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WILFRID HAUGHEY, A. M., M. D., Editor

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Original Articles

FOREIGN BODIES IN THE ESOPHAGUS AND LOWER AIR PASSAGES*

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The well known propensity of children to place small objects in their mouths leads occasionally to their attempting to swallow them. If the object is small and smooth, it will often pass down the esophagus into the stomach and be passed naturally.

The structure of the esophagus, with its narrowing from the laryngo-pharynx to its normal calibre produces a point about on a level with the sternal ends of the clavicles at which some of these objects tend to become engaged. Accordingly, in considering foreign bodies of the esophagus we find that they usually become caught in its upper part about one to two inches below a line drawn through the larynx. Pennies, which constitute a large proportion of these cases, usually pass into the stomach in children over the age of three years. In children from a year and a half to three years of age, pennies usually engage at the place just described.

The clinical symptoms of such a case are usually quite characteristic. The history is given of a foreign body in the

mouth; a period of choking, succeeded by quiet respiration, and the inability to swallow solid food. Water and milk, however, are usually taken with more or less difficulty. The use of the Roentgen ray in the diagnosis of foreign bodies has been attended with usually very brilliant results. It demonstrates at once the presence or absence of the foreign body, the approximate size, and the exact location.

The diagnosis having been established, the question of removal of the obstruction then becomes important. Long forceps, with varying curves and ingenious handles, have been used. The difficulty, however, of differentiating between grasping a foreign body and the membrane of the esophagus is considerable. The old umbrella probang with its harsh bristles, is very liable to tear off a strip of mucous membrane, with a resultant structure. The writer remembers seeing this instrument used some ten years ago with the result of pulling out a long strip of mucosa, and the patient condemned to have a bougie passed afterwards at regular intervals to keep the stricture dilated.

*Read at the meeting of the Michigan State Medical Society in Kalamazoo, Sept., 1909.

Case 1. L, aged 3 years, illustrates the former difficulties of diagnosis and removal. This patient was seen during a period of six weeks by fourteen different physicians, some of whom thought he had a quarter in his esophagus, and some thought he did not. The Ray at once established the diagnosis, but the prolonged attempt at removal with forceps by several laryngologists were followed by pneumonia, which resulted fatally. In this case, perhaps, the prolonged pressure of the coin may have produced an ulceration into the trachea or mediastinum.

Case 2, a horn button, which had been in the esophagus for forty-eight hours, with no dyspnea, but inability to swallow solid food, was followed by failure at removal with the old style forceps. Accordingly, the consulting surgeon incised down to the esophagus, but without opening it, and was able to push the button past the point of constriction, so that it was carried along by the muscular contracture to the stomach.

Case 3. Patient was 2½ years, gave the characteristic clinical history of a coin at the upper end of the esophagus, which was confirmed by the Roentgen Ray. The esophagoscope was used under ether anesthesia, and the coin was distinctly seen. Unfortunately, however, at the operation, the proper forceps was not provided, so that while the coin could be distinctly seen through the esophagoscope, we were unable to remove it. Accordingly a long probe was passed and the coin pushed on to the stomach, after which it was passed by rectum in five days, with no disturbance to the patient. The roentgenogram of this case shows first the point of lodgment, second the coin part way down the esophagus, and third the coin in the stomach.

The next three cases are practically similar.

Case 4. C. E., aged 2 years, referred by Dr. Gorenflo, was found by the aid of the Roentgen Ray to have a penny in the esophagus. Under ether anesthesia the esophagoscope was introduced, the coin grasped with the forceps, and immediately removed. Subsequent clinical history uneventful.

Case 5. E. W., aged 2½ years, was found to have a penny in the upper esophagus, which had been lodged only a few hours. Owing to the fact that the assistant who held the head at the operation was inexperienced in keeping the

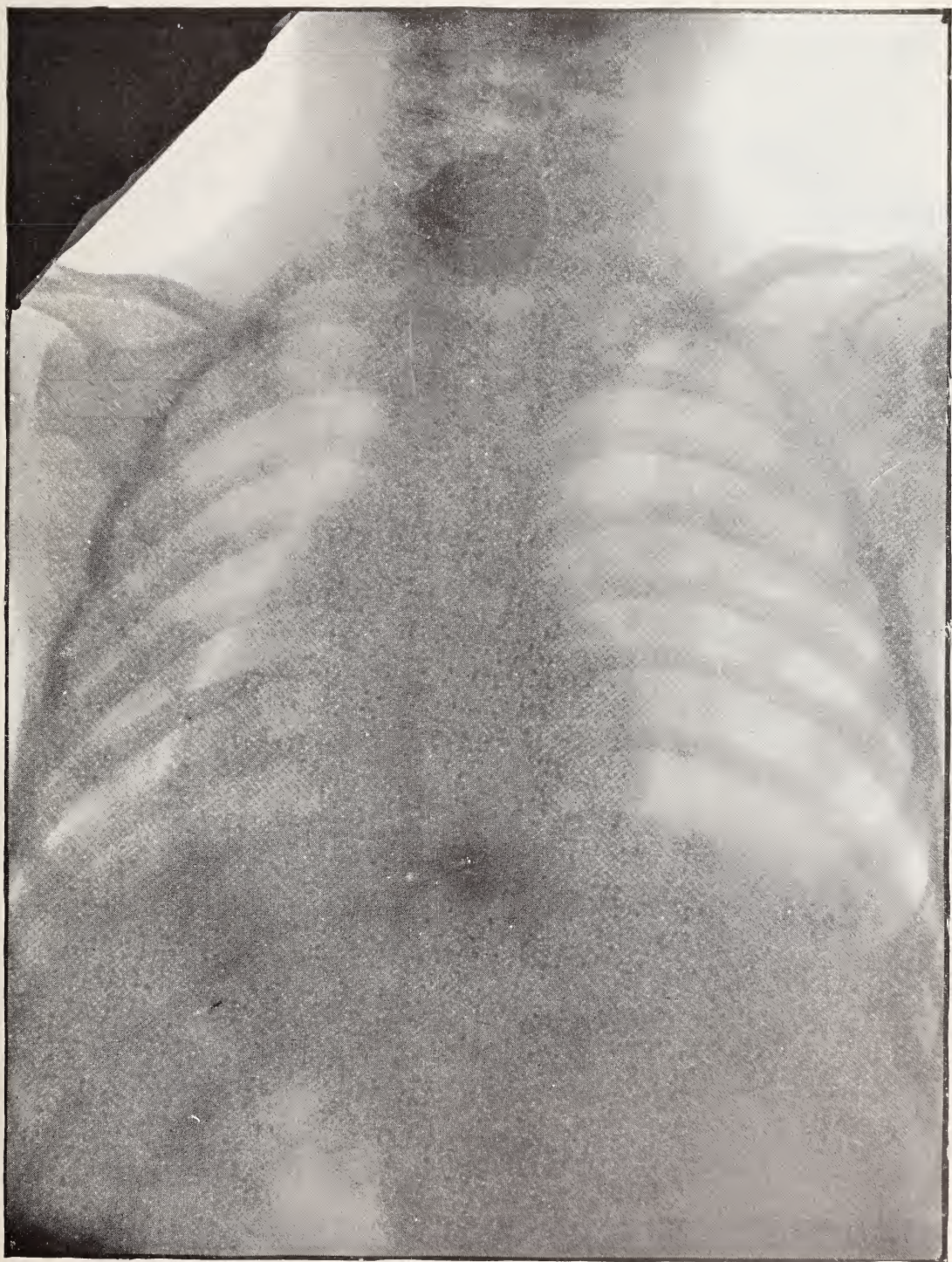
head and neck in the proper position, considerable difficulty was found in passing the esophagoscope. After several attempts, however, it was passed and the coin seen and at once removed. The clinical history of this case was more eventful. Forty-eight hours after the operation the patient was taken with an obstructive swelling of the upper trachea which necessitated intubation. The intubation tube was worn for four days, and then removed, after which the little patient made a prompt recovery.

Case 6. C. W., aged 3 years, referred by Dr. Sherrill, gave a history of swallowing a coin two days before. The Ray showed its lodgment in the accustomed location. The penny was removed easily by the aid of the Jackson Tube.

Case 7.—G. P., aged 6 years, was brought to Harper Hospital with a history of having swallowed a button four days previously. There was complete occlusion of the esophagus, the patient being unable to swallow fluid or solid food. The father of the little patient brought a button similar to the one which the child had swallowed. Before X-Raying the child, we decided to find out if the button would cast enough shadow to show. Accordingly an experimental plate was made of the hand of the father with the known button underneath. It was found that the density of the button was not sufficient to cause any shadow which would be diagnostic upon the plate. Accordingly the esophagoscope was at once introduced, the button found in the upper part of the esophagus and removed. In this case, although the button had been lodged for four days, there was no after-inflammatory reaction.

Foreign bodies in the trachea and bronchi are more serious in their effects, and are much more difficult of removal.

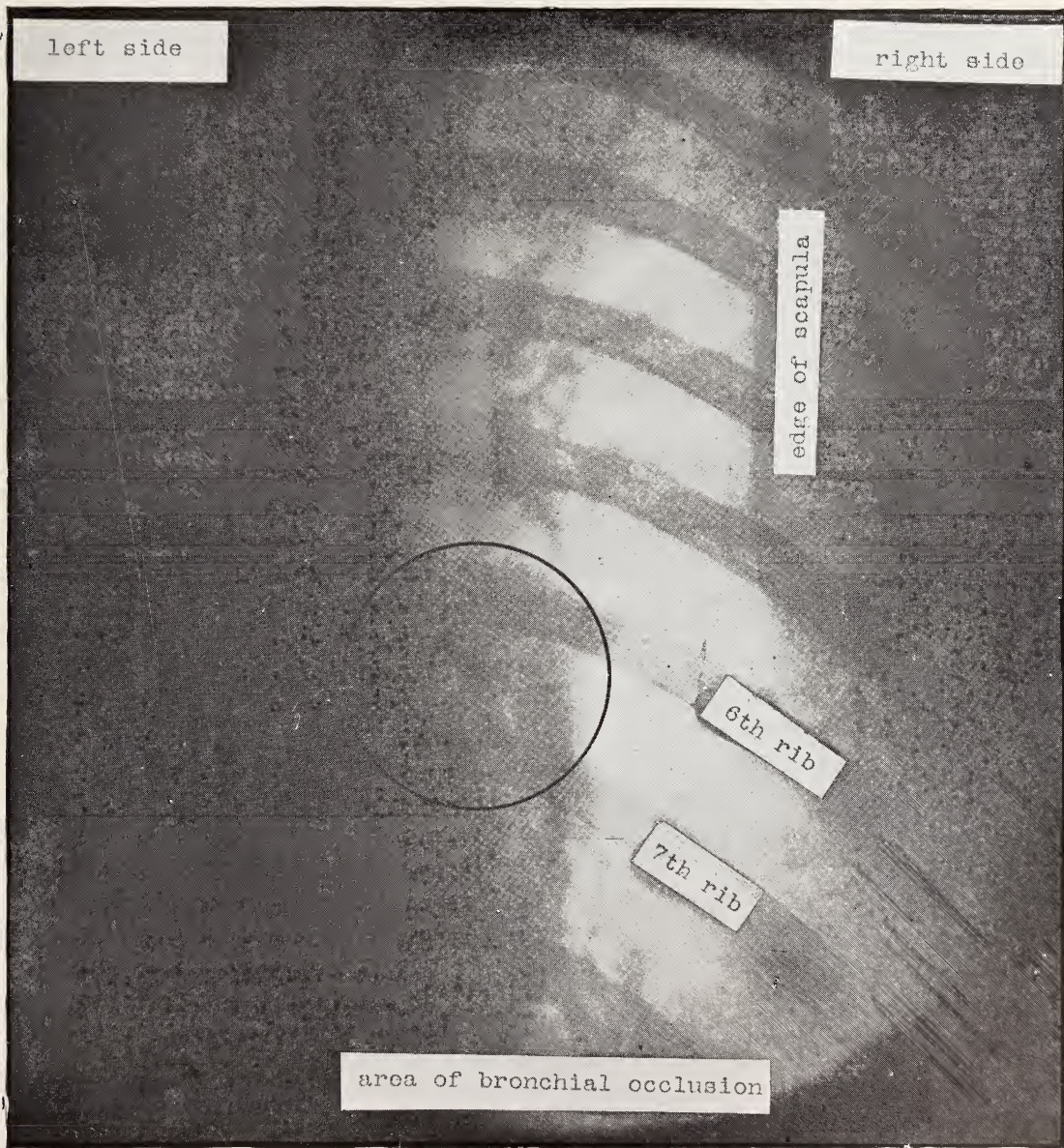
Case 8. F. B., aged 9 months, referred by Dr. Sheets, had a clinical history of putting a piece of eggshell in the mouth, followed by severe choking. The child was able to take milk from the bottle with some difficulty. The breathing was loud and stridulous, resembling the dyspnea of a laryngeal diphtheria. Several plates were made, but owing to the constant crying of the child during the exposure, the plates were unsatisfactory. The Jackson speculum was introduced under chloroform anesthesia, and the pieces of egg shell were found embedded between the vocal cords. After removal, the child was



Penny in the Oesophagus.
Removed with the aid of the oesophagoscope.
Case of C. E., aged two



Pin in the Oesophagus.
The interesting feature of this case was that all discomfort
on swallowing was referred very distinctly to the
nasopharynx. Pin removed with the
Jackson Speculum.



Broken third molar from the second division of the right bronchus of B. G., aged 21

placed in a steam tent for 48 hours, with an ice collar about the neck. The stridulous breathing rapidly diminished, and the little patient left the hospital in three days with no further difficulty. This case is remarkable as showing the length of time, three days, that a foreign body was present in the larynx without causing a fatal edema.

Case 9. B. C., aged 3 years, referred by Dr. Boulanger, gave a history of having a safety pin in its mouth 12 hours before, followed by a period of severe choking. At the time of the Ray examination there was no difficulty in swallowing and the breathing was quiet. The examination with the Ray showed a closed safety pin in the trachea immediately below the larynx. At that time the writer had not familiarized himself with the technique of the bronchoscope and was compelled to advise a tracheotomy. Operative procedures were refused for 24 hours. A tracheotomy was done, but on opening the trachea no signs of the pin could be found. Accordingly a tracheotomy tube was inserted and a roentgenogram made while the child was still under the anesthetic showed that the pin had passed down until its lower end engaged in the right bronchus. A pin from the same paper as the one lodged in the bronchus showed fortunately on examination that it was made of steel wire. Accordingly the child was placed under the giant magnet, the tip of the magnet being placed over the locality against the chest wall where the rays showed the pin was lodged. The giant magnet was then moved in the direction of the child's head, and a slight cough showed that the pin was moving with the magnet. The tracheotomy tube was removed as the tip of the magnet approached the neck, and the pin was pulled up through the tracheotomy wound. The tracheotomy tube was replaced for 24 hours, and then removed. The wound in the trachea closed quite rapidly and the child made an uneventful recovery.

