsenic are also powerless as to any direct effect on the damaged nerve tissue. If they are of any use at all, it is merely in their effect as general tonics.

After about a year, as a rule, improvement ceases, and the problem then is how to get along best with such muscular power as we have left.

Passive movements to keep up the normal range of motion in the joints, assisting weakened muscles by means of elastic rubber appliances, braces, and splints to overcome tendencies to deformity, tenotomy and tendon transplantation in some cases, are all means applicable and beneficial in greater or less degree when the conditions in-

dicating their employment. It should be remembered that it is much easier to prevent these muscular contractions than it is to overcome them, once they have become established. Among the great number of references consulted in the preparation of this paper, I desire particularly to refer to the excellent contributions to the subject of McClanahan, Collins, Ridlon, Sachs, Robertson, and Chesley, and most especially to the admirable report on experimental poliomyelitis, and the investigations in immunization and production of curative sera by Flexner and Lewis, of the Rockefeller Institute.

MENINGITIS, WITH SPECIAL REFERENCE TO DIAGNOSIS.

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(Read by title at Annual Meeting State Medical Association, September, 1911.)

The purpose of my paper today in dealing with meningeal inflammations, is to mention the various forms of meningitis with a brief symptomatology of each, with the view of being able to distinguish them from one another. The problem as we know is a very difficult one at times, but if we should observe closely the characteristics of the different forms of the disease, and take advantage of the methods used in distinguishing them apart, we can hope at least to be successful in a large majority of cases.

Meningitis, as the term implies, is an inflammation of the meninges, or the serous covering of the brain and spinal cord. For a better understanding of such an inflammation before we attempt to classify the different forms of meningitis, it is necessary that we refer briefly to the structure of these membranes. They are designated as the external or dura mater, and the internal or pia and arachnoid.

The dura mater is a thick, non-elastic fibrous membrane, which forms the outer covering of the brain and lines the interior of the skull. Its outer surface is rough and adheres closely to the inner surface of the bones, forming their internal periosteum. Its inner surface is smooth and lined by

a thin layer of endothelial cells. It sends three processes inward, for the support and protection of the different parts of the brain; is prolonged to the outer surface of the skull through the different foramina at its base, and at the same time its fibrous layer forms a covering for the different nerves as they leave their respective foramina. In the vertebral canal the dura is not, as in the cranial cavity, closely adherent to the bony surface, but instead it forms a loose sack which hangs in the vertebral canal, and is separated from the inner periosteum of the canal by loose connective tissue.

The delicate covering of the central nervous system is formed by two membranes, known as the pia and arachnoid. The pia covers the surface of the spinal cord just as it does the brain, follows the convolutions on its upper surface deep into its furrows, while the arachnoid covers only the general surface, covering the fissures like a bridge, forming the subarachnoid space. In health the pia and arachnoid membranes are separated from each other by a thin layer of fluid. The internal surface of the dura and the external surface of the arachnoid are only a few tenths of a millimeter apart, while in the cord they are still closer together, being only apparent in pathological accumulations.

The subdural space, the space between the dura and the arachnoid, contains a normal amount of fluid, estimated at a few cubic centimeters. The great bulk of the cerebrospinal fluid is found between the layers of the arachnoid and pia membranes, which are continuous over the entire surface of the brain and spinal cord. Through this subarachnoid space pathological conditions of the brain are transmitted to the cord, and vice versa.

The dura terminates at about the second or third sacral vertebra, while the spinal cord extends only to the lower border of the first lumbar vertebra. This space between the termination of the cord and the dura is selected for making the lumbar puncture.

Now, after a brief anatomical description of these membranes, seeing how they cover the brain and spinal cord, and how they are separated from one another by the cerebrospinal fluid, we begin to realize that it

is possible for any one, or part of them, to become pathologically affected without materially involving the other; also that certain organisms act differently upon them as they likewise do on other tissues of the body. We then naturally look for a classification for the different forms of the disease, both as to location and cause. Therefore we will classify first, as to location, and second, as to cause.

Under location: We have external meningitis (pachymeningitis ext.) or that which involves the outer surface of the dura; internal meningitis (pachymeningitis interna) affecting the inner surface of the dura; leptomeningitis, or inflammation of the pia mater.

Under causation: We may mention tuberculous (basilar meningitis); cerebrospinal meningitis; serous meningitis (alcoholic meningitis), and purulent meningitis.

Pachymeningitis externa, or inflammation of the external surface of the dura, is caused principally by injuries, caries of the petrous portion of the temporal bone, or from the ethmoid, mastoiditis, erysipelas, and syphilis. The disease may be acute or subacute, depending directly upon the nature of the infection. The disease is usually ushered in by a local headache, fever, vomiting, sometimes convulsions, and later paralysis. The diagnosis can usually be made by finding the local cause, which in a large majority of acute cases originates from middle-ear complications of the mastoid.

Leptomeningitis, or inflammation of the pia mater, is caused by organisms coming through the blood stream from other infected areas of the body, trauma by direct invasion, mastoiditis, or ethmoidal trouble.

Under this heading of meningitis we can conveniently make our classification as to cause. Here we find the acute simple leptomeningitis, originating from the various infectious and contagious diseases, such as pneumonia, typhoid fever, scarlet fever, measles and mumps. Also the cerebrospinal meningitis caused by the meningococcus intracellularis, tuberculous, and purulent meningitis.

In considering the symptomatology of the inflammations of the pia mater, it is well to begin with the most simple form,

and that is the so-called acute simple leptomeningitis. For clearness of description the symptoms are divided into the prodromal, irritative, and paralytic stages. During the prodromal stage the patient complains of headache, languor, irritability, loss of appetite, nausea and vomiting.

In the irritative stage the prodromal symptoms become intensified. Headache and vomiting are well pronounced, with the addition of delirium, rigidity of the neck muscles, hyperaesthesia of the skin, irregular fever, and retraction of the abdomen. The rigidity of neck muscles increases until the neck becomes retracted, and general rigidity may appear. Respiration is rapid and irregular, pulse is slow as a rule, from 50 to 70 per minute; fever is irregular, ranging from 101° to 103° Fahrenheit, and bowels are constipated. The advent of the third stage is marked by increasing stupidity or coma. The skin becomes moist, pupils dilated, and urine and feces are passed involuntarily. Death usually occurs within two or three days after these symptoms develop. The duration of the disease is generally two or three weeks. However, coma may come on at once and the patient die in a day or two.

The prognosis is bad, but not so grave as in tuberculous meningitis, and more so than the cerebro-spinal form.

It is well here to mention a form of meningitis which is often confused with the other forms of the disease, the so-called serous meningitis or alcoholic meningitis. It is not a true meningitis, however, but rather an acute toxæmia of the brain. It is most common in males after a number of years drinking. The persistent use of morphine and cocaine will bring on the same condition. The patient has a history of drinking for two or three weeks and winding up in delirium tremens, after which he sinks into muttering delirium and a semiconscious condition, with delusions and hallucinations. The pupils are contracted, temperature is normal or slightly above, and pulse accelerated. The tongue becomes dry and coated, and the extremities cold and stiff. Coma increases and the fever may rise to 103° or 104° Fahrenheit. Pneumonia often develops in the latter stage and hastens the end. Many cases do

not go into the last stage, but improve and recover.

The symptoms are somewhat similar to true meningitis, but from an alcoholic history the diagnosis can usually be made.

A very frequent form of meningitis, and one that is more uniformly fatal than any other disease of early life, is the tuberculous. It is a tuberculous infection of the pia mater of the brain, and at times involves that of the cord. It is rather doubtful whether a tuberculous infection of the meninges exists without a similar condition elsewhere in the body. However, we at times find, without doubt, cases of tuberculous meningitis in which no other lesions of infection can be discovered. These cases are often seen following measles, the child's vitality being considerably lowered when the tubercular bacilli are inhaled into the lung, taken up by the blood stream in a short time, carried to the brain, producing symptoms there before the local infection in the lung can be ascertained.

In a large proportion of cases the onset of the disease is gradual. The most early symptom of the disease noticeable is that the child has a disinclination to play, and becomes rather stupid and irritable. Sleep is very much disturbed, with an occasional grinding of teeth. Headache is a persistent symptom of the disease, and is often complained of (especially in older children) as the most early symptom, but usually follows after a week or two of the prodromal symptoms. Vomiting is also associated with the early symptoms, and when it occurs in repeated attacks without apparent cause is rather suggestive of the disease. Fever is not present at first, coming on gradually as the disease develops. These symptoms gradually increase until finally unmistakable evidence of the disease appears. During the course of these symptoms, which last a variable time, from two or three days to two or three weeks, a convulsion may come on followed by a deep stupor. The child will often cry out in its sleep without awaking. The neck muscles become rigid and often cause a retraction. The child is fretful and wishes to be left alone, and when not disturbed seems unusually drowsy. The pulse is generally accelerated, but occasionally is found to be slow.

Respiration is, as a rule, of a normal frequency, but if careful observation is made while the patient is asleep a marked irregularity is noticed, which is rather significant. During the second stage the irritability of the patient subsides and is replaced by a more profound stupor. Later the stupor becomes so profound that the patient can not be aroused. Paralysis may come on, involving certain muscles of the face, arms, or more often in the form of hemiplegia, but is rather transient, passing off in a day or two.

There is no disease which keeps the parents more hopeful and yet with as little chance of recovery. The child may have a convulsion one day, followed by deep stupor, and the following day be able to sit up in bed and play as if nothing was wrong. From that one symptom the parents are hard to convince that the disease is so fatal, and often become dissatisfied with the physician in attendance if he does not likewise have a hopeful view under such conditions. A thorough understanding of the behavior of the disease should be made to the parents, after which less trouble will be experienced in controlling them.

From the second stage the patient passes into the third stage, or complete coma. The patient can not be aroused at all, pupils become dilated, and there is a general muscular relaxation. Respiration is rapid and irregular. Temperature usually rises very high toward the end, and death comes from exhaustion under coma. There is no disease more variable in its course than tuberculous meningitis, ranging anywhere from one to two weeks to two or three months. I know of one case in which the child lingered four months from the time of the onset of the prodromal symptoms.

As for the purulent form of meningitis, there is nothing special to be mentioned in regard to symptoms, as they are identical with those of the acute simple leptomeningitis. The point to be especially remembered about the purulent form is, that the cerebrospinal fluid is of a purulent nature, caused by the admixture of various organisms, especially the strepto and staphylococci pyogenes, and that the disease is to be differentiated from the cerebrospinal meningitis, for there the spinal fluid is like-

wise purulent.

The next and last form of meningitis we have to consider is the cerebro-spinal, caused by the meningococci intracellularis. Cerebro-spinal meningitis has been especially interesting the medical profession the past few years, both as to diagnosis and treatment. The disease often occurs in epidemics, and when it does it seems to be especially inclined to attack infants and small children.

The disease is practically a disease of the nineteenth century, as the true cause of the infection was discovered during that time. From the history of older writers of medicine it is evident that the disease occurred prior to the nineteenth century, but as there is no proof of its existence at that time, it must be looked upon as a more recent disease. Purulent and cerebro-spinal meningitis was at one time looked upon as one and the same disease, but the fact must be borne in mind that they are not the same thing. It is true that the spinal fluid in cerebro-spinal meningitis is of a purulent nature, yet we recognize a great number of microorganisms which have the power of producing a purulent inflammation. In the purulent form various kinds of organisms have been found, among which may be mentioned the strepto and staphylococci pyogenes, bacterium coli communis, typhoid bacilli, and pneumococci.

The method of preparing the meningococci for examination under the microscope is not difficult. A drop of the purulent fluid from the meninges is spread upon a cover-glass, allow it to dry in the air, and then pass it rapidly through the flame of a bunsen burner several times. After which it is placed in a Loeffler methyl-blue solution for fifteen minutes, and washed and dried in the usual manner. Some first stain with carbofuchsin, decolorize with a solution of acetic acid, and then stain with a methyl-blue solution. The object of double staining is for making the capsule around the organisms more distinct, the capsule taking the red stain while the organisms are stained blue.

On examination under the microscope we find cells containing masses of meningococci, which are very strikingly like the ones we see in gonorrhoeal pus; but under

close observation the nucleus of the cell is found to be present in gonorrhoeal pus while it is absent in meningococci infection. They are found to be more collected in heaps, and not so much paired off as the gonococci. Pneumococci are more often confused with the meningococci, as they are very similar in appearance and are often the cause of a purulent meningitis. Yet there are certain characteristic differences. The pneumococci are compared in shape to the flame of a candle, with a slight bulging of their center, while the meningococci are of a crescent shape.

The disease usually begins without any prodromal symptoms, commencing as a rule by repeated chills. After the chill fever comes on at once, reaching 103° Fahrenheit or higher, with rather a continuous type. The patients complain of vertigo to such a degree that they can scarcely stand alone. An intense headache is complained of which is referred to the posterior part of the head, sometimes to the temple region, or to the top of the head. The pain is at times so unbearable that the patient will scream out, even in an unconscious condition, holding the head between the hands. The patient rapidly passes into an apathetic condition with closed eyes, or becomes delirious.

A very important symptom of the disease is a marked rigidity of the back of the neck. On examination it will be noticed that forward motion of the neck will cause great pain, while backward or lateral movements will cause little or no discomfort. The muscles of the back are likewise in a tonic spasm, causing a stiffness of the vertebral column, and producing an anterior convexity, or opisthotonos. In fatal cases toward the end coma becomes intense and the rigidity of the neck and back muscles disappears.

Pain is provoked by slight tapping on the head or spinal column. General hyperesthesia is present; patient becomes startled at the slightest noise. Herpes labialis is almost always present. Lips and tongue become dried, cracked, and covered with scordes.

The changes in the respiratory movements are not marked. The so-called Cheyne-Stokes respiration is not so fre-

quently observed as in the tuberculous meningitis. The pulse, in comparison with the height of the temperature, is rather slow. Vomiting is present in some cases, but is not so characteristic as in the other forms of meningitis, especially the tuberculous.

As to the course and prognosis of the disease we might say, in the fatal cases death comes more frequently about the end of the first week. Death occurs at times from complications long after the disease has subsided, and yet there are cases without complications which run a protracted course and finally die. And in contrast to this there are cases which come on suddenly with rapidly developing coma, and die within twenty-four to forty-eight hours. Then again there are abortive and mild cases which run a very short course and recover in a short time. While we observe mild as well as severe cases, we should at all times look upon it as a serious disease, and every cautious physician should give a very guarded prognosis.

The prognosis depends considerably upon the greatness of the intracranial pressure, coma, and paralysis.

After a general view of the different forms of meningitis, considering the causes and symptomatology of each, and noting their close similarity in many respects, we begin to realize that a close observation of each is necessary in order to differentiate them from one another. From a clinical standpoint cerebro-spinal meningitis is, as a rule, not hard to diagnose in the majority of cases, especially during the existence of an epidemic. Yet there are cases which are very difficult to recognize.

To differentiate the tuberculous variety we depend principally upon its gradual onset and slow fever. Also that it is generally found in persons with a pre-existing tuberculous trouble in other parts of the body, while cerebro-spinal meningitis attacks healthy and robust persons as well as the afflicted.

While we can be fairly certain, from a clinical view, as to the variety of meningitis we are dealing with, yet to be more or positively certain a lumbar puncture should be made. If a clear fluid should be drawn from the spinal canal we can with the clinical picture make a fairly positive diag-

nosis of tuberculous meningitis. While on the other hand, if a purulent fluid be withdrawn we know we are dealing with an infection which causes a purulent inflammation, and that it is due either to the pneumococci, streptococci, staphylococci pyogenes, or meningococci. The purulent fluid with the clinical symptoms will in the majority of cases give us our diagnosis, but for a positive diagnosis a bacteriological investigation must be made to find the exciting organisms. While it is necessary, in making a positive diagnosis, to find the exciting organisms, yet this is at times very difficult to accomplish. There are cases of marked evidence of meningeal trouble, and yet the withdrawal of the spinal fluid cannot be accomplished, as there is no fluid in the subarachnoid space of the spinal cord. Then again the organisms are not plentiful in the fluid at times. However, when it is possible a microscopical examination should be made, as it proves successful in the largest proportion of cases. When the organisms are not found to be plentiful, centrifugalizing the fluid will be a decided help.

Treatment: The general treatment of the various forms of meningitis is about the same. The patient should be placed in a quiet and darkened room under the care of a good nurse. The diet should be of a liquid character. An ice-bag placed upon the head and spinal column does a great deal in diminishing the headache, and is said to help to relieve the inflammation.

Anodynes are indicated and should be used freely. When the pain is not severe bromides may be all that is necessary. Morphine should be used when there is much suffering and is better used subcutaneously. Strychnine must not be given during the active stage of the disease. As for special treatment, the lumbar puncture is indicated in every form of meningitis, first, for the purpose of diagnosis, and second, with the view of treatment. Its diagnostic value is to establish whether we are dealing with a purulent infection or not, and whether or not the exciting organism, is due to the invasion of the meningococci.

Its therapeutic value is worthy of consideration. Withdrawing a portion of the cerebro-spinal fluid, reducing the intracranial pressure, will at times lessen the

depth of coma, and alleviate the intense headache

A curative effect from lumbar puncture alone cannot be expected, but it becomes of great value when a positive diagnosis has been established of the invasion of the meningococci, as indication for the administration of the curative serum.

The performance of lumbar puncture is seldom difficult. The greatest trouble is in getting the consent of the ones concerned. But when its necessity is thoroughly explained, that by its use only can we tell whether we are dealing with a curative form of meningitis or not, it is seldom that consent cannot be secured.

The patient is placed in the left horizontal lateral position, with head bent forward and knees flexed tightly against abdomen. This position produces the best possible curvature of the spine and separates the arches of the lumbar vertebrae, so that the needle can be more easily passed. The point of selection for passing the needle is between the third and fifth lumbar vertebrae. The operation should be done under strict antiseptic precautions. A plain aspirating needle can be used, but better still is a needle containing a mandrin which is ground smooth with the point of the needle. We can select the fourth lumbar vertebra as a good landmark, as its spinous process is on a horizontal plane with the crest of the ilium. General anaesthesia is not necessary, as the pain is no more severe than in pleural aspiration. A good strong assistant to keep the patient in position is all the help that is needed. The needle is pushed quickly through the skin and muscle, and cautiously into the subdural or subarachnoid space.

If a plain aspirating needle is used the fluid escapes quickly if it should be under any pressure. If a needle with a mandrin should be used, the mandrin must be withdrawn as soon as the subdural space is supposed to have been reached. If the fluid does not escape the mandrin is replaced, and the needle again slightly manipulated. The mandrin can be withdrawn and replaced until the fluid is obtained. The use of a needle containing a mandrin makes a longer operation at times, but is less liable to injure blood vessels and nervous tissue.

After we have decided upon lumbar puncture, and have any reason to believe the infection is due to meningococci, we should have the curative serum on hand to administer through the needle if the puncture proves necessary. That is, whenever the fluid withdrawn is purulent, the serum should be administered at once through the same puncture.

From 30 to 50 c. c. of the fluid is withdrawn and an equal amount of the serum is administered. If the bacteriological examination should prove positive, an equal quantity should be given each day until the disease is under control. One dose cannot be depended upon any more than we can with a single dose of diphtheria antitoxin, expect to cure a case of diphtheria.

When we have evidence of meningitis with pre-existing infection elsewhere in the body, we can pretty well assume that the brain affection is due to other organisms rather than to the meningococci. However, when a puncture is made and fluid found purulent, a single dose of the serum should be administered until a bacteriological examination is made. The serum is of value only when the infection is due to the meningococci. It has no curative effect whatever upon other forms of meningitis. There is no question as to the value of its use in this particular form of meningitis.

Statistics from this country and abroad show that cerebro-spinal meningitis, under the serum treatment, has decreased in mortality from 90 to 30 per cent., and even lower when the serum is administered in time. Now, with these indisputable facts before us as to the value of the serum treatment in this particular form of meningitis, it is up to us as general practitioners of medicine to be able to distinguish the different forms of meningitis in order that we may apply the right remedy to the right disease at the right time.

One should not rely on feeling a tonsil engaged in a tonsillitome; he should see that it is if he does not wish to take the chance of cutting away the pillars of the fauces, a portion of the tongue, the floor of the mouth or the uvula.—*American Journal of Surgery*.

IMPORTANCE OF EARLY DIAGNOSIS IN MIDDLE-EAR DISEASE IN CHILDREN.

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At this time of the year when the exanthemata, diphtheria, grippe, and coryza are especially prevalent, it is of great importance to always keep in mind that frequent sequel, otitis media. I have two excuses for bringing this trite subject before this Society tonight: First, it is one of the most common diseases of childhood and one which is most neglected by the general practitioner; second, because the general practitioner is first to see these cases and an early diagnosis depends largely on him.

As acute inflammation of the middle-ear, of "earache," in children is generally amenable to early treatment, it ought to be the exception that these cases should come to suppuration, instead of the rule. Frequently the medical attendant feels that his patient will be all right as soon as the ear begins to discharge, while that is the very thing he ought to prevent. Instead of taking hold of the case as if it were of serious consequence, he passes it on as a trivial affair; and the child, as long as there is no pain, is permitted to run out in all kinds of weather, to romp in play and to eat any kind of food desired, until overtaken at night by a renewal of the attack which ends in suppuration, and which may ultimately result in the loss of hearing, in a few cases mastoid inflammation, and fortunately less frequently, brain abscess or meningitis.

But the peculiar importance of this subject to the physician, and the danger to the child, lie in the frequently latent and unsuspected existence of purulent otitis media. When there are objective or subjective symptoms of ear disease in a young child, the attention of the medical attendant is called to the existence of an ear disease in the case, even if the ear is not treated. But if there are no symptoms calling the attention to the ear as a seat of disease in an ill child, naturally even a grave disease of the middle ear would easily escape detection

That such oversight occurs in young children with fatal results has been frequently proven post mortem. It has long been known that of all middle ears examined in infants, dead from any asserted cause, normal ones are a rarity, a large proportion being found to be the seat of inflammation or even suppuration, unsuspected and unrevealed, until the autopsy, as may be learned from the writings of Von Froeltsch, Schwartze, Wreden, and others. But that the latent ear disease had caused the fatal general malady in a great many instances was strikingly demonstrated by Ponfick of Breslau, in 1897. His suspicions were aroused when his own children were afflicted with both severe gastro-enteritis and suppuration of the middle ear. He suspected that the ear disease was the cause, not the effect, of the general malady. Upon curing the suppuration of the middle ear his children rapidly recovered from gastro-enteritis without other treatment. Then, being Professor of Pathology in Breslau, Ponfick at once began to examine consecutively the middle ears of 100 dead infants under three years of age. In this series death was naturally attributed to various causes.

Among non-infectious diseases, congenital heart disease, extensive burns, and non-infectious dermatitis were given as the cause in a few cases. Among acute infectious disease, death was attributed to diphtheria, scarlatina, pneumonia, meningitis with or without pneumonia, acute and chronic gastro-enteritis, to otitis media only, or combined with acute bronchitis. Among chronic infectious diseases, death was attributed to tuberculosis only, tuberculosis with acute miliary generalization, and to congenital syphilis. The greatest percentage of ear disease in any one group in this series, namely 35 per cent., was found in infants dying of acute or chronic gastro-enteritis, with or without pneumonia. In eleven cases of uncomplicated pneumonia as revealed by autopsy, otitis media was absent in only one, a child six months old. In the entire series of 100 cases, in less than 9 per cent. had there been a spontaneous rupture of the membrana tympani or any other so-called external symptom of ear disease. None of them had been supposed to die of disease connected in any

way with aural inflammation, except, of course, the six cases tabulated as otitis media. Yet in 100 individuals there were 168 diseased tympana, of which seventy-seven were ambilateral and fourteen unilateral. Ponfick reported it as his opinion that the children had in most instances died of disease originating in what may be termed in a general way a symptomless chronic aural suppuration. That is, there had been no pain in the ear, no discharge, nor any external ear symptoms. A year later, Simmonds reported in the Archives of Otolaryngology still more alarming figures. In 133 autopsies in nursing infants the middle ear was free from exudation in only five cases. And since then a number of authorities have published similar observations which prove the contention that in a large percentage of cases the ear disease is the cause, not the effect, of the general malady.

As the starting point of the middle ear disease in these grave cases is, as a rule, the nasopharynx, it is claimed by some that the act of sucking, especially in the recumbent position, favors the entrance of infectious matter from the nasopharynx into the middle ear through the short, wide eustachian tube of the infant. However, the condition of the child does not become serious until the infection of the middle ear has become chronic, and the drum cavity a closed incubator of systemic infection. The latter is more easily brought about from the young child's ear than from the adult's, because the middle and internal ears are just as large and developed in the new-born as in the adult, but these parts are not at first surrounded by dense osseous tissue as in the adult bone. The incomplete ossification of the very vascular temporal bone of the infant and young child brings its middle ear in close proximity to the membranes and sinuses of the brain, the lymphatics of this region, the carotid artery and the jugular vein. While Von Troeltsch pointed out many years ago that the brain is infected sometimes through the inner ear, the most common attack, by far, of the child's cranial cavity by an otitis is at the tegmen tympani.

An osseous external auditory canal does not exist in a new-born child. Its little auricle is practically attached by a fibro-

cutaneous canal to its annulus tympanicus, from which, with the squama, is formed the osseous external auditory canal; about half its natural length being attained at twelve months, and its full length at six years. At birth, however, the membrana tympani is almost as large as the adult's, but much thicker, and continues so for many months. This fact may help to explain the infrequency of spontaneous rupture of the membrana tympani in otitis media in early childhood. That serious inflammation can exist without much if any pain, might be explained by the fact that enough pus may escape from the drum cavity into the nasopharynx through the short, wide eustachian tube of a young subject to relieve tympanic pressure and prevent pain in the ear. As frequently there is practically no other manifest symptom than a rise in temperature, which is attributed to other causes, an otitis media is not suspected. If an eye is bloodshot any one can see it, but if a membrana tympani is congested, inflamed or bulging with pus behind it, it requires an expert to see it. Thus it has become clear, to many that the reason a large number of young children die is because the real origin of their fatal malady, a middle ear inflammation, is unrecognized, and therefore untreated.

E. H. Pomeroy (Boston Medical and Surgical Journal, January 18, 1900) even goes so far as to hold that there is otitis media in *all grave* disease in young children, and asserts that therefore it becomes the duty of every practitioner in attendance upon an ill infant or young child to make an examination of the membrana tympani as much a part of his routine examination, as inspection of the tongue. He should not wait for "external symptoms," like otorrhoea, etc. If this is done, as shown by the notes of Pomeroy's cases, the drum membrane in many cases will be found to show signs of accumulation of secretion behind it in the tympanic cavity; and Pomeroy also shows by a report of his cases that if the membrana tympani is incised and the pent up secretions allowed to escape, symptoms attributed to brain, bowel, or lung diseases, will suddenly vanish and the child speedily recover. So important does Dr. Pomeroy consider these facts, that he, a physician

devoted to pediatrics, maintains that the doctor who cannot examine an infant's membrana tympani, diagnose a tympanic suppuration, and relieve it by paracentesis, is not doing his duty as a specialist in children's diseases. But it would be asking too much of the general practitioner because, as a rule, he has received no instruction in such matters in his medical school. If instruction in otology is given without requiring any practical knowledge of this subject in his examination for a degree, he will never learn it. He cannot be blamed for this because he naturally regards as unimportant that upon which his teachers do not examine him for his degree.

Proper inspection of the membrana tympani is not an easy thing to learn. I heard Politzer, of Vienna, twenty-eight years ago, say that he would not accept the statement of a physician regarding the condition of the membrana tympani until such an one had examined a great many membranæ every day for a year. Then he can interpret what he sees upon this important organ. But I believe if the physician will make it a practice to examine the ears in all children coming under his care whenever there is the slightest suspicion of anything wrong in those parts, he will gradually acquire a good working knowledge.

Allow me to recapitulate the essential features which are important to note in examining a drum membrane:

First, as to its normal aspect: Armed with head-mirror and speculum we see that the membrana tympani in its lower three-fourths is composed of a tense, shining membrane, and that in its upper fourth it is a relaxed or loose fold, having a dull gray appearance. The lower three-fourths are composed of three layers, the outer one of which is dermal continuous with the derma of the external auditory canal. The middle one is fibrous, and it is this layer which fits into the groove in the inner circumference of the tympanic ring. This layer does not enter into the formation of the upper fourth of the drum. The internal layer is mucous membrane and continuous with that of the middle ear cavity. The upper or relaxed part, called Schrapnell's membrane, is composed of only two layers, the external dermal and the internal

mucous-membrane layer. Attached to the drum in its tense portion, and occupying a vertical position, are the short process and the manubrium or handle of the malleus. These are to be seen at about the middle vertical line of the drum. The short process appears as a prominent white projection about the size of a small pin head, and is seen at the junction of the upper relaxed with the lower tense membrane. Descending vertically from the short process, or umbo, and inclining inward is the manubrium or handle of the malleus, at the lowest extremity of which is the most concave portion of the drum. At the anterior-inferior quadrant, from the tip of the manubrium to the circumference, the membrane bows out convexly, and gives us a bright light-reflex at this portion. The following, then, are points we must look for, and which must obtain in a normal drum:

1. A lustrous pearl-gray, slightly concave membrane.

2. A bright reflex of light at the anterior-inferior quadrant of this membrane.

3. A prominent white projection about the size of a small pin head situated in the center of the upper portion of the drum.

4. Two whitish bands running from this white spot in a horizontal direction, one to the anterior circumference, and the other to the posterior circumference. These are known as the anterior and posterior folds and mark the dividing line between the relaxed and the tense portions of the drum.

Now, as to pathological considerations: I exclude, of course, all chronic catarrhal and sclerotic changes, as well as traumatic rupture of the drum and infection of the middle ear from the external auditory canal as contingencies which do not concern us in this paper. But if we will follow the changes to be seen in the drum membrane, brought about by an inflammatory process, we will observe in sequence: First, that the drum is losing its luster, and on the handle of the malleus there is a dilatation of its blood-vessels. Then on careful inspection a leash of vessels will be observed running from the posterior superior part of the periphery down to the handle of the malleus, near the short process. In the next stage the handle of the malleus becomes uniformly red, and small radiating vessels may be

noted on the drum itself. As the inflammatory process develops, the handle of the malleus loses its sharply-defined borders and resembles the finger of a glove, and in color changes to a bright-red hue. The cone of light disappears and the whole membrane changes from pink to red and finally we notice a bulging outward in its posterior or upper posterior portion. As this stage it is impossible to distinguish the outline of the malleus or the edge of the tympanic membrane, for there is then a further extension along the external meatus, by which its soft tissues are swollen, with partial occlusion of its lumen. It is then high time to proceed with radical measures.