Case 10. Miss B. G., aged 21, presented herself for examination, complaining of a severe cough. The cough was of five months' duration, had been very persistent, and the patient suspected that she perhaps had tuberculosis. Physical examination showed decreased respiratory murmur in the lower right back. No area of dullness was found. There was no increase of temperature or pulse. Further questioning revealed the fact that the cough had commenced abruptly after the extraction of two teeth under

gas anesthesia five months before. A Roentgen examination of the chest showed a shadow on the right side of the sternum between the 6th and 7th ribs. This corresponded in shape to one root and broken crown of a molar. A number of Roentgenograms were made for the purpose of verifying this diagnosis. Under ether anesthesia the bronchoscope was introduced and a glimpse was caught of the tooth in the second division of the right bronchus. The severe coughing, though, on the introduction of the forceps, prevented its extraction. One week later, a low tracheotomy was performed, the bronchoscope introduced through the tracheal opening, and after persistent searching the tooth was found and removed. The tracheotomy tube was left in for 24 hours and then removed. The wound healed promptly with complete cessation of the cough. The Roentgenogram which was made of the chest showed the diaphragm on the right, or affected side, to be in a constant state of spasm and that the bronchial tubes below the tooth were much more noticeable.

The clinical history of these cases shows the great value of the Roentgen Ray as a diagnostic agent, and the superiority of operations through the mouth to external manipulations, especially when the esophagoscope and bronchoscope are used. The profession owes a great debt to Killian and Jackson for demonstrating the technique of these operations so that they have become quite general. The first requisite, beside the possession of the instruments, is an operative technique which can best be obtained by practice upon the lower animals. Trained assistants are of the utmost value as upon proper anesthesia and proper rigidity of the head and neck during the passage of the tube depends much of the ease with which it can be accomplished. In conclusion, we can say that the field of special surgery has been much widened by these newer aids of diagnosis and by these newer methods of operating.

THE INDICATIONS FOR THE TREATMENT OF CALCULUS OF THE KIDNEY, URETER, AND URINARY BLADDER*

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Chicago.

There is no more dark problem in all pathology than the origin of urinary calculi. It is not that we cannot conceive of the deposit of urinary salts in the urinary tract, but it is that we are unable to account for their rarity and we are unable to explain under what conditions they occur. It is evident that, when a kidney has failed to undergo its normal evolution and we find it in a state of arrested development or of so-called congenital malformation and a calculus appears behind the deformed infundibulum and nowhere else, then we have an obvious cause. When a kidney has suffered an injury, as evidenced by bloody urine, a fractured floating rib or a perinephritic hematoma, and in after years a calculus appears in this kidney, then again we have in this injury an obvious cause. When a person has suffered of a severe illness such as typhoid pneumonia, scarlet fever or small-pox, and in the course of a few years calculi appear in the ureter, bladder, or are passed by the urethra or even develop in the kidney, ureter, or bladder itself, then again we have an adequate cause of the disease. The difficulty is, however, that many patients give this history without any appearance of calculi and many of them who show the presence of calculi on one side fail to have any symptoms or evidence of calculi on the other. All the theories which have been put forth as to the formation of urinary calculi explain too much. It must be that the

presence of the calculus is due to a combination of etiological factors and a combination of unfortunate events. It is probable that thousands of calculi are formed for every one that fails to pass unrecognized the sixteen to twenty inches of the genito-urinary canal.

The ordinary fate of a calculus of the pelvis of the kidney is to pass through the genito-urinary tract. The only reasons that interrupt this process are to be found in the imperfections of the ureter, the wall of the bladder or the urethra on the one hand and on the other the excessive size or shape of the calculus when it appears in the pelvis of the kidney. If a calculus of more than a quarter of an inch in diameter is discharged from a calyx into the pelvis of the kidney it fails to be embraced by the circular fibers of the beginning ureter and therefore fails to be moved onward to the bladder by a peristaltic action of the ureter. If it remains long in the pelvis of the kidney it is apt to grow by accretions and thus become fixed. At any one of the straits of the ureter, notably at the brim of the pelvis, at the entrance of the bladder and in two or three places in the urethra, it may stop and grow and become fixed. When several stones are successively extruded into the pelvis of the kidney or any other one of the dilatations of the urinary tract they are apt to be huddled together and amalgamated into one long or several articulated stones and a conglomerate thus formed which sometimes attains great size.

*Read at the Second Annual Meeting of the Third Councilor District Medical Society, at Charlotte, Oct., 1909.

The presence of a stone in the pelvis of the kidney and at any one of the proximal straits may give rise to no symptoms or only to vague symptoms when moving slightly. The wall of the ureter or other portion of the urinary tract is very flexible and accommodates itself to the presence of the stone, suffering little from its contact. The real event which brings the calculus to the notice of the patient and the physician is infection about the stone and in the secretions behind it. Thus, if the stone is in the pelvis of the kidney and infection occurs in the stagnant urine behind it, a pyonephrosis is begun. The first symptom is a chill and the first pathological event is an inflammation in the ureter around the stone, which stops all peristalsis, just as a local peritonitis stops the peristalsis of an intestine. The natural course of the disease is then a toxemia with increased resistance of the whole body, a dilatation of the pelvis of the kidney and a leaking of the urine past the obstructing stone and a gradual sterilization of the pelvis and a return to health, with such changes in the ureter near the stone as to make a return of all the symptoms more certain. It matters not where the stone is, in the beginning of the ureter, at the brim of the pelvis or the beginning of the urethra, the symptoms and course are virtually the same.

It may be well to speak of hydronephrosis in this connection. Hydronephrosis with stone is usually a chronic form of the acute disease and generally occurs after several attacks of pyonephrosis. Like all retention cysts a pyonephrosis is a disease of the outlet. An incompetent and leaking stricture of the ureter is the essential element in a hydronephrosis. We are too apt to think of a pyonephrosis as an infected hydronephrosis. This is only rarely the sequence. Outside of a few congenital malformations and extremely rare injuries the hydronephrosis is secondary.

Until 1896 there was no definite means of making a diagnosis of calculus except by palpation through the rectum or vagina, by the use of sounds or the cystoscope when the calculus had reached the bladder and by means of an exploratory operation while the stone remained in the calices or pelvis of the kidney. The skillful use of the X-ray will demonstrate almost any calculus which can be suspected. This is not an unmitigated benefit because too many stones are now attacked just because their presence is demonstrable and the patient can be worked up to an operation.

The symptoms which generally bring the patient to the physician are the result of infection. Probably the larger number of cases complain of painful, frequent and abnormal urination. The urine contains some pus and some blood. The physician finds that the number of leucocytes are increased and if he makes the examination at the proper time, that the temperature is increased. The region of the bladder is tender and the patient is convinced that he has cystitis. On questioning, however, there is generally a history of two or three occasions when the patient had a severe chill with a rise of temperature to 104 or even more and a rapid convalescence attended by more or less urethral irritation. If now the patient is not too heavy and the kidneys are palpitated in the proper positions, the tenderness and possible enlargement of the sick kidney can be made out and frequently a tender line reaching into the pelvis which marks the course of the ureter. By rectal examination also the outlet of the ureters can be felt and a slight thickening and considerable tenderness developed on the affected side. The irrigation of the bladder and urethra by the Valentine method produces only little improvement. The first urine secreted after a liberal and protracted irrigation contains just as much pus as before. If these irrigations are contin-

ued for a long time, sooner or later the chill and rise of temperature will be repeated and the futility of attacking the infection from below will be discovered.

If now a cystoscopic examination is made the ureter upon the affected side will be found to be red and pouting and resembles the meatus in acute inflammation. If at this time the ureteral catheters are passed and the urine collected from the two ureters all the pus will be found to come from the affected side while the other side produces perfectly clear nonalbuminous urine. Now it is necessary to empty the patient's intestinal tract very vigorously and have an X-ray photograph made to show the possible calculus and differentiate the condition from an empyema of the calix or pelvis of the kidney. Even a very small stone produces a very marked shadow.

In another series of cases the most conspicuous symptom is pain. This pain is of a constant but indefinite character and is referred to as rheumatism or neuralgia. It is felt in the back and down the leg and at last into the groin and vulva or testicle. Its acuteness is sometimes very sharp and lightning like and it is apt to occur after peculiar positions or activities or at a particular time of day. This pain is felt even in the knee and the physician will often find that ointments have been used in the knee and inside of the leg, that a suspensory bandage has been worn or that the patient has undergone operations for appendicitis, ovarian disease or even the removal of a testicle. An examination of the urine reveals nothing abnormal. There is no pus, no blood and no abnormal constituents. If a cystoscopy is made in the knee chest position the urine will squirt out of the ureter on the well side in a perfectly normal manner, in little spurts about fifteen seconds apart but on the sick side the spurts will be irregular and even absent, the urine will flow out so imperfectly as to drain down

the side of the bladder. If the catheters are now passed into the ureter the secretion from the two sides will be found to differ in quantity and in constituents. The sick side is apt to be more dilute and if the stone is in the neighborhood of the cortex there is apt to be some evidence of nephritis in the presence of epithelium and casts.

There is a third clinical group in which the patients suffer both of pain in the back and groin and also have the symptoms of pus in the urine, namely, frequent urination, tenesmus and occasional chills and fever.

When the stone is in the kidney it is obviously impossible to palpate it. When it is in the first two-thirds of the ureter it can only be palpated when the abdomen is open or in patients that are very much emaciated. When the stone is in the pelvic portion of the ureter it can be easily reached by the vagina or rectum. In any part of the urinary tract from the bladder to the end of the urethra the stones can be discovered by the cystoscope or sound.

The diagnosis of stone in the urinary tract is not necessarily followed by the recommendation to remove it. It may be said with considerable positiveness that an infected stone in the calices or pelvis of the kidney should be removed without unnecessary delay. An uninfected stone in these locations may well be left alone unless it gives rise to pain or such discomfort as to interfere with the happiness of the patient.

A stone in the ureter should be let alone unless it has attained such size that it cannot move toward the bladder or has already reached the bladder wall and is producing symptoms. A stone which is producing symptoms and is obviously too large to pass into the bladder may be removed and must be removed if it threatens the life or interferes with the usefulness of the patient. A stone in the bladder or urethra whether

it produces symptoms or not should be at once removed.

The removal of a stone from the calix of a kidney requires the temporary removal of the kidney through a long lumbar incision and a careful opening onto the stone through the dorsum of the kidney. This line is almost free from large blood vessels, and there is little danger of troublesome hemorrhage. After the stone is removed the infundibulum should be opened into the pelvis and drainage placed so that the kidney will not be lacerated in its removal. The kidney is then brought together about the drainage with catgut lasting two or three days, and the kidney replaced and the skin wound closed. When the stone is in the upper two-thirds as demonstrated by the X-ray or the use of the ureteral sound, this portion of the ureter is approached by an incision extending a little lower down than the one by which the kidney is approached, the ureter is found by following it from the kidney downward to the stone, the stone is brought up with the ureter on the index finger and removed by making a careful incision over it. A sound is then passed downward into the bladder to determine the patency of the ureter and then the ureteral opening is closed with a few stitches, a gauze drain attached to the ends of these stitches and brought out in the nearest portion of the wound and the rest of the wound

closed up. When the stones are in the pelvic portion of the ureter they may be removed by one of three different channels, and they have been removed by a fourth; by way of the urinary bladder when very close to the outlet of the ureter, by way of the vagina in women, and by way of an extended lumbar pelvic incision not opening the peritoneal cavity. The first is the most desirable and is available in a large number of well conducted cases both in women and in men. The second is only available in women, and when the stones are easily palpable and close to the urinary bladder. The third is the most universally applicable method and furnishes the only opportunity to determine the patency of the ureter and furnish a basis for a favorable prognosis or for the institution of an absolutely necessary nephrectomy.

The two methods which have been used but cannot be recommended under any circumstances, are by way of the peritoneal cavity or the rectum. It is frequently necessary to make an abdominal incision to manipulate a stone in the pelvic portion of the ureter, but it is only a serious accident which opens the urinary tract into the peritoneal cavity. It is almost as serious a matter to open the ureter into the rectum. A fatal infection almost always follows or one that makes the removal of the ureter and kidney necessary.

The important part that the University of Michigan has taken in the educational development of this country is shown by a quotation from Charles Kendall Adams: "One of the normal methods of advance seems to be for the University of Michigan to devise some new educational variation, or return to some old European standard, and then, after it has demonstrated its success, pass it through Harvard, as civilization is passed through France. It can then be proclaimed as the ripe fruit of the oldest and most renowned of American universities."

The most prominent tuberculosis specialists in the country agree that alcohol will not cure consumption. Dr. S. A. Knopf says: "Alcohol has never cured and never will cure tuberculosis. It will either prevent or retard recovery." Dr. Frank Billings of Chicago and Dr. Vincent Y. Bowditch, ex-presidents of the National Association for the Study and Prevention of Tuberculosis; Dr. Lawrence F. Flick of Philadelphia and Dr. Edward L. Trudeau of Saranac Lake, the founder of the anti-tuberculosis movement in this country, are all of the same opinion.

THE CRIME OF NEGLECTING CASES OF UTERINE CANCER*

J. H. CARSTENS, M.D.,
Detroit, Mich.

When we run across cases of uterine cancer that have been treated for weeks and months for the purpose of getting them in shape for an operation, or to remove an ulcer, as they sometimes tell us, we certainly can call this a crime to the patients, because, if it is a case of cancer it needs no preparation and can be operated on immediately, as that is the only chance the patient has. Every day's delay may mean secondary deposits that do not exist if we see the patient first.

When it comes to ulcers, such a thing really does not exist per se; it is either a chancre or ulceration at the site of an old cervical tear, and in either case a careful microscopic examination of some of the tissue removed should be made and a correct diagnosis established.

A great number of cases of cancer of the uterus are now being found, as more careful records are made. This certainly should impress every physician of the great need of most prompt and proper treatment of these cases.

This brings us to a point to which I called attention a year ago, that the lay people do not know anything about the ordinary and early symptoms of cancer, and that there is a necessity of women knowing something about it. The most lamentable cases are those where the physician is not to blame, as they have never gone to a physician. In some of these cases the women have absolutely no symptoms; they perhaps flow more than usual, or, if they are past the menopause and have a leucorrhœal discharge,

the latter becomes more profuse, perhaps more irritating, and sometimes of a bad odor, and it is the last symptom for which they often consult a physician, simply on account of the very disagreeable odor. They have no hemorrhage, no pain, feel all right, but the odor attracts the attention of other people—then they go to some physician, who perhaps gives them an injection or keeps treating them along for weeks or months. But if they go to a progressive member of this society he will examine them and find that they have a cancer. Perhaps the cervix has been entirely destroyed, the uterus a mere shell, and cavities in the broad ligaments, perhaps parts of the bladder wall have been destroyed, and it is on the point of rupturing, and the same often appears true of the rectum. The woman is beyond all help.

These cases, after the diagnosis is made, are also often neglected. They are given douches, perhaps some ichthyol tampons are used, and the woman soon is relieved by death. Now these cases, where the symptoms are slight, where the patient consults a physician only after the disease has advanced beyond the possibility of radical means, can still be relieved by palliative operations. The broken-down tissues, the absorption of septic material, besides the drain on the system by loss of blood and discharge, cause these patients to lose flesh and strength. By a careful curetting and removal of the diseased parts down to the healthy muscle, fascia and connective tissue, and then thorough cauterizing with a Paquelin cautery,

*Read at the meeting of the Michigan State Medical Society, in Kalamazoo, Sept. 15, 1909.

bromine, various acids, or what I prefer, 50% chloride of zinc solution, you can produce a sloughing, and when this comes away, underneath will be found healthy granulation, the parts will contract and hemorrhage will stop, discharge cease, septic absorption not take place, and the patients will put on flesh, gain strength, and consider themselves cured. But we know better. In the course of six months or a year there will be a new outbreak, and, if again neglected, there is a recurrence. By careful watching you can generally detect such cases early. When they are very small, a quarter of an inch or half an inch in diameter, immediately curette and cauterize again. This latter second operation can often be done without an anesthetic, and you can keep your patient in a comfortable condition for years.

Pain in these cases is often, also, quite severe. Women come to you with far advanced cancer, they can hardly believe it, and they have no pains, but that is the greatest misfortune. If they had suffered pain at the early stage of the disease they would have consulted a physician promptly, and might have been saved; and if they have pain after an operation, due to the further inroads of cancer, it is necessary to relieve them of the pain. *That is the great province of the physician*, and it is a crime to keep narcotics away from patients when they are already doomed, with the statement that they might get the habit. Sometimes patients have this idea and won't take anything to relieve it, but the phy-

sician with the right kind of tact will give them something to keep them comfortable. *Neglect to give them anodynes and plenty of them if necessary to relieve them of pain, I consider a crime.* They will need large doses sometimes although a quarter of a grain of morphine may be enough at first; soon they will take half a grain, or a grain, or even two grains at one dose to relieve their distress. Give them enough to keep them comfortable. They may continue it to the end, or it may happen, and I have seen many cases, where, all at once the pain would cease and they would be free for weeks and months, and then it would recur, and they again would be obliged to take narcotics.

It is good to change anodynes, for, although we are obliged to depend upon opium and its derivatives, you can vary the remedies by giving opium (as the tincture), flavoring it in different ways, or give codeia, or give morphine, either alone or combined.

Therefore, I would sum up as follows:

1. Teach the women, at every opportunity, what the symptoms of cancer are.
2. Teach them that with suspicious symptoms at the cancer age, they should promptly be thoroughly examined.
3. Far advanced cancer can be relieved by the complete removal of the diseased tissues and cauterization of the parts.

After all surgical, local, and palliative remedies fail, give sufficient anodyne to relieve pain and distressing symptoms.

In connection with the so-called ophthalmotuberculin reaction we think we are stating the case fairly when we remark that the majority of ophthalmic surgeons are now distinctly opposed to the general employment of this test, since there are a number of cases on record in which very violent and even disastrous ocular changes have ensued. If the test is used and a positive result is found, it does of course possess diagnostic

value, but it is important to remember that if tuberculin is dropped into the eye in minute quantity no reaction may develop, and when larger quantities are tried a positive reaction has no diagnostic import, since the earlier administration has produced a condition of hypersensitiveness which results in a positive test even if tuberculosis is absent.—*Therapeutic Gazette*,

CERVICAL RIB, WITH REPORT OF A CASE IN WHICH RESECTION WAS PERFORMED*

—
ALEXANDER MACKENZIE CAMPBELL, M.D.,
 Visiting Surgeon to the U. B. A. Hospital, Grand Rapids.
 —

(1) The French anatomist, Hunauld, (1740), was the first to accurately describe Cervical Ribs, but Galen and Vasalius have been credited with having had considerable familiarity with them.

In 1818, Cooper diagnosed the first case in a living person, and it was forty-three years later (1861) before Holmes Coote performed the first radical operation.

(2) Gruber, of St. Petersburg, in 1849, made an exhaustive study of this anomaly. He collected 76 cases in 45 cadavers, and in two living individuals. The next work that appeared was by Pilling in 1894. He compiled the cases occurring in cadavers since that time, and adds six observed in the anatomical collection at Rostock. He reports on 129 cases with 92 cadavers.

No one has been able to improve upon Gruber's classification, which is as follows:

First—The lowest grade in which the rib does not extend over or beyond the transverse process of the seventh cervical vertebra.

Second—It extends over or beyond the transverse process for a certain shorter or longer distance, and terminates either free or unites with the bone of the first rib.

Third—The cervical rib extends over the transverse process to the cartilage of the first thoracic rib and unites by means of a ligament with its terminal

end with the cartilage of the first thoracic rib.

Fourth—The cervical rib is similar to a true rib, has a cartilage which unites with the cartilage of the first thoracic rib by which it reaches the Manubrium Sterni.

Willshire reported the first case of cervical rib occurring in the living individual. He palpated it in a patient aged 21, at a London Hospital. He traced the supernumerary rib down to the spinal column. Then came Huntemuller who also observed a cervical rib on the left side in a scrofulous girl aged 12. Pilling next reported nine cases of cervical rib which had been diagnosed during life. Kernig next reported a case in a girl aged 14 years, where bilateral cervical rib presented. The fourth and fifth case were reported by Struthers. These were followed by cases by Fischer, Planet, David Wallace, Coote, Poland, Robert Adams, Baum, Hodgson and others.

Walther compiled 30 cases in all, occurring during life. Males were involved in 11 cases or 37.9%. Females in 18 or 62.1%. No record in one case.

Tillman's observation in cadavers led him to conclude that cervical ribs appear in pairs in 67%, in 33% singly, while Walther found the opposite to be the case. In 75.9% of the cases the disturbance and symptoms present could be traced to single cervical ribs and in only 24.1% was the rib bi-lateral. It occurred on the left side in 63.5%.

*Read at the Kalamazoo Meeting of the Michigan State Medical Society, Sept., 1909.

Herber's research showed that up to 1903 only 30 cases of resection had been done. He reported three cases which showed symptoms which are caused by pressure of the cervical rib on the plexus. All three were operated on and recovered. Pain soon left after operation.

W. Wayne Babcock, 1905, (3) reported a case of cervical rib with resulting gangrene of the fingers operated on with removal of rib. Patient recovered but lost the fingers. He states that in the embryo rudimentary elements of the rib occur, in the cervical, lumbar and sacral regions. In mammals, these embryonic rudiments of ribs ultimately fuse with and help to form the transverse processes of their respective vertebrae, while in reptiles many or all of these elements proceed to the formation of true ribs. In man accessory ribs occasionally develop in the lumbar and cervical regions.

Planet remarks that the development of rudimentary ribs is an evidence of atavism as all vertebrates originally had as many ribs as vertebrae.

Babcock states that symptoms may develop at any time between 13 and 60, but that they are especially prone to appear about the time of adolescence. He thinks that most cases are present from birth and that the symptoms appearing in early adult life result from the increased size and greater fixity of the rib.

The surgical importance of cervical rib is being more and more realized since the advent and perfection of Roentgenology.

The majority of cases never give rise to any definite symptoms, while the cases that do cause trouble are only rarely recognized, compared with their frequency.

So far as the writer is aware, only three cases have ever been operated upon in Michigan, and these have been done by one surgeon within the last few months.

From 1861 to 1895 only eight operations are recorded.

From 1896 to 1909 nine more are recorded.

From 1901 to October, 1906, inclusive, 25 cases have been performed.

When the anatomy of the parts is considered, it is obvious the chief clinical interest of cervical rib is its relation to the brachial plexus and to the subclavian vessels. The subclavian artery usually passes across the upper border or surface of the rib and there lies more superficial and may cause compression.

(4) In some cases it may give rise to a pulsating tumor just above the clavicle and be diagnosed as aneurism. In others the compression of the artery causes thrombosis of the distal portion with resulting discoloration, coldness, or even gangrene of the fingers.

There is no venous stasis, owing to the fact that the subclavian vein is situated anterior to the Scalenus Anticus muscle, and consequently cannot be compressed. This observation was made by Murphy.

Keen says that if the cervical rib is short or of only moderate development, the plexus and vessels do not pass over the rib, but in front of its anterior end; but if the rib is of considerable length so that the artery and nerve pass over it, the chest curve is lengthened by the addition of this rib. The brachial plexus lies above and outside of the subclavian artery. The pleura rises higher in the neck in cases of cervical rib than in the normal neck. When the anatomy of the parts is considered, it seems reasonable that the symptoms occasioned by this anomaly should be of vascular and nervous origin.

The following case which came under observation gives some of the typical symptoms of this condition.

E. W., female, aged 20, was referred to the writer in May, 1909, by Dr. B. R. Corbus, who had had her under treatment for neurasthenia. Dr. Corbus discovered a slight swelling in the

side of the neck about an inch above the left clavicle. Patient stated that for two or three days at a time for over a year, she suffered pain in the side of the face, the side of the neck, the axilla, the scapular region and forearm. Slight pain was more frequent in cold weather. There was hoarseness at times. It was impossible to straighten up with pain in the neck, whenever the left arm was put at her side, it tingled and became mottled, while the fingers felt thick and numb. She had consulted a dentist and aurist without relief, because of the pains which radiated to the side of her face. There was slight loss of coordination in the affected arm. She thought the arm and hand were swollen at times. The swelling in the neck was not larger than a pigeon's egg, and was very tender and hard. He was convinced that it was not due to an adenitis, and was unable to account for it. By the application of counter-irritants it was reduced, but the tenderness and symptoms remained.

She was referred to Dr. Henry Hulst for an X-Ray examination. The skiagraph revealed two cervical ribs, one on each side.

Symptoms continued and a radical operation was advised. Operation was performed on June 18th at the U. B. A. Hospital by Dr. Max Ballin, assisted by my brother and myself.

Operation.

An incision 9 c.m. long was made about half an inch above and parallel to the left clavicle. The skin and platysma divided, the superficial vessels of the neck were ligated and divided. By blunt dissection the brachial plexus and subclavian artery were exposed. The artery was pulled downward and inward by retractors, while the brachial plexus was very carefully and gently drawn aside by retraction upward and outward, thus exposing the rib. The scalenus anticus muscle was severed and subsequently sutured. When the rib was isolated, the dome of the pleura was distinctly seen moving with each respiration.

The rib having been exposed was resected by

fragmentation or morcellation. The periosteum was removed and the rib divided from its proximal attachment within a very short distance from the vertebra. The stump at each end was rounded off by rongeur forceps. A small drain was inserted and the wound closed in the usual manner.

Patient sat up in bed the day after the operation and left the hospital on the tenth day, by which time the wound was almost healed.

She was relieved of the pain in the side of the face immediately after the operation, but suffered a good deal in the shoulder and arm for five days. On the sixth day she complained of a numbness below the elbow. She said her fingers felt thick and swollen. This continued for six weeks and gradually disappeared as did her pain.

At the present time she states that she has entirely recovered from every symptom referable to the presence of the supernumerary rib.

It seems probable that cervical ribs which produce symptoms are not of such extremely rare occurrence. The condition is often mistaken for rheumatism and neuralgia. It may be readily diagnosed by use of the X Ray. The symptoms in most cases may be entirely relieved by resection of a part of the rib. The operation is devoid of danger and the mortality from surgical procedure has been nil in every case that has ever been recorded. The surgical significance of this condition should be more appreciated by the profession at large.

(1) Herber, Carl, 1903, Ueber Halsrippen Diss. 58 pp. 80 Bom.

(2) Walther, Franz, 1906 Uber Halsrippen Diss. 49 pp. 88. Halle. A. S.

(3) Babcock, W. Wayne (M. D. Philadelphia, 1905. Cervical Rib with resulting gangrene of the fingers. A. M. Med., Phila. V. 10, pp. 616-618.

(4) Eisendrath, Daniel, (M. D. Chicago, Ill.) 1904. The Existence of Cervical Ribs in Man. A. M. M. L. Phila. V. 8. pp. 322-325.

The story has never been told and never will be of the lives sacrificed by heeding the advice of good-meaning but poorly informed family physicians to await developments, for at the present time there exists only a single curative measure for any type of tumor of the breast—operative.—*Maryland Medical Journal*.

A properly fitting stocking is as important as an appropriate shoe in the management of cases of bunion. As suggested by Dr. Bauman, the stocking should be light, loose and be made with a separate compartment for the big toe.—*Medical Standard*, November.

TREATMENT OF GASTRIC ULCER*

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Detroit.

Gastric ulcer, as well as many other conditions, may be treated surgically or non-surgically. I wish to consider briefly the non-surgical treatment of this affection.

Several features which demand the attention of the practitioner enter into the treatment of this disease and the success or the failure of the treatment depends, in a large measure, upon the manner in which they are observed.

The most important phases may, for convenience, be placed under separate heads and so considered. They are diet, rest, hygiene, environment, medicinal and other remedies.

The question of diet has been a perplexing one and two methods of procedure, more or less directly opposed in principle, are advocated. They are, briefly, the starvation or abstinence method and the method with feeding. I shall deal principally with the latter and follow more or less closely the method of Lenhartz, which has proven useful in my hands.

Each case demands more or less individual consideration, as one patient will require and assimilate more food than another.

A stomach with good motor power and a low degree of irritability will tolerate and take care of a more generous diet from the start than an irritable, sluggish organ in which food causes pain and distress. In this latter class one will be required to proceed more slowly in the transition to a more liberal diet.

The healing of an ulcer is hindered or prevented by the hyper-acidity which often exists, by mechanical stretching of the organ, and by the anemia which is usually associated and consequent upon the lowered nutrition.

Lenhartz opposes the main ideas of the abstinence method and argues that milk alone is not sufficient, that it aggravates the anemia and if the bulk is increased to a general caloric sufficiency, distension or stretching of the stomach results. In consequence highly albuminous foods are employed early in the treatment, to combat the hyperacidity, to build up the lowered nutrition and repair lost strength. Thus a distinct aid is given to the healing process.

Concentrated albuminous foods use up the hydrochloric acid physiologically and thus prevent its unfavorable influence on the healing of the ulcer.

The patient at rest in bed is put upon the diet directly, even if he has had a recent hemorrhage, it being argued that the albuminous food will bind the hydrochloric acid and prevent its evil effects on the recent thrombus.

In the latter case such early employment of concentrated albuminous food seems to me to be a hazardous proceeding and I prefer, if the hemorrhage has been very recent, to employ rectal feeding for a few days before beginning the usual diet.

The following table taken from Friedenwald and Ruhräh's text book indicates the character and the amount of food consumed each day and is arranged for fourteen days.

*Read at the Kalamazoo meeting of the Michigan State Medical Society, September 15 and 16, 1909.

From this it will be observed that the three food principles, proteins, carbohydrates, and fats are all utilized early and especially the proteins. The caloric equivalents of each day's rations are indicated and should be approximately correct for obvious reasons.

scraped beef is given. This I find is best tolerated if it has been turned quickly on a hot skillet, which sears the surface and renders it more palatable. Rice cooked with milk is given on the seventh day. Zwieback or cereals on the eighth, and on the tenth day raw ham and butter are

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Eggs	1 or 2	3	4	5	6	7	8	8	8	8	8	8	8	8
Sugar .....	..	..	20	20	30	50	40	40	50	50	50	50	50	50
Milk	200	300	400	500	600	700	800	900	1000	1000	1000	1000	1000	1000
Raw Beef .....	..	..	..	..	..	35	2x35	2x35	2x35	2x35	2x35	2x35	2x35	2x35
Cooked Rice, with Milk ...	..	..	..	..	..	..	100	100	200	200	300	300	300	300
Zwieback.....	..	..	..	..	..	..	..	20	40	40	60	60	80	100
Ham (raw) ...	..	..	..	..	..	..	..	..	..	50	50	50	50	50
Butter .....	..	..	..	..	..	..	..	..	..	20	40	40	40	40
Caloric	280	420	637	779	955	1135	1588	1721	2138	2478	2941	2941	3007	3073

As indicated in the table, fresh eggs constitute the main article of diet and are to be given in increasing quantities. From one to three eggs are given on the first day and one added each subsequent day until eight are taken daily. This number is maintained. The eggs are best prepared by beating them up and then adding milk.