In examining an ear for this condition it is well to bear several points in mind. These are:

1. In infants the auricle should be drawn *downward* and backward to separate the inferior from the superior wall of the meatus. In older children the auricle should be drawn upward and backward, as in adults.

2. We should be prepared with an applicator and cotton to remove particles either of wax or dead epithelium or medicaments, such as oil or other substances that may have been introduced into the canal.

3. We should remember that instead of seeing a red bulging drum we may see a drum of a dull whitish-gray color. This is due to necrosis of the epithelium of the dermal layer, and if this is gently swabbed it will come away and reveal the congested drum beneath.

4. We should always examine both ears.

It is not my purpose in this paper to consider the treatment, either prophylactic or curative, of otitis media. But as any physician may be called to see a case where immediate radical interference is necessary to prevent death, or at least serious illness, I will conclude with a few remarks concerning paracentesis of the membrana tympani or myringotomy. It is called for whenever there is an evidence of pus or mucus in the middle ear as shown by a bulging of the drum as described above.

Prior to opening the ear drum, the external auditory canal should be sterilized as much as possible by irrigation with 1 to 2,000 bichlorid solution. To infants it is

best not to give an anesthetic, whereas to older children it is absolutely necessary to administer a general anesthetic, in order to operate satisfactorily and not merely to make a blind jab at the membrane. The incision in the drum should be made in the following manner: Beginning at the lower posterior segment, a small straight or slightly curved knife, with the cutting edge upward, is plunged into the membrane, and should then be carried directly up to the superior margin of the drum. Just before withdrawing, the incision should be carried outward and backward for about an eighth of an inch. In this way we give free drainage to the whole cavity, the loss of blood and fluid relieves pressure and pain, more perfect healing of the cut surfaces ensues than if a small opening be made or a spontaneous perforation is allowed to take place; and, finally, it minimizes the chances of a mastoid involvement. In this connection I desire to condemn the paracentesis needle, or myringotome which I was taught to use years ago, and is recommended and pictured in some of the text books. It makes too small an opening, which is soon clogged up with pus, mucus or blood-scab, and on account of insufficient drainage the trouble may start all over again, calling for additional operative interference. I am convinced in my own mind that mastoid involvement has not infrequently been the sequel of an insufficient paracentesis. The dangers of this little, but most important, operation are that if too much force be used, or if the operator does not know the direction in which his knife is cutting, he may enter some other vulnerable structures. Cases have been reported where the jugular bulb, the carotid artery or the internal ear have been injured. Finally as a dressing after paracentesis, the meatus should not be plugged with cotton-wool, as it may impede the out-flow of the pus. But in order to enhance further drainage it is best to lightly insert small strips of gauze, which will act as wicks in sucking up and expelling the secretions.

March, 1911.

An enlargement of the thyroid beginning after middle life should arouse the suspicion of malignant neoplasm.—*American Journal of Surgery*.

INFANT FEEDING.

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Colostrum is the first food of the infant, and is found in the breast of the woman a few hours after the birth of the child. It resembles milk, but is a much thinner fluid, and indicates a healthy normal secretion of milk, which usually appears about the third day.

The function of colostrum corpuscles is to absorb and reconstruct unused milk globules, and to convey them from the milk glands into the lymph channels, and they have usually disappeared ten days after birth. If they remain long present, they cause gastric disturbances, and the milk should be examined microscopically upon appearance of gastric or intestinal disturbance. Colostrum contains large quantities of serum albumin, also a large quantity of fat, colostrum corpuscles and salts. The last two ingredients are supposed to be the cause of the laxative action of the colostrum. Milk in which these corpuscles persist may cause profound anemia, rendering the breast milk very thin, and it is unfit for use on account of its lack of nourishing properties.

Several days after the birth of the baby, the breast milk contains a large quantity of albumin, salt, and a small quantity of fat, and the longer the period of nursing, the smaller the quantity of albumin. At the same time the salts decrease, and the amount of sugar increases.

Breast milk varies according to the length of time it remains in the breast, and also the length of the nursing period, the first taken is poorest, and the last richest in nutrient value. The longer milk remains in the breast the more will the solid substance of the same be absorbed, and only a watery substance remains. During the course of nursing we find a decrease in the amount of fat, and an increase in the amount of sugar; and not only does milk vary in different women, but it also varies in the same woman during the nursing act. The age of the woman has an effect on the composition of the milk, there being a larger

quantity of proteids and fats in women fifteen to twenty years of age, and a smaller quantity of sugar. The smallest quantity of proteids and the greatest quantity of sugar are found at from twenty to thirty years of age. The milk after the first born is richer in water with a proportionate decrease of the sugar, casein and fat, than after other deliveries.

A method recommended by Friedman for use in general practice, which is easier than a chemical analysis and serves the same purpose, is to determine by microscopical examination the number and character of the milk corpuscles. Of course, it is necessary to become familiar with normal conditions, by repeated examinations. The milk corpuscles may be divided as to size into three groups, large, small, and intermediate, of which the latter are most numerous. The small ones are found in almost equal numbers, but the large are comparatively scarce, a magnitude of 400 diameters showing only about 10-20 in the field. If these be more numerous the milk is found to be too fatty and more difficult to digest. A preponderance of the small corpuscles usually means a chronic dyspepsia for the nursing infant. An accurate count can be made with some form of blood counting apparatus, but is not essential. The closeness of the corpuscles to each other also serves as a guide to the grade of milk; the more sparsely distributed the globules, and the greater the number of small ones, the poorer the quality of milk. The method also serves to differentiate the character of milk from the two breasts.

The nurse should always sit upright, be it day or night, when nursing the infant. A great many cases are on record where the mother or nurse has fallen asleep while nursing, and smothered the infant. For this reason it is important that the infant should sleep in its own bed, and never with its mother or nurse.

The first three or four days require special feeding methods. On the day of the birth, the exhaustion of the mother and presence of colostrum, besides the normal deficient quantity of food in the breast, demands long intervals of rest. Thus for the first three days putting the infant to the breast once in six hours will be sufficient.

If, however, the supply of milk be ample, the breast may be given every two hours. No infant should nurse longer than twenty minutes, while frequently ten to fifteen minutes will suffice. If an infant nurses longer than twenty minutes, we may be sure that the breast milk is deficient in quality, and a specimen should be given a proper chemical analysis. When there is a deficiency in the quantity of milk, but the quality is good, then it is advisable to feed the infant alternately with breast milk and bottle milk. At the same time the mother's general condition should be toned up, thus improving both quality and quantity of her milk. Frequently such a case requires iron, with moderate exercise, to stimulate and increase the flow of milk. When there is a deficiency of lacteal fluid, supply it by giving a properly diluted milk or cream mixture, suited to the age and weight of the infant.

A great many drugs can be transmitted to the infant through the mother's milk, such as narcotics, castor oil, rhubarb, senna, antimony, arsenic, iodine, bismuth, salicylic acid, cocaine, alcohol, lead, iron, mercury, digitalis, antipyrin, ergot, and the iodides and bromides. A flavor can be imparted to the milk by eating onions, garlic, cabbage, turnips or cauliflower.

Quite often we meet with some gastrointestinal disturbances in infants that are wholly breast fed, which are caused by faulty diet, extreme nervous irritability, menstruation, physiological changes in the mother, causing an improper ratio of ingredients, many of which can be remedied. A nervous woman who is constantly fretting during the day and awake during the night, will not be adaptable to breast feeding, and the sooner the infant is removed from the breast the better for it. During the day, for the first three months, disturb the child every two hours to be nursed, but at night leave it to rest as long as it appears satisfied. If the child thrives and gains in weight, then it is advisable and in the interest of the mother and child to have an interval of from seven to eight hours at night. If the child is restless, then turn it from side to side; in other words change its position, and give it one or two tea-

spoonsful of boiled water, which will frequently satisfy it and prolong sleep.

An infant one or two months old requires 2 per cent of fat and between 1 and $\frac{1}{2}$ per cent. of proteids, and when it obtains these ingredients in excess it will have indigestion, colic, constipation, etc. An attack of colic occurs about an hour after nursing. The infant up to this time having been quiet, suddenly awakens with a scream, and will draw its legs on the abdomen, get very red in the face, the attack lasting from fifteen to twenty minutes, though sometimes as long as an hour. Relief is afforded by massage of the abdomen, assisted by warm sweet-oil or vaseline. Besides the oil, an enema of warm water and glycerine will assist, by removing the offending material, which will contain large quantities of undigested cheese. When large cheesy curds are passed the cause of the indigestion should be sought. If the infant is nursing, a specimen of milk should be examined, and percentage of the ingredients noted. If there is a deficiency of fat this can be remedied by giving the infant an equivalent of cream. If a deficiency of carbohydrate, increase the same by giving the baby some sugar. When there is a proteid deficiency modify it by adding raw albumen, or almond milk, pea soup, lentil soup, or broth made of meat.

The researches of the last few years have proven that the pure fresh milk of the cow or goat, when properly modified, is the best substitute for mother's milk. It is well known that the percentage of fat in woman's and in cow's milk is about the same, that the quantity of sugar is rather lower in cow's milk, and that the quantity of casein and albumen is greater in cow's milk, as is also the ash. Therefore, cow's milk must be diluted before it can safely be fed to infants. Simply diluting the milk reduces the percentage of fat and sugar too much; so that the practice of adding cream and sugar has arisen, but the processes that have been advocated for obtaining the desired result have been too complicated for general use. The milk modifying laboratories of the city have more difficulties to overcome in the matters of supply and dispensing than would be encountered in the country where conditions surrounding fresh-

ness of supply, ease of dispensing, and sanitary conditions are so vastly different; yet in the country neither the cost of the apparatus nor the demand, admit the establishment of such laboratories. The fact that our grandmothers who were raised on the bottle did well on the milk from one cow does not alter the need of some simple method of home modification in these later days.

The following method is easily carried out by any intelligent person, and is approximately correct, and under the supervision of a physician who knows what he wants, will give results equal to the more expensive and elaborate laboratories of the large cities. Insist upon the cleanliness of the cow's udders, milkmaid's hands, and vessels; and remove milk to the cooling room immediately, so that no stable odors will be absorbed. Place the vessel, with loosely fitting cover, in cool water until all the animal heat has disappeared. Prepare enough for twenty-four hours feeding. After cooling, the top milk is separated from the lower layers by skimming, or preferably by siphoning through a sterilized tube; if the siphon be used, the tube is filled with milk and one end closed with the finger while the other is held above the level of the fluid in the vessel; the end next the vessel is then placed close to the bottom of vessel outside, both ends are released, and the milk will flow. Empty out two-thirds of contents of the container and refill with sterilized water which has cooled, and the mixture will represent about 1.2 per cent. of proteids, 2.6 per cent. of fat, and 1.5 per cent of sugar. Since the proteids now agree with those of human milk, it is only necessary to add milk sugar, and fat to make an approximately correct mixture. The fat is 1.5 per cent. deficient, and the sugar 5.5 per cent. Add $1\frac{3}{4}$ ounces milk sugar to each quart, and 4 tablespoonsful of good cream, and a tablespoonful of lime water. Dissolve the milk sugar in the lime water with a little milk added, before stirring in the other vessel. If only one-half of the milk be withdrawn from the original cooling vessel, the proteids may be estimated at 2 per cent., fat at 3 per cent., and sugar 2.2 per cent.; in diluting the remainder add $2\frac{1}{2}$ ounces of milk sugar in

blending with the top milk. The two-thirds withdrawn is adapted to the need of the new-born infant up to the age of 5 months; the one-half withdrawal suits those older. Even if all precautions as to cleanliness have been taken, it is best to make assurance doubly sure by sterilizing the milk after it has been blended and stored in the feeding bottles. It is best to draw directly into the feeding bottles upon which nipples are to be fitted. Cork the necks of the bottles with sterile surgeon's cotton, and place the bottles in a pan of water so that the water will be level with the milk in the bottles, and place on a fire so that a temperature of 158° F. may be maintained for a few minutes, remove pan from fire and cool as rapidly as possible, and then place the bottles of milk in cool water (or preferably on ice or in a refrigerator) until required. The most painstaking care with the milk is fruitless unless other details are attended to. The bottle and nipples must be kept "surgically clean." The nursing tube is no longer recognized among civilized practitioners. Only the nipple and bottle are used.

We deem it necessary to go into minutiae on the matter of cleansing, since we have seen so many pretty babies leave a loving mother's arms forever, because she did not keep the bottle clean, and the medical adviser did not enforce, or was incapable of enforcing a proper cleansing. The babe must learn to nurse regularly and should never be permitted to keep the nursing nipple in his mouth for hours, and as soon as he is evidently satisfied, the bottle and nipple are washed thoroughly. The nipple is scrubbed inside and out with a brush which has been boiled in a saturated solution of boracic acid, and then rinsed with clean water and dropped in a cup of the same solution, where it remains until needed again. After the nipple has been cleansed and put in the solution, the bottle is attended to. This is washed with water containing soap, washing soda, common lead bird shot, or raw potato cut in cubes smaller than a pea, and well shaken until the glass is as clear as crystal; then rinse with boiled water, and place in a saturated solution of boric acid until needed. When required empty the contents of a boiled bottle directly into the sterile bottle and immediately attach the nipple and feed the baby.

Any bottle upon which a nipple can be fitted will do under this system. Half a dozen nipples of modern pattern, and a sufficient number of bottles of any size or shape, and a few feet of rubber tubing, a pound of boric acid, and a clean pan and fire, will complete an equipment which will yield as good results as any laboratory, in so far as life giving goes. It takes less time to do the work than to tell how, all the appliances are easily obtainable in any location, and the technique is plain. Let us beg of you not to depend upon condensed milk, with its almost certain sequelae of malnutrition and rachitis, but to give the matter the study and attention it deserves. A rescued baby may develop into a patient, and a life saved is worth much to the state, and more than a little to a satisfied conscience. Proper feeding, intelligent therapeutics and well directed sanitation, with a modicum of common sense on the part of doctor and nurse, will save many lives.

There are a great many patent infant foods in use at the present time. The large amount of such sold is due to various reasons: First, because the laity have been educated to use them when cow's milk disagrees; second, physicians of large experience advocate the use of a great many patent foods. When disturbances in the stomach or intestines interfere with the proper digestion and assimilation of the proteids, then frequently the modification of the milk, by the addition of these foods, yields good results. In some instances where there is no appetite, we frequently can stimulate an appetite by the temporary use of these foods. During the course of summer complaint, typhoid fever, or acute infectious disease, it is frequently advisable to use milk, diluted with several teaspoonfuls of a nutritious food rich in barley malt. The objectionable feature of patent foods consists in the ease with which they are procured, and the careless manner in which they are given. Thus a large portion of the laity will follow the directions on the label of the box of patent food to the detriment of the child. However, there are some virtues in these foods, and though they sometimes cause rickets and scurvy when used ignorantly, to attribute all such cases to their use will be wrong, and a great

many facts must be considered before condemning or praising one or all of them. The physician knows that raw milk or milk warmed to blood heat possesses anti-scorbutic properties. When a given commercial food is added to raw milk, thoroughly mixed and heated to blood heat or to a pasteurizing temperature, we still retain the virtues of the milk and increase its nutritive value with the aid of the food selected. In order to judge fairly of the nutritive value of an infant food and its resemblance to woman's milk it is necessary to know its composition after its preparation for the nursing bottle according to the directions.

IMPORTANCE OF MAINTAINING NORMAL MOUTH CONDITIONS IN CHILDREN

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Medical science embraces all parts and all organs of the human body, but the mouth and its many organs have been sadly neglected by most physicians. This is so evident that many people, although not versed in science, are noticing and are criticizing.

More than 95 per cent. of our school children need some kind of medical, surgical or dental treatment in the mouth, and 90 per cent. of these continue with more or less suffering without treatment, excepting tooth extraction, which in many instances is as much of a crime as the amputation of a finger needlessly.

We have learned by experience that our greatest accomplishments have been gained through prophylaxis, and in the mouth is a wonderful field for the practice of the science and art of prevention. But here, as elsewhere, there is an exactness required that admits of no delay. Disease of the teeth, such as caries and erosion, and of the periodontal membrane and neighboring soft parts, such as pericementitis, pulpitis, pyorrhoea, etc., together with irregularities and mouth breathing and the deformities attending them, are all amenable to prophylactic treatment.

Let us look over this field and consider for one moment the vast amount of suffering of mind and body because of disease,

defect, and deformity that could have been easily prevented. Then to think of the loss of efficiency endured for a time and in many instances for life. This loss of efficiency is no mere dream, but has been demonstrated in many cases. Children are held back in school work, and some become what are known as "repeaters" in the grades, because of these preventable and curable troubles.

To mention the function of the organs of the mouth, should call to mind their importance. Here they are: Prehension and mastication of food; insalivation and starch digestion; mandatory mouth breathing; production of speech and expression of emotion; and the deciduous teeth, beginning as they do to calcify at the fourth foetal month, and slowly developing and moving forward, serve as an essential factor in the development of the maxillary bones both as to size and shape. The teeth are entirely responsible for the growth of that provisional structure, known as the alveolar process, for, if for any reason the deciduous teeth do not appear, the alveolar process does not appear, and in cases where the permanent teeth are extracted the process disappears. This developmental work begun by the first teeth is continued by the permanent teeth.

The health, happiness and full efficiency of the human race are dependent upon various things, but I know of no one thing of more importance within the domain of prophylaxis, than the proper care of the organs of the mouth. Why? Because some of the functions of the mouth are of vital importance, and because the greater per cent. of all diseases gain entrance into the body through the mouth; because the infectious power of many germs is arrested or checked within the fluids of the normal mouth; because bacteria find favorable culture media in the sordes and fluids of an uncared-for mouth; because carious tooth cavities are especially well adapted to serve as a receptacle for culture media for bacteria, and as a store-house from which they are spread broad-cast in sputum, after the child has returned to school, as well as a point of entrance into the circulation; because we find associated with neglected and carious teeth, spongy gums, another source of danger in the spread of infection; be-

cause abnormal and pathological conditions of the mouth, though harmless-appearing to the disinterested, very greatly reduce the vitality of the child by a slow, continued disturbance of the vital processes, from pain, toxic absorption and faulty eating. And be it remembered that any infection is most likely to occur when the vital resisting power is low. Now, when we consider the importance of maintaining the health of the organs of the mouth, is it not appalling to know that more than 95 per cent. of our school children are suffering from some disease or defect in the mouth, and that 90 per cent. of these are neglected? And what negligence on the part of those responsible!

The physician frequently sees cases of broncho-pneumonia, indigestion, typhoid fever or infectious diseases of childhood in which the serious symptoms have passed, and he thinks the case will soon be ready for dismissal, when suddenly the temperature rises, the pulse quickens, and other symptoms of acute infection appear, and the child goes through another siege of illness, more tedious than the first. And many innocents are obliged to surrender because of the continued onslaught.

Definite diagnoses of these relapses are not always possible and certainly not always made. Yet, when the careful physician looks into the oral cavity he sees not only the tongue and pharynx (many physicians only look to see the tongue), but examines all of the many organs that are contained within the mouth, and knows the deciduous teeth (there are only 20) from the permanent ones, and when he finds some infectious areas or cavities filled with growing cultures of bacteria, he recognizes a possible source of systemic or intestinal infection. These organs are disregarded by many, yet, should they find the 1-100 part of so much bacterial activity in any other part of the body, they insist upon its removal by surgical means.

Let us notice other abnormal conditions that are often seen. A typical case: Gums inflamed, tender, spongy, teeth presenting surface covered with coat of stains, sediment bacteria, etc., which tooth brush cannot remove. Many teeth decaying, tonsils hypertrophied, with crypts retaining collec-

tions of bacteria, mouth open and lower jaw protruding to give more room for admission of air (throat being crowded by large tonsils), and as the case continues from month to month the inclined planes of the lower teeth interlock with those of the upper teeth in a position forward to normal, and thus the lower teeth and lower jaw are gradually forced forward, and finally the lower jaw becomes abnormally elongated, often leaving the upper maxilla small and narrow. This condition very greatly interferes with proper mastication and the natural use of the teeth. This deformity with its attending troubles could have been prevented by an early extirpation of the tonsils.

A typical case: A child from 2 to 6 years old, whose deciduous teeth should give from five to six years service, which service should have been the function of mastication and the development of the alveolar process, but instead of the teeth functioning from five to six years, they become lost by caries in as many months, and the patient being deprived of the ability to masticate, and being deficient in the process of digestion and metabolism, becomes an easy prey to the diseases incident to childhood.

But this is not the only ill that may result from premature loss of deciduous teeth. The other important function alluded to above being lost, the jaws do not properly develop, and there is not sufficient space for the eruption of the permanent teeth. Malocclusion of the permanent teeth result, with inefficient mastication for life. Conditions follow which do not favor the maintenance of healthy gums, nor the preservation of the teeth from caries.

A typical case: High palate, upper arch elongated, upper front teeth protruding, upper lip short and weak, nasal septum deflected, lower jaw short, occlusion of teeth bad, and in some cases teeth do not oppose at all, gums are spongy, the child is very often slow mentally, and not physically strong as a rule. This type of cases begins because of mouth breathing, which usually continues from habit, even if nasal breathing again becomes possible.

The mandatory mouth breathing is usually caused by the presence of adenoids.

Just look over this picture, and see what suffering and deformity that could have been prevented in a few minutes time in the beginning, but which requires months or even years to correct after full development. Why should not some physician and some dentist come into contact with every child professionally, and then be alert enough to direct those needing attention to the proper practitioner for each case? It isn't pleasant to hear the parents exclaim—"It might have been!"

Each of the twenty deciduous teeth should be observed in its eruption and shedding. It is of very great importance that they be shed at nature's time. They should be preserved by proper attention and treatment until time for shedding, and then be extracted. This is of great importance in order that the alveolar process may be prepared for the correct eruption of the permanent set. The teeth can be saved from decay as surely as their surfaces can be cleaned or polished. Keeping their surfaces free from all substances that could be used as culture media for bacterial growth is the only prophylaxis needed. The difficulty lies in getting the people to learn how, and to be willing to take the pains to bring about the desired result.

STRABISMUS IN CHILDREN

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One of the causes of great distress to fond parents is the discovery that their child is cross-eyed. The defect may appear at any time between the ages of three months and three years, and may be constant or periodic or occasional. But frequently the trouble is not noticeable before the age of six years, when the child goes to school and close work for the eyes really begins, and these cases are usually an occasional and not a constant squint.

Invariably the cause is given as spasms, teething, fright, looking at a bright light, et cetera, et cetera. It might be said that none of these is ever the cause, however plausible they may all seem to be to the parents; and it might also be said that it is entirely unnecessary to attempt to convince

the mother that the strabismus was not produced by one of these causes.

The infant does not fix an object with its eyes till it is three months old, so it is then that the real cause of strabismus begins to exert itself. As the child grows and its attention is attracted by bright objects and toys and other interesting things in its new world, the cause exerts itself more and more. By the time the school age is reached close work for the eyes really commences, and is more or less constant, so that many cases of strabismus are developed at that period.

The cause that has been referred to, the most common cause of strabismus, is *hypermetropia*, that is, a congenital shortening or flattening of the eye-ball, which should be normally a perfect sphere. The normal eye, looking at an object fifteen or twenty feet away, or more, to an infinite distance, does not use any of its accommodation, that is, the muscular contraction of the lens, and both eyes are passive and parallel. On looking at an object thirteen inches off, the average reading distance, the patient exerts three diopters of accommodation. Inasmuch as accommodation and convergence are inseparable, he must exert at the same time his internal recti muscles to the equivalent of three diopters or three meter angles in order to bring his lines of vision together at the required point. A hypermetrope of three diopters must use his accommodation just that much to see things clearly at twenty feet or more away, and his eyes tend to converge even for distant vision. Now when this hypermetrope wants to read ordinary print he must also accommodate three diopters, which, added to his handicap of three diopters, means that he must use six diopters to read. Accommodation and convergence necessarily go together, hence his eyes turn to a point six meter angles, or six and two-thirds inches off. The eyes pointing thus receive a very imperfect image of an object thirteen inches away, since the rays do not fall on the fovea directly. To correct this the patient unconsciously rotates one eye, the better one, outward until the macula is reached. As we all well know, the outward rotation of each eye is inseparably associated with the inward rotation of the other. The result is an excess inward ro-

tation of the squinting eye. The rays now fall on the fovea in the fixing eye, and on the nasal side of the fovea in the squinting eye. Impressions recorded here are never clear, and the child soon learns to ignore them completely. In the cases where the acuteness of vision is exactly equal in both eyes, there is alternating strabismus. Of course this theory will not satisfy the few cases of strabismus where there is no refractive error, or the fewer cases where internal strabismus is associated with myopia. The large number of hypermetropes who show no tendency to squint would seem to controvert this theory of the cause of strabismus, but the natural strength or rapid development of the eye muscles in these cases might explain the difference. For a time it was believed that an eye turned in or out because its congenital vision was so inferior to that of its fellow and its image so blurred that the eye deviated from the true line of vision so it could more easily disregard the diplopia. But this poor vision of the one eye, this amblyopia, is now considered the effect rather than the cause of strabismus. It is a sort of atrophy of the rods and cones following disuse, as a limb will atrophy in a plaster cast after a fracture. True the cases of congenital amblyopia are extremely rare. The earlier in life that a squint develops the greater is the chance of the eye becoming amblyopic.

What is the remedy? Obviously to remove the cause, when hypermetropia, by carefully and thoroughly testing the refraction and having the child wear constantly the proper glasses. The late Dr. Julian Chisholm, of Baltimore, ordered frequently the proper glasses to be worn constantly by babies of six months. I believe my youngest patient to wear glasses was three years old. Generally at the school age of six, when the child starts in at close work in earnest, the proper glasses are ordered for constant use. Without any accurate statistics on the subject I would say that over one-half of my cases of strabismus have been relieved, or cured, though one shrinks from using that word—by wearing the proper glasses. The others were straightened by operation and glasses. The average age of all the cases operated on was twenty years. There can be no question that almost all cases of strabismus recognized and treated early can be

relieved, that is, straightened, by refraction. The fact that the average age of the cases operated on was twenty would indicate that they were first seen then and had become set in their ways and hence required operation.

It would seem best, and has always been my practice, to try the proper glasses for at least six months before resorting to an operation. If there is no effect by that time, then the operation should be done and the glasses continued as before the operation.

HERNIA IN CHILDREN.

Robert J. Reed, M.D., Wheeling, W. Va.

One feature in particular which characterizes hernia in the child is that truss treatment may effect a cure—a rare result in the adult—a frequent one in the child. This fact alone makes this subject of interest to physician and surgeon alike. In addition, there are certain points in the etiology and diagnosis worthy of special attention. A brief review of the phases of hernia which are peculiar to childhood may be profitable.

The congenital element plays an important part in the etiology. There usually is the element of "accident," as an exciting cause, but there is first a condition predisposing to hernia in an imperfectly closed funicular process of peritoneum, or in the natural openings of the abdominal wall being abnormally large. These congenital defects may exist at birth, and doubtless do, in a large percentage of the new-born, but they rapidly disappear with an uneventful growth of the child and in escaping from the exciting causes during early infancy. These latter, in no small measure, may be prevented or controlled, hence the responsibility of physician and mother or nurse.

An excessive intra-abdominal pressure is the chief exciting cause, and this may result from a number of conditions. One is the improper use of the abdominal binder. From a custom "handed down," and from fear of a "cold in the bowels," or the possible development of an umbilical hernia, the flannel binder is worn unreasonably long and often unnecessarily tight. It invariably displays a sliding tendency and is found much of the time over the stomach. It

acts, therefore, like a bad corset, narrowing the abdomen at the girth line, forcing the intestines into the lower portion of the cavity and producing unsafe pressure over the inguinal and femoral openings. One case came under my observation in which double inguinal hernia was produced by a too tightly fitting plaster jacket, which was being worn for a spinal affection.

A second cause is unusual flatulency, gastric and intestinal, from faulty digestion or from constipation. Another exciting cause is a severe cough, as in the whooping cough or in an obstinate bronchitis. Again, the straining in urination, made difficult by an aggravated phimosis, is believed to exert an exciting influence. A "cross baby," a child constantly crying from whatsoever cause, is in danger of inguinal hernia in particular, should the upper abdomen be constricted by tight clothing. Another condition which falls rather under the predisposing cause than the exciting is the undescended testicle. It creates a hernial danger by keeping patent the inguinal canal, or, maybe, one or other of the rings.

Diagnosis presents little difficulty. There is, however, one condition which simulates irreducible inguinal hernia and has been known to occasion grave apprehension and a demand for immediate operation, and that is hydrocele of the cord. The confusion always arises from the statement of the mother that the "lump came suddenly," when it was simply observed suddenly. The small hydrocele tumor is more symmetrical in outline than is a hernia, is more movable and is without tenderness or any constitutional disturbance which an incarcerated hernia usually produces. The insertion of a small hypodermic needle will promptly clear up the diagnosis.

The treatment of hernia in children by mechanical means, thinking only of a properly fitting truss, will result in frequent disappointment. The removal of the immediate causative factor is essential. If that be sufficient to excite the hernia, it will continue an active force against repair. Hence every case demands a careful investigation for the purpose of determining what particular cause is operating in association with the congenital defect. The truss may

take care of the latter, but control of the exciting influence requires studious and constant attention.

It may not be a digression at this point to refer to certain errors in infant feeding, since here is found the explanation of constipation and flatulency, the causes of excessive intra-abdominal pressure. To correct these conditions it is only necessary to remember that cream will cure constipation and water flatulency. The milk has been too poor in cream and too rich in proteids. By adding sufficient water the casein indigestion will be corrected, and by adding sufficient fat the constipation will disappear. In the successful management of infantile hernia it is necessary to overcome these digestive defects.

The mechanical treatment should be carried out by a spring or elastic truss. Ordinary bandaging or adhesive plaster strapping is unsatisfactory. The plaster has been advised in umbilical hernia especially, but it is usually a source of irritation to the skin, and moreover interferes with necessary bathing. The small hard rubber flat pad held in position by elastic tapes around the body is simple and efficient.

The requirements of a truss for inguinal or femoral hernia are that it must fit the body, it must keep the hernia reduced, and it must not irritate. In some cases the spring truss is satisfactory, in others the elastic truss proves less annoying and more efficient. Every case should be carefully fitted by the physician, with an apparatus especially suited to its peculiarities and needs. Two trusses are better than one, as the constant wearing is essential, and when one becomes wet or soiled the other is at hand to take its place. Local chafing and tenderness is thereby avoided.