On the third day sugar is added and this in gradually increasing amount, beginning at about 30 G.

For the first two or three days while the quantity of milk is small the whole amount for the day may be prepared and this kept iced. By combining the eggs and milk in this manner, patients are less liable to tire of the eggs than if given separately.

The patient is encouraged to take teaspoonful amounts of the egg and milk mixture and to take it slowly in order to obviate distension, which is regarded by Lenhartz as the most serious of all ordinary events that may hinder the healing process.

The milk is increased 100 c. c. daily up to one litre, over which amount it is not advisable to go. On the sixth day raw

added.

I have never placed raw ham on the dietary as I have felt that the average American would prefer ham a little later when it could be cooked. Lambert substitutes cooked, finely hashed chicken.

Strong broths are to be avoided on account of their extractives and spices, which aggravate the acidity.

Distension of the stomach is obviated by regulating the size of the portions of food, the amount of fluids ingested and by ice externally. All portions of solid food taken should be thoroughly masticated and this is best accomplished by feeding in teaspoonful amounts and not allowing the patient to feed himself during the first two weeks.

Feeding should be given hourly or at least every two hours as by so doing the acid is kept down by combining it with the albuminous food. It is my custom to continue the diet for the 14 days as indicated, after which, if the case has made good progress, the transition to a more liberal diet is begun. Well toasted bread, cream of wheat, partridge, tender broiled steak, baked potatoes, etc., are added. Judgment must be exercised in

making the change and a good guide is the presence or absence of occult blood in the stool. The motor power and state of irritability of the stomach are also good guides.

The application of the dietary is not universal; in fact, no one rule can be applied to all cases. There are many cases in which concentrated albuminous food is not well tolerated; in fact, it serves as a distinct irritant to the already hyperacid and ailing stomach. In such cases a milk and carbohydrate diet or even a short period of abstinence will often prove useful for a time until the stomach becomes tolerant of the albuminous food. A mechanical mixture is supposed to be formed between the carbohydrate and the acid. In the event of marked tendency to distension, one will be required to go slowly or feel his way, as it were, with carbohydrates. If the ulcer is located in or beyond the pylorus the treatment will take longer and often the aforementioned procedures will also prove of no use.

Absolute rest of mind and body is enjoined as soon as the treatment is begun and this can be accomplished only by keeping the patient in bed. Unless this feature is enforced the progress of the case will not prove satisfactory. Complete rest is more easily maintained by this method than by the abstinence method because the patient feels more satisfied.

Furthermore, in the abstinence method even when the stomach is empty, some peristalsis takes place and is only likely to be increased by the effects of unused hydrochloric acid, especially if in excess.

Many patients are very reluctant about giving up completely and going to bed. If they refuse, the physician should refuse further attention to the case. Each patient should be told that the treatment will require at least four weeks and that the greater part of this time must be

spent in bed, depending upon his progress.

If the case is an early one and the physical condition good, strict discipline in diet, rest and medicine may shorten the time somewhat. The environment and personal hygiene of the patient, each plays its part in the treatment and should receive due attention. The room in which the patient is confined should be light and airy and accessible to the sunlight. Optimism should pervade the household and it will certainly exert a kindly effect upon the progress of the case. Daily sponge baths, alcohol rubs, and careful attention to the hygiene of the mouth add to the patient's comfort.

The patient should be kept in bed until the pain and tenderness have entirely disappeared and occult blood has been absent from the stools for at least ten days or two weeks. One should always plan to be on the safe side. The patient is then permitted to sit up for one-half to one hour on the first day, depending upon his strength, and if no difficulty is experienced, the time is lengthened daily until after a few days he is able to sit up throughout the whole day. During the first two or three weeks out of bed loose garments are worn. The use of tight corsets, belts, and other constricting devices is interdicted for several months or more. The imponderable remedies, heat and cold, are very valuable aids. I have had no experience with heat but can vouch for the value of the ice bag.

In those cases which have not suffered recent hemorrhage, I have not considered it necessary to apply ice continuously but prefer to use it for an hour three or four times daily. The effect of the ice is decidedly sedative and a rapid improvement in the tenderness and pain often occurs under its use. I have seen sleep follow soon after its application. It lessens the peristaltic activity of the stomach, prevents distension, and without doubt exerts the same beneficial

effect on the hyperemia at the base of and surrounding the ulcer that it does on hyperemia and inflammation elsewhere.

Medicinally little is required except for special symptoms and occasionally for the regulation of the bowels. During the first three or four days the pain may require the use of morphia or codeia. The syrup of codeia may be useful at times in allaying irritability. For the vomiting, if it continues, ice, bismuth, silver nitrate or cocaine are available. As a rule, however, these symptoms subside early and little medication is required. If hēmatemesis occurs, recourse may be had to cracked ice, adrenalin, of which M 10-20 of a 1-1,000 solution are given three or four times daily; ergot, the nitrites or morphia. The latter, while it is useful in quieting the circulation and muscular activity, may increase the nausea present as it is reëxcreted into the stomach. Lavage with ice water or gelatin water is recommended.

Constipation often becomes a troublesome feature and I have found in some cases, particularly women, that grs. 2 or 3 of phenolphthalein act very satisfactorily.

I prefer, however, if evacuation does not occur spontaneously, to employ cool enemata and in most cases the result is very satisfactory. I have omitted the use of bismuth in a few cases and the result has been attained fully as quickly as with it and besides the constipating effect of the drug is dispensed with. In place of bismuth, magnesia may be tried and I have used the milk of magnesia with satisfaction. It resembles bismuth in its mechanical effect and has a slight aperient action.

Olive oil is a valuable adjunct to the treatment and should be given in tablespoonful amounts three times daily, one-half hour before eating. I prefer to begin

its use in the third week as the patient is less liable to sicken of it than when taking raw eggs earlier in the treatment. It decreases the gastric acidity when given before meals and as shown by Cowie and Munson (*Archives of Internal Medicine*, January, 1908) the beginning of the secretion of hydrochloric acid is delayed and the height of the secretion lowered. Its use in suitable cases is to be preferred to antacids because of its calorific value. Olive oil lessens the peristaltic activity of the stomach for the time being, which is another point in favor of its use.

When the patient is able to get about he should be required to rest from one to two hours after each meal and this observance should be maintained for some months or longer, depending upon the case. He should also be required to rest from eight to ten hours at night, to avoid straining or lifting heavy objects, and to guard against abdominal injuries. Strict instructions relative to diet and the ingestion of fluids should be given and excess in either should be carefully avoided. The use of acid and sour articles, also very hot or highly seasoned portions should be interdicted.

My conclusions agree very nearly with those of Lenhartz, which I shall quote.

1. Short duration of treatment.
2. Relief of pain by means of diet, ice, etc., except possibly during the first three or four days.
3. Vomiting ceased.
4. Number of recurrent hemorrhages are less than by other methods and as experience with the method increases the number becomes less.
5. Quick return of strength and working capacity.
6. The good effects are lasting.

MEDICAL PRACTICE IN BENGAL, INDIA*

A. L. KENNAN, M.D.,

May I preface my remarks by saying that I speak neither as a medical expert nor as one who, through extensive travel, knows much of India. A little country village, ninety miles west of Calcutta, has been my only place of observation and medical work has been only one phase of my effort there. I have frequently, in the midst of great diversity of disease conditions, had cause to lament the meagreness of my knowledge and skill and also that the multitude of my duties prevented my giving individual cases the attention and study they demanded. My work has mostly been done at a dispensary and the attendances have gradually grown from about three thousand annually to something over eight thousand last year.

I will make my remarks under two heads: The doctors of Bengal, and the commoner diseases.

The doctors of Bengal may be classed, perhaps not very accurately, under three divisions—the root and herb specialists, the Vedic mystics and the physicians educated according to modern western ideas.

The root and herb specialists are the most numerous. Some of them have an extensive knowledge of indigenous plants, medicinal and otherwise. They are quite as likely to make use of the "otherwise" as of the medicinal too, by the way. They also have a limited knowledge of other medicines. Of anatomy, physiology, pathology and other things that bulk so largely in western medicine they are both ignorant and to them in-

different. Many of them are quacks with stupendous secrets. They will promise to cure your leprosy, but you must pay in advance and keep up the treatment until you are cured. More of them however are honest, not unreasonably so of course, and try with some skill, considerable shrewdness, and a degree of success to do something to relieve disease. I have seen a powdered charcoal poultice or covering on an open wound that had been put on by one of these fellows. Of course the wood from which this charcoal is prepared is a carefully guarded secret known only to the profession. I have known such a specialist to give a strong lemonade and follow with soda bicarbonate. It is a sort of always obtainable seidlitz powder and acts as a mild laxative.

The Vedic mystics have quite extensive medical teachings that have been handed down in their half sacred books for centuries, perhaps thousands of years. There are a good many grains of good wheat too in the bushel of chaff of occultism and mysticism. Some of the men who practice according to this method are well educated—even university educated men. It is interesting and frequently highly amusing to see such men trying to read modern sanitary and medical ideas into the old, old books. Much of their therapeutics is mystic, mental therapeutics perhaps. Now and again they surprise us by actual knowledge ranged right up beside what is to us the veriest trash. As illustrative of their knowledge they will tip an opaque lens back into the posterior chamber and so relieve the blindness resulting from a

*Read before the Hillsdale County Medical Society, January 29, 1909.

cataract. This shows a pretty fair knowledge of the anatomy of the eye. I have never seen the operation performed, but report says that a small piece of chipped quartz is used to cut through the cornea. Through the opening so made a thorn is inserted and the lens pushed out of place. Though I have not seen the operation, I have several times seen the result. As no iridectomy is performed the pupil of the eye has a more natural appearance than after our common operation with iridectomy. In a fair number of cases a reasonably serviceable eye results. One objection to the operation is that the lens in the vitreous is practically a foreign substance and not rarely later sets up serious trouble. Usually, according to my reasoning, the lens is of a trifle greater specific gravity than the vitreous and when pushed out of place sinks back and down into the lower portion of the eye, but not infrequently it is of apparently the same specific gravity and tends to move about freely in the chamber. A little jar will then send it bobbing up and shut off the sight most inopportunist. It is quite possible in some of these cases to shake a man blind and then shake sight into him. I suggest that this may be the origin of the childrens' myth,

There *was* a man in our town and he was wondrous wise,
 He *jumped* into a bramble bush and scratched out both his eyes.
 But *when he saw* his eyes were out with all his might and main,
 He *jumped* into that bramble bush and scratched them in again.

Both of the above classes of medics know of many medicinal plants of which western medical men are not informed. Some of these would no doubt prove valuable. They try to keep the knowledge of these plants secret, but they are quite as likely to guard the perfectly inert plant with this secrecy so that investiga-

tion would have to be checked by extensive experimentation. One of these plant products acts as a nerve sedative and rightly used seems valuable. An overdose however seems to permanently impair the mind. I have known cases of this poisoning in which after some months in a semi-idiotic condition the patient (or victim perhaps it would be better to say), has died. They make considerable use of a variety of the strychnos—strychnos potatorum which is a common small tree of the jungles. The seeds and fruit are used medicinally. They carry a large amount of the poisonous principle, though I think not as much as the strychnos nux vomica from which we get our common tincture. An interesting thing in this connection is that a large billed but rather uncommon bird is reported to eat the fruit of this tree, and from this habit is called "kuchele khiaë" or strychnine eater. This fruit also on being rubbed about a vessel containing muddy water has the property which alum has of clearing the water.

Along with the knowledge which these medics undoubtedly have is a large amount of ignorance, superstition and religion. Of these perhaps the worst is ignorance. An herb man one time splinted a broken arm and I must acknowledge reduced the fracture and put splints on deftly, neatly and in a workmanlike manner. The unfortunate thing was that he shut off the circulation and not realizing what he had done gangrene resulted. I amputated just below the shoulder and, as this was my first serious operation, lay awake all night wondering if the ligatures were going to hold. They were rotten enough not only to cause insomnia, but to turn a surgeon's hair gray. Another patient was troubled with night blindness—a frequent affection—and the lotion the herb man gave was so severe that both eyes were destroyed. Another patient was

losing sensation in his hand because of incipient leprosy. An herb man gave him some herbs—for a consideration—and told him to hold his hand in the steam from the herbs and sensation would return. He did according to the full directions given, but having no sensation in the hand he wholly destroyed the vitality of most of the hand and coming to me with the gangrenous result eventually died of lockjaw. Another man had an eczema of the scrotum. An herb man put on a poultice and relieved him not only of the eczema but also of everything else in the neighborhood.

“A little knowledge is a dangerous thing,
Drink deep, or taste not the Pierean spring.”

There is a third class, and these are fewest in number who have been educated according to western ideas. This class is made up of English surgeons, civil and military; of missionaries, and of natives of the country who have received an education in the government medical colleges at Calcutta, Madras, Bombay, Cuttack, etc. The number of these while considerable, is pitifully almost laughably small when set over against the mass of the population of India. I am the only medical graduate in a territory containing perhaps 300,000 people. The law regarding medical practice, or at least the law that is enforced, is that one must not attach a degree or title to his name unless he has actually received it from a school that the government would recognize as efficient.

The Diseases of Bengal.—Most of the diseases common here in America are equally common there; the climate and prevalent sanitary conditions however do frequently modify them to a considerable extent. Contagious diseases would be supposed to be, and are extremely prevalent. The average native has no very definite idea of the means by which such diseases are spread. When he has a definite idea it is quite likely to be an erroneous one. No adequate means

of stopping the spread of such diseases has yet been adopted by the government. In dealing with segregation and indeed with disease generally, the government is continually blocked by the religious or social ideas of the people.

Measles, chicken-pox, whooping cough and influenza run the same course as here with the same secondary involvements. Their severity is rarely so marked as with us and complications and sequelae are less frequent. Small-pox toward the close of the cold season is often a scourge. It is not a specially remarkable thing to see a man with some or most of the scabs off going about among his fellows. One such case thrust his head into the door of a vehicle in which I was riding in the midst of a crowded bazaar. There is a great variation in the virulence of this disease, depending upon the patient and the type for the year. About five years ago the district was swept by it and rolled up the highest proportionate death rate for all India. Some of these people are fatalists and to use the colloquial expression believe that if “it is written in the forehead” it will come to pass, and it is useless to attempt to escape. Their fatalism does not always work, for panics in which every one runs away are not uncommon. The government provides vaccine lymph and public vaccinators who go about vaccinating and collecting a fee of six cents from each patient. This vaccination is compulsory. It is usually acceptable but many object and evade partly on account of the fee which is considerable in the country districts where a man’s wage may not be over four cents a day.

Tetanus is more common than with us. This is probably because most of the people go barefooted and hence are more liable to infection. Rabies is also relatively common. Dogs, jackals, cats and wolves in the order named are the usual sources of the infection. The bite of the

jackal is thought the worst. Perhaps this is because the mad jackal usually tries to bite the face. It may also be due to the type of the disease. Such animals bite while in a state bordering on frenzy, and not in the half apathetic or indifferent stage when a dog may bite. My own boy was bitten by a dog which died thirty-six hours later with typical symptoms of rabies. I sent him at once to a Pasteur institute at Kasauli, a thousand miles away from my home. This institute is sustained by the government to care for soldiers who have possibly been infected. It was at that time the only one in the Indian empire, though another has since been established in the Madras presidency.

There is little diphtheria, and so far as I know, no scarlet fever. Only a very few cases of croupous pneumonia came under my observation. I think that only once did I see a characteristic rusty sputum. Bronchial pneumonia is common and frequently complicates other diseases and ushers in the final end.

Though Europeans are prone to have typhoid in India, the disease is rare among the natives. For some reason they seem to be practically immune, though because of their unsanitary habits much more exposed to infection than the Europeans. It may be that their simple vegetarian diet leaves the bowel in better condition to resist the infection of the typhoid germ. It may be that they have an acquired racial immunity. Perhaps both are factors.

The sanitary conditions of Bengal are shocking. If an European should do as the natives do, he would not live six months. Take the matter of water—the usual mode of typhoid infection. Most of the natives in that section use water from large open tanks excavated at some point convenient to the village. These tanks are filled by the rains and by such surface water as finds its way in. The water of these tanks is used not only

for drinking purposes and cooking, but is also used for bathing and for laundry purposes. These two operations are carried on in the tank. The villagers are very cleanly in their personal habits. One can scarcely be persuaded to take anything, not even medicine, into the mouth before scouring the teeth in the morning, and the whole population of the village bathes (and scours the teeth it may be) and washes its clothes in this same tank. Here also the neat housewife brings the household utensils and cleanses them. There are no frosts, and the green scum that gathers on the surface and is pushed away so the man can get his water jar in is an heirloom, passed on from generation to generation. These tanks are sometimes cleaned out after draining off the water, and the sediment is one of the best fertilizers commonly obtainable in Bengal. The average country Jake objects to pure well water on the ground that it has no *taste*. The government is encouraging the digging of wells, and it is probable that when these come into more general use the water-borne diseases will be less prevalent.

Cholera is the one disease more than all the others that I dreaded. With the water supply such as I have indicated, the wonder is not that thousands die, but that any escape. Enough do die every year to throw the United States into spasms, if such things occurred here. In three weeks the City of Madras lost one thousand from cholera. One doctor had on his books the names of nearly two hundred cholera patients when he himself was stricken and died. When a pestilence like this strikes a city the dead are often merely dragged out and left to the jackals, dogs and vultures to devour. Rev. H. R. Murphy who succeeded me at Bhimpore had a rather unusual experience that still suggests the possibilities. A pilgrim, a Mahommedan,

was stricken with cholera and died in the village. His fellow religionists buried him as Mohammedans do about two feet down into terra firma. The jackals that night dug the body up and held a post-mortem. The next evening as Mr. Murphy sat at his evening meal, his attention was attracted by a fox terrier I had left with him which seemed to be greatly interested in something under the supper table. Investigation disclosed as the object of his interest a bone of the cholera victim of the preceding day. Such observation as I have made leads me to think that the cholera germ is short lived and probably easily killed. It is very possible that the green scum so offending us is inimical to it. I am also led to think that the cholera germ probably cannot get by the stomach, if the stomach juices are normal.

With plague I have personally had no experience. I have suspected two or three cases, but none of them was really typical and probably my suspicions were not well founded. For some reason, not explained, plague has never gained a continuing footing on our side of the Rupnarain river. There have been quite a number of sporadic cases, but nothing even approaching an epidemic. The serum treatment as a prophylactic is increasingly used, and more and more by the natives themselves. An unfortunate catastrophe gave it a bad name on its introduction, but this is gradually being lived down. Owing to some carelessness in a government laboratory, instead of the serum a culture of tetanus was used in the injection and some thirty persons died in quick succession from tetanus.

Venereal diseases are often met, and as many of them run a course not affected by the medicines given, we see them at their worst. A father with five children came to me one morning. The children, as I remember it all, had other signs of hereditary syphilis, but the re-

markable thing was that all five had tibias flattened from side to side and bowed anteriorly. They looked like a new variety of the "genus homo." The root and herb man often salivates these cases with mercury. I often ask a patient if he has "eaten smoke" which is the colloquial expression used to distinguish the mode of taking the mercury, i. e., inhalation of the fumes. One such case was so full of mercury that the slightest dose of potassium iodide would bring out all the symptoms of salivation.

Tuberculosis is prevalent and is on the increase. All classes are affected. What they gain by their open air life they lose by insufficient food and by sleeping without ventilation in the cold season and with the head covered at all times. The advantage the well-to-do man has in less exposure to cold and wet and in having better food, is more than counterbalanced by his lack of exercise and generally enervating life.

Muscular rheumatism and rheumatic fever occur; also, rheumatoid arthritis. The fact that most of these people are vegetarians does not, in my observation, make any difference. Bright's disease is common. There is a great deal of diabetes, especially among the well to do. These cases do badly as it is almost impossible to get them to use a proper diet.

Children suffer a great deal from diseases incident to insufficient or poor food. Alimentary troubles arising from eating indigestible matter, are also frequent. Nervous diseases of all sorts, hysteria, tabes, neuritis and the others are met. Ophthalmia is frequent and severe. One contagious case will bathe in a tank and the whole village will have sore eyes. Ophthalmia neonatorum causes an enormous amount of blindness. The mortality among such unfortunates is very great, on account of neglect. Some such infants are no doubt killed outright to get rid of caring for them.

Ulcers of the cornea are often met, due in part to the too exclusive rice diet of the people.

On account of the caste ideas and social customs I have done comparatively little gynecological and obstetric work. Only the abnormal obstetric cases come to me. I think in eight and one-half years I have only seen three normal cases. The average length of time my patients have been in labor when I am called is about four days. Complications due to the extreme youth of the mother are naturally much more frequent than with us. And conversely complications due to a first child after thirty are correspondingly rare.

Owing to the much less active life of the people fractures and dislocations are not numerous. The same can be said, though without the same reason, of malignant growths. Fatty and fibroid growths are often met. Abscesses in enormous numbers are present. They generally run quite a course before coming to me. I am a last resort. The people are very much afraid of the knife, though they usually stand pain well. I cannot say the same of blood loss. When anything is accomplished by means of surgery it is highly appreciated. As I had no hospital I had to confine myself to minor work, except in case of emergencies. The low, mud-walled, thatched-roofed, houses with walls smeared with cow dung and all the upper part of the room festooned with soot covered cobwebs prohibit surgery in the homes.

Appendicitis is extremely rare. A confident diagnosis was possible in only two cases that I saw. The reports from others in India are similar. I have jokingly said that a surgeon would be a fool to diagnose appendicitis in a man who was only getting four cents a day. The foolishness is not wholly on account of the impossibility of an adequate fee

The necessarily simpler diet and the immediate attention to the demands of nature of those whose habits are more free are also factors.

I never saw a case of hydrocephalus in Bengal. It has been suggested that the exposure to the sun's rays of the uncovered head increases the activity of the internal drainage of the brain and also by promoting sweating draws away the moisture of the brain.

But with all the rest and the multitude of skin diseases that I have not mentioned the doctor's work in Bengal is only touched upon until we mention malaria. Malarial infection brings seventy-five per cent of my patients to me. Plague and cholera and smallpox are more frightful, but by keeping everlastingly at it all over the province malaria destroys many fold more lives than all the others combined. Whole villages and sections are sometimes so stricken that the people all die or flee away. Pernicious anæmia and enlarged spleens are among the more noteworthy sequelæ. Almost the whole anterior abdominal cavity clear down to the pubis is not at all infrequently occupied by a massive spleen. Rarely the type temporarily prevalent is extremely pernicious and makes malaria almost as much to be dreaded as cholera or plague. Such a type at times begins in a large rice growing district called Burdwan, and is hence called Burdwan fever. I saw an algid case of this form in which the temperature dropped to 94°, which later recovered. An opinion is prevalent that Europeans and Americans are specially liable to fever in the tropics. Speaking from my experience I should say that they are even less so than the natives. We hear of the death of the foreigners, but the millions of natives who die are unknown and unnoted.

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JANUARY

Editorial

To wrest from nature the secrets which have perplexed the philosophers of all ages, to track to their sources the causes of disease, to correlate the vast stores of knowledge, that they may be quickly available for the prevention and cure of disease—these are our ambitions. To carefully observe the phenomena of life in all its phases, normal and perverted, to make perfect that most difficult of all arts; the art of observation, to call to aid the science of experimentation, to cultivate the reasoning faculty, so as to be able to know the true from the false—these are our methods. To prevent disease, to relieve suffering and to heal the sick—this is our work.—Osler.



Valediction. With this issue of the JOURNAL, the present editor lays down the work which he began four years ago. It has been a pleasant task, yet withal a difficult one. The amount of thought and labor incident upon preparing for the press fifty or more pages of reading matter, month in and month out, is perhaps greater than one who has not tried the task would think. Yet the agreeable associations which the work has brought and the interesting by-paths into which it has led, have been ample compensation for the hours of midnight oil, burned in the preparation of copy and the reading of proof.

The work was taken up at a propitious time, for the make-up of the JOURNAL, its scope and its policy had been well defined by the able editor who had preceded. It has been the constant aim of the present incumbent to carry out the work in the same spirit in which it was conceived. He has believed it to be the function of the

STATE JOURNAL to publish the best original articles obtainable from the pens of the Michigan profession; to confine the editorials largely to economic questions affecting our state membership and to explaining the policies and plans of the State Society, with now and then editorial comments upon items and events in the general field of medicine; to give the readers honest opinions of the new books which have appeared; to publish every scrap of county society news and personal news on which he could lay his hands; to afford a forum for correspondence, a place where any grievance, not purely personal, might be aired by any member; and to furnish abstracts of a few of the advances made in scientific medicine. It has been the constant aim never to descend to the methods of some of the JOURNAL'S contemporaries, for the sake of popularity, to include the medical joke, the vulgar story or the sarcastic and semi-witty article of the "smart writer." The result has been that the JOURNAL has been criticized as being "too straight laced," but we have been satisfied to accept the criticism, for we have believed that it is better so.

At times the work has been discouraging, but looking back on the past four years, your editor can see that good, great good, is being slowly but surely accomplished by our State Society and its affiliated local branches. The scientific and literary value of the average paper now sent in for publication is better than it was four years ago, and infinitely better than when the JOURNAL first appeared. A comparison of the articles of the past year with those published in 1903, will convince the most skeptical of this fact. Any improvement which the JOURNAL may show over the issues of seven years ago is due to the general improvement in knowledge and ability throughout the state, for a journal such as ours, depending entirely upon the local talent for its material, is but the index of the learning and the culture of the profession of the state.

The work of editing the JOURNAL during the past four years could not have been done had it not been for the faithful assistance of the Associate Editor and the loyal and enthusiastic support of the collaborators, all of whom retire with the editor, and to all of whom the editor here expresses his appreciation and gratitude.

At this writing the new editor has not been elected, but whoever he may be, may he have the same loyal support and the same courteous treatment from the officers, the Council and from the membership at large, which have made the past four years a delightful remembrance to your retiring editor!

BENJAMIN R. SCHENCK.



There is a humorous side to the medical editor's work, which occasionally compensates for the monotony of his plodding routine. Can you not conjure up a smile at a printer's error or a stenographer's blunder or (let us whisper it!) an author's oversight, which allows a ludicrous error to appear on the ink-lined plane? For example, what blame attaches to any one who allows a sheet to arrive at the editor's desk bearing the grave interrogation, "Is the opening of the abdominal wall never to be gamboled upon?" The orthographic mistake is not discernible when the sentence is spoken, but when written, one is inclined to answer that friendly germs may gambol there, but all others must keep off, else they shall have their wrists slapped.

The essayist who speaks familiarly of the Calmette reaction provokes no smile whatever, but he who peruses the essay cannot resist a grin to see it dressed up as the *Calumet* reaction. Loyalty to our state and the possession of copper shares would readily account for this transmogrification.

The printer who turned *toussil* into "*toe nail*," knew not the joy he caused when he made one of our professors recommend excision of the toe-nail for recurring at-

tacks of rheumatism. It reminds one of the country paper which in speaking of the annual Fourth of July parade mentioned the *battle scared veterans*. The next week the long-suffering editor's apology was made to read, "In our last issue a printer's error caused us to refer to the Grand Army veterans as *battle scared*. Of course we meant *bottle scared*."

It was a bold but fun-loving editor who allowed to pass the following sentence: "The eating of toad stools is a frequent cause of serous stools." It may be found in one of the recent books issued by a well-known publishing house, whose literary editor doubtless could not resist the temptation to brighten up an otherwise somber text.

When one aspires to rise from familiar nosology into the realms of technical terms and Greek derivatives, the pathway is strewn with pitfalls. It is easy to graduate from saying "pus-tube" to the grandiloquent "pyosalpinx"; surely it can be rendered phonetically, and our ex-President would defend him who persisted in writing it "pyosal-pinks." It looks like some kind of new and non-official remedy. Or if it refers to pelvic trouble, "pinks" is a new one to us, however familiar we are with "whites."

It was momentarily a puzzle when we read that something "had better be shammy." Our professional integrity revolted at the suggestion of any sham whatever, but the text soon led us to perceive that it was "chamois" the writer recommended. With this substitution we were willing to proceed, though it was somewhat astounding later on to read that we could pass the "electrode in the cervix up to the internal ass." It was hard to tell whether the author was trying to make an *ass* of *us* or an *ass* of *os*.

The writer who rehabilitates hemorrhoids as "hermorides" is bound to succeed, for he is inventive and resourceful; as also, he who advises "specticals." As for the ed-

itor, he must be lugubrious indeed who cannot extract joy from such occasional unwitting puns and naïve errors. Noah Webster might grieve, but we ourselves must laugh, else the tears would dim our *spectacles*.



The Ethics of Animal Experimentation. While there has not been so much pernicious activity on the part of the antivivisectionists in this region as in some of the Eastern States, we have all been aware of their efforts, and more than once have had reason for concern at the possibility of their securing the passage by some State legislature, or even by Congress, of unwise laws which would seriously cripple medical research. We can appreciate, therefore, the value of a series of "Defense of Research" pamphlets which are issued by the American Medical Association, and of which the fifth has just appeared. The first four, each written by a man of authoritative standing in his field of work, treated of the value of animal experimentation along certain lines; the first being entitled "Vaccination and its Relation to Animal Experimentation," Shamberg; the second, "Animal Experimentation and Tuberculosis," by Trudeau; the third, "The Role of Animal Experimentation in the Diagnosis of Disease," by Rosenau; and the fifth, "Animal Experimentation and Cancer," by Ewing. The presentation by such men as these of the importance to the world of animal experimentation in these very vital subjects should be sufficient answer to the antivivisectionists; but inasmuch as a certain portion of them, on sentimental, religious, or ethical grounds, attack our right to make use of the lower animals for such purpose, irrespective of the possible benefit to be obtained, the discussion of the ethics of the question from the philosophic point of view contained in the fifth pamphlet of the series forms a valuable supplement to the argument of the other four. This last contri-

bution is entitled "The Ethics of Animal Experimentation," and is by James R. Angell, Professor of Psychology at the University of Chicago.