It is a much debated question how long to rely upon the truss or when shall operation be advised? Some say at four years of age, others at two, claiming that "the chances of cure diminish from this time on; that the truss pressure causes atrophy of the muscles and interferes with proper exercise and so with bodily development." A less definite attitude toward the question seems preferable. If at the end of two years a measure of improvement is notice-

able, and the truss is efficient and worn with comfort, it is wise to persist in the mechanical treatment, though a complete cure has not been attained.

The time for operation has arrived, regardless of age, when no further progress toward a cure can be observed; when the truss is a source of irritation and marked discomfort, and especially when, from the greater activities of the growing child, the truss fails to keep the rupture constantly reduced. The slightest suspicion of strangulation danger demands operation without delay.

April 26, 1912.

Selections

SURGICAL ASPECTS OF INFANTILE PARALYSIS.

De Forest Willard, Philadelphia

The treatment should be: (1) To arrest as far as possible an increase of inflammatory results and favor the absorption from the meninges or cord of serous and other products; (2) to restore contractility to the partially injured muscles and stimulate nutrition in those that are permanently paralyzed; (3) to prevent deformity resulting (*a*) from stretching of the weakened muscles, (*b*) from weight bearing, (*c*) from contractions of the stronger muscles which no longer have their normal opposing force; (4) to supply mechanical support and assistance to the weakened members; (5) to give the benefit of operative measures to all cases that have become distorted and deformed.

1. In the acute stage avoid further intestinal autointoxication by cleansing the alimentary canal with calomel and castor oil. Give water freely with urotropin, or sponge surface, give febrifuges, quiet restlessness with bromids and ergot. Supply abundance of fresh air, place child on abdomen, apply spinal ice bag, dry cupping, iodin or mustard paste made with molasses, along spine. Disinfect nose and fauces frequently and burn discharges. Isolate and quarantine patient for six or eight weeks, especially if other children are in the house. Use anti-toxic serum early if such a material should

have been discovered. Strychnin, mercury and potassium iodid are useful only late in the disease.

2. To restore contractility to muscles and stimulate nutrition. (*a*) A few minutes of very gentle massage as soon as muscle tenderness has passed, to be increased and continued for months or years. Instruct mother or nurse. (*b*) Hot-air baking preceding massage. (*c*) Dry cupping of limb with large hyperemic cups (Bier). (*d*) Electricity: Use faradism rather than galvanism to stimulate nutrition of muscles, gentle at first, not to alarm the child (allow patient to play with sponges of poles); positive pole over paralyzed muscles, negative at various points, as high as lumbar cord; continue for months or years, as long as voluntary or involuntary movements can be detected and reaction of degeneration is not evident. (*e*) Voluntary and involuntary muscular movements: Encourage child to contract muscles as soon as possible; devise playthings to entertain and amuse, without weight bearing on legs. Skillful instructor in properly equipped orthopedic gymnasium with its various seductive methods for development of arm and leg will accomplish much both before and after operative measures, even after months or years of disuse. Seats suspended from ceiling by springs; overhead supporting trolley supports; return balls; spring boards; arm swings; stationary bicycles; vibratile massage machines; leg and arm apparatus and various other appliances will give both amusement and exercise.

3. Prevent deformity by avoidance of stretching of anterior muscles of foot. From inception of disease support the bed clothes to prevent footdrop and subsequent contraction of calf muscles. Apply loose-fitting leather, felt or metal removable splint to maintain foot at right angle to leg. Avoid weight bearing. Manipulate and stretch contracting muscles.

4. Mechanical appliances: As soon as child is ready to walk, support knee and ankle to prevent deformity. Apply lateral pads at ankle and knee as needed. Assist weakened muscles by elastic straps or by springs. Use stop-joint to prevent back-knee; same at ankle to prevent calcaneus or equinus. Fit apparatus carefully with bend-

ing irons; a fraction of an inch means comfort or discomfort. Watch for pressure points. Use loose wool pads in shoe. Warn parents that atrophy of muscles will be the result of paralysis, not of braces. Remove apparatus frequently for first three weeks to avoid pressure sores.

5. Operative measures are the surest and least painful method of overcoming contractions and deformities in chronic cases and should never be omitted. Tenotomies, myotomies, fasciotomies, tendon lengthenings and forcible straightening are all of great advantage.

At the hip open or subcutaneous section of tensor vaginae femoris, rectus femoris and fascia lata are often necessary. Avoid anterior crural nerve. At knee, divide internal hamstrings subcutaneously; biceps by open incision to avoid peroneal nerve that lies close to inner side. At ankle, divide tendo-Achillis, tibialis anticus and posticus and fascia, with addition of forcible straightening or equinovarus. For valgus, divide peroneals, shorten tibialis anticus or transfer to side of scaphoid; or transfer peroneals to opposite side. For calcaneus, shorten tendo-Achillis by open section; overlap and suture and transfer active muscles.

Tendon transplantation: Double benefit is secured by transferring tendon of strong and contracted muscle to opposite or weakened side. Attach transplanted tendon to periosteum or to weakened tendon close to insertion, laterally or through slit. Tibialis anticus can be carried across to cuboid periosteum or to peroneal; tibialis posticus to peroneal for varus or *vice versa* for valgus. One or more extensors of toes can be grafted to anterior tibial in valgus. Portion of tendo-Achillis may be transferred to peroneal, or tibialis posticus to tendo-Achillis. Muscle anastomosis must have positive power. Either chromicized gut or kangaroo tendon is sufficiently permanent for suturing. At knee, active hamstring muscles or sartorius may be transferred to top of patella to assist weakened quadriceps.

In arm, supinators may be transplanted to pronators or *vice versa*, trapezius anastomosed to deltoid or external rotators of shoulder converted into internal rotators.

For long insertions, artificial tendons of sterilized silk boiled in bichlorid and coated with paraffin (Lange) are helpful.

Nerve anastomosis: If vitalized nerves are obtainable, a split section of active nerve may be transferred to a paralyzed one by lateral implantation within the slit sheath, or the entire divided body of the paralyzed nerve may be attached to the end of a half of the vitalized nerve, or inserted laterally. In lateral grafting, active nerve fibrils should be bared from the sheath, but not divided. Rarely is it justifiable to utilize the whole of a vitalized nerve. Round needles and the finest of chromicized gut should be used and sheath only included in suture.

Arthrodesis: Artificially induced ankylosis of ankle or knee is very helpful in flail legs, especially when by such fixation the use of apparatus can be abandoned. In severe cases of paralytic calcaneus, the calcaneoscaphoid and calcaneostragaloid articulations should be ankylosed, all the cartilage being pared away and sections of bone removed if necessary. Tendon transplantation and tendon shortening can often be advantageously combined with arthrodesis. The operated joint should be firmly fixed with plaster of paris for two months and protected thoroughly by supporting apparatus for a year.

Tarsectomy: Removal of the astragalus—astragalectomy—is the most effective operation for long standing cases of paralytic equinovarus. In valgus, a portion of scaphoid and astragalus may need removal. For calcaneocavus, wedge-shaped tarsectomy is helpful.

Osteotomy: Osteotomy of femur or of tibia and fibula or of tarsus is occasionally demanded, as are also excision or amputation in special cases. Bone lengthening can be accomplished, as has been shown by Magnuson, by splitting, sliding, mortising and fixing the two sections with ivory screws having detachable brass heads.

All operative measures are to be followed by long-continued manipulations, massage, muscle-training and adaptation of supporting apparatus to secure locomotion which is the best of all gymnastics. The judicious combination of operative, mechanical and

gymnastic measures will result in an individual vastly improved physically, mentally and morally, and the cases that should be considered hopeless are few, as any form of locomotion is preferable to a helpless existence.—*Pennsylvania Medical Journal*.

TREATMENT OF INTUSSUSCEPTION IN CHILDREN,

The writer makes a plea for early operative treatment in this condition, based on the mortality rates of operated cases and cases treated by irrigation, inflation, and enemata of various forms. Out of 216 cases treated non-operatively, collected from the literature, 40 recovered without further treatment; of the remainder, every patient who was not operated upon died. This would suggest a mortality of about 81 per cent. for the non-surgical treatment. This percentage may be high, as it is possible that some of the patients with whom irrigation failed, and who were operated upon later, might have recovered through sloughing of the bowel or late spontaneous reduction. But it does not seem logical to expect much better than 70 per cent. or 75 per cent. mortality from the treatment by irrigation alone.

Of 177 cases operated by various surgeons, 54 were fatal—a mortality of only 31 and a fraction per cent. In several instances resection had to be performed, owing largely to the lateness of intervention; omitting these cases, the mortality percentage would drop further.

Any teaching advocating prolonged use of irrigation or delay before operation is at variance with the opinions of most surgeons, and in the writer's judgment is responsible in part for the still somewhat high mortality of laparotomy for the reduction of intussusception.

Some surgeons are opposed to irrigation altogether, believing that its dangers and the increased distention of the abdomen are a greater detriment than the partial reduction sometimes accomplished is a benefit. Erdman, however, recommends enemata as an aid to operation, and to be tried in the first six hours with the hope of reduction,

if the surgeon will be prepared to operate at once on return of symptoms.

As to the technique of distention, most writers are agreed that it should be given with the patient anesthetized and prepared for operation in case of failure. The patient should be on the table with the buttocks slightly elevated, and the fluid introduced into the rectum through a nozzle or catheter by means of a hand or fountain syringe with about four feet of pressure. The buttocks should be held together firmly to aid in retaining the fluid. Clubbe always uses warm oil; others use warm salt solution. Inflation with air has obvious disadvantages. Manipulation of the mass through the abdominal wall while the injection is being given may be of use sometimes. In case there is any tumor left after the injection, or in case of doubt, one should operate at once.

During the operation it is of great importance to keep children, especially the very young, warm. Bandaging the legs, arms and chest with wadding is a great aid in this respect.

Most surgeons use a median incision, which has many advantages. The first part of the reduction of the intussusception is usually easy and may sometimes be accomplished by holding the gut firmly with one hand just below the advancing point, and then sliding the thumb and forefinger of the other hand along the sheath, pushing the intussusceptum in front, much as one would empty a flexible rubber tube of air. The last few inches of the reduction are often difficult. Here it is unsafe to put much traction on the gut. The cause of the difficulty is usually edema of the gut and mesentery; steady pressure will often diminish the edema enough to allow a reduction which at first seemed impossible. One should be persevering in attempts at reduction, as the mortality of resection is exceedingly high.

When resection becomes necessary owing to impossibility of reduction or the existence of gangrene, there are three methods to choose from: End-to-end anastomosis with suture (or Murphy button); lateral anastomosis; and Jessel's method, which consists in uniting with a continuous suture

the two portions of bowel at the point where the intussusciens receives the intussusceptum, then longitudinally incising the free border of the intussusciens, delivering and excising the intussusceptum, suturing and replacing the stump, and finally closing the longitudinal incision. This accomplishes the same results as nature with her occasional spontaneous cure by sloughing.

The after-care consists in combating shock and restoring vitality as quickly as possible. Wallis, Clubbe and Rigby recommend rectal saline infusions as soon as the child is put to bed, and strychnine or brandy given subcutaneously. Feeding should be begun as soon as possible. In nursing babies there are no ill-effects from giving the baby the breast early. Enemata are used in the first twenty-four hours to move the bowels and for two or three days after. Jacobson advocates the use of aseptic ergot subcutaneously, together with warm saline infusions, to combat shock. In the first few days after operation there is likely to be considerable elevation of temperature. This, however, does not signify a peritonitis and, as a rule, comes to normal the third or fourth day.—W. E. Ladd (*Boston Medical and Surgical Journal*, May 18, 1911).

THE TREATMENT AND PREVENTION OF MEASLES AND SCARLATINA

Milne states, in the *British Medical Journal* of September 2, 1911, that in the treatment of scarlet fever and measles by the method he is now advocating complications are unknown; in the 800 cases of scarlet fever he has himself recorded, where this method was adopted, no single case with a complication in the throat, nose, ears, glands or kidneys occurred. Yet these cases had only from 750 to 400 cubic feet of air space apiece, and some were in poor and overcrowded homes. Further, infection and the spread of the disease are unknown if his method is adopted; he has repeatedly shown how patients with scarlet fever may be nursed side by side with healthy children, or with the most serious operation cases, and how they may within ten days attend school and church with 1,300 other children, without the occurrence

of either infection or complication. Such a thing as a return case is unknown.

He next describes the method of treatment he is advocating. As early as possible in the disease, and without waiting for definite confirmation of the diagnosis in doubtful cases of scarlet fever or measles, the tonsils and the pharynx, as far up and down as possible, are swabbed with 10 per cent. carbolic oil every two hours for twenty-four hours, or for longer if the swabbing cannot be carried out regularly. Rarely is it necessary to continue the swabbing for longer than this. The swab should be of cotton-wool, firm, the size of the distal phalanx of the patient's thumb, held in a forceps, or fixed to a piece of wood by a thread. A fresh swab should be used on each occasion. The carbolic oil has the great advantage of relieving pain and enabling the patient to swallow more easily. In addition, the patient is gently rubbed all over with pure eucalyptus oil, from the crown of the head to the soles of the feet. This is done as soon as the patient is suspected of scarlet fever or measles, or as soon as he is found to be suffering from either of the diseases. This injunction with oil of eucalyptus is repeated morning and evening for four days, and once a day for the six days following.

The advantages realized by this method of treatment, not only in the experience of the writer but also in that of every practitioner who has carried it out, are as follows:

1. When this treatment is commenced early—and this is vital—secondary infection never occurs, and consequently complications are unknown.
2. With this treatment carefully carried out children may occupy the same room, and even the same bed, without the risk of infection.
3. The economy of the treatment. An ordinary case in isolation costs ten pounds and upwards; this perhaps two shillings. Therefore it means a saving of millions of pounds annually.
4. Its household economy. The mother is free to attend both the patient and her duties. The father is free to go to work without the slightest risk, and the children equally free to attend school.

5. No after-disinfection is necessary, for the disease having been destroyed, nothing remains.

6. The author has been frequently asked about the disinfection of the patient's spoons, crockery, etc., as these are such a trouble in an ordinary household. The fact is, there is no disinfection, or in any way a keeping of them apart. They are all collected together, washed in the ordinary way and served out indiscriminately on the next occasion.

7. In measles, as in scarlet fever, there is no necessity for the hair being cut short, neither for destroying the toys, books, etc., for these may be safely interchanged as soon as the patient is able to play. The net result is that there is no interruption of the domestic, scholastic or business affairs of the household.

Such is the simple, sure, speedy and inexpensive method the author has advised and of which the *Medical Times* said, "We endorse every word Dr. Milne has written, for we have tried it." Such is the testimony of hundreds of medical practitioners, such as the partial test at Clydebank, "that patients are as well in four weeks as they were in eight by the old system." Moreover, there have been no return cases. It is worthy of note, too, that the experience at Clydebank shows that this method can be triumphantly carried out in some isolation hospitals at least, although the recorded experience in two of the London hospitals has led the writer to form a different conclusion.—*Therapeutic Gazette*.

HEMORRHAGIC DISEASE OF THE NEW-BORN TREATED BY SERUM.

This condition is not commonly met with, but when it occurs has so high a mortality rate that death almost invariably takes place. Within the last few years a considerable number of cases have been reported by different clinicians in which the hypodermic injection of comparatively small quantities of blood serum has exercised a remarkable effect in stopping hemorrhage, and life has been saved in a goodly proportion of cases. Very recently an instance of this kind has come to the knowledge of the writer, and in the *Yale Medical Journal* for March, 1911, Steele of New Haven, Connecticut, reports a case of a white male child who began passing blood by the bowel when two days old. The hemorrhage continuing, 150 c. c. of the blood of the father was taken, the serum allowed to separate by standing, and three hours later 15 c. c. of the serum was sub-

cutaneously injected, and some hours afterward a second injection of 10 c. c. was given. The bleeding ceased immediately after the first injection.

In the other case to which we have referred a number of injections with human serum derived from different persons were employed over a period of several days with excellent results. It is probable that blood serum derived from animals could be used, when a donor could not be found, with equally good results, although there may be somewhat more danger from serum sickness when an animal's blood is employed than when human blood is used.

This method of treating this condition is much easier than by a direct transfusion of blood, and can be resorted to at a time when danger is threatening but not grave; whereas actual transfusion, for obvious reasons, is rarely resorted to except in extreme cases, and in which the conditions may already be so serious that the chances of recovery are small.

Lepinasse and Fisher (S. G. & O.), after reporting a case and reviewing etiology, etc., conclude as follows:

1. Direct transfusion of blood is the ideal treatment of hemorrhage of the new-born; it meets and overcomes in an ideal manner the three chief indications: hemorrhage, anemia and infection.
 2. Transfusion checks the hemorrhage at once.
 3. Transfusion cures the acute anemia.
 4. Direct transfusion of blood fills the baby's veins with a plasma that is more resistant to infections than the original plasma.
 5. In cases without a syphilitic taint direct transfusion of blood is an absolute specific.
 6. Direct transfusion of blood is best performed early, but it is never too late, and the operation should be tried in every case before the child dies.
- Medical Review of Reviews*.

COMPULSORY VACCINATION OF SCHOOL CHILDREN.

A St. Louis physician brought suit to restrain the school board from enforcing vaccination and compel the reinstatement of his two unvaccinated children in the public schools. Judge Muench gave the following written opinion:

"If the city of St. Louis now enjoys comparative immunity from the plague of smallpox that happy condition may not illogically be attributed to the consistent enforcement of rules requiring universal vaccination, while a relaxation in the rigorous application of the rules would soon result in the existence of a large body of children who, through lack of immunity, would form a distinctly dangerous field for the development and spread of this dread disease."

The injunction was denied and the rule of the board upheld.

G. D. L.

Every operation on the stomach should be preceded by a careful examination of all the organs which might harbor diseases having similar symptomatology

The West Virginia Medical Journal

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Editorial

CHILDREN'S PLAYGROUNDS FOR HEALTH.

The tendency of our times to prevent the ills that beset humanity and to give youth the best equipment and environment to resist evils that threaten health and morals, finds expression in many movements that are winning the support of good people all over the country. We are trying to lock the door before the horse is stolen and to surround boys and girls with such influences and provide them with such direction in school and out of it, that vice, ill-health, intemperance and inefficiency cannot break through the barriers erected against them. Along these lines are the movements for child labor regulation, juvenile courts, vocational training, rational amusements, and last but not least, playgrounds. We believe playgrounds deserve a high place among the influences which are making childhood happier, healthier and better and consequently producing finer men and women. With

these other forces we feel sure they will do a large share in reducing the population of sanitariums, reform schools, infirmaries and jails. We are starting at the bottom to keep the boy and girl out of trouble, and we are learning rapidly that this is the most sensible and practical way of securing results.

While we may not go quite as far as Dr. Woods Hutchinson when he says "better a playground without a school than a school without a playground," nevertheless we appreciate the full force of this terse statement and believe it contains a large element of truth. The playground movement, once regarded as a fad, is now recognized everywhere as a potent factor in child training, deserving the support of all who are interested in community welfare.

Of course, playgrounds have existed since the dawn of time, and no doubt the Garden of Eden had a delightful spot for the first children to play in; but the modern idea of a playground publicly supported, with ample equipment of apparatus, and intelligent and sympathetic direction, came out of Germany, the home of so many splendid things, and was the outgrowth of the theories of Froebel and Pestalozzi regarding child training and development. That was about thirty years ago in the sand gardens of Berlin, and the good effects were quickly recognized by those in charge. The playground idea spread in a few years all over Europe and to the British Isles, and it was not long before the enterprising Scots of Edinburgh had quite as fine playgrounds as any in Germany. In this country, very appropriately, Boston lead the way, and her example soon bore good results. The growth of the movement was slow at first, and previous to 1908 only ninety cities, and those the largest, had playgrounds; but since that time the development has been marvelous, and today over four hundred cities, great and small, in practically every State, have playgrounds. At first the grounds were open only during summer months, but today many cities have play leadership the year round, and several have electric-lighted grounds where young people may play after the day's toil. Chicago and New York have spent millions of dollars in the purchase of property and equipment of grounds, and the annual budget for maintenance runs into hundreds of thou-

sands of dollars. In West Virginia Wheeling has taken the lead and three playgrounds are doing good work. They are not municipally managed and controlled, as in most cities, but the day is not far distant when they will be and when the number will be doubled.

As far as we have gone in this country, however, we have not yet caught up with Germany, because play over there is included in the curriculum of the schools, and a few hours of healthful recreation in the open air is as much a part of the system of education as the three R's. Perhaps in this we may find one cause for Germany's great advance among the nations of the world, from a second class power a few decades ago to a mighty factor in industry, commerce and every line of human activity.

Certainly the playground makes for efficiency and has fully justified its existence from every standpoint. Here we see the reason for its advance. Public spirited men and women and progressive officials, aiming to help their communities, are united for the playground, and their testimony is that, properly directed, it is a vital force for juvenile welfare and hence for the molding of higher citizenship, manlier men and nobler women.

Playgrounds are health builders in that they furnish open air exercise in the most favorable environment, increase vitality and give immunity from disease. They are character builders, in so far as the spirit of fair play, proper respect for law and order and habits of good conduct are always inculcated and the violators punished by exclusion. They are brain builders, because the games develop the faculties and put all participants on their mettle, while the shy and timid child is given the same chance as his stronger and bolder mates. They make for democracy, because there the children of all classes and creeds commingle and learn to know and respect one another. These being the advantages and benefits—and they are testified to by those who know at home and abroad, social workers, physicians, officials, reformers, statesmen, clergymen and a host of others—what wonder that the playgrounds have come to stay and are yearly becoming more numerous? What wonder that no community that is really

progressive and enlightened but has playgrounds for the proper training of its youth?

Let us hope that the good cause may go forward still more rapidly in its great work for physical and moral betterment, and let all who want to help the forward march of society put their shoulders to the task and help.

West Virginia needs playgrounds as well as the great cities, and there is a field for usefulness presented here as broad and as fundamental as any we could name.

R. B. NAYLOR,
Secretary Board of Trade.

"GOVERNOR" HATFIELD.

That "looks good" to us. This is not a political journal, and we are not seeking for votes for Dr. Hatfield from the party to which he does not belong. But the opportunity to vote for a live, progressive, ethical and highly honorable physician for a high office comes to us medical men so rarely that we may be excused for urging all members of our profession whose political views are the same as those of Dr. Hatfield to turn out at the approaching primaries and give him a vote for the nomination. From years of acquaintance we unhesitatingly give the doctor our personal endorsement. The medical profession has for years been unselfishly working for the public health, and for such legislation as will better enable us to control disease. With one of our own profession at the helm as Governor we will certainly be in a position more easily to secure the needed legislation with which to better serve the public.

If the opposite party will bring out as a gubernatorial candidate some such excellent physician and strong character as Dr. L. D. Wilson or V. T. Churchman, we will be very glad to aid in his nomination. After which a free fight by the nominees.

S. L. J.

Dr. John W. Wainwright of New York has purchased *The American Practitioner and News* of Louisville and *The New England Medical Monthly* and will combine the two under the name of *The American Practitioner*. The editorial office is at No. 80 Washington square, East, New York. The

first issue of the new journal was in March, a 48-page journal of fine appearance. We wish it success.

PAPERS FOR JULY MEETING.

DAVIS, W. Va., April 30, 1912.

Only about 60 days until we meet at Webster Springs. If you contemplate having a paper at that time, may I not ask that you drop me a card at once? The exact title need not be given at this time. ACT NOW.

Fraternally yours,

A. P. BUTT, *Secretary.*

The American Proctologic Society will hold its fourteenth annual meeting in Atlantic City, June 3 and 4. Headquarters and place of meeting, Hotel Chalfonte. President, John L. Jelks, Memphis; secretary, Lewis H. Adler, Jr., Philadelphia. A fine program has been prepared.

AMERICAN MEDICAL EDITORS' ASSOCIATION.

The annual meeting of the society will be held at Atlantic City, N. J., on June 1st and 3d, with headquarters at the Marlborough-Blenheim Hotel. Dr. Thomas L. Stedman, editor of the Medical Record, will preside, and an attractive program is being prepared.

The annual banquet will be held on the evening of June 3d. Every editor and those associated in medical journalistic work will find this meeting worth attending.

Very truly yours,

JOSEPH MACDONALD, Jr.,
Secy. and Treas.

Association of State Secretaries and Editors will hold its sixth annual meeting and banquet at 7 o'clock p. m., June 3d, at the Marlborough-Blenheim, Atlantic City. Several papers will be read and committee reports heard. Dr. Melville Black, Denver, is president and Dr. Lillian H. South, Bowling Green, Ky., secretary. It is unfortunate that both of these associations are to meet at the same time, as several editors are members of both.

W. B. Saunders Company have just issued a new (16th) edition of their illustrated catalogue, which describes some forty new books and new editions published by them since the issuance of the former edition.

Any physician wishing a copy of this handsome catalogue can obtain one free by addressing W. B. Saunders Company, 925 Walnut street, Philadelphia.

GREATER NEW YORK NUMBER.

In June the *American Journal of Surgery* will issue a number composed of original contributions from men of recognized prominence in the

medical profession residing in Greater New York. Among those to contribute are:

Herman J. Boldt, E. L. Keys, Jr., Robert T. Morris, James P. Warbasse, C. N. Dowd, Howard Lilienthal, S. Lewis Pilcher, Meddaugh Dunning, Charles H. May, John O. Polak, William S. Gotheil, Willy Meyer, James P. Tuttle and others.

Contributions from these well known men should make this issue of particular interest and value.

Very truly yours,

JOSEPH MACDONALD, *Managing Editor.*

IDEAL CONDITIONS OF SERUM MANUFACTURE.

If there is one therapeutic agent which, more than another, should be prepared with scrupulous care, that agent is diphtheria antitoxin. Its preparation should never be entrusted to the inexperienced or to those who are hampered by lack of facilities. It should have its origin in the blood of healthy horses—animals whose blood is known to be pure. The welfare of the diphtheritic patient demands a serum from which every element of conjecture is eliminated. In the opinion of many physicians these essentials are best exemplified in the Antidiphtheric Serum of Parke, Davis & Co. Certain it is that this antitoxin is manufactured under conditions that are ideal. Miles removed from the smoke and dust of Detroit, hundreds of feet above the river level, the company maintains a large stock farm, equipped with model stables and supervised by expert veterinarians. Here, in the best possible condition, are kept the horses employed in serum production. The laboratories in which the antitoxin is prepared, tested and made ready for the market are the admiration of scientific men who visit them.

Society Proceedings

THE CABELL COUNTY SOCIETY.

HUNTINGTON, W. VA., April 13

Editor W. Va. Medical Journal.

The regular March meeting of this society was held Thursday evening, March 12th, in the Hotel Frederick.

There was a good attendance and we listened to a very able paper on "Visceral Ptosis" by Dr. Joseph Ransoloff of Cincinnati, Ohio.

After the evening's program lunch was served in the cafe.

The regular April meeting of this society was held in the assembly hall of the Hotel Frederick the evening of April 11th.

Dr. F. L. Hupp of Wheeling was with us and read a paper on "Mistakes and Their Teaching." It is not necessary for me to say to you that we found the doctor's paper interesting and, better than that, of great value.

After the regular program lunch was served in the cafe.

We are glad to report Dr. Rader at home improved in health.

Fraternally yours,

JAS. R. BLOSS, *Secretary.*

LITTLE KANAWHA AND OHIO VALLEY SOCIETY.

PARKERSBURG, W. Va., April 6, 1912.

Editor W. Va., Medical Journal.

As you have not heard from us for the past two months, I send you a brief account of our meetings in March and April.

In March our essayist did not get to fulfill his appointment, and the society spent the time of meeting in discussing the provisions of the bill for medical inspection of pupils in the public schools, Dr. Jeffers reading the law to us. So far the only inspection made has been that made by the dental society of the city. I understand that this society offered before the passage of the act to make such inspection free of charge. So far nothing has been done towards the medical side, or for the appointment of one or more medical inspectors. As there are about 3,500 scholars in the schools, it will require much time to make a satisfactory inspection, and to comply with other features of the bill. From what we learn the Board of Education will not be able to provide for such inspection until next year. Of course if the specialists and internists in the profession would generously agree to do the work gratuitously the work would be soon done. The public expect such generosity and public spirit from us.

On April 6th the society met, with twelve members present. We welcomed Dr. Scott back from his trip to Florida much improved in health. We had a most interesting paper from Dr. Kunst on Paresis. As he writes from an ample experience with the insane, his paper was very instructive to us as general practitioners. Especial emphasis was laid on the symptoms of the early stage, when, if treatment is to be beneficial, the family physician must give it. When these cases reach the hospital it is usually too late. The doctor has promised us to add to the paper and contribute it to the coming meeting of the state society. There was some discussion of the paper, Dr. Sharp citing two cases which were in the asylum under Dr. K.'s care, and it was some years before a fatal termination.

Dr. Sharp then read a paper on "Epidemic Cerebro-Spinal Meningitis." He showed the changes in the definitions given of the disease in the past fifty years; the terrible mortality, the hopelessness of all forms of treatment, the new era coming with the discovery of the germ, the discovery of the serum, its mode of administration and results; also the feeble vitality of the germ when exposed to light. The later views as to the manner of invasion and infection were also pointed out and some of the views of its being spread by carriers. Some allusion to the extreme measures advocated for adoption to prevent the spread by those who come into contact with the disease, or who are unknowingly "carriers," which to the mind of the essayist seem very impracticable. In the various epidemics he had met with or read of since the civil war the cases were scattered over a large neighborhood and with no connection one with another. The fatality attending these outbreaks was noted.

The society adopted a resolution asking the Board of Regents of the State University to restore the medical school to its former position; also to ask the State Board of Health to require applicants for license to furnish a high school diploma or its equivalent, after which the society adjourned.

W. H. SHARP.

MERCER COUNTY SOCIETY.

Editor W. Va. Medical Journal.

A regular meeting of the Mercer Medical Society was held in the offices of Dr. Thomas E. Peery on the evening of April 11th, convening at 8.30. This was one of the most interesting and largely attended meetings we have had for many months. Dr. W. H. St. Clair read a paper on the "Treatment of Acute Appendicitis," in which the subject was ably handled. The paper was highly appreciated.