Stating at the outset his question "Is man morally justified in causing animals pain, and, if so, under what conditions?" Professor Angell inquires first as to the sources of moral belief and principles. Of these he mentions three—the intuitive, resting supposedly in divine law implanted in individual consciousness, or revealed by inspiration; the traditional, resting on custom, law, or usage; and the scientific, justifying the principles by the happiness and social welfare following obedience to them. Religion and custom in this part of the world have in the main sanctioned the treatment of animals according to the unbridled wishes of man. The argument according to custom, however, proves nothing, and convinces nobody, while argument from the standpoint of religion is always futile, and plays no great part except where the Buddhist doctrine of transmigration of souls prevails. The main argument has been over the question whether animal experimentation has been justified by its results, and whether it is demoralizing to those who practice or witness it. Obviously, Professor Angell says, if it be granted that the experimental procedure is ever justified by its results, the basal ethical issue is closed. The problem which remains is simply that of determining the circumstances and conditions which warrant particular forms of the method.

From this point he proceeds to a very lucid discussion of the relation of science and scientific knowledge, to social welfare, and of the right of society to protect itself against disease at the expense of the lower animals. As to the brutalizing effect of animal experimentation, he says that even if all experimenters were hardened by their work into a disregard of animal pain, society might still pronounce the value of their results to outweigh this drawback. In the larger view which looks to the ultimate

welfare of society as a whole, such men are among its most valuable humanitarian members, whatever their personal attitude toward the animals with which they work.

Professor Angell's paper is brief, but very clear and fair, and is well worth reading, especially by anyone so unfortunate as to be obliged to argue the vivisection question. All of the pamphlets in the series are to be had from American Medical Association at very slight cost.

Book Notices

Practical Dietetics. By W. Gilman Thompson, Professor of Medicine in Cornell University Medical College. Fourth Edition; illustrated. Octavo; 928 pages. New York, D. Appleton and Company, 1909. Price, \$5.00 net.

For fourteen years this book has been recognized as an authentic treatise on a most important subject. As practitioners, we are liable to give less attention to dietetics than the subject deserves and it is safe to say that he who will make a careful study of a book like this will add greatly to his success in treatment.

Since the first edition appeared in 1895, there have been wonderful advances in the scientific aspects of the subject, for an immense amount of research has been carried out by the Agricultural Department, by the food commissioners of the various states and by college laboratories everywhere. Food analyses, calorimetry computations, and investigations of the dietetic habits of the various classes have added much to the real knowledge of the subject. Advantage has been taken by the author of all this work in revising his book, much of which has been rewritten. Seventy-five pages have been added to the text and 42 new illustrations incorporated.

The subject is divided into nine parts as follows: Foods and Food Preparations; Stimulants, Beverages and Condiments; Cooking; Special Conditions Influencing Foods; Food Digestion; Relation of Food to Special Diseases; Diseases which are caused by Dietetic errors; Administration of Food for the Sick; Diet in Disease; Rations and Dietaries. An appendix contains many practical recipes.

In Part VIII, on Diet in Disease, a careful dietary is given for each disease, thus supple-

menting information given in books on treatment.

As a book to systematically study and as a reference work, this volume is to be most highly recommended.

Essays Concerning the Influence of Visual Function, pathologic and physiologic, upon the health of patients. By George M. Gould, M.D. Volume VI. P. Blakiston's Son & Co., Philadelphia, 1909.

In 1903, Gould began the publication of a series of essays in which he has endeavored to confirm the theory that defects of vision are the common causes of a great variety of functional diseases. He has studied the lives of many men prominent in the literary world and has brought out much interesting data pointing to the conclusion that eye-strain was the cause of his subjects' ill health. In this volume he sets forth a study of the life of Dean Swift and incorporates a chapter by William Aslton Ellis entitled "The Pessimist-Added Testimony in Wagner's Case."

The remainder of the book is something of a review of the author's life work, various chapters giving the details of separate cases. These are written in Gould's well known, forceful style, which at times becomes satirical and is often controversial.

Gould says: "This forelying sixth volume of Biographic clinics is the last which I shall write. To "the gospel" I have given all the strength and money which I could spare, and of both the expenditure has been great. That is nothing, however, compared to the burden of hatred and abuse which has been heaped upon me by my medical colleagues. The truth of the effects of eye strain will not die, although its earliest discoverers cursed it, and unintentionally themselves also, for their folly in speaking too early. Hundreds of physicians have borne open witness, and these and thousands of patients who have been cured will also not allow the new light to be extinguished."

Tuberculosis: A Treatise by American Authors on Its Etiology, Pathology, Frequency, Semiology, Diagnosis, Prognosis, Prevention and Treatment. Edited by Arnold C. Klebs, M.D. With three colored plates and 243 illustrations in the text. 8vo. pp. xxix., 939. New York, D. Appleton and Company, 1909. Cloth, \$6.00.

This volume is a treasure. Every one of the

857 pages is teeming with interesting reading. The book is really a series of monographs, each written by a master in his particular subject. From the historical sketch by Osler to the last appendix, by Knopf, on "Methods of Prevention," every detail covering this vast subject is minutely considered.

The Etiology by Ravenel is concise and complete, and abounds in valuable illustrations. Hektoen has contributed a chapter on Pathology that everyone should read. Coleman's statistical reports on tuberculosis in the dark skinned races is interesting, as is also the chapter on tuberculosis among the insane.

Part III. is written conjointly by Von Pirquet and Minor. The latter has taken up the subject of signs, symptoms, physical examination and diagnosis in an entertaining manner, interspersing the ordinary description with case reports and quotations from other writers. The reproductions of radiographs forms a valuable part of this chapter. Special mention is due Lawrason Brown for the clear and full tabulation of the various tuberculins, the methods of administration, dosage, etc. It is a chapter of immense value. Methods of treatment, complications, preventive measures, climatology and health laws are all ably considered by competent authors. So vast in fact is the information and so well is every aspect treated, that a comprehensive and just review would be impossible in these few lines.

The Practice of Medicine. A Text-Book for Practitioners and Students, with Special Reference to Diagnosis and Treatment. By James Tyson, M.D., Professor of Medicine in the University of Pennsylvania. Fifth Edition; pages, 1438, 5 plates and 245 illustrations. Cloth, \$5.50, net. P. Blakiston's Son & Co., Philadelphia, 1909.

The first edition of this work appeared in 1896 and was extremely well received. At regular intervals new editions have been demanded and opportunity given for keeping the text abreast of the times. Additions have been made with each revision and it has grown into a book of large size. Nevertheless, the author has succeeded fairly well in keeping it within bounds, without abbreviating too much.

Some of the changes are found in the section on infectious diseases. The treatment of tuberculosis has been modernized. Opsonic therapy and the technic of blood cultures have received attention.

The subject of diseases of the stomach has been enlarged and a section on testing for occult blood by the late lamented Dr. J. Dutton Steele, added. Cammidge's pancreatic reaction has been inserted. Additions to diseases of the circulatory system are many and include an elaboration of the Adams-Stokes syndrome, and enlargement of the space devoted to pericarditis.

Tetany and exophthalmic goitre have been rewritten. Wasserman's reaction is found under Syphilis of the Nervous System, a portion of the work, by the way, deserving special commendation.

The index is good, an important feature.

We have used an earlier edition of this book for a number of years and welcome the new one. It will not prove disappointing in any way.

A Text-Book on the Principles and Practice of Surgery. By George Emerson Brewer, M.D., Professor of Clinical Surgery in the College of Physicians and Surgeons, New York. Octavo, 908 pages, 415 engravings and 14 full-page plates; Cloth, \$5.00 net; leather, \$6.00 net. Lea & Febiger, Philadelphia and New York, 1909.

To present a well proportioned exposition of modern surgery in a volume of less than a thousand pages requires an author to combine broad knowledge, good judgment in determining what is really important, and a concise way of stating it. Both as a skilful surgeon and as a teacher in one of the leading colleges, Professor Brewer knows his subject and how to present it. He frankly states, in the preface, that his first edition was uneven and not sufficiently complete, a fault readily corrected after having the entire book in print before him, instead of simply the manuscript, as at first. The interval spanned by the original edition was, moreover, noteworthy for the immense amount of productive investigation.

To represent the surgery of to-day in its full development, the author has revised every line of his work and incorporated new matter to the extent of two hundred pages, and he has correspondingly enriched the engravings and colored plates. It is interesting to note that the new process of color-photography direct from nature has been here employed for the first time in medical literature.

As the work deals with the principles as well as the practice of surgery, it is to be recommended as a guide, midway in size between the smaller manual and the larger system.

Vaccine and Serum Therapy. By Edwin H. Schorer, Assistant Professor of Parasitology and Hygiene, University of Missouri. Cloth, 131 pages; illustrated. C. V. Mosby Co. \$2.00.

This is a small, well printed volume covering in the main a general explanation and a practical consideration of the subject of vaccines and sera. The first three chapters cover the theories of immunity and the methods of estimating the opsonic index. The next two contain some interesting observations of the author on modifications of the Wright method and the report of cases. Chapter VII., on Vaccine Therapy, is not entirely clear in every respect. A little fuller discussion would have been better here. The chapter on Serum Therapy is divided into two parts;—the one covering antitoxic sera and the other antibacterial sera. It is prefaced by a discussion of the cause of untoward effects arising after antitoxin injections. This part could be rewritten with advantage, for it is neither to the point in general, nor correct in particulars, especially that part having to do with anaphylaxis.

For the student and general practitioner this little volume recommends itself, for it touches the salient features in Vaccine and Serum Therapy.

Treatment of the Diseases of Children. By Charles Gilmore Kerley, M.D., Professor of Diseases of Children, New York Polyclinic Medical School and Hospital, etc. Second Revised Edition. Octavo of 629 pages, illustrated. Philadelphia and London, W. B. Saunders Company, 1909. Cloth, \$5.00 net; half morocco, \$6.50 net.

It has been a long time since a more satisfactory book on therapeutics covering a special subject has come into our hands. The advance in recent years in treatment of children has been unusually rapid as compared to measures of therapy for adults. Studies in the bacteriology of milk and the regulation of milk supply have done much for prophylaxis, and firmly established principles of food preparation and administration that have been of inestimable value. Our greater experience with immune sera and vaccines is putting that subject on a firmer basis. One need only consider the remarkable results achieved in the last few years in the treatment of cerebrospinal fever in proof of this. The author fully and clearly considers every phase of treatment that concerns these advances, giving not alone data from his vast experience, but quoting freely from the work of others.

In the matter of feeding Kerley is very painstaking, explaining fully all dietary regulations as well as describing clearly methods of food preparation. He is not dogmatic in his principles, but rather leaves it to the reader to adopt a suitable plan in any case from his suggestions. The author is not a therapeutic nihilist as witness an elaborate table of drugs at the end of the book. However, he is conservative in the estimation of the value of drug treatment. The insertion of many of the prescriptions is quite unnecessary.

The volume is sufficiently illustrated, well printed and arranged, and quite free from errors. It would be a valuable acquisition for anyone interested in the treatment of diseases of children.

The Medical Complications, Accidents and Sequels of Typhoid Fever and the Other Exanthemata. By H. A. Hare, M.D., B.Sc., Professor of Therapeutics in the Jefferson Medical College and Physician to the Jefferson College Hospital, Philadelphia, and E. J. G. Beardsley, M.D., L.R.C.P., Philadelphia. With a special chapter on the Mental Disturbances Following Typhoid Fever, by F. X. Dercum, M.D., Professor of Nervous Diseases in the Jefferson Medical College. Second Edition, thoroughly revised and much enlarged. Octavo, 398 pages, with 26 engravings and 2 plates. Cloth, \$3.25, net. Lea & Febiger, Philadelphia and New York, 1909.

This is the second edition of an invaluable treatise on the complications, accidents, and sequelae of typhoid fever, variola, scarlet fever, measles, varicella, and rubella. It covers a field not found in the usual text or reference book and does so in a complete manner. The authors have been unusually free in their quotations of other writers, so that the volume is, to a great extent, a synopsis of monographs.

The attempt to supply illustrations is somewhat ludicrous. The only two good plates show gangrene of the skin after typhoid. True, it is an unusual complication, yet it hardly requires the publication of Stahl's pictures to impress the condition on a reader's imagination. There are several excellent charts which, when studied with a descriptive condition of the patients, would prove very instructive.

The chapter by Dercum on "Mental Disturbances following Typhoid Fever" is clear and concise, covering the author's experience with this complication.

More space might have been given to the "Other Exanthemata," especially to scarlet fever and variola. The latter disease presents so many

varieties and complications in its earlier stages, while the former such severe and remote sequelae that much seems omitted.

Issue might be taken with the authors on the title of the volume, but we will merely suggest that the plural of "Sequel" and "Exanthem" should have corresponding terminations.

The book is an excellent compilation, and as such merits the attention of the general profession.

A Text-Book of Obstetrics: Including Related Gynecologic Operations. By Barton Cooke Hirst, M.D., Professor of Obstetrics in the University of Pennsylvania. Sixth Revised Edition. Octavo of 992 pages, with 847 illustrations, 43 of them in colors. Philadelphia and London, W. B. Saunders Company, 1909. Cloth, \$5.00, net; half morocco, \$6.50, net.

The most extensive additions to this popular and meritorious text book have been made in the section on operations for the complications and consequences of child-bearing. It is the author's plea that all diseases of women must be considered in relation with parturition, as all are possible complications and many are consequences of that process. It follows, therefore, that the specialist in obstetrics must be a skilled gynecologist, and that works on obstetrics should contain much gynecological material.

Many minor additions have also been made and a number of excellent illustrations added. The work will remain one of the three best textbooks on obstetrics.

A Manual of Chemistry. A Guide to Lectures and Laboratory Work for Beginners in Chemistry. By W. Simon, Ph.D., M.D., Professor of Chemistry in the College of Physicians and Surgeons, Baltimore, and in the Baltimore College of Dental Surgery, and Daniel Base, Ph.D., Professor of Chemistry in the Maryland College of Pharmacy. New (9th) Edition, enlarged and thoroughly revised. Octavo, 716 pages, with 78 engravings and 9 colored plates, illustrating 64 of the most important chemical tests. Cloth, \$3.00, net. Lea & Febiger, Philadelphia and New York, 1909.

Many successive classes of medical students have used Simon's Chemistry, the demand having required eight editions, several of which have been largely reprinted.

The book is so familiar to our readers that it is only necessary to note the changes which have been made in the new edition. The section on crystallography has been amplified, the article on heat recast and the chapter on laws and theories of organic chemistry rewritten. The number of tests and experiments has also been

increased as well as the number of organic compounds new to medicine.

Progressive Medicine, Vol. IV., December, 1909. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M.D. Octava, 334 pages, with 35 engravings and a colored plate. Per annum, in four paper-bound volumes, containing over 1,200 pages, \$6.00, net; in cloth, \$9.00, net. Lea & Febiger, Publishers, Philadelphia and New York.

For practical usefulness *Progressive Medicine* is to be recommended, for not only is the reader served with the latest advances in every field of medicine, but he is also instructed by the excellent comments of the reviewers.

In this number, Edsall gives 60 pages on Diseases of the Digestive Tract; Bradford reviews Affections of the Kidney; Bloodgood, the advances in surgery; Belfield, genito-urinary surgery; and Landis writes on the new things in medicinal and non-medicinal therapeutics.

A medical community with a medical society is invariably progressive; but if it adds to this a good medical library, it adds to its progressive stability.

A hospital, a laboratory or a society is often the nucleus of interest about which a medical community gathers, but none of these can appeal so strongly to the largest number of the substantial element of the profession as does a medical library. One of the reasons for this is that a medical library is not possible in a community which is not sufficiently advanced to have a successful medical society. The hospital and the laboratory in a given community do not offer like opportunities to all, and the voice in their management and work comes from but a few.

A society is influenced by the indescribable "spirit of the hive" or by some dominant character, and its interests rise and fall, unless it be a great organization or has property interests or vested rights affecting its members. But a medical library in which all members have a right and which depends for its existence upon the interest of all, when once established and appreciated, becomes a center of common sympathy and the strongest of bonds for holding a medical organization in harmony.

Societies with such a library possess cohesive power. Men who are advanced enough to maintain a society will often rally about the interests

of a library when but passive in other things. They may have their differences in the hospital and in the society, but they will be found united for the library. Such a library becomes their pride. They know its worth. Their common interests crystallize about it. It diffuses through the whole society high ideals, a respect for that which is scholarly and worthy of reverence, and a love for the noble traditions of their profession.

As a library develops and grows it should add in the order named the following classes of literature: First, the current periodicals; second, the newer books; third, the completed sets of periodicals and reports; and fourth, the older works—the writings of the fathers—in which glimmer the beginnings of the art and science of medicine. Every medical community should have a library begun and developed on these lines.

It would be possible for every county society or other country organization, to which all physicians are eligible, to have its medical library. In sparsely settled counties the library supporting organization might be geographically larger. Physicians are learning the value of community of interests. There is no need of five doctors in a single village all having a complete set of the same reference work when none of them has some other thing which is of just as much importance. It would be the wiser if they pooled their interests; and then with the same amount of money, they could have five different things instead of one. The next step is short; it is the establishment of a central place where these things shall be available to all. When that step is taken the development of a library with its beneficent influence is begun. A little attention

keeps it alive, and the forces of nature feed it.

It only requires a word, here and there, to turn into it the library of a deceased physician, which otherwise would be dissipated and ultimately find its way to the junk shop. A little co-operation with a neighboring library exchanges duplicates for things needed. The American Association of Medical Librarians conducts a clearing house for just this purpose. Time is the all important factor in the growth of a library. A library which is kept sound is as sure to grow as an oak sapling. It is hard to stop it. One of the greatest libraries in this country, that of the College of Physicians of Philadelphia, organized when Philadelphia was a village, can be pointed to as a product of time. For nearly two centuries medical books have gravitated to it, until now it is a veritable treasure-house of medical literature. Time does it. The community which contemplates organizing a library is squandering its best capital in delay.

The important factor in the beginning of such an undertaking is that every available person shall have an interest and shall contribute something. A library in a small community to which everybody contributes two dollars a year is worth twice as much as one in which the same total sum is contributed by one or a few individuals. "Our Library" is the talisman of success.

It is to be hoped that the smaller cities and rural districts will establish libraries among which the spirit of co-operation may move, until the country is dotted with these storehouses of medical learning, and each community becomes a permanent custodian of the literature of medicine. *...By special permission, from Warbasse's "Medical Sociology," D. Appleton and Company.*

Department of Western Michigan

Comprising the Fifth and Eleventh Councilor Districts.

F. C. WARNSHUIS, GRAND RAPIDS,
CORRESPONDENT,

Assisted by

F. G. Sheffield, Hastings.
C. S. Cope, Ionia.
G. H. Thomas, Holland.
Donald Mac Intyre, Big Rapids.

H. L. Bower, Greenville.
V. A. Chapman, Muskegon.
G. G. Burns, Fremont.
D. S. Fleischauer, Reed City.

The annual meeting of the Kent County Medical Society was held on the evening of December 8, 1909, with a goodly number of its members in attendance.

The following officers were elected: President,

Richard R. Smith; vice-president, J. D. Brook, Grandville; secretary, J. D. Hastie; treasurer, A. V. Wenger; delegates, C. H. Johnston, W. J. DuBois, F. C. Warnshuis; alternates, A. M. Campbell, M. E. Roberts, J. D. Brook.

Kent County starts its eighth year with a determination to eclipse its past achievements.

The reports of the officers follows:

Secretary's Report.

Mr. President and Members of the Kent County Medical Society:

Gentlemen—I have the honor of submitting my annual report as secretary for the year ending this evening.

	1908.	1909.	Gain.
Number of members.....	105	126	21
New members	9	21	12
Members deceased	1	1	0
Removed from county and dropped	3	1	2
Net gain for the year.....	7	21	14
Total attendance	474	936	462
Average attendance	28	52	24
Papers read	17	20	3
Clinical cases reported or exhibited	37	49	12
Members entering into discussion of papers and cases...	96	126	30
Number of invited guests....	3	10	7
Membership dues collected..	\$397	\$418	\$21
Paid to treasurer.....	\$397	\$418	...
Dues unpaid .....	...	8	...
Mail matter handled.....	2,588	5,526	2,938
Inquiries for information answered	7	38	31

Bulletin.

Received from advertisers.....	\$210.50
Paid for printing and mailing.....	184.80
Saved over last year by bulletin plan.....	114.25

The above exhibit conveys to you numerically the work that has been accomplished by the society during the year ending this evening. Permit me to also submit a few comments.

The Bulletin has been mailed regularly throughout the year to every physician in the county whether he were a member or not of this society. Three hundred and ten copies have been mailed each issue.

Its advertising matter has defrayed its mailing and printing expense, and in addition it has provided us with two dinners and two smokers. In former years our printing bill averaged about a hundred dollars per year. This also has been saved to the society.

You are all conversant with its subject matter, and consequently it will not be necessary to consider it again this evening. The arranging for

copy, reading proof, soliciting advertisements and mailing requires about four days each month. While at present we cannot estimate the result of this missionary campaign, still we trust that the energy expended in thus conveying to every physician in the county a report of our society's work has resulted and will result in bringing in new members and in maintaining a continuance of interest among our members.

We are also pleased to note that the plan of our bulletin has been adopted by Wayne County and by Battle Creek.

There are on file in this office several letters from various councilors congratulating Kent County upon its bulletin.

I would recommend that its size be increased by four pages, and that during the coming year our minutes be published therein.

MEMBERSHIP.—Kent County now has a membership of one hundred and twenty six and is therefore entitled to three delegates to the State Society. In our last bulletin we published data concerning the number of physicians in Kent County and from this information we learn that there are eighty-four eligible men in this county who are not members. Of these eighty-four there are some thirty-five men who are homeopaths, eclectics and physio-medics, who, while eligible for membership, may not on account of their sectarian relationship desire to affiliate with us. This leaves then forty-nine men who should be members of this body. The giving of legal protection to every member ought to serve as a drawing card and cause some of these to come in, for the others I believe that if they cannot see the personal advantages the society would bring to them, that then this society doesn't want them as members. In other words, make our society so valuable and convey to the profession, through our bulletin, information as to what we are accomplishing, and thus cause the non-members to come to us in place of our going to them. Dead heads, or members who want only what the society can give them, and who are not willing to support our work by active endeavor on their part, are of little value to this body.

MILK COMMISSION.—Although the society endorses and certifies to a certain class of milk through its milk commission, still at no time during the past year has a report of its bacteriologist been filed with this office. This office has no record whatever of these certifications, and if

inquiry were made we would be unable to state what we were certifying to.

I would recommend that the bacteriologist be required to file his report in this office, and that the milk dealers be required to obtain their official certificate from this office, and that the secretary collect a stated fee from each dealer for such a certificate, and that our bacteriologist be paid on the first of each month by an order drawn on our treasury. I see no reason why we should not be able to obtain some financial return over and above our bacteriologist's fees for these certificates.

COMMITTEE ON PUBLIC HEALTH AND LEGISLATION.—There are few cities of our class whose daily papers are rendered so obnoxious as ours by the publication of the so-called "Quack Ads." To the intelligent observer every one of these contains false and impossible statements of cures that cannot be substantiated. If an interview with the publishers does not result in accomplishing the non-appearance of these advertisements, an appeal to the U. S. postal authorities will result in a fraud order being issued and the advertisements will then disappear like magic. I would recommend that this committee during the coming year devote all its energy to accomplish this.

PROGRAMME AND ATTENDANCE.—If the fifty per cent increase in attendance this year can be taken as a criterion, we must then conclude that our programme this year has been satisfactory, and that a continuance of a similar programme for this new year is indicated. From personal knowledge I can state that no society in the state has had such an illustrious group of invited essayists. "It is inspiring to be visited by distinguished men from other cities, of whom we have heard, or with whose work we are familiar, and to listen to their masterly addresses on live medical topics; but the enthusiasm thus created should not be misdirected, but stimulate to productiveness on our own part, rather than create the habit of seeking entertainment while we remain idle."

CONCLUSION.—Before turning over this office to my successor, I desire to thank every member for your expressed confidence and trust that you have bestowed in me. The success this society already won should, with harmony, enthusiasm and endeavor insure our continued growth and healthy development. Having achieved, let us not be satisfied with the work done, but may we strive toward better attainments in order that

we may continue to be the banner society of our state. I thank you.

F. C. WARSHUIS, *Sec'y.*

Report of the Committee on Public Health and Legislation.

We have had various matters under consideration, chiefly our society's relation to certain medical bills brought before the state legislature during its last session.

The three affairs which particularly excited our interest were: The Osteopathy bill, the Optometry bill and the Nurses' bill.

(1) The osteopaths desired the right to practice medicine—to prescribe as do physicians. Our position in the matter (and by the word "our," I mean not only the committee itself, but the Kent County Society as well) was that of full qualification prior to the possibility of securing a license. In other words, we believed that osteopaths should take the same examinations as physicians if they desired to practice as physicians. The osteopathic bill failed to become a law and hence the relationship between osteopathy and regular medicine remains in *statu quo*.

(2) The opticians desired a board of examiners to test the qualifications of members of their guild. It was our belief in this matter that opticians were not educated sufficiently to treat refractive ocular errors and that their idea as to a board of examiners ought to be discouraged, unless there should be incorporated in their bill an amendment providing for an ophthalmic examination by a regularly licensed physician and the presentation to the patient of a written report of this regularly licensed physician as to patient's eye condition, prior to the handling of any case by an optician. The legislature thought otherwise and passed the bill unamended.

(4) In the famous struggle of the nurses to secure recognition by the creation of a special state examining board to be composed of graduate nurses alone, five in number, our position was this, that the physicians who are so largely responsible for the education and practice of nurses should have considerable to do with the recognition and registration of their capabilities. We recommended the substitution of the bill of the State Board of Registration in Medicine for the proposed board of five nurses. This we thought desirable in that it not only provided physicians as board members, but prevented the institution of another board, thus tending to sim-

ply matters to this extent.

The legislature compromised by creating a board composed of three nurses of five years' graduate practice and two physicians, one of whom must be the secretary of the State Board of Health.

We further proposed that hospital training schools do not sell the services of undergraduate nurses; but keep them in the hospitals where, as their experience grows, they become more and more valuable to the patients treated there, and at the same time refrain from entering into competition with nurses already graduated.

To a suggestion sent our society by the Grand Rapids Board of Health that there be introduced into the State Legislature a bill rendering it compulsory on the part of physicians to report cases of venereal disease for registration with local boards of health, we recommended a painless and instantaneous demise by asphyxiation for the following reasons:

1. Its infringement upon the rights of patients.
2. The impossibility of its successful execution.

In conjunction with, and in addition to, these matters, one of the committee (Dr. DuBois) took the time and trouble to go to Lansing and lobby for the furtherance of our views and the chairman of the committee read a paper on "The Evils of Medical Quackery" before the class in Applied Christianity of the Fountain Street Baptist Church of this city.

All of which is respectfully submitted by your committeemen.

(Signed) S. C. GRAVES.

Report of the Social Committee.

Your Social Committee for the year 1909 begs to submit the following report:

During the year a dinner, a picnic and three smokers have been arranged for. Aside from these, invited guests have been entertained in smaller dinner parties by individual members of the Society. A dinner to Dr. Woods Hutchinson and two smokers have been paid for out of funds raised by the paid advertisements in the bulletin. The smoker to Dr. Babcock was paid for by those in attendance. In detail the entertainments have been as follows:

On February 25th, a dinner to Dr. Woods Hutchinson of New York City, who read a paper before the Society on "The Nerve Element in Rheumatism."

On April 14th, a smoker to Dr. C. G. Darling of Ann Arbor, who read a paper before the Society on "Suppurative Parotitis."

On October 27th a smoker in honor of Dr. R. H. Babcock of Chicago, who gave a paper on "Cardiac Neuroses."

On November 10th a smoker at the Pantlind in honor of Dr. Ravel of Madison, Wisconsin, who read a paper before the Society on "The Relation of Bovine Tuberculosis to Public Health."

The smokers and dinners were well attended.

On July 10th the annual picnic was given at Spring Lake. In point of attendance, it was not a success; in enjoyment, it was perhaps the best we have ever had. Dr. Schuyler C. Graves entertained the Society at his summer home there.

Respectfully submitted,

RICHARD R. SMITH, *Chairman.*

F. J. LEE.

Committee on Visiting the Sick.

As chairman of your sick committee, we wish to give the following report. We have been very fortunate during the past year to have but very little sickness in the immediate families of the doctors connected with the Kent County Medical Society, with the exception of last month.

The committee have made various visits upon these doctors, administrating to them our sympathy and best wishes in behalf of our Medical Society.

At present Dr. Corbus is at the hospital convalescing from an operation for appendicitis; Dr. Quick, who has been ill several weeks at his residence, is recovering; Dr. Neal, who lives at 86 S. Fuller St., is in bed most of the time suffering from sarcoma of the hip (so reported).

My suggestion to every doctor who feels inclined to call on these members and give to them a word of sympathy and good cheer, will be time well spent. My experience with the sick doctors has been that they appreciate a friendly call far more than any other person.

During the year Dr. Hutchinson has sustained the loss of his beloved wife. The committee called upon the bereaved family and extended our sympathy, in behalf of the Society. Contributed a floral wreath, drafted resolutions appropriate for the occasion, and they were read before this Society and approved. They were ordered placed on record and a copy of the same sent to the

family. A like visitation, resolutions and floral wreath, were presented to the bereaved family of Dr. G. K. Johnson.

(Signed) S. L. ROZEMA.
J. J. ROOKS.
C. A. MOON.

Report of the Councilor.

Officers and Members of the Kent County Medical Society.