There was much business to be transacted at this meeting, and after the usual preliminaries it was proceeded with in a manner calculated to inspire the most inactive to intense interest. After a display of much wit and wisdom the business matters were disposed of and all the members present proceeded to the Busy Bee Restaurant's private dining room to partake of a Dutch luncheon provided for by our thoughtful treasurer, Dr. Thompson. To say the luncheon was a success would be expressing it too mildly. The relaxation and repartee indulged in made the occasion highly enjoyable.

W. C. SLUSHER, *Secretary.*

MONONGALIA COUNTY SOCIETY.

The Monongalia County Medical Society held its fortnightly meeting at the society's rooms last evening and elected officers, a delegate to the state meeting and an alternate. Marked recognition was given to the younger members of the profession in Morgantown by the election of the following officers:

President—Dr. R. Coale Price.
 Vice President—Dr. Clyde Watson.
 Secretary—Dr. E. R. Taylor.
 Treasurer—Dr. James A. Cox.
 Censor for Three Years—Dr. S. J. Posten.
 Censor for One Year—Dr. J. N. Simpson.
 Delegate to State Convention—Dr. R. W. Fisher.
 Alternate—Dr. J. A. Cox.

The state convention will hold its session in Webster Springs in the month of July.

Reviews

OPERATIVE OBSTETRICS, including the Surgery of the New-Born. By EDWARD P. DAVIS, M. D., Professor of Obstetrics, Jefferson Medical College, Philadelphia. Octavo volume of 485 pages, with 264 illustrations. Philadelphia and London: W. B. Saunders Company, 1911. Cloth, \$5.50 net.

Numerous works on obstetrics are before the profession, a number of the highest character.

But few have appeared that deal with the operation side alone. Kerr's, an English work, is the only one of which we know that goes very fully into the various phases of the subject.

The book before us necessarily opens with the anatomy of the pelvis, uterus and birth canal, describes the growing uterus and its changing position at different periods of pregnancy, all this quite briefly. The author, contrary to the teaching of some writers, says the vagina is not germ-free, but "in a healthy patient bacteria are found in greater or less abundance in the vagina—staphylococci, staphylococci, the bacillus coli communis, the pneumococcus," etc. Pregnancy is not considered as unfavorable for surgical operation, as shown by experience. Ether is preferred for obstetric anesthesia. Anesthesia by lumbar injection should be confined to hospital practice. Prolonged anesthesia may prove injurious or even fatal to the child.

Full directions for surgical operations on the parturient woman are given—the preparation of patient, of room, instruments, sutures, table, etc. Every possible condition in dystocia is fully set forth, with the proper management of each, with proper operation required and its mode of performance. The work is beautifully illustrated and beautifully printed. Possessing this book by a most experienced and competent author, the practitioner can, by its careful study, equip himself to meet any obstetrical emergency that he is likely ever to encounter, and for this he will need no other work on operative obstetrics.—S. L. J.

THE INTERNATIONAL MEDICAL ANNUAL—A Year Book of Treatment and Practitioner's Index. Thirtieth year, 1912. E. B. Treat & Co., New York, 425-427 Benezet Bldg.

Of the 30 volumes of this work issued to date our library contains twenty. We formerly had our Journals bound, and never opened them afterwards. This Annual saves the busy doctor the useless expense of binding, for in it are stored, in brief form, all the useful new things in the different departments of medicine, collected and condensed by thoroughly competent men from the periodicals of the past year. The whole field of medicine is covered. The work is done by leading men in the hospitals of London, Edinburgh, Glasgow, Prague, Liverpool, New York, Philadelphia, Montreal and other leading medical centers of this country and Europe. Many illustrations, including 36 full page plates, are introduced. We prefer this to all other Annuals, and hence have been getting it for the past twenty years.—S. L. J.

THE PHYSIOLOGY OF FAITH AND FEAR, or The Mind in Health and Disease. By Wm. S. Sadler, M. D., Professor of Physiological Therapeutics, Post-Grad. Medical School, etc., Chicago. A. C. McClurg & Co. \$1.50.

Dr. Sadler is the author of several medical books, and is well known to the medical public through his writings and his Chautauqua lectures. This is his most pretentious work. It goes deeply into the psychology of medicine, and the text is clarified by many diagrams. To any who may be

interested in the different phases of psychotherapy the work will be both interesting and instructive. It deals with the relations between mind and matter, how the mind influences bodily states, how the emotions affect the heart and circulation, the glandular secretions, digestion, nutrition, respiration, the muscular system, etc. The last half of the book is devoted to therapeutics, and the author here considers psycho-prophylaxis the psychic element in the cure of disease, nature, cause and cure of worry, the science of suggestion and many allied topics of extreme interest to the wide-awake physician and philosophical layman as well.

NEW AND NON-OFFICIAL REMEDIES, 1912—Containing descriptions of the articles which have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association to January 1, 1912. The book is issued annually, supplement appearing in the JOURNAL from time to time. The action, uses and dose of each remedy are given, so that the reader here has in a form for ready reference all of the valuable new remedies that have appeared in recent years.

INTERNATIONAL CLINICS—A quarterly of Illustrated Lectures and Papers by leading medical men throughout the world. Edited by H. W. Cattell, M. D., Philadelphia. Vol. 1, 22d series, 1912. J. B. Lippincott Co. \$2.00.

This volume contains six papers on Diagnosis and Treatment, six on Medicine, three on Surgery and one each on the Ear, Obstetrics, Occupational Diseases, Eczema, Medical History and nearly 60 pages of Progress of Medicine in 1911. The latter makes this volume especially valuable. Among the writers are Flexner, de Schweinitz, A. A. Stevens, James J. Walsh and other men of distinction. These volumes always contain much that is fresh and valuable.

Medical Outlook

EPISTAXIS IN CHILDREN.

Le Grand Kerr, in the *American Journal of Obstetrics*, says the causes of epistaxis are quite numerous, and may be divided into those which are general and those which are local.

General Causes—All conditions which favor congestion may influence the occurrence of epistaxis. Then there are various blood conditions which favor it, as hemophilia, purpura, scurvy, anemia, chlorosis, leukemia, syphilis and rheumatism.

In an otherwise healthy child, if epistaxis repeatedly occurs and the cause is undiscoverable, the strong probability is that it is dependent upon rheumatism. Very commonly a carefully taken history will reveal the fact that the child has been the subject of indefinite pain which has not been severe enough to attract attention. An examination of the urine will at once reveal its turbidity and the presence of abundant uric acid salts. The further examination may reveal some

chronic cardiac disease which has escaped attention up to this time.

Epistaxis may occur as an accompaniment of many acute diseases, and especially those of an infectious nature, but in this connection it has no special significance. During the course of nasal diphtheria it is usually of late occurrence, but, late as it may be, it is frequently the first symptom to attract attention to the situation of the membrane in the nose.

It is not uncommon for epistaxis to occur in cardiac disease, and especially under those conditions in which there is increased arterial tension or a hindered return flow of the blood. If the bleeding occurs immediately after a severe coughing spell it is strongly indicative of pertussis.

CITRATE OF SODA IN INFANT VOMITING

Variot (*La Clinique*, October 28, 1910) considers the citrate of soda to be a specific in all cases of vomiting occurring in infants. It is present in cow's milk, and may be freely given, as it has no toxic properties. Vomiting is due to over-feeding, in which case the citrate will have a sedative action on the stomach. It is also due to underfeeding, which induces a spasmodic contraction, and consequent rejection of its contents. In this case the salt hastens digestion, and enables the infant to make use of it. In some breast-fed children there is gastric irritability, which may be controlled either by mixed feeding or changing to cow's milk, with the addition of sodium citrate. The action of the salt in infants is anti-emetic. Its effect is generally very prompt. Added to sterilized or humanized milk it is a preventive of infantile scurvy.

SODIUM CITRATE.

The *New York Medical Journal* states that the almost specific effect of sodium citrate in the vomiting of nurslings and of bottle fed babies is the subject of an article in *L'Union Medical du Canada*, which cites Variot (*La Clinique Infantile*), who has established after seven years' experimentation, the absolute harmlessness of this salt and its action, previously unsuspected, of regularizing the peristaltic contractions of the intestines, as well as its property of attenuating the curd of cow's milk. A neutral combination results from mixing 23 grains of sodium citrate with 35 grains of sodium bicarbonate, and from 15 to 30 grains may be given daily to a nursling. Vomiting is due not only to superalimentation, but to insufficiency of food, which also produces contraction of the infantile stomach; in cases of both kinds, citrate of sodium acts with delightful certainty. To four ounces of water, two-thirds of an ounce of simple syrup may be added and 25 grains of the sodium salt dissolved therein; of this mixture six or seven tablespoonfuls may be given in 24 hours. It will be found to control vomiting even in those cases in which the mother's milk acts as an irritant.

CASEIN CURDS IN INFANTS' STOOLS.

Under the direction of Holt and Levene, Angela Court, Fellow of the Rockefeller Institute, N. Y.,

has made extensive studies of infant stools and in a report in the January issue of *Am. Jour. Dis. of Children* concludes as follows:

1. The "hard" or "casein" curds represent remnants of food, principally of protein nature, that have escaped being digested.

2. The exact mechanism of their formation as yet cannot be ascertained and they should be regarded as a peculiarity appearing in course of imperfect conditions of digestion.

3. The curds are not pathognomonic of any definite pathologic condition.

4. The loss of food occasioned by their formation and the impairment of the general nutrition resulting from it is insignificant.

5. In attempting to correct the state of digestion one should be guided by the general rules of infant feeding, paying only secondary attention to the appearance or disappearance of curds from the stools.

NERVOUS VOMITING IN CHILDHOOD.

Dr. E. B. Smith, in *London Lancet*, describes a type of nervous vomiting occurring in children about the age of the second dentition, which has received but little attention in modern text-books, is not uncommonly seen in the out-patient department of a children's hospital and is not infrequently overlooked. It is not periodic, but is of a persistent character; often, when untreated or when treated unsuccessfully, it may continue for many weeks. It occurs during a meal, or more usually directly the meal is finished, and is of frequent, if not of daily, occurrence. It is painless and effortless and neither preceded by any organic disturbance nor followed by any ill-effects. No diet, no ordinary gastric sedatives, appear to influence it. But with all this, and this is a feature to which Smith draws special attention, the child seems neither to lose weight nor to suffer in any respect an alteration in its general appearance of well-being. This nervous phenomenon, however, while apparently inducing little or no change in the general health of the child, creates a great deal of distress in the minds of the relatives concerned and generally reflects very little credit on the therapeutics of the practitioner who fails to recognize its real nature. On the other hand, when diagnosed, a very simple remedy suffices in most instances to effect a cure. Observation of both parent and child is often of value. The mother is frequently of a neurotic temperament, one who suffers from headaches and back-aches and has little or no control over her offspring. The child, sometimes thin, sometimes well-nourished, is frequently of a reserved and introspective nature. Occasionally the child is emotional and highly timid, one who cries on being undressed, or struggles and shrinks from any examination that involves a stethoscope or spatula. A review of the histories of these cases generally discloses the presence of other functional nervous disorders, such as enuresis, migraine and habit-spasm; or in some cases a rheumatic diathesis. The treatment resolves itself into an elimination of all causes that may aggravate the underlying nervous instability. Removal from un-

suitable home surroundings and the application of a little firm moral control will often effect a cure. In obstinate cases the same treatment as is applicable to henteric diarrhea, namely, small doses of arsenic and opium given just before meals, has, in the author's experience, always proved immediately efficacious.

OPERATIVE TREATMENT OF PROLAPSE OF THE RECTUM IN CHILDREN.

H. Sack reviews the nine different methods on record for correction of rectal prolapse in children, with the experiences reported to date. All confirm the superior advantages of the latest technic, that published by Sack in 1909, tamponing the retrorectal space. Ritter has modified it somewhat, and Sack reports the details of two cases in which it has been applied with unusually favorable results, the little patients being able to be up and about at once, defecation not being interfered with and re-examination seven and fourteen months later confirming the advantages of this simple and harmless technic. The only incision is made from the tip of the coccyx to the edge of the spincter. The loose connective tissue behind the rectum is then separated with a blunt instrument up to the promontory, thus detaching the rear wall of the rectum, and a passage is made entirely around its lower segment. A broad strip of gauze is then worked through this passage to encircle the lower part of the rectum and the ends are brought out, crossed and fastened to the skin above the coccyx. A second gauze strip is pushed up between the rear wall of the rectum and the sacrum. The incision is then sutured except at the top where the ends of the gauze emerge. By this means the rectum is enticed to become broadly adherent to the surrounding tissue and the tendency to prolapse is cured. In both his cases the tampons could be removed the fifth day, while the child was allowed to defecate normally from the first, the strip encircling the lower part of the rectum effectually preventing any tendency to prolapse.—*Therapeutische Monatshefte, Berlin, September, XXV, No. 9.*

HARE-LIP, TECHNIQUE OF OPERATION FOR.

(By T. W. Brophy, M. D., D. D. S., Chicago, Ill., *Surgery, Gynecology and Obstetrics*, January, 1912.)

Brophy says that the object of this short article is especially to call the attention of surgeons to the excellent device which he has designed for holding the parts in contact and relieving tension on the sutures.

Formerly, hare-lip pins were employed; then wire sutures with buttons on the sides; strong silk sutures were also used, but with them all sometimes the lip would part and the operation result in failure.

Hainsby's compress was successful many years ago to force the cheeks toward the median line, thus relieving the tension on the lip. Adhesive straps have been used, with more or less success, but even these did not always accomplish the work satisfactorily.

This simple device will relieve all tension on the sutures, draw the cheeks toward the median

line and hold them firmly in position until union of the tissues may take place.

The adhesive strips are cut so as to be broad in front of the ears and then narrowed down as they approach the center of the lip. They are lapped over and doubled at the lip end, and the smallest size of dressmaker's hooks are sewed through the adhesive strip.

One strip is placed on each side and then silk sutures are carried from the hooks on one side to the corresponding hooks on the other side, across over the lip. The tissues on each side of the lip are carried toward the median line, the lip is thereby pouted outward; all tension is removed from the tissues, and then the lacing from one hook to another, by means of silk sutures, holds the parts steadily and quietly in position.

Should the silk which is carried from one side to the other make an impression upon the tissues in the median line this can be relieved by passing a small roll of gauze beneath the lip end of the adhesive strip and beneath the hooks, thus lifting the sutures so high that they cannot make pressure upon the skin.

This method of retaining the edges of the lip in contact until union may take place may be relied upon as most efficient. The coaptation sutures, in fact, the only sutures Brophy employs for this purpose are horsehair, and as is well known, horsehair sutures will not leave permanent suture scars.

By the adjustment of this device the lip may be kept absolutely clean and the surface at the line of union is always visible.

VENTILATION AND CHILDREN'S HEALTH.

Lassabliere and Schatzmann (*Ann. de med. et chir.*, November, 1910) have made investigations on the effect which the aspect and ventilation of dwelling rooms have upon children's health. They inspected fifteen dwellings occupied by workmen, factory hands, etc., and considered the aspect, the total air capacity of the house and of the children's bedrooms, as well as the methods of ventilating and heating the whole. They also obtained samples of air from the children's rooms in the early morning and estimated the amount of oxygen and carbonic acid gas present in them. The children were also examined with regard to their previous illnesses, and an examination of their blood was made. They conclude that the number of illnesses among children is greater as the amount of cubic air space is lessened; thus in a family where the children had been ill fourteen times the air capacity was one-third of that in other houses where the children were healthy. In such dwellings the blood counts showed a considerable amount of anemia. In bedrooms anything less than 24 cubic feet per child is insufficient, and renders the family susceptible to infectious disease and anemia. A north or southeast aspect appears to be unfavorable. In some cases the open window at night appears to have sufficiently supplemented the want of air space. The rise in carbonic acid was not very high above the normal, but it is probable that long-continued exposure to a vitiated atmosphere will interfere with the oxidation of the child and promote malnutrition.—*Brit. Med.*

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Original Articles

THE SURGICAL TREATMENT OF MUSCULO-SPIRAL PARALYSIS

REPORT OF CASES

Frank LeMoynes Hupp, A. M., M. D.
Wheeling, W. Va.

We should regard any injury involving the interruption of the function or conducting power of an important nerve trunk as an accident of the gravest moment—grave because, as clearly set forth by James Sherren,¹ under the most favorable circumstances, a period of incapacity may result which if not permanent extends into months, perhaps years, or it may often necessitate entire change of employment in the person so injured.

The startling end results which have rewarded the experimenter and clinician along the line of neurolysis, neurorrhaphy, nerve grafting, nerve implantation or transplantation, nerve anastomosis and nerve crossing and restoring continuity following nerve traumatism, illustrated in facio-accessory repairs, suture of the motor trunks of the arm or leg, for the relief of paralysis left in the wake of a poliomyelitis, certainly have opened up a very fascinating field in surgery.

In order, then, to arrive at a more perfect understanding and a better illumination through discussion the writer has chosen for your consideration a theme hitherto neglected in this association.

We are told somewhere in medical history that Hippocrates and his successors in

the school of Cos had no precise notion of the nervous system. They confounded under the term *neura* (Greek) nerves, tendons, ligaments and membranes. Aristotle was but little in advance of this teaching in this matter; he regarded the brain as an inert mass, without sensation, and supposed that the nerves originated in the heart. This reads like a fable, but not less strange is the fact that little or nothing along the line of nerve repair was attempted until the pioneer efforts by Michaelis in New York City in 1782. We are indebted to Dr. L. Pierce Clark² for the historical resume which tells us that while our knowledge of nerve regeneration is as ancient as Hippocrates and Galen, the modern aspect of the subject is supposed to have been original with Cruikshank in 1776, and the first published experiments were given to the profession by Michaelis in 1785.

Sherren³ makes the interesting observation that, until 1839, it was considered that function was restored by union of the divided ends of the nerve just in the same way as any other tissue. Schwann about this time wrote: "There appears to be two moves which Nature employs for effecting the union of divided nerves—one by effusion of coagulable lymph, the other by granulation." Nasse, in 1839, pointed out that degeneration occurred in the peripheral end of a divided nerve; but it was Waller's classical researches, published in 1852, that gained general acceptance for this view. Sherren⁴ has recently written emphasizing the importance of recognizing injury to nerves at the time of the accident. It should be a matter of routine practice to examine

for evidence of nerve injury all patients with accidentally inflicted wounds. This is often omitted, sometimes with serious consequences to the patient. These wounds are particularly common in the region of the wrist, and are usually caused by broken glass, windows or bottles, and sever in most instances tendons in addition to nerves. The condition of sensibility and the action of the intrinsic muscles of the hand should be investigated before any attempt is made to deal with the divided structures. In cases of fracture the nerve may be injured at the moment of the fracture, primary, or involved in the process of repair, torn asunder or pressed upon by the displaced end of the bone, secondary. This applies not only to the musculo-spiral which we have under consideration, but equally well to any nerve. It too frequently happens that the nerve injury and its consequent paralysis is not discovered until the splints are removed, when a fracture is being dealt with. This in the vast majority of cases is an inexcusable blunder, and if this paper does nothing more than impress upon the members of this society the necessity of a painstaking interrogation of the soft parts, particularly the nerves, involved in every fracture case, it will have subserved some purpose.

DeForest Willard⁵ briefly reviews the anatomy as follows:

"The combined musculo-spiral and radial nerve supplies the triceps, the supinator longus and brevis, the extensor carpi radialis longior and brevior, the extensor communis digitorum, the extensor carpi ulnaris, the extensor longus pollicis, the extensor brevis pollicis and the extensor indicis, and is the sensory nerve to the dorsum of the hand and fingers. The radial, its termination, has a superficial sensory branch which lies to the radial side of the artery and passes to the dorsum of the hand beneath the supinator longus. Its deep branch lies beneath the extensor carpi radialis longior. Loss of sensation will be marked on the outer side of the arm and the dorsum of the forearm, on the radial side. This nerve supplies especially the extensors and supinators of the forearm and wrist as well as the fingers and thumb. Injury to the nerve causes loss of power to extend the elbow, wrist and first phalanges of the fingers. It should be remembered that supination is partially accomplished by the biceps, so that this action will not be lost unless some injury has been inflicted on those branches of the musculo-cutaneous nerve which supply this muscle. Wrist-drops in these cases will be excessive. Paralysis of sensation will be most profound upon the outside of the arm, upon the dorsum of the forearm (on the radial side in the upper and middle thirds), upon the dorsum of the thumb,

index and middle fingers, and upon the dorsum of the metacarpal region on the radial side."

If expectant treatment is adopted in these anatomic divisions, resulting from accident, tendons and nerves will be hopelessly entangled in a mass of chaotic adhesions or callus. Understand that spontaneous recovery is practically out of the question and the delay has made end to end apposition perhaps impossible, obliging the operator to adopt the less favorable secondary operation of transplantation.

If these points regarding the anatomy are remembered secondary suture would be almost unknown. Nerve injuries are overlooked, not from want of knowledge, but from neglect of systematic examination (Sherren).

When in doubt administer an anaesthetic and diligently make an immediate anatomical investigation under rigid asepsis and the blessing of your afflicted patient, and the consciousness of a duty well performed will be your reward.

Etiology.—While the well recognized cause of musculo-spiral paralysis is fracture of the middle of the shaft of the humerus, all causes may be mentioned:

1. Fracture with displacement of lower two-thirds of humerus, causing rupture, laceration or pressure.
2. Primary paralysis due to stretching or laceration over a displaced or projecting fragment or contusion between fragments (Woolsey).⁸
3. Secondary, from callus compression or cicatricial incarceration.
4. Crutch, operating table, Esmarch tourniquet and "Saturday night" direct pressure.
5. Bullet and stab wounds.
6. Accidental division while wiring united or mal-united fracture (Sherren).⁶
7. Contusion not producing fracture (Bolton).⁷
8. Forward dislocation of the head of radius (Sherren-Borchard).
9. Involvement of posterior interosseous branch, from fractures of upper end of the radius.
10. Brachial birth paralysis.

After reviewing the various causes producing musculo-spiral paralysis it is interesting to note that Bruns⁹ found in his investigation, involvement of the nerve in 8 per cent of all cases of fracture of the

humerus; and Sherren considers these figures no exaggeration of its frequency. Bruns further observes that injury to the musculo-spiral nerve comprises 40 per cent of nerve injuries complicating fractures.

Scudder and Paul¹⁰ have analyzed a series of eleven cases of musculo-spiral paralysis complicating fracture of the humerus all submitted to operation. There were three failures in the series; in these unsuccessful cases there was no improvement after three, sixteen and twelve years respectively. They claim that musculo-spiral paralysis occurs in from 4 to 8 per cent of cases of these fractures.

Pathology and Pathological Physiology of Degeneration and Regeneration. DeForest Willard, in *Bryant and Buck's Surgery*, after discussing the late results in nerve wounds, the altered nutrition, trophic changes, paralysis, loss of temperature and joint affections, reviews briefly the subject of degeneration and regeneration. A divided nerve speedily degenerates, the process taking place most rapidly in the peripheral portion. Wallerian degeneration is of chief importance to the surgeon and most frequently requires his aid, as this form occurs after traumatism of the nerves or after partial destruction through the pressure of a tumor. Leucocytes invade the dying distal segment and the myelin breaks up; then follows proliferation of connective tissue cells. Fatty degeneration, absorption and formation of sclerotic tissue are the steps of the process; the transmission power of such nerves is abolished for both impulse and electricity.

Regeneration on the other hand although slow, is certain after the divided ends have been carefully apposed.

Kilvington¹¹, Howell and Huber¹² have graphically written of the gradual outgrowth of the axis cylinders from the proximal end into the connective tissue cells lying between the divided ends. The more recent teaching is that axis cylinders are formed in the peripheral segment from neurilemma cells that stretch out first as fine threads, to become complete axis cylinders. These spider-like neuroblasts are seen as early as the third week. Almost any form of graft interposed between the ends may act as a scaffolding or guide to facilitate the efforts of the axis cylinders

from the central to reach the peripheral end.

Kilvington¹³ of Melbourne has made further interesting experiments as to the ability of central stumps to innervate two peripheral segments which preside over antagonistic groups of muscles. His work was done chiefly on the two popliteals of the dog, which were originally divided and then sutured to a single central segment, the other being left to itself. He demonstrated that it is possible to functionate two opposing groups of muscles by a single nerve, which previously supplied one group only. This is equivalent to stating that fairly complete innervation can be effected with a much smaller number of motor cells of the anterior horn than are naturally employed for this purpose. After the suture is effected, there is an excess of peripheral nerve fibres as compared with those in the central stump; this leads to a subdivision of the nerve fibres of the latter in order to bring about union. The element of confusion thereby produced is probably responsible for any shortcomings in the restoration of the more delicate forms of function. There also results some alteration in the arrangement of the nerve fasciculi of the peripheral segments. The foregoing is a brief epitome of Kilvington's first work and appeared in the *British Medical Journal*, April 29, 1905.

In a later paper which appeared in the same journal on September 16th, the author states his position more fully and concisely. The functional results are given as useful, although the groups of muscles concerned are normally antagonists. An actual count of the fibres in the regenerated nerves showed that a single axis-cylinder in the central segment, splits up into two or more branches at the place of section, each branch uniting with a fibre of the distal nerve. But the number of peripheral fibres is still subnormal, (especially in the case of the small nerves) so that the functional capacity of the regenerated nerves is below the standard of health. The ramification of the fibres of the central segment leads on the one hand to anomalous union, and on the other to an excess of material, which undergoes atrophy.

It is possible that the ramification of a

single axis cylinder may come to innervate antagonistic muscles; hence a single motor cell works against itself and this involves a waste of nerve energy. The unphysiological associated movements following the clinical spino-facial anastomosis are well known, and these never entirely disappear despite the process of re-education in the nerve centres.

Those of you who read Cushing's article will well remember how 287 days after the operation on his case, in which the facial was brought into union with the spinal accessory, a violent elevation of the shoulders which would normally bring the trapezius into play, contracted the entire facial group of muscles; and also a vigorous rotation of the head to the opposite side, a movement which would normally be aided by the right sterno-mastoid, had a similar distorting effect on the face.

On account of the numerous drawbacks of nerve crossing, Kilvington was led to try nerve splitting, and obtained in a dog using the two popliteals the best functional results he had ever seen, there having resulted no ramification of the axis cylinders to supply antagonist muscles. All of these experiments are of the greatest interest because of their practical application to acute or delayed traumatic and pathological conditions leading to infinite surgical possibilities.

Essential to Success of Operation.

a. Extreme gentleness in handling the nerve and surrounding tissues, thus reducing cicatricial formation to the minimum.

b. Faults in technique are often responsible for failure. (Stoffel¹⁴.)

c. The cross-section of a nerve has a definite topography, comparable to an electric cable of insulated wires. The fasciculi should be discernable to the eye.

d. The affected nerve must be connected up with a nerve which is healthy without the interposition of connective tissue. (Stoffel.)

e. It is necessary to cut across fibres of healthy nerve removing bulbous ends, always using a scalpel, if they are to grow into the degenerate nerve on accurate approximation.

f. Flap method of nerve autoplasty or

autoplastic elongation aggravates the lesion. (Verga.)

g. Surround the line of union with Cargile membrane, (Sherren), fascia or muscle. (Murphy¹⁵.)

h. A tubular or catgut connection may be made to direct the central axonal bands toward the peripheral fragment, and thus aid the chemotaxis. (Murphy.)

i. Post operative relaxation of the paralyzed muscles by splints or apparatus, and later the maintenance of their nutrition by massage and electrical exercise until the restoration of voluntary power appears. (Sherren.)

j. Use of fine plain or lightly chromicized catgut. Avoidance of silk or linen.

k. The least possible suture material, catgut plain or chromic and the finest intestinal needle. Suture to be placed in the sheath of the nerve if possible.

l. Haemostasis should be absolute.

m. "The degree of invisibility and softness of the cicatrix may be taken as the indication of the probability of a successful outcome, since the absorption and organization of blood clot and of small areas of necrosis with the resultant contraction of new formed tissue is an element which more than any other interferes with the regeneration of an injured or divided nerve." (Cushing¹⁶.)

Prognosis. Remembering the essentials to success, collated from various authorities and including the writer's personal experience, and with a feeling that these have been faithfully interpreted in a given case of nerve paralysis, and the operation performed with the strictest aseptic precautions, whether the nerve suture has been primary or secondary, a favorable prognosis may be made, indeed better after repair of the musculo-spiral than any other nerve in the body. No marked sensory loss is present after division in the usual situation; but in the rare instances in which the nerve is divided *above* the origin of its cutaneous branches, the area of altered sensibility is situated over a region where it will in no way impair the efficiency of the hand for work. The muscles supplied by the nerve are not employed in fine movements of the fingers to the same degree as those supplied by the median and ulnar. Remember that all authorities agree, that it

requires about a year from the date of suture before a perfect recovery can be predicted or the maximum improvement attained. The prognosis very naturally will be more favorable the earlier the repair work is done.

In 1897 Sick and Sanger²¹ gave to the profession the first successful nerve anastomosis in man. The median and musculo-spiral were united and the result was a return of the power in the paralyzed muscles supplied by these inactive nerves. In this patient they had grafted the distal stump of a paralyzed musculo-spiral nerve into the neighboring intact median. The resulting perfect control with good co-ordination in the muscles supplied by these nerves was marvelled at by the profession, for this was the first well authenticated case in which musculo-spiral and median anastomosis had been satisfactorily demonstrated. Those of you interested in the literature of this subject would do well to carefully study Harvey Cushing's article published in the *Annals of Surgery* for May, 1903. It relates entirely to the surgical treatment of *facial paralysis*, reviews the literature of the subject and details his most brilliant case; discussing minutely the anatomy, technique, and the theories of restoration of cortical control brought about by nerve anastomosis or transplantation.

A point not entirely germane to the subject yet important enough to mention in connection with Sick and Sanger's case, is the conclusion arrived at by Kilvington²⁶ based upon critical experimentation in facio-accessory anastomosis, it would be wise to split the latter nerve into two strands, injuring the actual nerve fibers as little as possible. One of these should be attached to the distal cut end of the facial, and the other to the whole of its own distal end. This would abolish associated movements of the shoulder, or, at any rate, reduce it to a very small amount.

Before this, in 1895, Ballance,²² and later, in 1898 Faure²³ unsuccessfully attempted a facio-accessory anastomosis. To Kennedy²⁴ belongs the credit of first successfully accomplishing this surgical feat in man in 1899. Indeed, Robert Kennedy of Glasgow has worked along the line of nerve repairs untiringly. His early experi-

mental and clinical work was enthusiastically received on both continents, particularly the crossing of the musculo-spiral and median, and the musculo-cutaneous and ulnar, involving the nerve supply of the whole of the flexors and extensors by interchange. In these experiments it was interesting to note how stimulation of the musculo-spiral above the line of suture resulted in flexion and vice versa. An anastomosis of the hypoglossal with the facial was first performed by the English surgeon Ballance in 1903. The writer is indebted to Crandon²⁵ for these historical data which are of interest in taking up the consideration of nerve repair.

Neurolysis as defined by Woolsey²⁷ is the loosening of nerves and is called for to free an otherwise comparatively healthy nerve from cicatricial tissue, callus, interposition between bony fragments, or imprisonment in an osseous or osseo-aponeurotic canal which, by pressure, cause paralysis, neuralgia or neuritis. The musculo-spiral nerve, as has been mentioned, by reason of its relation to the humerus is more frequently involved in those accidents requiring neurolysis than any other nerves in the body.

Methods of Repair. The ends of the injured nerve are exposed, freshened and sutured if apposition is possible, if not one of the operations of anastomosis crossing or grafting according to the nature and degree of separation. Adhesions are prevented by ensheathing the sutured portion of the nerve in corgile or egg membrane, fascia or muscle. It is hardly necessary to tell you that the details of asepsis are to be rigidly enforced. Functional recovery is hastened first by rest, and later passive motion, massage, stimulating hot and cold sprays and electricity. If the gap made by the surgeon's knife following removal of a tumor or resulting from a traumatism is too broad to permit of accurate and relaxed approximation, the defect may be remedied by any one of several methods.

a. *Nerve transplantation.* My friend and former teacher, Dr. Charles A. Powers, of Denver, reviews the subject of bridging nerve defects in a scholarly paper read before the American Surgical Association in 1904. He discusses briefly the various meth-

ods for the repair of injured nerves. Under the head of the grafting method he describes a case in which he implanted four inches of the great sciatic nerve of a dog, into the external popliteal of a man. The patient had sustained, in a railroad accident an extensive lacerated wound at the outer aspect of the right knee, with a compound, comminuted fracture of the head and neck of the right fibula. There was complete anaesthesia and paralysis of the parts supplied by the external popliteal nerve. The result was a complete failure as regards motion, yet there was primary union and the case gave promise of a good result. All observations were made eight years after operation. Powers concludes that nerve transplantation should be abandoned, having based his opinion upon the analysis of twenty-two cases. Ballance and Stewart²⁸ are authority for the statement that a transplanted nerve graft never heals in as a nerve, but the degenerated nerve elements are absorbed and merely subserve the purpose of a scaffold or framework for the development of the nerve cells and axis cylinders.

b. *Neuroplasty*. American and British operators cannot agree with the French writer Verga¹⁷ when he insists that following Schueller's technic, repair is identical whether the suture of a nerve is lateral or terminal. As elsewhere stated, Sherren mentions only to condemn the method extolled by Willard and Letievant¹⁸ described by the former as neuroplasty which consists in turning flaps of nerve from both peripheral and central ends to bridge over the gap. Powers,¹⁹ on the other hand, collected eleven cases of neuroplasty and the results he claims were satisfactory. Harrison²⁰ also reports a case successfully treated according to this *autoplastic nerve-use a lambeau method*.

c. *Suture a distance*. Here the defect is scaffolded in by strands of catgut or some other absorbable material, and these at the same time by tension, approximate the two ends of the nerve as well as possible. Gluck and Ehrmann have experimented successfully along this line but the consensus of surgical opinion discourages the procedure.

d. *Canalization or tubulization*, which consists in the implantation of the nerve ends into absorbable tubes of bone, sterile

arteries, veins or other material thus preventing the development of cicatricial tissue, has not been favorably received.

e. *Resection of bone* at first thought seems barbarous and mutilating, yet its adoption in selected cases has led to satisfactory approximation of nerve ends. Keen,²⁹ Mikulicz,³⁰ Trendelenburg and Rixford³¹ have been its leading exponents in musculo-spiral surgery. It should be reserved for cases of ununited fracture complicated by division of the nerve, which will necessitate freshening the ends of the bone. The bone should never be divided solely for the purpose of shortening the limb. (Sherren.) Injury to this nerve, together with concomitant rupture of the nutrient artery at the median portion of the humerus is the chief cause of mal-union following fractures of this bone.

f. *Nerve Anastomosis* can be resorted to and should be advocated where approximation seems out of the question.

The literature is full of the most encouraging experimental and clinical evidence demonstrating its feasibility. George Woolsey³² in *Keen's Surgery* has clearly illustrated the various methods and types of nerve anastomosis. This comprehensive paper³³ is heartily commended to any one who wishes a more detailed description of the technic.

Report of Cases.—On the evening of July 4th, 1904, the writer was called to see a boy aged fifteen, who had been shot with a 22-calibre bullet. The ball entered the left axilla about three inches below the acromion process of the scapula, passed through the axilla and found its exit a little below the head of the humerus posteriorly. The patient was admitted to the City Hospital, where an examination revealed a very decided musculo-spiral paralysis, with the characteristic wrist drop. There was only partial loss of sense of touch over the cutaneous distribution of the musculo-spiral, but complete disability of the muscles receiving nerve supply from this source. There was some slight numbness and tingling, but very little anaesthesia and no defective thermal sense.

Sixteen hours after the accident, under ether anaesthesia, an incision was made, exposing the contents of the axilla. A careful dissection in this important passageway between the neck and the upper extremity demonstrated that the projectile had passed between the ulnar and internal cutaneous nerves on the inside and the axillary artery on the outside, lacerating the neuro-vascular sheath and severing, to all appearances, the musculo-spiral nerve, as it lay back of the artery. That the axillary artery was not torn seemed almost a miracle.

With delicate dissection the injured nerve was well exposed, haemostasis was made absolute, the divided ends were accurately approximated. Care was taken not to infold or twist any lacerated fibers. Three stitches were advantageously placed through the sheath of the nerve and one placed horizontally through the nerve proper. Ten-day very fine chromicised Van Horn catgut and a fine curved intestinal needle were used. The wound was closed without drainage and healed primarily.

As early as forty-eight hours following the operation there was some diminution in the area of anaesthesia, and at the end of the third day there was unmistakable evidence of beginning activity in the extensor muscles. In eight weeks the patient was well, with perfect functional result.

I was indeed surprised and gratified at the rapidity of restoration of function in this case. Sherren has pointed out that after complete division of the musculo-spiral the interval before the restoration of function varies somewhat with the age of the patient, the nerves injured, the method of wound healing and the variety of surruc, being always more rapid in the young and vigorous. This writer reports complete recovery of paralysis in a week following division of the musculo-spiral nerve.

During the period of healing and of paralysis the affected extensors were kept from over stretching, the wrist supported on a splint and the after treatment, mentioned under the essentials for success, was not neglected.

Case II. Married, male, blacksmith, courteously referred to the writer by Dr. England of Jewett, Ohio. He had sustained a fracture of the left humerus at the middle of the shaft about fourteen months before admission to the City Hospital, with resulting paralysis of the extensor muscles of the forearm, observed on removal of the splints. On admission the wrist was helpless, dropped and with the over-stretched dorsal ligaments caused that marked prominence of the dorsum so characteristic of musculo-spiral paralysis.

On admission a radiograph of the afflicted arm was made by Dr. A. J. Quimby, which is herewith submitted. The compass test was imperfectly appreciated and thermal sense decidedly disturbed over the cutaneous distribution of the musculo-spiral and its radial branch. It was evident that the nerve was involved seriously in the traumatism. Operation was suggested and accepted. Operation—Ether narcosis; rigid attention to the details of asepsis. Incision four inches in length was made over the outer aspect of the arm, and careful dissection exposed the bone. The oblique fracture was found to have united by overriding. The musculo-spiral nerve was completely divided. The upper or central portion of the nerve had retracted so as to occupy a position almost posterior to the shaft of the bone and was found by careful retraction of the original incision and a search following the direction of the posterior axillary fold into the space between the outer and long head of the triceps. Here the trunk of the nerve was isolated, stretched and the clubbed-shaped end removed by a knife section made at right angles to the long axis of the nerve. The

peripheral end of the nerve was firmly wedged between the fragments of the bone, it was separated and the body of the nerve liberated from its cicatricial bed. The fibres of the brachialis anticus had been separated and the tendinous head of the triceps located. The profunda artery lying to the outer side and the musculo-cutaneous nerve running to the back part of the forearm were identified. The peripheral end of the musculo-spiral was likewise freshened and with two stitches of Van Horn 0 chromicized ten-day catgut were united, the two sutures penetrating the substance of the nerve and crossed at right angles. The sutured nerve was surrounded as far as possible with muscular fibers from the triceps and haemostasis being practically absolute, the skin incision was closed without drainage. The arm was placed in a position of complete extension, thus relaxing the muscle supplied by the injured nerve, the well padded splint extending from the finger tips to the axilla. Primary union was the result of this technic; passive motion and electrical exercise of the extensor and supinator was not commenced until two weeks later. Complete functional return was not attained until ten months after the operation. After twelve months the man was at his post of duty with his arm entirely restored, wielding, soon after this, hammer and other heavy implements.

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THE EARLY DIAGNOSIS OF TUBERCULOSIS.

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The early diagnosis of tuberculosis means to us today something entirely different from what it did a few days ago. The time seems very short indeed since we looked for the hectic flush, the outstanding ears, the persistent cough, constant expectoration, well marked emaciation and incapacity to work, before we dared pronounce the case one of pulmonary tuberculosis.

The absence of adventitious sounds on auscultation meant that the next physician who placed a stethoscope upon the patient's chest ridiculed our diagnosis, and as we are sensitive creatures, we were tempted to wait until signs were unmistakable, before whispering in the ear of some members of the family that our patient was the victim of the white plague. To tell the patient himself that he had tuberculosis meant to him a death sentence. He knew we were wrong, so he started down the street to find some physician who would place his ear to his back, percuss a little over his starched shirt front, and tell him he had a "weak spot" in his lung, a little "bronchitis," "throat trouble," "stomach trouble," or whatever he thought the patient wanted him to say.

Few physicians knew how to treat tuberculosis, and the general desire was to get the sufferer as far away as possible, so he was told to "go West and live out of doors." The patient of moderate or limited means would gather together money enough to pay his fare to Denver and live

a few months. When funds began to run low, his first economy was in the matter of food, because of failing appetite. Then he moved to a cheap rooming house, to brood and become desperately homesick, finally to give up in despair and come home to die.

No patient should be allowed to leave his home unless he can have one hundred dollars a month for two years for his maintenance and care. Ninety per cent of the cases cannot afford to leave home, and their rightful place is in the hands of the general practitioner.

The possibility of cure is dependent upon the recognition of the disease at the earliest possible moment. In its earliest stage tuberculosis is not a disease in the sense that it interferes with the ordinary sense of well being.

The discovery of the tubercle bacillus was the first step toward the earlier recognition of the disease, but the microscope does not aid us in establishing an early diagnosis as we now understand the term. Whenever we find tubercle bacilli in the sputum we are dealing with a moderately advanced stage.

Early diagnosis means the discovery of the fact that the patient has an active tuberculous focus, not sufficiently advanced to cause destruction of tissue and the elimination of the bacillus tuberculosis in the expectoration. Therefore we must become more expert in our methods of physical examination. We must study our patient from every side, and bestow upon him time and care in solving a problem upon which depends the life, not only of the individual immediately concerned, but also the lives of other members of his family.

Whenever a case of tuberculosis is found, every other member of the family should be studied with the utmost care. This family study sometimes yields astonishing results. In one series of examinations of fifteen families, in each of which there was an open case of tuberculosis, I examined ninety-four individuals, and found seventy that showed unmistakable evidence of infection.

Heredity no longer plays the important part it once did, and while we do not now think that if a parent is tuberculous some of the children are necessarily doomed to

die of the disease, we still think it well worthy of consideration, for there seems to be no reason why we should not resemble our parents in our susceptibility to certain diseases as we resemble them in face and form, and it must be remembered, too, that members of the same household are exposed to infection from the same source and also to infection from each other. In investigating family history, special stress should be laid upon association with any member of the household, even of years before, who has had tuberculosis. The source of infection may be in the immediate family, or that of a neighbor. I have in my care at the present time two children, whose only known source of infection was playing on the porch with a careless neighbor who died of tuberculosis four years ago.

The clinical history is of the utmost importance. The first focus is probably always in a gland, and may remain latent there for years without giving rise to recognizable clinical signs, unless some infectious disease, such as scarlet fever, influenza, bronchitis, whooping-cough, measles, pneumonia, typhoid or rheumatism, produces a stimulation of the lymphatic glandular system. Then latent tubercle bacilli, stimulated to new activity, are swept along in the active lymph stream into other parts of the body more favorable for their development. In this way do we account for the frequency with which active tuberculosis follows these infections.

Bronchitis, influenza, pneumonia and pleurisy showing in a patient's history, greatly increases the probability that the present infection is tuberculous. A single case will illustrate how pleurisy may reveal tuberculosis in a family. A young man came into the medical clinic, complaining only of dyspnoea. He had a rapid pulse but no elevation of temperature. Examination revealed pleurisy with effusion. Fluid aspirated was clear the first time, second time turbid, third time turbid and bloody. There were no other signs of tuberculosis except a positive von Pirquet reaction. He said his family were all well, but close inquiry brought out the fact that his father had a "cold." Examination of the father, who was seventy-three years old and apparently in excellent health, revealed a well

advanced fibroid phthisis, with tubercle bacilli in his sputum in great abundance.

Loss of weight is one of the most significant facts in the personal history. The tubercle bacillus is a parasite, and when a parasite finds lodgement in a host, there begins a mutual struggle for existence, and the changes in body weight show unerringly the progress of the fight. All parasites seem provided by nature with the power to secrete a substance which destroys the defenses of the host at the point of attack. This is illustrated by the common leech, whose oral secretion prevents the coagulation of blood, and causes a hemorrhage that often continues long after his appetite is satisfied, and the loss to the host is out of all proportion to the needs of the parasite.

Chemical analysis of the tubercle bacillus shows eighty-eight to ninety-seven per cent of fat and proteid, of which nearly half is fat or a substance supposed to be derived from fat, and we can reasonably conclude that in the elaboration of the fatty substance of which the bodies of the tubercle bacilli are composed, enormous quantities of body fat and proteid are consumed, and that the destructive process continues long after the immediate needs of the bacilli are satisfied.

Malaise is one of the most characteristic early symptoms of tuberculosis. Patients are tired all the time or get tired in the afternoon. Nervousness, irritability, depression of spirits, cold hands and feet, and flushing and chilling without apparent cause, are usually present.

Early tuberculosis is one of the commonest causes of neurasthenia, and we do well to examine patients suffering from nervous breakdown for evidence of tuberculosis.

A history of cough is often difficult to obtain, because the patient will frequently deny the existence of a cough, and even while he is speaking will give a little "hack." When his attention is called to it, he will show utter unconsciousness of having coughed at all. The cough may occur only after exertion, or taking a deep breath, and patients often think they have only throat trouble because of the tickling sensation in the larynx.

Chills, night-sweats, pain and hemor-

rhage are more obvious signs of tuberculosis, and go far toward establishing a diagnosis.

With a knowledge of the personal history we are prepared to interpret the physical findings.

Physical examination through the clothing is no longer considered good practice, and yet very recently a patient with advanced tuberculosis told me that his family physician made percussion over his starched shirt front, and told him there was nothing the matter with his lungs.

All clothing should be removed to the waist, the patient placed in a good light, on a stool without a back, to allow inspection of the chest in a natural pose without artificial support.

The character of the pulse is first observed. The tuberculous pulse is a quick pulse, regardless of its rate. It taps the finger and is gone, but in volume is distinctly different from Corrigan pulse.

The blood pressure is next recorded, and a systolic pressure of ten to twenty mm of mercury below normal for the sex and age of the individual, is suggestive of tuberculosis.

Curved nails and clubbed fingers are not early signs, but these, with cyanosis of the nails, are worthy of note in advanced cases, and are present in cases of fibroid type in which there may be little disturbance of the general health, and yet may be dangerous to others because of bacilli in the sputum.

Much importance should be attached to hoarseness, which may be caused by pressure of enlarged tuberculous glands, or adhesions binding down the recurrent or superior laryngeal nerves.

The eyes often show unusual clearness of the sclera, even in early cases, while in about twenty-five per cent of the cases, dilated pupils are seen. About five per cent show dilatation of one pupil. It is interesting to note, that where one pupil is dilated it is on the affected side, or on the side more recently invaded.

The skin over the chest is next examined, and here we note a phenomenon which may be regarded as having distinct value in the early diagnosis of tuberculosis. When the skin is grasped between the thumb and finger and pulled from the underlying muscle fascia, it is more elastic on the affected

side. This skin change is described by Wheaton as an atrophy of the integument due to an absorption of the subcutaneous fat, so that when it is grasped it feels thinner, and can be stretched farther from the underlying tissues than the skin on the normal side. My observation on about a thousand cases seems to show that the integument atrophy extends considerably beyond the lesion, and is not limited to the area of dullness.

From skin elasticity to muscle spasm is the next step. Pottenger states that the muscles over a tuberculous focus are in constant spasm, and palpation will reveal a rigidity corresponding exactly to the area of the lesion. This is a refinement of diagnosis not always easy to demonstrate, but it calls attention to the muscle spasm constant in apical affections. On the side of the more recent infection or more acute process, the trapezius and underlying muscles are rigid, and tend to elevate the shoulder and incline the head slightly toward the affected side, contrasting strongly with the shoulder droop of the older lesion on the opposite side.

In studying muscle rigidity, I have found that standing behind the patient and placing the flexed index fingers under the lower borders of the pectorales major and pulling gently upward and backward, there can be recognized a distinct sense of resistance on the affected side. There is this to be observed, however, upon placing the fingers in position in the axilla, there is often a contact spasm produced on the unaffected side. This quickly disappears if the fingers are kept in place, and the true muscle rigidity is readily detected.

Of percussion and auscultation too much must not be expected in early tuberculosis. Direct percussion of the clavicles will sometimes yield a distinct difference in pitch which cannot be brought out by ordinary percussion or below the clavicles, and it must be remembered that when percussion reveals a decided departure from the normal, we already have a lesion of considerable extent. If upon auscultation immediately below the clavicles we can detect a change in the quality or volume of the vesicular murmur, or if the sound on either side is rougher or appreciably diminished, there is a lesion present. Dependence upon auscul-

tation alone, or upon any other single aid to diagnosis, is unsafe.

The physical examination may well conclude with the application of the Calmette, the Moro, or the von Pirquet tests.

The Calmette consists of instilling into the eye a drop of one per cent solution of tuberculin, which is followed in a few hours by a reddening of the conjunctiva. Serious results have followed the use of this test, and it has generally been discarded.

The Moro test consists of the inunction of a small quantity of a fifty per cent tuberculin ointment, which is followed in a tuberculous subject by a bright red eruption within twenty-four to forty-eight hours.

The von Pirquet test consists of placing a drop of Koch's old tuberculin in two places on the skin about three inches apart. A special scarifier is employed which makes all the scarifications of equal size. A slight abrasion of the skin is made by rotating the scarifier midway between the two drops of tuberculin, this first scarification serves as a control for comparison with the other two made through the drops of tuberculin. In twenty-four to forty-eight hours the inoculated scarifications show a bright red area varying in intensity from a redness slightly greater than that in the control spot, to a spot one-half inch in diameter covered with vesicles. The value of the von Pirquet reaction rests more upon its significance in prognosis than upon its importance in diagnosis.

A positive reaction means that somewhere within the individual tubercle bacilli are present, and that anti-bodies have been formed to repel the invasion, but it does not tell us whether we have an active focus, or an old healed lesion. A negative reaction means that we have either no tuberculosis, or that the anti-bodies are no longer being formed, and the patient is making no resistance. Hence in far advanced cases we frequently get no response to the von Pirquet test. If on the other hand, in the presence of obvious tuberculosis we get a prompt and vigorous reaction, the prognosis is favorable.

Having given our patient the ocular or one of the skin tests, and having obtained a positive reaction, how are we to decide

whether we have an active focus or an old healed lesion? The recent clinical history generally answers the question.

Teach your patient to read the clinical thermometer, and have him record his temperature every two hours for a week.

A temperature below normal is suspicious. A temperature of ninety-seven or ninety-seven and two-tenths in the morning and ninety-nine in the afternoon is more suspicious. A temperature of ninety-nine or ninety-nine and four-tenths after active exercise is still more suspicious. If you are still in doubt give him a subcutaneous or intracutaneous injection of one-tenth milligram of Koch's old tuberculin and watch the result. An area of redness at the site of injection is strongly suspicious, and if in addition to this you get within the next twenty-four or forty-eight hours a temperature one degree higher than he had before, your diagnosis is established beyond question.

As for the treatment, there are five essentials. Absolute honesty, rest, food, twenty-four hours a day in the open air, and tuberculin.

Absolute honesty on the part of the physician in explaining to the patient his exact condition, and absolute honesty on the part of the patient in carrying out without evasion the directions of his physician, are necessary to the mutual confidence without which little can be accomplished.

Complete rest in bed for one month wherever possible, should inaugurate the treatment regardless of the condition of the patient. This will be followed by so much improvement that it is less difficult later to induce the patient to remain in bed when fever, hemorrhage, rapid respiration, or rapid pulse makes rest imperative.

Food should be definitely prescribed, and ought to include one quart of milk and three eggs a day to begin with. The quantity of food may be gradually increased, but not beyond the digestive powers of the patient.

Twenty-four hours a day in the open air is our ideal, and no matter what modifications are forced upon us by circumstances, we must not fail to recognize that window tents, rooms with open windows, and other makeshifts are only makeshifts, and cannot take the place of real open air.

In tuberculin we have a remedy which can be used to advantage in nearly every case. Any physician will find it a safe remedy to use if he will proceed with the same caution that he would employ in the administration of any very potent drug. I am convinced, however, that the dosage generally recommended is ten times too strong.

In general it is safer to increase the dose so gradually that the course of tuberculin extends over a period of a year or a year and a half.

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THE MANAGEMENT OF ACUTE ANTERIOR URETHRITIS

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The prevalence of specific urethritis, its frequent far-reaching effects, and the present attitude of the public mind toward it, may possibly justify a few remarks on so threadbare a subject. What we are to do in order to improve conditions, is a problem for both society and medicine, the solving of which will in all probability consume decades. It is with the conviction that the medical profession as a whole is not doing its full duty in the management of gonorrhea in the male, particularly in acute cases, that this paper is undertaken.

Medical journals are full of lamentations of the often hopeless sequelae of urethritis and of the ravages done the innocent by gonorrhoea, and the lay press not infrequently contains articles deploring the all too common occurrence of this disease, and demanding relief from physicians, as most competent to furnish it, and from legislative bodies by the enactment of laws tending towards the abolishment of the prostitutes, or at least requiring the properly inspected regulation of this class by qualified physicians. Beyond any question much has been done in recent years in improving conditions in the "tender-loin" districts of our larger towns; so much, in fact, that it is the exception rather than otherwise for the writer to see a case of gonorrhoea contracted in the "red-light" district. It is to the street-walker he is indebted for a large

majority of this class of patients. But manifestly she is not born infected, nor does gonorrhoea occur in her *per se*. Where then, does she contract this disease? Evidently from uncured males, patients who have only a glueing together of the meatus, a slight discharge after each debauch, the so-called "bad-cold" types, as remnants of an active process. The difficulty in holding this class of patients for prolonged treatment is realized, then tendency to discontinue treatment as soon as the painful symptoms disappear is understood, and the probability of the patient disregarding instructions and warnings is appreciated; but with all these handicaps, I am convinced that the percentage of cures in males is much smaller than it should be, that complications and chronic urethritis are too frequent, and that we physicians are undoubtedly largely at fault.

There are a good many young men, with their first "dose," who are willing and anxious to submit to any restrictions in their habits and to accept any line of treatment in order to be sound again. It is to this class that we should give our best efforts and skill, although others will not heed professional advice or follow treatment. But what chance has any patient, no matter how desirous of permanent relief, to recover, with a small syringe, an astringent injection improperly used at best by the patient himself, a prescription for nauseous oils and balsams, and few if any general instructions from his physician. The writer has been as guilty as any, but there is no excuse for such "slipshod" methods, which cannot rightly be called treatment. A patient can no better use a syringe than he can rightly pass a sound, and even though he becomes fairly adept with its use, he has the further disadvantage of having an instrument of too small capacity usually, and only a limited supply of injection, for he will doubtless pursue a false economy with the prescription given, making six or eight ounces last one or two weeks. Is it any wonder that gonorrhoea is considered by so many, some physicians included, as rarely ever entirely cured, when all of us know that a large percentage of cases are treated somewhat as detailed above? Often the patient's diagnosis is taken without inspection, and by many this

last is made across the protecting and safe bulwark of a heavy desk. A shameful fact, but a number of us are too aesthetic to handle the genitals of our patients in order to give proper treatment, and at the same time, with absolute disregard for the outcome of the case and the welfare of the patient will prescribe an injection to be used with a one or two drachm syringe.

Given then, these first infections, it is my belief that with the full co-operation of the patient and the proper treatment by the physician himself, a cure will be effected in nearly 100 per cent of the cases, and in a period of from four to six weeks. With this opinion no great amount of concurrence is expected. Nevertheless, in my own practice it has proven true, being confirmed by numerous examinations of the normal secretions microscopically.

The average patient presenting himself for the first time with a venereal disease to the physician is apt to be reticent about his condition, often denies exposure to infection by coitus, and may state as the cause of his affliction the use of soiled towels or the sharing of a bed in common with his room-mate, or asserts he caught it in some public toilet. It is well not to be too abrupt in displaying your almost certain knowledge to the contrary, but by a little tact draw from him that some weeks, or perhaps months since, he was exposed to the possibility of contracting the disease in the usual manner. This is important in order not to frighten away the patient and particularly to gain his entire confidence and hence his full co-operation in your treatment. Not infrequently we hear a patient say, "Dr. So & So asked me too many questions concerning my private affairs," or some such remark. As soon as the patient is somewhat at ease, inspect the genitals closely but briefly, then let him re-button his clothes and sit down. It is best now to give your general instructions as to diet and hygiene. Emphasize the point that his complete recovery depends largely on his strict attention to each and every detail and his unflinching observance of the same. His diet should be restricted to milk, cold bread, cereals and similar foods as long as there is any burning on urination. As this subsides his diet may gradually become general, with the single exception of alcohol in any form. He must

drink an abundance of water. A well fitting suspensory is ordered. The penis is to be soaked for five minutes several times daily in water. Nothing gives greater relief to the distressing burning. The danger of ophthalmia must not be overlooked and the possibility of other members of the household becoming innocently infected. Exercise as far as possible is limited; have the patient sit rather than stand, ride rather than walk. A saline laxative is ordered each morning, and full doses of potassium bromide (grains 20-30) with mono-bromated camphor (grains 5) are prescribed each night, one hour before retiring. These drugs in the doses named almost invariably prevent erections at night. A hot bath is recommended once in twenty-four hours, preferably in the morning; taken at night it is apt to cause erections. Sandal-wood oil is given in 5 to 10 minim doses after meals. The preparation preferred is marketed as Gonosan (Reidel). This prescription is continued for one week unless otherwise indicated. The use of tobacco is not interdicted.

The office treatments are given morning and evening as long as there is any discharge from the urethra and for several days thereafter; then once daily, preferably in the evening, for at least two weeks after all discharge has ceased. It is my practice to use potassium permanganate as long as gonococci are found. For this purpose a four-ounce syringe provided for soft rubber tips of various sizes, all blunt cones, is more convenient and can be used with less pain to the patient than the Valentine irrigator. The patient having emptied the bladder, begin by thoroughly cleansing the glans, prepuce and meatus with hot permanagante solution, the temperature being as high as the patient can stand. A point to be noted is that the urethra tolerates higher temperature better than the external parts. Any cold solution in acute gonorrhoea is injurious. Select a tip which fits snugly into the meatus, but enters the urethra no further than is unavoidable. The penis, resting on the palmar surface of the fingers of the left hand and steadied by the thumb, can be injected by using light pressure with the syringe against the glans, avoiding compressing the organ with the fingers. This method is less painful than squeezing the glans around the

syringe tip to prevent leakage, and furthermore does not at all interfere with the flow of the solution injected.

At the first treatment a 1: 6000 permanganate solution is employed. By the end of a week the strength has been increased to 1: 1500 or 1: 1000. It is rarely necessary or advisable to use a greater strength than the latter. The solution is allowed to flow in slowly and in small quantities at first, and is promptly released. Gradually the urethra is "ballooned." There is no reason for having the patient hold the penis in order to prevent the injection from going back too far and starting up trouble in the posterior urethra. The external urethral sphincter is in most instances hard to relax, even when we want to throw our solutions into the bladder. We really have to educate the patient and the sphincter in order to do this successfully. Occasionally a "cut-off" muscle is found which offers no resistance, and the solutions flow easily into the posterior urethra and bladder. In such an instance it is imperative, for obvious reasons, to treat the case as one involving the entire urethra, and for this the Valentine irrigator should be used. The last portion of each treatment is retained for about one minute. If the patient complains of excessive discomfort from the permanganate, its strength may be decreased or a hot saturated solution of boric acid may be substituted. Ordinarily the permanganate is well tolerated. Use from four to eight ounces at each treatment. Cotton used as a "catch" for the discharge is an abomination. It is not only unnecessarily dirty but it becomes glued to the meatus and effectually plugs this opening so that irritating and virulent pus constantly bathes the urethral mucosa. It is not infrequent to see the glans macerated and bleeding around the meatus following the separation of adhered cotton. The gonorrhoea bag is equally as bad or worse. A piece of gauze about six inches square with a small hole in the center is pushed over the glans behind the corona, and the prepuce, if one is present, drawn forward. This makes a sanitary dressing, protects the clothes and does not interfere with drainage. In addition it keeps the prepuce from direct contact with the glans and diminishes the probability of an inflammatory phimosis. This dressing should be changed as often as it

becomes soiled, and the penis thoroughly cleansed and dried before fresh gauze is applied.

Having followed this treatment from one to three weeks the case will rarely show microscopical evidence of a urethritis. Treatment, however, is insisted on for at least two weeks more, as follows: the strength of the permanganate solution is reduced to 1: 3000. Usually Ultzman's solution. (zinc sulphate, powdered alum, glycerine, carbolic acid, of each 1: 500) is employed two or three times in the last week, it being believed that a mild astringent is serviceable in repairing the damaged urethral membrane. It is advisable every other day this week to pass a straight sound (22-25 F.) down to the "cut-off" muscle and gently massage the penis with the fingers. By this it is hoped that the contents of the follicles, crypts and mucous glands will be expressed, bringing with them any gonococci which have found lodgment therein.

The most common error in the treatment of the early stage of gonorrhoea is the employment of astringents, as a glance at the pathology will show. By constricting the blood vessels, less blood flows to the locality, hence fewer leucocytes on which we must assuredly rely for assistance. Astringents have few if any antiseptic properties and do apparent good simply by lessening the discharge. They in no way affect the gonococcus in the deeper structures, and in cases which seem to be cured by their use recurrences are almost invariably the rule. "drying up the running" is not curing gonorrhoea. Without doubt the improper use of lead acetate, zinc sulphate, hydrastis and a score of others of this class of remedies is responsible for many chronic cases. These drugs have their place in the treatment of urethritis, but certainly should not be used as long as the gonococcus can be demonstrated. The bacterins have proven of no value in my hands in acute urethritis, though in some chronic cases and in some complications I believe I have gotten good results.

This paper does not pretend to present any new ideas of treatment. The drugs mentioned are, it is presumed, those most commonly used in the effort to eradicate gonorrhoea. I believe them the best at our disposal; they have certainly proven so in

my practice, and I believe I have given them all a thorough and impartial trial. Further, I do not, in this, attempt a treatise on specific urethritis nor claim that all my acute cases run an uneventful course to recovery. It cannot, however, be denied that it is possible in many a patient, with his co-operation and the treatment given by the physician himself, to effect a complete and permanent cure; on the contrary, if left to himself and his "eye-dropper" syringe, the unfortunate fellow is more than apt to have a hopelessly chronic condition. The essential features in the successful treatment of acute urethritis are: 1. The use of copious hot solutions in proper strengths. 2. The personal attention by the physician to each case. 3. The continuance of treatment for at least two weeks after cessation of all symptoms. 4. The full and careful observance by the patient of each detail and instruction; and 5. The opportunity of instituting remedial measures within the first few days of the disease.

It is not intended in this article to discuss complications and chronic conditions or the treatment of either. It is always hoped the process will remain anterior, and the treatment discussed herein is applicable to anterior urethritis, as all cases are of this character at the outset. It is believed that by the careful following of some such method in handling gonorrhoea, remote and intractable results will be minimized. If more care is not exercised in the treatment of these cases, what results can be expected from legislation intended to help check the spread of this prevalent disease? One uncured male may widely disseminate the infection. We could have done better work in many cases we have let slip by. It is up to us to be physicians in the future.

Coyle & Richardson Bldg.

LORD LISTER.

R. M. Baird, M.D., Wheeling, W. Va.

(Read before Ohio County Medical Society, April, 1912.)

"Full of years and honors the greatest Englishman of the nineteenth century has gone to his rest."

Thus *The London Lancet* opens its leading article upon Joseph Lister, B.A., F.R.C.S.E., F.R.S., the holder of the

Doctorate from many of the greatest Universities of the world,—a Baron of the United Kingdom—who was born in Upton, a suburb of London, in the County of Essex, April 5, 1827, and died after a four days' illness of pneumonia, February 10, 1912.

His family were of the Society of Friends, and his father, by his improvements in achromatic lenses, raised the compound microscope from a scientific toy to an instrument of precision.

Directly after graduation in medicine, Lister proceeded to Edinburgh to place himself under Syme, the greatest surgeon Scotland had ever produced. Here, in 1855, he married Syme's daughter.

In 1860 he was appointed Professor of Surgery in the University of Glasgow, and it was while here the articles which inaugurated the Antiseptic System of Surgery were given to the world in the columns of *The London Lancet* of March 16, 23, 30, April 27 and July 27, 1867. They were each entitled "On a New Method of Treating Compound Fracture, Abscesses," etc.

"There is nothing new under the sun," saith the Preacher, and it is to Lister's patient brooding over facts dimly seen and obscurely hinted in times anterior to his own, and to the great fact of Pasteur's discovery of the cause of putrefaction, that we owe the wonders of present day surgery.

"The cause of decay and putrefaction in wounds and the reason why the changes were more prone to occur when wounded persons were collected together within a limited space, had occupied the minds of many keen observers at many times and in many countries; and William Clowes, the great English surgeon of the Sixteenth Century, has left behind him not only a description of the conditions which could hardly be surpassed, but also a lucid statement of the reasons which forbade him to accept the belief that they were due to the use of poisoned bullets or weapons by the Spanish soldiery, against whom his countrymen were contending in the Netherlands."

In May, 1687, one Randall, a surgeon, sued one Sir Thomas Powis for his fees for attendance upon a sword wound. Sir Thomas Street, Justice of the Common Bench, in his charge to the jury used the following language:

"He (Randall) saith that the pus which all others admire and desire, as showing that Nature hath armed herself for the fight, is not to be desired, but that it is itself an impurity which should be avoided; that it hindereth the cure and contendeth against the *vis medicatrix naturae*. He hath ever in his mind that pus is engendered by some small animal or plant, some bug or gnat or beetle or fungus, belike, though he saith openly that he cannot prove the existence of such creatures. This, however, he contendeth is because his glasses do not magnify sufficiently to enable him to see them. And he meaneth not the glasses or spectacles for weak or aged eyes, but the microscope which hath a rare and admirable faculty of making small things appear large. But in sooth, he were not able to see these imagined bugs were he to use the compound microscope with compound mirror suggested to the Royal Society by Mr. Newton, the Lucasian Professor of Cambridge. It might be well for the plaintiff to take heed lest he be condemned by Holy Church, for we are told in the Scriptures that God created grass and the herb and the fruit tree, the moving creature and fowls to fly above the earth in the open firmament of Heaven, great whales and every living thing that moveth which the waters brought forth abundantly, cattle and beast of the earth, and everything that creepeth upon the earth,—but nowhere are we told of such a bug or gnat or fungus as this man hath dreamed. He saith forsooth that the true treatment is to keep all extraneous matter away from the wound, and even the air, which he imagineth to be full of his bugs and gnats and beetles." (*New York Medical Journal*, March 2, 1912.)

These references may suffice as to the speculations of times anterior to Lister's upon the great subject of decomposition in wounds with its attendant train of ills. The beneficence resulting from the discovery of anaesthesia with its enormously increased number of operative cases, was almost neutralized by the plague of hospital gangrene and pyaemia. "It seems scarcely credible today, but is none the less true, that only half a century ago it was gravely proposed that surgical hospitals should be temporary buildings which should be destroyed by fire as dangerous nuisances after the fulfilment

of two or three years of existence, or as soon as gangrene became of common occurrence among their inmates."

Pasteur's discovery of the bacterial origin of fermentation and putrefaction was seized upon by Lister as the explanation of the failures in surgery, particularly where numbers were crowded together.

In Lister's first article of the *Lancet* series, the following statements appear:

* * * "Turning now to the question how the atmosphere produces decomposition of organic substances, we find that a flood of light has been thrown upon this most important subject by the philosophic researches of M. Pasteur, who has demonstrated by thoroughly convincing evidence that it is not to its oxygen or to any of its gaseous constituents that the air owes this property, but to minute particles suspended in it, which are the germs of various low forms of life long since revealed by the microscope and regarded as merely accidental concomitants of putrescence, but now shown by Pasteur to be its essential cause, resolving the complex organic compounds into substances of simpler chemical constitution, just as the yeast plant converts sugar into alcohol and carbonic acid.

"Applying these principles to the treatment of compound fracture, bearing in mind that it is from the vitality of the atmospheric particles that all the mischief arises, it appears that all that is requisite is to dress the wound with some material capable of killing these septic germs, providing that any substance can be found reliable for this purpose, yet not too potent as a caustic.

"In the course of the year 1864 I was much struck with an account of the remarkable effects produced by carbolic acid upon the sewage of the town of Carlisle, the admixture of a very small proportion not only preventing all odor from the lands irrigated with the refuse material, but, as was stated, destroying the entozoa which usually infest cattle fed upon such pastures.

"My attention having for several years been directed to the subject of suppuration, more especially in its relation to decomposition, I saw that such a powerful antiseptic was peculiarly adapted for experiments with a view to elucidating that subject, and while I was engaged in the investigation the applicability of carbolic acid for the

treatment of compound fracture naturally occurred to me."

Thus was the birth of the great idea announced. Many and various were the modifications to be made from the "bit of rag" dipped in concentrated carbolic acid with which a compound fracture was swabbed, to the present perfection of Aseptic Surgery, but Lord Lister lived to see the mature and perfect growth of his idea—a privilege granted to but few innovators.

Probably but few present have seen an operation conducted according to Lister's original plan. A steam atomizer throwing a carbolic solution which enveloped the field of operation in a dense fog, was the most striking feature. 1-20 and 1-40 solutions of carbolic acid in trays for the instruments and hands were to be provided. Sea sponges were used, and might be used until worn out, being re-purified by soaking in carbolic solution. If clogged with fibrine they were to be left in water until the fibrine rotted and then placed again in carbolic acid solution until needed. The operator and assistants are adjured to not simply dip the tips of their fingers in the carbolic solution, but to insert the whole hand. No change that I can recall was made in the dress. Dr. Henry O. Marcy, in his article on Lister in the *American Journal of Surgery*, speaks of Dr. Henry J. Bigelow operating "in a Prince Albert coat well buttoned at the front, in which he appeared in the operating amphitheatre, stiff with the dried blood over its sleeves and front of many a previous operation. His assistants copied their master, with the addition of well-waxed ligatures adorning their button-holes." Dr. Bigelow, however, can scarcely be called a follower of Lister, as in the memorial address upon him by Dr. David W. Cheever, he is described as having "escaped the intolerable tediousness of Antiseptic Surgery." My recollection of Dr. Bigelow's preparation for an operation is that he turned back his coat-cuffs.

In Germany the Antiseptic System received more enthusiastic support than it did even in England. Sir William Savory as late as 1879, at the meeting of the British Medical Association, held in Cork, spoke with his usual fluency and eloquence in attack or ridicule of the system of Antiseptic Surgery. Lawson Tait, as bitter as a controversialist as he was skilful as an

abdominal surgeon, wrote "The doctrines and practices of Lister have been the basis of the strangest surgical craze of the Nineteenth Century." Savory made no converts; Tait had no following, and gradually the surgeon who ridiculed Lister was seen himself to be ridiculous.

The evolution of the antiseptic dressing from "Lister's putty," composed of common whiting, mixed with a solution of one part of carbolic acid in four parts of boiled linseed oil, and spread between two layers of thin calico, through the "lac plaster" to the gauze impregnated with various chemicals, needs only be noted in passing.

Lister was the first to *successfully* cut short the ligatures and leave them buried in the wound, and for this purpose used largely catgut. He conducted the first experiments upon bichloride of Mercury as an antiseptic—only one, out of many, which received his earnest attention, as, oil of eucalyptus, in cases where an idiosyncrasy existed, against carbolic acid, salicylic acid, and others.

After alternating between Edinburgh and Glasgow for some years, in 1877 he was given a professorship of clinical surgery in Kings College, London, which carried with it the appointment of Surgeon to Kings College Hospital. Lister, in accepting this appointment, stipulated for, and obtained, separate wards, house surgeon, dressers and nurses.

In 1892 the regulation imposing an age limit made it necessary for him to resign his position as clinical lecturer.

In 1883 he was made a baronet, and in 1897 he was raised to the peerage as Baron Lister of Lyme Regis, the first medical man so honored.

As to the man himself: "In the lecture room he had a pleasant delivery, which was easily followed by his hearers. His voice, though not loud and not altogether free from hesitation in pronouncing certain consonants, was neither indistinct nor stammering. Never at a loss for a word, he spoke with the calm deliberation which betokens a well-balanced judgment. His features commonly had a placid, contemplative, serious expression, which easily relaxed into a smile in the course of conversation. In personal appearance he was of average height, and somewhat slender build. He did not use eye-glasses; his hair, which

was abundant and dark in color, was generally worn rather long; except for small whiskers, he was clean shaven. Both in manner and in speech he was uniformly gentle, sympathetic, and totally free from abruptness, affectation or self-assertion."

Lady Lister predeceased her husband in 1893. They left no children.

A solemn memorial service was held February 16th in the historic great Abbey of Westminster. Burial in the Abbey, the highest honor England can pay her dead being forgone at Lord Lister's direction that he be buried by his wife in Hampstead Cemetery.

Many of the Governments of the world were represented by their ambassadors or ministers. The United States was conspicuous by the absence of any representative. Scientific and learned societies from far and wide, sent representatives. From the United States, not one.

Closing, as beginning, in the words of *The Lancet*, referring to the Church of England service, "Those of other faiths doubtless translated its significance into terms of their own, but all at least were alike impressed with that view of immortality which sees the survival of personality in the enduring work of one who devotes his life to furthering the welfare of the human race, and this was particularly evident in the case of him who established the relief of human suffering on an everlasting basis."

OBSTETRICAL OBSERVATION AMONG THE AMERICAN INDIANS.

John N. Alley, M.D., Supt. U. S. Sanitarium, Fort Lapwai, Idaho.

After the experiences for over ten years of active practice among the American Indians, I feel that the following observations can be made without contradiction.

There is a general impression that "the Indian mother does not suffer, nor meet with obstetrical complications during childbirth." This is all a myth, her labors being very similar to those of her white sister.

The nervous system of the Indian woman is much less acutely developed than that of the white woman. For generations the

former has been taught to bear pain without a protest; and the casual observer, because little fuss is made, is likely to conclude a painless childbirth to be in progress. However, in the facial expression during labor pains, the trained eye will detect that there is great suffering. The Indian woman, being the product of generations of habitual patience, forbearance and fortitude, does not by outward display demonstrate her suffering. Without creating the least anxiety among their friends, I have known Indian women to patiently endure for several days a prolonged child labor.

It is true that the Indian woman, in her occupations, as horseback riding, etc., develops greater muscular power than that of the ordinary white woman. A deformed pelvis is rarely met with in an Indian woman. Constipation is not common with them. These, and other reasons, resulting from more natural living than that of the white race, aid in the frequent easy and safe delivery of the Indian woman.

Again, the Indian girl usually marries early, and the ossified pelvis is rarely met with in Indian obstetrical practice. However, acute suffering and faulty presentations are found among the Indians, just as with white women.

Indian women rarely—they may occasionally do so—consult a physician before labor, or at all in a normal delivery. Such cases are attended by the midwives of their own race. As a rule, it is only in complicated labors that Indians call in a white physician.

The Indian woman is seldom confined in her own home. A few days before the expected delivery she is removed to a tepee especially erected for the purpose; and upon entering the obstetric lodge, the pregnant woman is accompanied by several old women of the tribe, whose duties are to care for her during parturition and the puerperium. The Indian men rarely enter or go near the obstetric lodge, it having been a custom of ages that the men evade their parturient women, the attending offices being considered by them as peculiarly belonging to the work of women.

In this short paper the statements made are concerning my own actual experiences connected with complicated labor cases to which I have been called. The normal delivery will be given little consideration.

A case of puerperal eclampsia or convulsions, either during an Indian woman's pregnancy or her confinement, has never come to my knowledge. Why she is spared this terrible complication I am unable to state; but the fact remains that such convulsions are most uncommon with the Indian race.

Postpartum hemorrhage is met with at times. The first case to which I was called was so profuse that, though there was but a quarter of a mile to go, the woman died before my arrival. The long exhaustive labor, no doubt, accounted for this result. Then the Indian women are often delivered in the standing, or genupectoral postures, and the non-contraction of the uterus may, perhaps, be attributed to this.

Indian women, often a few moments after delivery, will get up and sit around the fire, or perform many other acts tending to discourage the exhausted uterus. I remember having been called to a primipara, forty-eight hours sick. Examination revealed antero-rotation of the face. The necessity for instrumental delivery was explained. The women conferred together, and told me to go ahead; but refused the use of an anaesthetic. The patient submitted to the introduction of forceps without a murmur. After some time the child was safely delivered, but its resuscitation requiring undivided attention until it was out of danger, I forgot the mother. When there was time to turn to the latter, what was my surprise to find the bed empty, and to see my patient sitting with the others around the fire. Another Indian woman became parturient by the roadside, on the way to a Fourth of July picnic. She related that the affair "only made her two hours late for dinner." She never was confined to bed after delivery. When we understand the many chances taken by the Indian women after childbirth, postpartum hemorrhage might be a frequently expected occurrence.

Puerperal infection is rare. I have seen few cases of childbed fever. Indian attendants seldom make vaginal examination, and I have always believed this to be the chief reason for absence of infection.

All forms of mal-presentation occur—shoulder presentation, face presentation, etc., etc. Prolapsus of the cord is also met with; and many Indian children die during

birth, or soon afterward. Infant mortality is great, over half of the Indian children dying during their first year, many of them victims of tuberculosis.

Immediately after birth, the Indian baby is taken charge of by an Indian woman. With a hacking motion the cord is severed, and never ligated. Fatality resulting from hemorrhage of the cord has never come to my knowledge. I have seen profuse bleeding, to which no notice was paid by the attending woman, who simply wrapped up the child; and in a few moments the bleeding ceased. It may be that the sawing motion of the scissors produced some torsion of the arteries, and so controlled the hemorrhage. At any rate, no harm results from non-ligation of the umbilical cord. The Indian attendant dresses the child and the physician's duties end with delivery of the placenta.

Adherent placenta is by far the most frequent complication falling into the hands of the white physician in obstetrical practice among Indians. To deliver the child seems to be fairly well understood by the Indian women, who often have the patient practice many different positions to accomplish the birth, such as climbing a pole, hanging from the limb of a tree, etc. But the women make no attempt at placental delivery. The great fear of postpartum hemorrhage appears to paralyze all effort, even to making any traction whatever on the cord, or pressure on the abdomen. Consequently hours, or even days after the birth of an Indian child, I have been called upon to deliver the placenta, about which there has never occurred any real difficulty.

You will see that these few actual experiences can be summed up in these observations: That the majority of Indian births are unattended by a physician; that the mother often gives birth to the child in any one of many positions, frequently the standing, or the knee-chest position; that the mother rarely remains in bed more than a very short interval after delivery; that, by some complication, labor may be prolonged for days. An Indian woman may go through labor in ill health, often suffering from tuberculosis. In consideration of all these facts, one might expect to find lacerations of the perineum and uterus, which is the case. The majority of Indian mothers have perineal tears of greater or

less extent, but they do not show, as one might also expect, subinvolution and malpositions of the uterus. I have examined many Indian women, and have often found lacerations, which would have excited all kinds of nervous disorders in her white sister; but I have never found any of the displacements, such as uterine anteversion and retroversion, so frequently met with amongst white women. Indian women rarely complain of pelvic pains, nervous disturbances, and the thousands of symptoms familiar to all gynecologists. Even when the perineum is torn and the floor support gone, malpositions of the uterus are seldom present in the Indian women. In fact, I have found them singularly free from pelvic disorders. White women have so many pelvic complications, for which the many operations known to surgery afford only partial relief. There must be some cause for this difference between the women of two different races. The question has been the subject of study for many years, and I have come to the following conclusions:

First—The Indian woman never wears a corset.

We all know the great harm resulting from injudicious use of the corset. Increased pressure is produced on the organs above the pelvis, which, crowding downward, force the uterus to travel in lines of least resistance,—also downward, thus weakening the perineal floor, and soon there is an entirely misplaced uterus.

Second—Gonorrhoea is practically unknown among the Indians. Puerperal infections are rare.

As a rule, subinvolution is caused by infection. When gonorrhoea is absent, there are seldom pus tubes, or other complications to weigh down the uterus, and prevent its return to normal size. The Indian women make no vaginal examinations; and there is but little puerperal infection.

Third—The Indian woman's muscular development is superior to that of the white woman. The muscles of the abdomen are not atrophied by the use of the corset. Gentle pressure of these muscles tends to keep all of the abdominal organs in place, thus minimizing pelvic pressure.

So, although the Indian woman suffers numerous lacerations, and goes about her ordinary duties soon after delivery, she has

but few of the pelvic displacements, and distressing nervous conditions, owing to pelvic displacements, and distressing nervous conditions, owing to pelvic disorders, that are most common with white women.

These facts have been under my observation for years, and after thoroughly considering them, it seems to me that could the corset and gonorrhoea be eliminated from the civilized races, the white woman, like her Indian sister, would seldom need the gynaecological specialist. There would be comparatively little opportunity for this branch of surgery.

March 22, 1912.

VASCULAR SURGERY IN EMERGENCY WORK.

William W. Golden, M.D., Elkins, W. Va.
Superintendent and Surgeon in Charge
Davis Memorial Hospital.

(Read at Annual Meeting State Medical Association, Sept., 1911.)

The number of those who have contributed to the progress of medicine and surgery in modern times is very large, and we who are in a position to appreciate the blessings of this progress will forever hold them in grateful memory. The number of those, however, who have aided this progress by the leaps and bounds of epoch-making discoveries and inventions is surprisingly small. Harvey, Jenner, Morton, Virchow, Pasteur, Lister, Koch, Roentgen, and the list is almost complete. To this list the name of Alexis Carrel will undoubtedly be added as the last so far, but not the least. The imagination staggers in an attempt to grasp the possibilities of blood-vessel surgery.

Current literature shows that there is great activity among the clinical and laboratory surgeons to perfect and simplify the technique of blood-vessel surgery. A fair beginning has already been made to apply this method in the cure of certain surgical conditions. It is my belief, however, that in one field of surgical practice blood-vessel surgery has not been utilized to the extent that it should be—I refer to emergency work.

We all know what a revolutionizing effect Listerism has had upon the treatment

of surgical injuries. This effect has been nowhere more striking than in the treatment of compound fractures, and in fact, as is well known, Lister's first brilliant results were obtained by him in this class of injuries. Our older surgeons, when wishing to contrast the surgery of today with the surgery of the pre-Listerian era, usually refer to compound fractures as the most striking illustration of the differences. Whereas amputations in compound fractures were very common, they have now become very rare. Extensive injuries to bone are not looked upon with the former dread. Nerves are frequently united with good results, and damage to muscle, skin and other soft tissues seldom gives much concern. Interruption of circulation, however, on account of damage to arteries, is still looked upon by most physicians as an insurmountable obstacle to the saving of extremities. When called upon to render first aid in an injury to an arm or leg, the physician no longer hastily pronounces the sentence of amputation on account of damage to the tissues, even when this is apparently severe. He has confidence in his technique of disinfection and drainage, and will give the injured member the benefit of delay. But on finding absence of pulsation in the arteries distal to the point of injury, he proceeds at once with preparations for amputation. The object of this short paper is to plead against such hasty action and for a closer study of these cases. A careful and minute examination of the wound may disclose the fact that the injury to the artery can be repaired without the use of extraordinary technical skill. Let me illustrate this by a brief account of a recent experience.

W. B., age 19; referred by Dr. H. K. Owens of Elkins; on May 2, 1911, he collided with a circular saw in motion, and his right elbow sustained an extensive injury—it was practically re-sected. There was no arterial pulsation below the elbow. A careful examination of the wound showed the condition of the arteries as follows: The radial artery was cut off immediately at its point of origin from the brachial. A bit of the wall of the ulnar at its point of origin was also excised. We were thus confronted with a defect in the brachial-ulnar vessel of considerable size. It was elliptical in outline with the part lo-

ated in the ulnar much narrowed (pear-shaped). A small needle and fine silk, such as are used in eye-work, were made use of. The silk was saturated with sterile vaseline and the requisite number of interrupted sutures were placed. When the tourniquet was removed, there was some slight oozing along the line of the sutures, but this soon ceased. Some apprehension was entertained about the fate of the sutures in the ulnar on account of the extraordinary tension thrown upon it by the current from the brachial in the absence of the radial, but nothing happened, and the result was all we could wish it to be—the circulation was restored, and the forearm was saved.

Carrel recommends a small round straight needle (Kirby No. 16). If one has some fine twisted silk for eye-work, by untwisting it he would have in the single strands a very suitable suturing material. Carrel advises boiling the needle and sutures in vaseline. Common sense will guide one in the details of placing the sutures, but one must take extra precautions to have the vessel free from its sheath, and to be sure that the edges of the wound are not inverted. In the case of arteries one should aim at close apposition of the edges. In case of veins the edges should be made to slightly evert. As in the case of intestinal work, we are aiming at endothelial contact to make union successful. The most rigid asepsis must be observed. Inasmuch as emergency wounds are always septic, infection often follows in spite of all we can do. Our blood-vessel work in these cases may prove a failure on that account. Yet as proven by the case cited, it need not necessarily fail. In this case the wound was very large and deep, and, of course, healed by granulation, taking several months to do so.

When damage to a vessel results in the loss of a portion of it, the problem becomes quite a difficult one, and the solution of it is probably beyond the reach of surgeons generally and certainly the general practitioner is entirely helpless in such cases. The day is not distant, however, when the technique of blood-vessel anastomosis, as practiced by Carrel, will come into general use. In the meantime, one may be able occasionally to re-establish the blood circulation by a technique not so exacting and difficult. I will illustrate this by quoting a part of a report of a case which I published some

time ago in the W. Va. Medical Journal under the heading of "Arterio-Arterial Anastomosis by Telescoping a Branch into a Trunk." The case was of a boy who sustained an injury to the axillary artery as a result of which the intima immediately below the posterior circumflex was ruptured and by retraction and coiling it blocked the artery in the same manner as after the application of an artery clamp. "The following procedure was then resorted to: The posterior circumflex was dissected out for a sufficient distance, its distal end ligated permanently and its proximal clamped temporarily between the fingers of an assistant. A small slit was then made in the brachia at a point within easy reach of the cut end of the posterior circumflex. A fine silk thread was passed through one lip of the cut edge of the latter. The ends of this thread were passed into the lumen of the brachial through the slit, and by means of needles brought through its wall from within outward a short distance below the slit. Traction on the threads and manipulation soon telescoped the posterior circumflex into the brachial. One of the threads was then made to pass through a few fibers of the coraco-brachialis externally, and the other through some loose cellular tissue internally, and the two tied, thus adding security against leakage. A dressing and splints were then applied. An examination of the extremity on the completion of the anastomosis showed the presence of arterial blood all through it. The deathly paleness gave way to a color nearer the natural one; warmth returned, and small incisions in the hand oozed with arterial blood. Later, when the patient recovered from the anesthesia, it was found that sensation had returned in the hand and forearm. Pulsation in the arteries below the anastomosis was not expected to return for obvious physiological reasons, and none did return."

In conclusion, let me emphasize that in the case of an injury to an extremity with loss of circulation, we should examine the wound very carefully to gain a clear idea of the *exact* nature and extent of the damage to the blood vessels. *In some cases something can be done to restore the circulation with only a moderate amount of skill and ordinary surgical facilities.*

Selections

CHOLERA INFANTUM

Julius H. Hess, Chicago.

1. High temperature. 2. Rapid loss in weight, even 1 to 2 pounds in a few days, mainly due to loss of water. The skin becomes dry and inelastic. 3. The stools are liquid, are usually numerous and contain mucus and occasionally blood. 4. Collapse. The skin is gray in hue, eyes sunken with distant stare; pinched nose; also frequently incoordinate movements of the extremities; slow and often limited to one extremity; also catatonia of the extremities, and aimless movements, as of chewing, etc. 5. Typical respirations (deep, rapid without pause); described as "toxic respirations." 6. Glycosuria is almost constant, and the sugar is of the same variety as that in food. The phenyl-hydrazin test is the best, as the copper sulphate tests require long boiling with lactose, etc., and the reaction may be overlooked. 7. The urine contains albumin and casts. The amount of urine is small, even to anuria. 8. Leukocytosis is present up to 30,000. 9. The heart action is weak, the pulse small and irregular. 10. Vomiting is frequent and the vomitus may contain blood. 11. Nervous symptoms may be pronounced and cause confusion with meningitis. The sensorium is disturbed (with an occasional cry as if in pain). The hydrocephaloid state may be present with strabismus, convulsions, etc. Whether uremia is a factor in this condition is very questionable. 12. Sclerema is constantly seen in the severer types, a very bad sign, due to a coagulation of tissue fluids of an unknown nature (Czerny-Keller).

Treatment.—1. Removal of all food with sufficient water administration.

2. In severer types, subcutaneous salt infusions twice daily, 100 to 150 c. c., even though there is danger of salt fever in the severer types.

3. Salines per rectum, best administered by the drop method. One drop per second for four hours is 400 c. c. One-half strength of the following solution is good:

	gm. or c. c
NaCl -----	7.5

KCl -----	0.1
CaCl -----	0.2
Water -----	1000.0

4. One lavage, if food has been given shortly before.

5. Avoid all laxatives, as the bowels empty themselves; also avoid astringents.

6. Analeptics. Give a mustard bath; reddening of the skin is a good sign.

7. Antipyretics. Use cold packs, and leave the infant undressed.

8. Stimulants. Caffein sodium benzoate, gr. 1/10 to 1/2, four or five times a day; camphorated oil, 1 c. c. every two hours, if indicated; epinephrin solution, 0.6 in 1,000 c. c. of salt infusion; veronal, gr. 1/10 per dose, is less depressing than chloral.

9. Sedatives for convulsions, etc.

10. Diet: Hunger diet should be employed not longer than twenty-four to forty-eight hours. Occasional administration of dilute saline solutions, per mouth, also vegetable soups, Moro's carrot soup (made thus: One pound carrots are peeled, sliced and cooked one to two hours, and after mashing, poured through a sieve and mixed with the bouillon made from a pound of beef and 1 liter water. To the latter add one teaspoonful of salt). Eichel kaffe or thin soya-bean gruel may soon be used with care to supplement an occasional tea feeding.

Human Milk.—Human milk is by all means the best food. Feed often and in small amounts, ten times daily, 5 c. c. from bottle or spoon. The first milk should be fat-free. Increase when the temperature, etc., do not react to food, and then not more than 50 c. c. daily.

A sustaining diet should be reached in eight to ten days (32 calories per pound), after which the child can be put to the breast five times daily. If the elevation of temperature returns, except in the presence of infection, cut down the food. The gain in weight is very slow in the stage of repair on human milk, due to the low protein and salt content.

Cow's Milk.—For the first few days after the hunger diet, a food low in fat and sugar should be fed because of the lowered tolerance. One-half skim-milk or buttermilk mixture, without sugar, will answer, but should be fed in small quantities, 10x5 c. c. daily, then 10x10 c. c. On this low diet

weight loss and temperature will usually stop. After ten to fourteen days, 32 calories per pound may be fed. Less rapid increase than in human-milk feeding should be the rule. Older infants can be given gruels in their milk. Recurrence of dyspepsia is an indication for return to indifferant food. With a second recurrence breast milk is absolutely indicated. Return to carbohydrates should be made with great care. Albumin milk is indicated in this condition, and the following is a good working rule for its use in these cases: First day, tea. Second day, 10x5 c. c. albumin-milk, with tea *ad libitum*. Then increase 50 c. c. daily until stools are good, then increase 100 c. c. daily until 180 to 200 c. c. is given daily for each kilo weight. After the stools are solid, add 1 per cent. of sugar to the food, and increase gradually to 4 per cent. In intoxication I have obtained better results by at first feeding albumin milk without sugar additions. In infants over 6 months 1 per cent. of flour can also be added. After six to eight weeks an ordinary milk mixture can be fed. Feedings can now be reduced to five or six daily. Never feed over 1,000 c. c. a day of albumin milk.—*Am. Jour. Dis. Children.*

THE DUODENAL CATHETER IN THE VOMITING OF INFANTS

Dr. Alfred F. Hess of New York has a paper on this subject in the March issue of the *American Journal of Diseases of Children*, of which this is the summary:

In infants it is possible without difficulty to insert a soft rubber Nelaton catheter (No. 15 F.) past the pyloric sphincter and into the duodenum. The catheter is introduced in the same way as the ordinary stomach-tube, and, after some experience is acquired, the technic employed becomes almost as simple.

In principle the catheter differs from the duodenal tube previously described by the author mainly in that this instrument does not depend on gravity or peristalsis to direct it to the pylorus. The mere force of inserting it propels it along the natural path of the food to the pyloric opening. This fact not only enables it to be introduced readily and surely, but gives to it the addi-

tional advantage of a probe, a pyloric probe with which we may test the tonicity and irritability of this sphincter. Radiographs show that the catheter invariably, on entering the stomach, bends sharply to the left to reach the fundus, and that therefore the more vertical position of the stomach of the infant, does not account for the ease with which the duodenum is entered.

It is probable that unknowingly others have entered the intestine by this method, and that in many instances reports as to the contents or the capacity of the stomach in infancy have been subjected to this source of error.

By means of the catheter we can readily diagnose pylorospasm, and differentiate it from vomiting due to other causes. In the case of spasm we meet with a persistent resistance encountered at the same point whenever we attempt to advance the catheter; this is frequently accompanied by irritability of the pylorus. The spasm may be felt to relax suddenly and enable us to enter the intestine.

Marked pyloric stenosis can be diagnosed by the failure to transgress the pylorus after repeated attempts. A mild degree of stenosis, so slight as to allow of the passage of the catheter, cannot be differentiated from simple spasm.

Cardiospasm frequently accompanies pylorospasm. This sign has been frequently overlooked, due to the too forcible insertion of the stomach tube. If a soft rubber tube, such as was originally used, is introduced into the esophagus, it may be found even impossible to enter the stomach. Frequently as the result of this spasm the food does not enter the stomach, being checked at the cardia.

Just as a marked gastric secretion frequently is associated with pylorospasm, so also is an increased duodenal secretion (duodenal succorrhœa). This secretion is found to contain protease, lipase and amylase to a marked degree, so that in this connection we may speak of a pancreatic hypersecretion or succorrhœa.

There are cases of cardiospasm and pylorospasm unaccompanied by increased gastric secretion. In a case of this kind there was likewise no pancreatic hypersecretion.

The catheter is of value in the therapy of

pylorospasm. Its passage through the pylorus seems to relax the ring and in this way to diminish the vomiting. It would seem of advantage to test this method of dilating the pylorus, and to pass the catheter frequently in such cases.

Another form of therapy consists of duodenal feeding. Radiographs show that this is feasible. It should be reserved for such cases as do not retain food given by gavage, and the food should be given slowly and in not too large amounts. In cases of this kind it has been found of great value.

FATAL IODINE INTOXICATION AFTER DISINFECTION.

Broe (*Arch. de. mcd at pharm. milit.*, 1911, Feb.) calls attention to the fact that an idiosyncrasy exists among certain individuals toward iodine, and reports a case of fatal poisoning after two coatings of the tincture. The patient was to be operated upon for an inguinal hernia and the skin was painted with tincture of iodine. The operation was entirely successful. The day after the operation the patient complained of pains in the right chest, and this region was thereupon also painted with tincture of iodine. The day following, the patient had fever; there was an erythematous eruption over the entire body; cramps and diarrhea set in, and then strabismus, signs of cardiac weakness and death. Post mortem examination showed a decided enlargement of the liver, spleen and kidneys. The cause of death, apparently was a rapidly progressive iodine poisoning. The author suggests that the official tincture be diluted with alcohol before using it on the skin. (The reviewer fears that this dilution may impair its efficacy. In his surgical work, he always washes off the excess of iodine with alcohol, after the completion of the operation.)—*Review of Reviews.*

DOES EACH OVARY PRODUCE ONE SEX ONLY?

This question is thus settled by one of our members.

On September 16, 1904, I operated on Mrs. W. for an ovarian tumor. The right ovary was entirely removed. In August, 1905, she gave birth to twins—a boy and a girl.—W. G. DRINKWATER, M.D., Gormanian, W. Va.

The best point for entering the maxillary antrum is about one inch from the edge of the nostril, below the inferior turbinate.—*American Journal of Surgery.*

The diagnosis of tuberculosis and cancer will make better progress when family history is utterly ignored.—*American Journal of Surgery.*

The West Virginia Medical Journal

S. L. JEPSON, A.M., Sc.D., M.D., *Editor.*

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Editorial

PHENACETIN, SULPHONAL AND TRIONAL HELD NON-PROPRIETARY

Recently the Journal A. M. A. (Sept. 9, 1911, p. 906) called attention to the action of the Council on Pharmacy and Chemistry in listing lanolin as a non-proprietary name for *Adeps Lanæ Hydrosus*, U. S. P. This was done so that physicians might know that the term lanolin, which they had been accustomed to use when the product could be sold only by one firm, had now become recognized as a generic designation, and that they might continue to use this name without longer paying royalty to the original holders of the lanolin patent.

This action was based on the generally accepted principle that with the expiration of the patent the name by which the protected product has come to be known becomes the generic designation of the product itself. As the name under which a patented product is first introduced becomes

most permanently fixed in the minds of users as the title of the product rather than an indication of its origin, it is important and just that at the expiration of the patent not only the product but also the name by which it is known should become the property of the people. Despite this generally well established fact, the Pharmacopoeia of the United States, in common with the pharmacopoeias of some other countries, shows considerable irregularity as to the official recognition of the means used to designate articles at one time protected by letters patent. Thus in our own Pharmacopoeia the products originally introduced under the proprietary names "antipyrine" and "iodyl" are described by these names, and the names salol and saccharin are officially recognized as synonyms for the official titles, phenyl salicylate and benzosulphinide. On the other hand, the products introduced under the proprietary names "phenacetin", "sulphonal" and "trional" are described under the respective titles of acetphenetidin, sulphonmethane and sulphonethylmethane, and no mention whatever is made of the names by which they are best known. As a result of this these products are now offered for sale by different manufacturers and dealers both under the names originally given them and under the official titles. Since higher prices are usually charged for the products sold under the first names, and since these names have become fixed in the minds of physicians, the public is virtually compelled to pay royalty long after the patents have expired.

In view of this condition it is opportune that the Council has published a report (Jour. A. M. A., April 27, 1912, p. 1298) which calls the attention of physicians to the fact that the proprietary rights have expired not only for the products themselves, but also for the names under which the products phenacetin, sulphonal and trional were originally introduced. Physicians to whom these names have become familiar may continue to use them and yet have the assurance that a product of the quality described in the Pharmacopoeia of the United States will be dispensed on their prescriptions. It is to be hoped that in the next Pharmacopoeia the terms phenacetin, sulphonal and trional will

be listed as synonyms, or, better, that they be adopted as official titles.

WEBSTER SPRINGS MEETING

The annual meeting this year comes early, because it is to be at one of our popular resorts. Webster Springs is located in a lovely spot, and to get there one passes through some of the finest mountain scenery to be found in this beautiful mountain state. Many of the members who were at our first meeting at Webster a few years ago will testify, that it was socially altogether the most delightful gathering of physicians we have ever held. Many of the members were accompanied by their wives or daughters. Practically all of those in attendance were under one roof, and thus were afforded many opportunities for social intercourse, and these were enjoyed to the fullest extent. At the banquet on the closing evening all the hotel guests were present, thus adding to the pleasure of the occasion.

We would like here to give emphatic expression to our view that the banquet should always be fixed for the evening of Friday. It is a fitting ending to our three days' session, during which it is possible that the feelings of some sensitive souls may be ruffled. The banquet serves to soothe the troubled spirits and send us all home with kindness in our hearts for every one. The editor belongs to a literary club whose motto is: "Think what you please and say what you think." All the members enter into the spirit of the motto, criticize each other very plainly at times, but no one has ever left a club meeting in a bad humor. So should it be at our medical gatherings. There are bonds of sympathy between members of our profession rarely seen among men in other callings, and our annual meetings certainly tend to strengthen these bonds. The closer we come together the fewer faults are heard of among the brethren. With slight modification we may quote a hymn recently very popular in this community: "Oh, how you love them when you know them!" At a distance too often men are painted quite black, and gross injustice is often thus done. "Proximity begets affection", is an old saying and generally a true one. The closer

doctors are packed together the less evil they find in each other. Let us then, if for no better reason, turn out in force at Webster Springs, that we may get better acquainted, that we may make many new acquaintances, and that we may give a big stimulus to those who are plodding, too often alone, along the trying journey of a physician's life. Thus may we gain sympathy, help, guidance, learn some of our own faults, some of the goodness of our fellows, and return to our arduous duties refreshed and strengthened for further work.

S. L. J.

The State Medical Association is to have the pleasure of hearing a paper by Dr. S. MacCuen Smith, of Philadelphia, on "Prophylaxis in Aural Diseases and Their Complications." Dr. Smith is professor of Otolaryngology in Jefferson Medical College, and is a man of international fame. He enjoys a wide reputation both as a writer and operator.

At this meeting the alumni of Jefferson who may be present purpose forming an Alumni Association. Let all Jefferson men turn out. Dr. Smith will also address the alumni. Subject: "Details as to the High Stand Jefferson is Making in Medical Education."

We are informed that our active and efficient Secretary Butt has secured the promise of Prof. Barker of Johns Hopkins to be present at Webster Springs. We have not learned the title of his address.

We are still prepared to save a little money for any one who may be thinking of attending a post-graduate school in New York.

TO THE ALUMNI OF JEFFERSON MEDICAL COLLEGE

WHEELING, W. VA., June 1, 1912.

DEAR DOCTOR:—You are cordially invited to assist in forming a State Chapter of the Alumni of Jefferson Medical College.

At the annual meeting of the State Association at Webster Springs, July 10, 11, 12, we will meet and organize.

Your presence is earnestly requested. If

you should not be able to attend, kindly let us have an expression from you.

Fraternally yours,

E. A. HILDRETH, M.D., '86.

H. P. LINSZ, M.D., '94.

TWO CASES SHOWING RESULTS OF WHITEHEAD OPERATION FOR HEMORRHOIDS.—Presented by Dr. Dryfus.

The first patient came complaining of severe itching and some granulation at the rectum. He had been operated on during the summer by a modification of the Ball operation, but was still complaining of several points of itching. He was in bed for a week or so, with loss of control, which subsequently had been restored.

The other case was operated upon in England six months ago by the regular Whitehead method. This patient came under observation complaining of itching, discharge, pain with slight blood in the stools. Examination showed what looked like ulcer, but proved to be mucous membrane. Too much having been cut off, it had not healed and the man was continually irritated. The Ball modification of the Whitehead was very successful. Many of the supposed strictures of the rectum were due, after a regular Whitehead operation, to the sloughing of the mucous membrane. In a primary union this symptom is obviated.

Dr. Lynch said that these two cases had been shown because the patient operated upon by the Whitehead method had been told that nothing could be done for him, while as a matter of fact he was completely relieved by a simple plastic operation.

Pituitrin (see item in Medical Outlook) is manufactured by Parke, Davis & Co. It is supplied in one-ounce bottles and in glaseptic ampoules (for convenient hypodermic injection), each ampoule containing one cubic centimeter or 16 minims, the usual dose.

Parke, Davis & Co. have just issued a pamphlet on Pituitrin as an oxytocic in which is reprinted a number of extracts from prominent German specialists and practitioners in which Pituitrin is highly extolled as a corrective of uterine inertia. Physicians will do well to write the company, addressing them at the home office in Detroit, for a copy of the pamphlet.

THE PREVENTION OF DYSMENORRHEA.

Dr. L. G. Boyd asks:

How can we prevent dysmenorrhea? It can be done by keeping the patient under morphine, but this is a barbarous solution of an important problem. It in fact does not solve it. Morphine is inadmissible and improper in these cases. It produces derangement of the secretions and tends to establish a drug habit that will make life a burden. I have long employed a remedy that not only relieves the pain, but produces no habit and is not dangerous. I refer to Dioxiburnia. It is a most valuable uterine tonic, antispasmodic and anodyne of exceptional worth. I rely upon this

remedy to prevent dysmenorrhea. I have my patients who suffer with dysmenorrhea to take Dioxiburnia, beginning two days before menstruation is due and persist in it until the period has passed. I give it in doses of one to two teaspoonfuls every three hours throughout this time. When this direction is followed I have found that my patients go through the period without pain. The adoption of this treatment, I may say also, has brought me many grateful compliments.

State News

STATE BOARD OF HEALTH.

Report of examination for license to practice medicine by the West Virginia State Board of Health, held at Parkersburg, W. Va., April 8, 9, 10, 1912. Fifteen were examined; 11 passed; four failed.

The following applicants passed:

K. M. Jarrell, University of Maryland, regular, Clear Creek, W. Va.; W. W. Cooper, Detroit Homeopathic Medical College, homeopathic, New Cumberland, W. Va.; W. D. Kahle, College Physicians and Surgeons (Baltimore), regular, War Eagle, W. Va.; J. E. Marschner, College Physicians and Surgeons (Baltimore), regular, Wheeling, W. Va.; J. M. Boice, Jefferson Medical College, regular, Clinton, Pa.; B. F. Harris, Jefferson Medical College, regular, Star Junction, Pa.; F. L. Patterson, Jefferson Medical College, regular, Imperial, Pa.; F. J. Kenney, Maryland Medical College, regular, Parkersburg, W. Va.; G. C. Roberson, University Louisville, regular, Hurricane, W. Va.; F. W. Bilger, University Louisville, regular, Lawton, W. Va.; A. S. Jones, University of Virginia, regular, Cleveland, Ohio.

The failures to pass were from University of Louisville, two; Maryland Medical College, one; Leonard Medical College, one. The next meeting of the Board will be held in Charleston, July 8, 9, 10, 1912. Below are the questions submitted.

H. A. BARBEE,

Sec'y W. Va. State Board of Health.

ANATOMY AND EMBRYOLOGY.

1. Name the germ layers from which the following structures develop: Skeleton, lungs, nervous system, blood, pancreas and hair.
2. Describe the venous system between placenta and right auricle.
3. Describe the tibia.
4. Describe the hip joint.
5. Describe the femoral artery.
6. Describe the colon.
7. Give the origin, insertion and nerve supply of the following muscles: Psoas, subscapularis, pronator quadratus.
8. Describe the pneumogastric nerve.
9. Describe the left subclavian vein.
10. Name the cartilages composing the larynx and describe the vocal cords.

DR. W. W. GOLDEN (Examiner).

SURGERY.

1. Name the different kinds of wounds.
2. Give symptoms and treatment of hemorrhage at base of the brain following injury.
3. Define fracture and give the causes.
4. Describe in detail the operation for hemorrhoids.
5. Define Haematocele, Meningocele and Encephalocele.

6. Give the treatment of Empyema.
7. Describe in detail the operation for Varicocele.
8. Give the methods and dangers of dealing with adhesions.
9. Give the indications and methods of stretching the Great Sciatic Nerve.
10. Describe in detail the method of skin grafting.

DR. M. V. GODBEY (Examiner).

CHEMISTRY AND MEDICAL JURISPRUDENCE.

1. What element composes over half the matter of the earth and is the common supporter of combustion?
2. What is the difference between analytic and synthetic methods in chemistry? Illustrate each.
3. What pathologic conditions produce bile in the urine?
4. Mention several tests for sugar.
5. How does diet affect the elimination of urea?
6. What is methyl alcohol? What are its properties and uses?
7. Name some of the abnormal chemical constituents of urine.
8. In a case of infanticide how would you determine if the child was born alive?
9. If in a dead body rigor mortis has disappeared and hypostatic congestion is marked, what conclusion would you draw concerning the time that had elapsed since death?
10. What findings would lead you to conclude that a skeleton was that of a female?

DR. C. A. WINGERTER (Examiner).

PHYSIOLOGY AND HISTOLOGY.

1. Describe the physical factors concerned in the production of blood pressure and blood velocity.
2. Give the physiology of the heart beat and explain the cause of heart sounds.
3. Describe the mechanism of respiration and give the innervation of the respiratory movement.
4. Discuss physiologically bacterial action in the alimentary tract.
5. Name the ductless glands and give the physiology of internal secretion.
6. What is the function of oxygen relative to the fluids and tissues of the body?
7. Give the function of the fifth, tenth and twelfth cranial nerves.
8. Give the histology of a lobule of the lung.
9. Give the histology of serous and mucous membranes.
10. Describe the histology of the skin.

DR. C. W. HALTERMAN (Examiner).

BACTERIOLOGY AND HYGIENE.

1. Bacteriology and Hygiene: Give definition.
2. Pasteur and Koch: Who were they and what did they do for the study of bacteriology?
3. Describe Phagocytosis and what is meant by Opsonic Index.
4. Bacterial poisons: Name three and describe them.
5. What is meant by infection and auto-infection? Give examples.
6. Water: Name some of the impurities found in it and how rendered pure and wholesome.
7. Describe the hygiene necessary in a tubercular patient.
8. Give method of disinfecting bedding and clothing after smallpox, diphtheria and scarlet fever, and how soon should children be returned to school after having said disease?
9. Which is to be preferred in vaccination—Animal or humanized lymph? Why?
10. Venereal prophylaxis: What is being done to prevent venereal diseases?

DR. J. E. ROBINS (Examiner).

OBSTETRICS AND GYNECOLOGY.

1. Describe development of the placenta. What are its functions?
2. Give the dimensions of the pelvic inlet and outlet.

3. When and where are the fetal heart sounds best heard? Describe them and give their rate.

4. How would you differentiate pregnancy, ovarian disease, ascites and gaseous accumulations?

5. What is a "head last" labor? Give cause and management.

6. Describe Alexander's operation for shortening the round ligaments. Under what conditions is it justifiable?

7. What complications may arise in a twin labor and how may they be overcome?

8. What dangers in pregnancy and labor does gonorrhoea of the mother expose her and her offspring? Give treatment of ophthalmia neonatorum.

9. Give the pathology, symptoms, causes and treatment of eclampsia.

10. Name the important forms of hemorrhage occurring in obstetric practice.

DR. A. N. FRAME (Examiner).

SPECIAL PRACTICE.

1. State four local and four general causes of epistaxis.

2. What structures are involved in hypertrophic rhinitis? Give symptoms and treatment.

3. Define ptosis, strabismus, diplopia, myopia, hypermetropia, presbyopia and chalazion.

4. Define, give etiology and treatment of pink eye.

5. Define aphonia and give its common cause.

6. Give the most important points in differential diagnosis between follicular tonsillitis and diphtheria.

7. What is the condition in apoplectic coma and what reflexes are commonly affected?

8. Define and give etiology of neuritis.

9. On what signs and symptoms would you make an early diagnosis of pulmonary T. B.?

10. Describe the methods of physical diagnosis.

DR. R. E. VICKERS (Examiner).

MATERIA MEDICA AND THERAPEUTICS.

1. What are the therapeutic uses of iron?

2. Define (a) Cardiac stimulants, (b) Cardiac sedative, (c) Cardiac tonic. Give examples and dose of each.

3. Give origin of Podophyllin, its action and dose.

4. Give the physiological action of Digitalis. Differentiate the action of Digitalis and Strophanthin on the circulation. When indicated.

5. Give the physical properties and antidote of oxalic acid. With what drug may it be confounded?

6. What is the physiological action of opium and toxic effect.

7. Name four drugs of the vasomotor group.

8. What is a hypnotic? Specify three in common use and dose of each.

9. Name the official preparation of arsenic and give the dose of each.

10. Give the physiological effects of aconite and treatment of poisoning.

DR. L. S. BROCK (Examiner).

PRACTICE OF MEDICINE AND PEDIATRICS.

1. Acute pleurisy: Give the physical signs and symptoms.

2. Give cause and symptoms of biliary colic and differentiate from appendicitis.

3. Give treatment with prescription for a case of acute articular rheumatism.

4. Differentiate organic and functional heart murmur.

5. In acute indigestion resulting in cholera morbus what would be your first plan of treatment?

6. How would you diagnose and treat a case of gastric cancer?

7. Describe the most important symptoms of cerebro spinal meningitis.

8. Name causes for infantile convulsions.

9. Give diagnosis and treatment of hereditary syphilis.

10. Give cause and treatment for intestinal worms.

DR. H. H. RYMER (Examiner).

Society Proceedings

AMERICAN PROCTOLOGIC SOCIETY

(Concluded from April.)

SYPHILIS OF THE ANO-RECTAL REGION.

By Lewis H. Adler, Jr., M.D., Philadelphia, Pa.

The author related the history of two cases of syphilis in which no outward visible effects of the patient's grave condition existed, except about the anus. In both instances the anus was surrounded by syphilitic condylomata; the parts were bathed in a fetid sero-purulent discharge and the patients' mouths were affected with mucous patches. In one case the patient was markedly improved by the use of salvarsan and the other one improved under the ordinary mercurial treatment, but disappeared from observation before a cure could be effected.

The writer then took up the consideration of the usual manifestations of the disease as affecting the localities under consideration, stating that the primary lesion—always a chancre—occurs about the anal region much more frequently than is usually supposed. That chancre of the rectum proper, in this country, is a very rare occurrence. Where sodomy and other unnatural vices are practiced, infection may and possibly does occur with greater frequency. That females are oftener affected than males, and while the occurrence of the initial lesion about the anus or within the rectum of men is almost positive evidence of the practice of sodomy, in women, the possibility should be remembered of the infection of these parts arising through contact with the male organ, or from the vaginal discharge.

That the diagnosis of all doubtful cases of syphilis can now be definitely determined when the patient's blood shows a positive Wasserman reaction and by finding the presence of *spirochæta pallida*.

Attention was called to the fact that cases of ano-rectal syphilis develop the usual symptoms of the disease as when it affects other parts of the body, and, next to the mouth and throat, the anus is the most frequent site for mucous patches.

Attention is called to the hereditary or congenital form of the disease, and among the tertiary lesions the following principal varieties were enumerated: Gummata, destructive ulceration, stricture, ano-rectal syphiloma and proliferating proctitis.

The article concluded with a brief consideration of the treatment of the disease, in which attention was directed to the necessity of care being exercised in looking after the hygiene in all its phases; that the constitutional treatment of the disease should not be commenced until a positive diagnosis is established; that as no one form of mercury or any one of the various methods of its administration may be employed successfully in all cases, the individual requirements of each person should be the guide.

Ehrlich's remedy—salvarsan—had in several instances been employed with excellent results, but the author would not depend upon its employment alone, believing that mercury should supplement its use.

FOREIGN BODIES IN THE RECTUM.

By T. L. Hazzard, M.D., of Pittsburgh, Pa.
The paper consisted mostly of a recital of four recent cases of foreign bodies in the rectum. Two were in children, in which the substances were accidentally swallowed, and the others were adults who introduced the bodies directly into the rectum through some perversity.

Case 1. Baby girl, two years old. Referred for dysentery of three months' duration, the chief symptoms being bloody stools, mucus and tenesmus. No digital or other local examination had previously been made. Examination with the little finger showed the presence of something lying across the bowel, low down. A guarded pair of scissors was introduced and this body was easily cut in half and removed. It proved to be a match, or, at least, nearly two-thirds of one. Although the ends of this match were firmly fixed in the sides of the intestine, no abscess followed. Recovery was rapid and uneventful.

Case 2. Boy, a little older than the first case. The symptoms, conditions and procedure were the same as the preceding case, but the foreign body was a bone from a frog's leg.

These cases show the necessity for rectal examinations. In one case a bacterial microscopical test had been made, but was rather misleading than otherwise.

Case 3. Self-introduction into the rectum of a prescription bottle, a "Baltimore oval" 3-ounce. The mouth was upward. After considerable trouble it was removed by means of a blunt hook. It had been in the bowel for three days. No anesthetic necessary. The case progressed without any untoward incident. He gave no reason for his action and no questions were asked, as he would not have told the truth.

Case 4. Adult, aged 45. Had been a cow-puncher. At present has no occupation. Came to Allegheny General Hospital. Examination showed the presence of a very thin beer glass, two inches wide at the top, and 3½ inches tall. Sphincters contracted. No bleeding and but little discomfort. In attempting to remove it it was broken. After it was extracted there was considerable bleeding from the rectum. He developed pelvic peritonitis and a rather large tumor developed in the left iliac region. This passed away and he was discharged in about three weeks, not altogether well of the pelvic pains.

General treatment in all cases was rest in bed, with frequent washing of the bowel with a 1% solution of creoline and normal salt.

THE LIMITATIONS OF THE USE AND THE METHODS OF EMPLOYING LOCAL ANESTHESIA IN RECTAL SURGERY.

By Lewis H. Adler, Jr., M.D., Philadelphia, Pa.

The author, quoting from a recent article of a distinguished proctologist, states: "Patients seriously object to a general anesthetic and because of this and the fact that most minor ano-rectal operations can be painlessly performed under local anesthesia induced by sterile water, or a one-eighth of one per cent cocaine solution, I have discarded general narcosis in about eighty per cent of my rectal operations."

In taking exception to this general statement he questions the wisdom of sending it broadcast and advocating a method which in the hands of one not particularly skilled in rectal work would in his opinion only lead to disaster.

He calls attention to the water-logging of the tissues, when sufficient anesthetic be used, whether cocaine, eucaine, sterile water or other agents, and to the subsequent retarding of the recovery of the patient and the danger of hemorrhage from allowing patients to be about on their feet, citing a case which proved conclusively the force of his arguments.

The author claimed a thorough understanding of the underlying conditions can rarely be made without the aid of general anesthesia. The latter when administered by a competent anesthetizer is not attended with any more danger or risk than the indiscriminate employment of local anesthesia.

He calls attention to the fact that it is essential to remove the anesthetic when the sphincter is divulsed, as deep inspiration thus induced would cause too much of the drug to be inhaled suddenly, and might caused alarming or fatal results.

Rectal diseases which may be treated under local anesthesia he considers under two divisions: (1) Those admitting of office treatment; (2) those requiring treatment at home or in a hospital.

In the opinion of the author external piles or other excrescences around the anal region, some fissures-in-ano and abscesses (of not too large an extent) are the only affections coming within the range of operations which can with propriety be performed in the office under local anesthesia. He warns the operator that trivial fistulae often have diverticulæ and are not readily discoverable except under general anesthesia.

Under the second heading he speaks of internal colostomy and internal hemorrhoids and warns the operator that the temperament of the patient must always be taken into account. Highly nervous patients will not stand manipulation of the intestines and the abdominal muscles are apt to be rigid.

The author mentions the different drugs used in local anesthesia, the vibratory method of Hirschman, the methods used in getting the parts anesthetized and the after treatment.

The trend of the article is not to throw cold water on the valuable procedure of local anesthesia, but to insist that the cases must be suitable and in the hands of men of experience.

CLINICAL SOCIETY OF NEW YORK POLY-CLINIC MEDICAL SCHOOL AND HOSPITAL.

Meeting of February 5th, 1912.

A CASE OF ADVANCED CARCINOSIS. PROLONGATION OF LIFE BY OPERATION.—Presented by Dr. C. A. Frink.

Dr. Frink presented a case of a woman, 48 years of age, widow with three children, one miscarriage. Her family history showed longevity on both sides. Her husband died of phthisis 26 years ago. She had one previous attack of ap-

pendicitis. Seventeen months ago patient had attacks of what she called indigestion, with constant pain behind the sternum and vomiting. Never vomited blood, but noticed that food taken several days previously appeared in the vomitus. A diagnosis by her physician was made of "nervous dyspepsia." She lost weight and strength and the vomiting increased. No lung symptoms were present. On entering the Polyclinic Hospital she could not retain food, and she showed a stenosis of the pyloric valve. She was very emaciated, skin dry and no adipose tissue at all. Laboratory findings—Blood, a secondary anemia; sputum negative. The X-ray was unsatisfactory. Stomach contents showed presence of lactic acid, no free Hcl or Boas bacilli. Urine normal.

Examination of the abdomen showed a mass the size of an orange, situated over the pyloric valve, immovable. Operation December 4th, 1908, by Dr. Bainbridge, who did a retro-colic gastro-jejuno-stomy. The inoperable mass with its enlarged glands, which about closed off the pylorus, are not touched.

Subsequent History—June 11, 1909, the patient returned with her first trouble since operation, vomiting after food. She otherwise continued in good health until the spring of 1911. In May of this year she showed signs of infection by T. B., and in July the T. B. bacilli were found in the sputum. The patient died of pulmonary tuberculosis on August 6th, 1911.

Conclusion.—The history of this case emphasizes the importance of operating on cases of cancer that do not appear, from the clinical findings, to be good surgical risks. This patient was a poor surgical risk, there being no chance of curing her condition by operation. Nevertheless by doing all in our power she was able to return to her home and family, enjoying good health, eating and sleeping well, and she gained over 15 pounds in weight. Two and one-half years after operation she died of a condition entirely independent of her former trouble. We feel that through surgical intervention we prolonged this woman's life, making her a useful member of society for this additional time.

Dr. John A. Weyth said he considered it the duty of a surgeon to take any and all risks regardless of what might be the result on his reputation or statistics when the patient is in such a state; that the conditions seem absolutely hopeless and death seems imminent. No matter whether the patient dies on the table or not, if in the judgment of the conscientious surgeon there is a possibility of contributing to the patient's comfort, lessening his discomfort or prolonging his life, it is his duty to undertake the operation. One of the severest criticisms he could make about any man is that he would not undertake a case if he thought the patient would die.

Dr. Bainbridge said that at the time of operating on this case he had met the conditions exactly as Dr. Wyeth had described. The patient had consented knowing full well her serious condition, and had never ceased to be grateful for her prolonged life. She seemed particularly discouraged in not being able to survive the phthisis

when she had been relieved of the stomach condition which seemed to her to be so much worse.

A CASE OF TUBERCULAR PERITONITIS: PROLONGATION OF LIFE BY INTRA-ABDOMINAL ADMINISTRATION OF OXYGEN.—By Dr. H. D. Meeker.

Dr. Meeker showed a case of tubercular peritonitis which he had treated by the intra-abdominal administration of oxygen. The case was apparently cured. He also advocated its use in cases of profound shock and ascites, and said that it required from 72 hours to four or five days for complete absorption. Care had to be exercised in watching cases, as the abdomen became flat in from 48 to 72 hours. Collapse from its complete absorption should be guarded against by the free administration of stimulants. Dr. Bainbridge said he had been using oxygen to meet shock in abdominal surgery for the past eight years and had treated in all about one hundred cases. He had noted marked improvement and a ready response to its use.

CASE FOR DIFFERENTIAL DIAGNOSIS BETWEEN CIRRHOSIS OF THE LIVER AND CARCINOMA.

Dr. Beal presented this case for diagnosis because he wished to differentiate between enlargement of the spleen in cirrhosis and absence of enlargement of the spleen in carcinoma.

In his opinion with cirrhosis of the liver there is always enlargement of the spleen, and with carcinoma never enlargement of the spleen.

The patient shown was perfectly well up to May last, when he commenced to fail. In June he fell sick, and since then has lost half his weight. He has been ascitic and been tapped once and sixty to seventy ounces of fluid removed. The spleen did not seem particularly enlarged, but just over the pylorus was a hard carcinomatous mass. The man had the carcinoma symptoms, but no pain.

Dr. Packard asked if there would not be bloody fluid in carcinoma? Dr. Beal replied that bloody fluid was not necessarily present. Dr. Packard said that in cirrhosis of the liver blood tinged fluid was rare, unless it was due to the rupture of some small vessel made by the surgeon in entering the abdomen and so causing a return flow which was blood tinged. In all cases of cirrhosis of the liver there is enlargement of the spleen, because the portal circulation is obstructed. This case might be caused by a cirrhosis of the liver or carcinoma of the liver. It seemed to him, since there was portal obstruction, cirrhosis might have large spleen. He believed that carcinoma did have an enlarged spleen.

Dr. Strauss thought that care should be exercised in eliminating other diseases of the liver which might simulate carcinoma and cirrhosis in the case observed. Enlarged liver with nodules has shown tubercular abscess on operation.

Dr. Gilday suggested that an exploratory incision might have solved the diagnosis, and it would do no more injury than tapping.

Dr. Tovey asked if Dr. Beal had made a rectal

examination, as the Mayos have found metastasis of the rectum in carcinoma of the liver.

Dr. Reich said that malignancy was usually found with bloody fluid.

Dr. Beal said that in his experience the fluid in cirrhosis was of the same character as that in malignancy. He said he was glad that most of those present found no enlargement of the spleen, as he wished to bring out its normal size in carcinoma.

LITTLE KANAWHA AND OHIO VALLEY SOCIETY.

PARKERSBURG, W. VA., May 13, 1912.

Dr. S. L. Jepson:

DEAR DOCTOR—The L. K. & O. V. Med. Soc. met May 2 at the Chancellor hotel according to our custom. At this meeting we first had 7 o'clock dinner. There were thirteen members present, after giving due attention and just appreciation to our host's excellent dinner, we adjourned to the assembly room. President Price presiding. The essayist for the evening, Dr. P. L. Gray, of Williamstown, gave us an excellent paper on "Extra Uterine Pregnancy," which was discussed by several members.

The secretary reported that he had taken a consensus of opinion on the subject of the Medical Defense, sending out to all members of the society reply postal cards and asking whether they desired to retain the M. D. F. as it is or to have its payment made optional; that 30 members replied, 25 were in favor of it being kept as it is; four were in favor of its being optional; one declined to express an opinion, and one gave a qualified answer.

The society then selected two delegates to the Webster Springs meeting, Drs. McNeilan and Barker, and Drs. Campbell and Wise as alternates.

A committee was appointed to memorialize the U. S. Senators asking them to support the Owen Bill, or Senate "Bill No. 1." Drs. Sharp and Framc were selected as the committee. This work has been done. Society adjourned to meet September 5, according to the usual custom.

W. H. SHARP.

Medical Outlook

PITUITRIN IN DIFFICULT PARTURITION.

Much attention is being given by the medical press of Germany and other European countries to the importance of Pituitrin as an oxytocic. The drug has been somewhat extensively used for the past two or three years, both here and abroad, chiefly, perhaps, as a hemostatic and heart stimulant. Now it is known to be of great value in uterine inertia, obstetricians in many of the German hospitals and elsewhere who have thoroughly tested it clinically pronouncing it a truly remarkable oxytocic.

For the benefit of practitioners who may not be familiar with its origin and nature, it may be explained that Pituitrin is an extract of the posterior or infundibular portion of the pituitary gland. Although the physiology of this gland is as yet

largely speculative, there seems to be no doubt that it contains a substance or substances that exert a considerable influence over the metabolism and on the cardio-vascular system.

As bearing upon the value of Pituitrin in parturition, this expression from Dr. Emil Vogt of the Royal Gynecological Clinic at Dresden is significant:

"The oxytocic action of Pituitrin at this clinic was observed in over one hundred cases. After the rupture of the fetal membranes in the second stage of labor the physiologic effect of Pituitrin is the most pronounced; the contractions of the uterus follow each other much more rapidly and energetically and the intervals between pains are decreased. Individually the pains are not more severe, so far as suffering is concerned, even in the case of sensitive women, than they would be in a normal delivery. In half of the cases the Pituitrin was administered in the second stage of labor. It failed only once; in all other instances its action was very pronounced. And, although we encounter a great many cases of narrow pelvis in Dresden, from 40 to 50 per cent, it was not necessary to have recourse to forceps delivery in a single instance in which Pituitrin was employed. * * * * According to our experience Pituitrin is the ideal oxytocic."

PHIMOSIS AS A CAUSE OF CONSTIPATION AND OTHER DISTURBANCES.

That phimosis is frequently a cause of disturbance in the genito-urinary system is well known. But that it may cause troubles in other organs besides the genito-urinary is not so well recognized.

Dr. Witzshausen (*Muench. Med. Woch.*) reports a number of cases in which a narrow prepuce was the etiologic factor in the constipation of infants. The constipation was relieved on the performance of circumcision. He explains the causation of constipation by phimosis as follows: As a result of the narrowing of the preputial opening urination is rendered difficult. The bladder is therefore imperfectly emptied and is often overfilled and dilated. The enlarged bladder crowds upon the pelvic organs, presses upon the rectum and as a result we have constipation. The immediate and remote disturbances caused by phimosis if neglected become serious and persistent and may require a long time to subside, even after the initial etiologic factor, i. e., the phimosis, has been removed by circumcision.—*Therapeutic Medicine.*

CONGENITAL SYPHILIS.

Detailed reports of microscopic findings of infants dying with congenital syphilis in which the spirochetes were found only in the heart muscle of all the internal muscles are reported by A. S. Warthin, Ann Arbor, and E. J. Snyder, Detroit (*Journal A. M. A.*, March 9). They point out the importance of these cases as throwing light on the question of the localization of spirochetes within the body and their concentration in certain special organs. It has been cus-

tomary to look for the signs of congenital syphilis in the lungs, liver and spleen, and the findings in this case favor the view expressed by Warthin, that the heart muscle is a favorite place for the colonization of *Spirocheta pallida* and that the microscopic signs of such a localization may be so slight that the question of syphilis can be determined only by the demonstration of the spirochete.

CASES OF DIABETIC COMA CURED BY INTRAVENOUS INJECTIONS OF SODIUM BICARBONATE.

Marcel Labbe and P. Carre (*Soc. med des Hopitaux*, May 19, 1911) reported that diabetic coma developed, in the course of pyelonephritis, in spite of the fact that 40 grains per diem of sod. bicarb. had been given by mouth after the first signs of acidosis developed. The dose by mouth was increased to 60 grams daily, and at the same time an intravenous injection of 500 Cc. of a 3 per cent solution of sodium bicarbonate was given. This treatment was repeated during several days, but as soon as it was discontinued the patient became comatose again. 1,000 c. c. of the solution was then injected intravenously and 20 grains of the salt were given by mouth with the result that the patient was discharged cured after a short time.

Up to the present time only eight cures have been recorded with this treatment (Naunyn, Levy, Herve and Berzon). The authors think that the reason for the many failures is that the treatment is begun too late and that doses are as this case demonstrates far more efficacious than medication by mouth.—*La Tribune Medicale.*

DIGIPURATUM IN HEART DISEASE.

Wm. F. Boos, L. H. Newburgh and H. K. Marks in a paper published recently noted great differences observed in the pharmacological strength of digitalis leaves and their preparations. The efficiency is said to depend greatly upon the soil, the gathering season, the methods of collecting and drying the leaves and the methods used in preserving the dried product. For a time it seemed as if the pure active principles of digitalis would be reliable substitute for the galenical preparations, but it was soon evident that neither digitalin nor digitoxin alone could produce the true digitalis effect obtainable from the leaf preparations of known strength. As the fluid preparations do not retain their original strength, so readily as the dry, standardized products are preferable. Digipuratum, a dry digitalis extract, was found free from the harmful digitonin and 85% of the bulky and inactive matter. The drug is standardized by means of the frog experiment so as be equal in strength to the equivalent amount of potent leaves, this strength being uniform.

Digipuratum was employed extensively by the authors in the medical service of the Massachusetts General Hospital. Eight cases are quoted and tabulated showing the interesting features

The diuresis was efficient in all cases and a marked effect on the pulse rate was usually present. One case was sent to the hospital in a moribund condition but reacted very quickly to the drug, so that compensation was reestablished in a week. The digipuratum was usually given in the form of treatments of 12 tablets each, and while in some cases the first treatment gave little or no results, the second was always very efficient. Good results may often be obtained by combining the medication with venesection, the removal of fluid by tapping, or by combining the digipuratum with other drugs, such as diuretin or apocynum.

Digipuratum has now been used in the Massachusetts State Hospital for over a year and more than 180 cases of primary heart disease or secondary cardiac involvement have been treated with it. The effect on the urinary output has been very prompt in most instances. There was not a single case of vomiting nor diarrhea; in fact, the vomiting of a number of cardiac cases at entrance was promptly stopped by digipuratum. Cumulative poisoning was never observed. One of the early patients, a boy of 16, was given 106 tablets in six weeks; at no time was there any suggestion of digitalis poisoning. In one or two instances the house officers were made uneasy by sudden drops of 40 or more beats in the pulse rate, but no disagreeable consequences followed in any case. It must be remembered, naturally, that digipuratum is a digitalis preparation, but the tendency to produce poisoning is much diminished so that it is possible by means of this drug of reliable strength to push digitalis therapy in a manner hitherto unknown.—*Cleveland Med. Journal.*

RECENT EXPERIMENTS IN THE ARTIFICIAL FEEDING OF 100 INFANTS.—Frank C. Neff, M.D., Kansas City, Mo., *Jour. A. M. A.*, December 23, 1911.

Neff's observations were upon infants under 3 months. The following conclusions are of interest:

1. The average length of time before an infant regains its weight is eleven days.

2. The rectal temp. of infants under six months of age is 98.6 F. A temp. of 99 F. or above should be regarded as pathologic.

3. Peptonization of milk showed no advantages in the new born, but is occasionally beneficial in older infants.

4. Buttermilk is useful in some cases, even in the first weeks of life, and where breast milk is not available, should be tried in cases of fat intolerance and in enterocolitis.

5. Some infants showed increased weight when fed on skimmed milk which when suitably diluted, can be made the basis of fat and sugar additions.

6. Malt soup is the food that in our experience proved the best milk preparation.

7. Casein milk has a useful but limited field in catarrhal enteritis, the alimentary intoxication of Finkelstein.

8. Maltose answers all the requirements of a sugarian infant feeding. G. L. D.

TREATMENT IN DELIRIUM TREMENS.

After studying 1,106 cases Ranson and Scott say that medicinal treatment of delirium tremens is much more effective in the first than in the second stage of the disease. Their results would indicate that incipient cases should receive large doses of the hypnotics of which veronal is by far the best, whiskey should be given regularly, and ergot administered at frequent intervals either by intramuscular injection or by mouth. Such medication should be discontinued gradually and only after all signs of restlessness and tremor have disappeared. The delirious patient should receive veronal in moderate doses—all other hypnotics, and especially morphine and hyoscine, should be withheld. Ergot should be given as in the incipient cases. So far as the delirious patients are concerned, their data do not give conclusive evidence whether or not whiskey should be regularly employed.

INDEX.

Albin, Dr. A. O.—Meningitis with reference to diagnosis..... 368
 Alcohol not a tonic and stimulant, T. D. Crothers 344
 Alley, Dr. J. N.—Treatment of tuberculosis..... 257
 Allep, Dr. J. N.—Obstetrical observations among American Indians..... 416
 Affections apt to be mistaken for brain tumors..... T. A. Williams 183
 Albuminuria, Significance of..... Jas. M. Lovett 155
 American Protologic Society, Transactions of 145, 210, 285, 319, 356, 427
 Amoebiasis—A case..... J. A. Whittington 343
 Anaphylaxis 138, 146
 Anesthesia, local, in throat operations, H. Lesieur 45
 Anesthesia and shock..... Gwathmey 289
 Antitoxin (diphtheritic), nonspecific use of..... 216
 Appendix dyspepsia..... 249
 Archer, Dr. J. C.—Importance of normal mouth conditions in children..... 382

Arteriosclerosis 250
 Aschman, Dr. G. A.—Importance of early diagnosis in middle ear inflammation in children 374
 Ascites, causes of..... R. C. Cabot 324
 Asphyxia neonatorum, placenta aceration in..... 218
 Atropia in eye diseases—indications and contraindications..... H. R. Johnston 268
 Baird, Dr. R. M.—Lord Lister..... 413
 Barg, Dr. Elias—Medical defense and the Churchmans 349
 Bloss, Dr. J. R.—Value of early diagnosis of insanity 231
 Bowel obstruction by lumbricoids..... 33
 Burns, Dr. J. E.—Diagnosis of brain tumors 1
 Brain tumors, diagnosis of..... Dr. J. E. Burns 1
 Cancer cure, experiments in..... W. J. Mayo 165
 Cancer of Rectum..... J. R. Pennington 210
 Cancer of uterus, cases..... O. F. Covert 35

Cancer of uterus, early diagnosis of J. E. Thornton	34	The Owen Bill and the duty of physicians G. D. Lind	278
Cancer of uterus, early diagnosis of, A. C. Hendrick	57	Phenacetin, sulphonal and trional non- proprietary	423
Cannaday, Dr. J. E.—Cystic embryonal tumor	19	Webster Springs Meeting—S. L. Jepson	421
Cannaday, Dr. J. E.—Iodin method of skin disinfection	123	Elliott, Dr. F. H.—Infant feeding	378
Cannaday, Dr. J. E.—Notes on Am. Ass'n Ob- stetricians and Gynecologists	239	Emergency splint—W. P. Mcgrail	18
Cannaday, Dr. J. E.—Operative treatment of fractures	291	Erysipelas, tincture of iodine in	182
Cardiac massage	73	Ethical hints—W. E. Neal	50
Children's playgrounds for health, R. B. Naylor	392	Evans, Dr. T. R.—Position of woman in labor	341
Cholera infantum	420	Evans, Dr. T. R.—Remarks on pellagra	129
Citrate of soda in infant feeding	397	Evans, Dr. T. R.—Letter from McKendree hospital	348
Colds, the common	312	Fairfax, Dr. H. R.—Puerperal infection	13
Confinement, care after	73	Fairfax, Dr. H. R.—Hypnotism as therapeu- tic agent	229
Conservation in medicine and surgery, C. R. Ogden	327	Fees, division of, civil	237, 316
Constipation, treatment, medical and surgical	356	Fibroma of thigh—a case—Geo. D. Jeffers	131
Contract practice	244	First interview with a patient—W. S. Ely	23
County society, how to increase interest in	167	Fly, how to deal with the	74
Covington, Dr. C. L.—Tonsillectomy a hospi- tal operation	265	Fractures, open treatment of—a warning	236
Cystic mixed tumor—J. E. Cannaday	19	Fractures, open treatment—J. E. Cannaday	291
Dangerous surgeons—W. E. McCoy	166	Freud's ideas of psychoneuroses Tom A. Williams	16
Davis, Dr. Eugene—Protection of the public health by state authority	332	Glaucoma—E. R. McIntosh	85
Dechlorination cure—J. M. Lovett	32	Goiter, analysis of operated cases Stuart McGuire	219
Diabetes mellitus—sugar test	325	Golden, Dr. W. W.—Notes on President Murphy's address	54
Diarrhea (summer) of children, treatment of—H. G. Tonkin	94	Golden, Dr. W. W.—Vascular surgery in emergency work	418
Diarrhea of infants, treatment of	110	Gonorrhoea, management of acute anterior W. W. Robertson	410
Dickey, Dr. J. L.—The sphygmomanometer in life insurance	232	Heart, direct massage of, after anesthesia	33
Dickey, Dr. J. L.—Strabismus in children	384	Heart wounds, operative treatment of	362
Digipuratum in heart disease	181	Hemorrhage, potassium permanganate in	32
Displacements of the uterus, Harriet B. Jones	89	Hemorrhage, pulmonary tubercular, treat- ment of—C. A. Wingerter	336
Division of fees, civil	316, 237	Hemorrhage of new-born, serum in	391
Douche—effects of post partum vaginal	346	Henry, Dr. C. O.—The physician's attitude toward civic improvement	160
Duodenal catheter in infant's vomiting	421	Hernia, inguinal, the essentials of surgery in R. J. Reed	10
<i>Editorial</i>		Hernia in children—R. J. Reed	385
“A compromise with vice” C. A. Wingerter	169	Hernia, a self-performed operation for Tzaicou	215
Ancient the coming meeting—S. L. Jepson	26	Herring, Dr. A. F.—Trend of modern psy- chiatry	119
A year of medical defense—L. D. Wilson	242	Hersey, Dr. R. J.—Skin antiseptic	46
“For the good of the Order”—S. L. Jepson	170	Holland, Dr. C. L.—Melaena neonatorum	127
Ho! for White Sulphur Springs S. L. Jepson	105	Holland, Dr. C. L.—Vesical urinary retention	302
Medical defense—S. L. Jepson	65	Hupp, Dr. F. L.—Surgery of the tonsil	40
Medical defense again—S. L. Jepson	270	Hupp, Dr. F. L.—Malpositions of the liver	75
Medical defense in conclusion—S. L. Jepson	351	Hupp, Dr. F. L.—The President and the public weal (Editorial)	102
Our forty-fourth meeting—S. L. Jepson	139	Hupp, Dr. F. L.—Surgical treatment of mus- culo-spiral paralysis	399
Play grounds for health—R. B. Naylor	392	Hydrocele, cure by insertion of cat gut	362
“Prevention of Sexual Diseases” S. L. Jepson	104	Hydrotherapy and massage—Miss M. J. Steele	15
Progress in preventive medicine S. L. Jepson	65	Hypnotism as a therapeutic agent H. R. Fairfax	229
Salvarsan to date—S. L. Jepson	204	Importance of maintaining normal mouth conditions in children—J. C. Archer	382
The Chief Executive and the public weal F. L. Hupp	102		
The county society secretary—S. L. Jepson	277		
The law and the physician—G. D. Lind	314		
The Murderous Fourth of July S. L. Jepson	27		

Infant feeding.....	T. H. Elliott	378	Measles and scarlatina, treatment and prevention of.....	Dr. Milne	390
Infantile paralysis, surgical aspects of	De Forest Willard	387	Medical defense	65, 208, 242, 280, 281, 313, 349, 351, 353	
Insanity, value of early diagnosis of	J. E. Bloss	231	Medical defense, a year of.....	L. D. Wilson	342
Intussusception in children, treatment of	W. E. Ladd	389	Medical societies, why should should physicians attend?.....	L. F. Barker	201
Intratracheal insufflation.....		32	Melaena neonatorum.....	C. L. Holland	127
Investments for physicians.....	L. Ott	21	Megraill, Dr. W. P.—Emergency splint.....		18
Iodin intoxication, total.....		422	Meningitis with reference to diagnosis	A. O. Albin	368
Iodin method of skin disinfection	J. E. Cannaday	123	Middle ear inflammation in children	G. A. Aschman	374
Irons, Dr. J. C.—Should the association have more power?.....		299	Miller, R. B.—What shall we teach the laity?.....		191
Jepson, Dr. S. L.—Anent the coming meeting.....		26	Minutes of state medical ass'n—General sessions.....		142
Jepson, Dr. S. L.—The murderous 4th of July.....		27	Minutes of state medical ass'n—House of Delegates.....		173
Jepson, Dr. S. L.—Progress in preventive medicine.....		65	Moore, Dr. T. W.—Letter from Vienna.....		55
Jepson, Dr. S. L.—Medical defense.....		65	National department of health.....		209
Jepson, Dr. S. L.—“The prevention of sexual diseases”.....		104	Nausea of anesthesia, open air treatment of.....		34
Jepson, Dr. S. L.—Ho! for White Sulphur Springs.....		105	Neal, Dr. W. E.—Ethical hints.....		50
Jepson, Dr. S. L.—Our 44th meeting.....		139	Notes on President Murphy's address	W. W. Golden	54
Jepson, Dr. S. L.—For the good of the Order.....		170	Obstetrics, a new posture in.....		289
Jepson, Dr. S. L.—Salvarsan to date.....		204	Obstetrics, posture of women in.....	T. R. Evans	129
Jepson, Dr. S. L.—The county society secretary.....		277	Obstetric observations among the American Indians.....	J. N. Alley	416
Jepson, Dr. S. L.—Medical defense again.....		279	Oedema of larynx, treatment of.....		217
Jepson, Dr. S. L.—Medical defense in conclusion.....		351	Ogden, Dr. C. R.—Conservation in medicine and surgery.....		327
Jeffers, Dr. G. D.—A case of fibroma of thigh.....		131	O'Grady, Dr. Chas.—Three founders of modern medicine.....		147 187
Johnson, Dr. H. R.—Atropia in eye diseases, indications and contra.....		268	Oration in medicine.....	Chas. O'Grady	147
Joint affections, chronic.....	Gwilym G. Davis	308	Oration in surgery.....	S. M. Mason	222
Jones, Dr. Harriet B.—Uterine displacements.....		89	Osborn, Dr. J. N.—Lodge practice and how to abolish it.....		227
Jones, Dr. L. P.—History and technic of skin grafting.....		5	Osteopathy, eight years observation of.....		136
Kessler, Dr. A. K.—Shock, etc. after surgical operations.....		224	Ovary, does each produce one sex?.....		422
Labor, position of women in.....	Thos. R. Evans	331	Pellagra, remarks on.....	T. R. Evans	129
Law, the, and the physician.....	G. D. Lind	314	Pellagra, report of two cases.....	B. B. Wheeler	131
Laboratory methods in diagnosis	H. L. Robertson	305	Pepper, Dr. R. H.—Cure of enlarged prostate by electrotherapy.....		265
Lind, Dr. G. D.—Popular delusions as affecting the physician.....		261	Perineal stitch before delivery	Lapthorn Smith	324
Lind, Dr. G. D.—The law and the physician.....		314	Perineum, repair of torn.....	W. W. Babcock	153
Lind, Dr. G. D.—The Owen Bill and the duty of physicians.....		278	Physicians' attitude toward civic improvement.....	C. O. Henry	160
Lodge practice and how to abolish it	J. N. Osborn	227	Pituitrin as an oxytocic.....		430
Lord Lister.....	R. M. Baird	413	Pneumonia, croupous treatment of	G. W. Norris	271
Lovett, Dr. J. M.—The dechlorination cure.....		52	Polio-myelitis.....	L. D. Wilson	363
Lovett, Dr. J. M.—The significance of albuminuria.....		155	Polio-myelitis, surgical aspects of	De Forest Willard	387
Lumbricoids obstructing bowel.....		33	Popular delusions as affecting physicians	G. D. Lind	261
Malpositions of the Liver.....	F. L. Hupp	75	Pregnancy, vomiting of, thyroid treatment.....		217
Management of acute urethritis	W. W. Robertson	410	President's address—White Sulphur Springs	C. A. Wingerter	111
Mayer, E. E.—Psychotherapeutic value of psychoanalysis.....		81	Professional fellowship.....	C. E. Linton	99
Managing patients.....	C. N. Johnson	62	Protection of the public by state authority	Eugene Davis	332
Mason, Dr. S. M.—Recent surgical progress.....		222	Psoriasis.....	C. B. Williams	163
McGuire, Dr. Stuart—Analysis of 100 cases of goiter operation.....		219	Psychotherapeutic value of psychoanalysis	E. E. Mayer	81
McIntosh, Dr. E. R.—Glaucoma.....		85	Public address—Physician's work in building nation.....	R. E. Venning	183

Puerperal infection.....R. E. Fairfax	13	Society proceedings.....30, 70, 108, 142, 173, 210, 246, 285, 319, 356, 394, 427
Reed, Dr. R. J.—Essentials of the surgery of inguinal hernia.....	10	Sphygmomanometer in life insurance J. L. Dickey 232
Reed, Dr. R. J.—Hernia in children.....	385	State News.....30, 69, 105, 142, 172, 210, 282, 318, 356, 425
Repair of vaginal outlet.....W. W. Babcock	153	Strabismus in children.....J. L. Dickey 384
<i>Reviews</i>		Surgery of tonsil.....F. L. Hupp 40
Sahl's Diagnostic methods.....	31	Surgical progress, recent.....S. M. Mason 222
Crothers inebriety.....	31	Surgical treatment of musculo-spiral paraly- sis.....F. L. Hupp 399
International Clinics.....51, 181, 323	396	Testicle, treatment of undescended J. R. Caulk 233
Knopf's Tuberculosis Prize Essay.....	32	Tetanus, treatment of.....Beates and Thomas 182
Filcher's Practical Cystoscopy.....	71	Three founders of modern medicine C. O'Grady 187
Smith's What to Eat and Why.....	71	Trend of modern psychiatry...A. P. Herring 119
Wohlbarst's Gonorrhoea in the Male.....	72	Tonkin, H. G.—Summer diarrhea of children 94
Ware's Plaster of Paris and How to Use it	72	Tonsil question, the.....W. B. Chamberlain 60
Ander's and Boston's Medical Diagnosis..	72	Tonsillectomy a hospital operation L. C. Covington 265
Rural's Diseases of Infants.....	72	Tonsil, surgery of.....F. L. Hupp 35
Morrow's Diagnostic and Therapeutic Technic.....	109	Tonsil surgery, local anesthesia in..H. Lesieur 45
H. Fracaster's Syphilis.....	109	Torticollis, pain in.....Tom A. Williams 96
Munroe's Suggestive Therapeutics.....	109	Transverse abdominal incisions S. S. Hesselgrave 132
Simon's Manual of Laboratory Diagnosis..	180	Tubercular pulmonary hemorrhage, treatment of.....C. A. Wingerter 336
Lusk's Essentials of the Science of Nutri- tion.....	181	Tuberculosis, early diagnosis of O. W. Michael 406
Ander's Text Book on Practice.....	213	Tuberculosis, financial loss from..... 316
Borland's Medical Dictionary.....	214	Tuberculosis and dusty trades..... 281
Collected papers from the Mayo Clinic II..	249	Tuberculosis patients need not be stuffed... 282
Mallory and Wright's Pathological Techni- que.....	249	Tuberculosis, the pupils in..... 362
Griffith's The Care of the Baby.....	249	Tuberculosis, treatment of.....L. F. Flick 96
Musser and Kelly's Practical Treatment... 323		Tuberculosis, treatment of.....J. N. Alley 257
Murphy's Surgical Clinic, No. 1.....	323	Twenty remedies sufficient..... 310
Jordan's Heredity of Richard Roe.....	360	Typhoid spine.....Thos. McCrae 347
Martin's Practical Electrotherapeutics and X-Ray Therapy.....	360	Vascular surgery in emergency work W. W. Golden 418
Savage's Ophthalmic Myology.....	361	Vienna letter.....T. W. Moore 53
Blair's Pocket Therapeutics.....	361	Venning, Dr. R. E.—The physician's work in building the nation..... 183
Hirsch's Compend of Genito-urinary Dis- eases.....	361	Vesical urinary retention.....C. L. Holland 302
Church and Peterson's Nervous and Mental Diseases.....	361	Vomiting of pregnancy, thyroid in..... 217
Davis's Operative Obstetrics.....	395	What shall we teach the laity?..R. B. Miller 191
Treat's International Medical Annual.....	398	Wheeler, Dr. R. B.—Two cases of pellagra.. 131
Sadler's Physiology of Faith and Fear... 396		Whittington, Dr. J. B.—A case of amoebiasis 343
Rhus Poisoning.....	110	Williams, Dr. T. A.—Affections mistaken for brain tumors..... 194
Robertson, Dr. H. L.—Laboratory methods in diagnosis.....	305	Williams, Dr. T. A.—Freud's ideas on psycho- neuroses..... 13
Robertson, Dr. W. W.—Management of an- terior urethritis.....	410	Williams, Dr. T. A.—Pain in torticollis..... 96
Salvarsan to date.....S. L. Jepson 204		Wingerter, Dr. C. A.—A society journal vs. transactions..... 93
Scarlatina, a new diagnostic sign.....	217	Wingerter, Dr. C. A.—"A compromise with vice" (Editorial)..... 169
Scarlatina and measles, treatment and preven- tion.....Dr. Milne 390		Wingerter, Dr. C. A.—Bleeding from lungs in tuberculosis..... 336
Scarlet red ointment.....	110	Wingerter, Dr. C. A.—Presidential address at White Sulphur Springs..... 111
Self-performed operation for hernia Dr. Tzaicou 215		Wilson, Dr. L. D.—A year of medical defense (Editorial)..... 242
Shock after surgical operations...A. K. Kessler 224		Wilson, Dr. L. D.— Poliomyelitis..... 363
Should the association have more power? J. C. Irons 299		
Significance of albuminuria.....J. M. Lovett 155		
Skin antiseptics.....R. J. Hersey 46		
Skin grafting, history and technic of L. P. Jones 5		
Smallpox, iodine locally in..... 290		
Society Journal vs. Transactions C. W. Wingerter 93		