My annual report at this time, will be very largely one of congratulation for the splendid work done by the Society during the past year. I wish particularly to mention the zeal shown by the President, Dr. Johnston, in not only being present at nearly all meetings but in opening them promptly. He has also set a pace that will be no easy matter for his successor to follow in the number of prominent speakers, who have been brought to us largely through his influence.

The work of the Secretary, Dr. Warnshuis, has been so efficient that it has been apparent to all and hardly requires any further commendation from me, further than to mention that the Bulletin, I believe, has been a greater source of promoting attendance and interest than any other one feature instituted during the year, and this originated with Dr. Warnshuis in its present form.

The current number is worth preserving for future reference and this brings me to one recommendation that a good receptacle should be provided for keeping the records of the Society, as they are likely to become valuable as archives of the Society. Another reason for congratulation is that we have begun attaining the membership of men affiliated only with sectarian medicine.

I have only a few recommendations, First—that of open meetings for County Societies, as recommended at the Atlantic City session of the American Medical Association on June 10th, 1909. These meetings should be devoted to hygiene and sanitary science and at least one meeting should be devoted to the discouraging of "quackery" and the distribution of "quack" remedies, incidentally calling the attention of the public press to the pernicious influence exerted by them in promoting "quackery" in all its forms.

As the Board of Trade are about to enter upon a campaign for pure drinking water for our city, why should we not hold one open meeting under the management of a joint committee, made up

of a number of our members and a committee from the Board of Trade? The meeting to be held at the Ryerson Library or some place large enough to accommodate a good sized audience, the public to be invited to take part in all discussions.

Another live topic that will be brought before the people of the city in the next election will be that of local option for Kent County and I believe it will become necessary for us individually or collectively to show our hand on this question. Study has shown that alcohol is a death-dealing agent and not the panacea that it was once supposed to be. Americans need stimulants less, perhaps, than any civilized people, for the climate and life with its changeableness, uncertainty and haste, are stimulants enough without adding artificial ones; the safer course is to abstain from alcoholic drinks. Alcohol prescriptions and narcotics of all kinds often start incurable habits.

I would further recommend that the fifth district hold an open meeting some time during the last of January or the first of February. I have already spoken to Dr. Hammond, professor of anatomy at the Western Reserve University of Cleveland, who would be glad to address us at that time.

Caroline B. Crane of Michigan, in her campaign, in the interest of public health movement in Kentucky, made a favorable impression, and I dare say, would be available for a talk here some time during the winter.

I have reserved to the last one minor recommendation which I believe would add greatly to the comfort of the Society, during its meetings, viz.: that the Board of Trade be requested to place the extension phone, which we now use, in a booth at the rear of our hall, as it certainly is very disturbing to have so much talking going on, while papers are being read.

The Academy of Medicine would probably be ready to join with us in this request.

(Signed) R. H. SPENCER.

President's Address.

Before the organization of the Kent County Medical Society, seven years ago, the medical profession of this city exerted but little collective influence upon the public life and activities of this community. Until then the medical societies were little more than medical clubs, whose membership was limited to physicians and at

whose meetings matters pertaining solely to the interests of the individual members were discussed. No concerted effort was made to solve the many obscure and perplexing problems pertaining to the social, economic and industrial life of the city. With the reorganization of the American Medical Association ten years ago, the attitude of the medical profession towards the public underwent a radical change, and the state and county societies in affiliation with it, were given new responsibilities. The Kent County Medical Society now realizes that it has many and important interests and obligations outside of the sickroom and hospital wards, and for the first time in the history of this city the medical profession, as such, has recognized its duties to the public in regard to preventive medicine and has exerted its powerful influence in some degree for the protection of the health and the prolongation of the lives of its citizens.

There is a widespread demand on the part of the people of the present day for information on all matters pertaining to health, and the medical profession now recognizes the fact that the physician is the natural teacher of the public in all things pertaining to hygiene, sanitation, morals and ethics. In times past no profession has contributed more to the advancement of the human race than has ours, and the public has at last awakened to the fact that the medical profession, as a whole, is the most altruistic, unselfish body of men in the world, who devote themselves to study, investigation, exposure and danger, to lengthen human life and to lessen morality, not for public applause, not for wealth, for nothing but this—to have within their hearts the proudest of all satisfactions—that because they have lived, the world has become a little better.

The day has passed when only those who have killed their fellows in battle are proclaimed heroes by the world. If, fifty years ago, the French people were asked who was the greatest hero that had ever lived, the answer, of course, would have been, "Napoleon," but when the question was asked two million adults in France by a newspaper a short time ago, the answer was, "A physician, Pasteur." And in an address given at a banquet tendered Robert Koch at the Waldorf-Astoria in New York a short time ago, Andrew Carnegie named as the heroes of civilization, Harvey, Pasteur, Jenner, Hunter and Koch. Benjamin Franklin once said that the "highest

worship of God is service to man," and this should be the motto of every physician.

Our society, however, has only made a beginning, and a very modest one, in performing its full duty to the public in matters pertaining to public health, such as hygiene, sanitation and preventable diseases, and it is to a few points connected with the latter that I wish to briefly call your attention this evening.

For many years typhoid fever has been endemic in Grand Rapids, and the death rate from this disease in the city is a reflection upon the intelligence of our citizens. People have come to recognize that typhoid is one of the preventable diseases, and that whenever a case of typhoid occurs, somebody has been at fault somewhere. For the first five years of the last decade the rate was 39 per 100,000 population, for the last five years 44 per 100,000. During the same period the rate in Chicago was $17\frac{1}{2}$ per 100,000, and of the 17 deaths there in 1908 Health Commissioner Evans told me that one-half were brought in from outside. Contrast these rates with those of London, where it is 14 per 100,000 population; Amsterdam, 14; Berlin, 8; Copenhagen, 8; Dresden, 6.5; Rotterdam, 7; and in our own country—Lawrence, Mass., 22; Albany, 22; Binghamton, New York, 11; Paterson, N. J., 8.5. All of which cities, I believe, use filtered water. It goes without saying that our public water supply *must* be filtered, and our sewer system extended to all parts of the city. Our Board of Health has long held the view that wells are largely responsible for the prevalence of typhoid. In order to obtain light upon this subject about 15 years ago I employed a man to go to the Health Office and obtain the names and residences of the 53 people who died from typhoid fever in the city the previous year, and then to ascertain, if possible, what water these 53 people drank. The results of his investigation were very unsatisfactory. It was impossible to get any trace whatever of some of them. But six cases were found which drank well water only, and he could get trace of only eight who drank Grand Rapids water exclusively. Twenty drank both; 10 died in the hospitals, and of these he could learn nothing whatever. Of the remaining nine he could get no trace at all. These figures, of course, are very inconclusive, but they certainly did not indicate that well water was responsible for any considerable number of the deaths. An interesting fact in this connection is that on account of the contaminated public water supply of Saginaw two-thirds

of the people drink well water. The death rate from typhoid there in 1907 was 27 per 100,000. Eighty per cent of the population of West Bay City also use well water, and the death rate there in 1907 from typhoid was 28 per 100,000. For the same year the rate in Grand Rapids was 34 per 100,000.

The proposition to filter the water of Grand River will come before our people at the coming spring election and this society can perform a valuable service by appointing a committee to go over the records of the Board of Health for the last 10 years and see if any definite conclusion on this question can be reached.

It is an interesting fact that filtration not only effects a reduction in the typhoid death rate, but also in the mortality from diarrheal diseases and in the general death rate as well. For instance, the death rate per 100,000 from *typhoid fever* in Albany for five years before filtration was 104, and for five years after filtration 26, a reduction of 75 per cent. For the same period before filtration the death rate from *diarrheal diseases* was 125 per 100,000; for five years after filtration, 53—a reduction of 57 per cent. For the same period before filtration the death rate in children under five years of age was 606; after filtration, 309—a reduction of 49 per cent. Some years ago Hazen called attention to the fact that after changing from an impure to a pure supply of water, the general death rate of certain communities fell by an amount considerably greater than that from typhoid fever alone, indicating either that certain other infectious diseases were reduced *more* than typhoid fever, or that the general health tone of the community had been improved; thus showing that typhoid fever is by no means the only disease transmitted by contaminated water.

Before the introduction of filtered water in Lawrence, Mass., the typhoid fever rate was 121 per 100,000 population; since then it has been 26. In Binghamton, N. Y., before filtration 49, after filtration 11; in Watertown, N. Y., before 28, after 19.

It is fair to assume therefore that the introduction of a filtered public water supply will diminish the death rate from typhoid in this city at least 75 per cent; and inasmuch as there have been 400 deaths from typhoid fever in the last ten years, assuming that the mortality will be the same in the future, a saving of 300 lives at least will thereby be affected in the next ten years.

However much we may dislike to measure human life in dollars, or to balance human suffering against coin of the realm, we cannot but admit the financial aspect of typhoid fever is an important matter in this community, and that it has a very practical bearing on the problem.

It has been estimated that the financial loss to a community for each death from typhoid fever due to the public water supply is from \$6,000 to \$10,000. So that on this basis typhoid fever will cost this community from \$2,000,000 to \$3,000,000 in the next ten years; a much larger sum than the proposed filtration plant will cost. To persuade our citizens to vote the necessary money to install the plant will take a good deal of hard work on the part of somebody; but it will pay, not only in the satisfaction of having a clean and healthful city to live in, not only in the joy of relieving suffering and saving lives, but it will pay also in hard cash.

I surely believe the medical profession ought to take a leading part in the discussion of such a momentous question pertaining to the public health.

No question is of such great interest or of such importance to our city as that of tuberculosis. In 1904 our death rate from this disease was 140 per 100,000 population; in 1908, 92, a decline of 30 per cent. During the same time the mortality in the entire state from tuberculosis declined less than *five* per cent. During this same time an active campaign against tuberculosis has been waged by the Board of Health and the Anti-Tuberculosis Society, and but few, if any, cities in the world are better equipped at the present time for combatting this disease. I wish to bring to your attention the city sanatorium and the clinic of the Anti-Tuberculosis Society, both of which are doing splendid work. The sphere of usefulness of each of these, however, would be very much extended were they to receive the more hearty and active support of the members of this society.

I think the remarkably low mortality from tuberculosis in Grand Rapids the last five years should be a matter of pride to every inhabitant, and especially to the members of the medical profession. According to the last United States census, the rate for Michigan cities, and for the rural parts of the State, was far below the corresponding figures for any other State in the Union, seeming to indicate that Michigan constitutes a great natural sanatorium for the cure of

this disease. The vital statistics of the twelfth census show that no other cities in the United States can *compare* with our lake group, and no other cities of equal size in the world can begin to approach them in their low death rate from tuberculosis. The State of Michigan, girdled with its zone of inland seas, *may* be the first great community in all the world to realize the sanatarian's prophetic vision of the final extermination of the Great White Plague.

Impurity is as ancient as history itself and has played a most important part in the decline and fall of many great and powerful nations. When the wife of John Stewart Mill was remonstrated with for telling her little daughter, who was in her teens, some of the great suffering of girls in lives of sin, she answered, "What other mother's girls suffer, mine can at least afford to know about." Mrs. Mill was a wise woman. She realized that this knowledge was due her daughter for two reasons. First that she needed it for her own protection, as ignorance much more than viciousness is the cause of the downfall of most boys and girls; and second, if the so-called social problem is ever going to be solved, it will be when normal thinking people are informed of the conditions under which this terrible evil thrives, and of its awful consequences, conditions which exist simply because people *are* ignorant of them. The aim of modern medical science is getting to be more and more not so much to cure as to prevent disease, and prophylaxis is now fully recognized to be of paramount importance. Parents, too, often entirely ignorant themselves, say little or nothing to their children about these subjects, leaving them dependent for their information upon foolish and vicious companions, and it is amazing to see what criminal and degrading ignorance upon these subjects exists among men and women otherwise well informed. Thousands upon thousands of men would remain pure, if they fully understood the responsibilities and dangers incurred by lives of impurity. No one's opinion on these matters is of as much value as the physician's. On account of the nature of his work he is peculiarly well qualified to speak, seeing, as he does, in his every day experience, the physical effects of impurity upon men and women; upon wives and children; its mental effects in widespread insanity; its moral effects in loss of character, and the breaking up of home life; its social effects in the ravages which vice

makes among a large class of humanity. It is just as much the duty of this society to impart correct ideas to the public on the prevention of venereal diseases as of any other kind, and sexual physiology and social hygiene should be taught by medical lecturers in the public schools, along with the evil effects of alcohol and tobacco. Temperance and hygiene are taught in the public schools of Quebec, and I doubt not in other cities, by the ordinary class teachers. In the training school for teachers, however, a physician gives the instruction in these subjects to all candidates for diplomas.

About a year ago the committee on Public Health and Legislation of this society was instructed to interview the school board on this matter and see if such teaching could not be instituted in the schools of this city, but so far as I know nothing was done in the matter.

This society has reason to be proud of the work of its Milk Commission, which was the twentieth to be organized in the United States. Since then 38 others have come into existence, affiliated with the American Association of Milk Commissions. Beginning with the sale of a few quarts of milk on July 1st, 1908, the sale has increased until the forty cows comprising Hall Brothers' herd cannot supply the demand and it is very desirable that another dairyman be induced to enter the field before next summer. The term "Certified Milk" has as yet no legal status in this State and another attempt must be made to pass a "Certified Milk" bill through the Legislature. The term "Certified Milk" was originated and copyrighted by Dr. Henry L. Colt, of Newark, N. J., in 1893. Since then the Secretary of the Essex County Commission has been in the habit of issuing to newly formed Milk Commissions the right to use the term. This consent, based upon the copyright, has had the effect of protecting the term in some communities, where it is now employed by regularly organized medical Milk Commissions.

It is a fact, however, that the difficulties of making prosecutions under the original copyright are such that it is impossible to prevent the fraudulent use of the term by reason of such registration. In Louisville, Ky., the matter was tried out in the courts and the fraudulent use of the term prevented by enforcing certain provisions in the Pure Food Law. The defendant appealed to the higher courts, and the decision was sustained in both cases. It was partly to relieve individual commissions from such contro-

versies in the local courts, and also to prevent the fraudulent use of the term in States where there is no prohibitory Pure Food Law, that the American Association of Medical Milk Commissions has urged their members to introduce "Certified Milk" bills in their State Legislatures. It is largely where Medical Milk Commissions have been organized and a campaign of education started to create a demand for such clinical milk, designed for infants' feeding, that there arises any danger of impure milk being put on the market under such a label. It is manifestly unfair therefore that after a commission, serving without pay, in the interests of the public, has created a feeling that "Certified Milk" means a safe, clean milk for infant feeding, that some unprincipled dairyman should be able to prey upon the ignorance of the public and supply an unsafe milk at a high price.

It is therefore very desirable and necessary that our State should follow the example of Kentucky, New York and New Jersey, and pass a bill defining and protecting the use of the term "Certified Milk." Such a bill should be passed in justice to physicians who are working unselfishly in the supervision of a limited supply of absolutely clean milk. It should be passed in the interests of such dairymen as have spent money in equipping a modern dairy plant, protecting them against unfair competition by the substitution of a dirty, cheap milk, fraudulently labeled "Certified." It should also be passed in the interests of the public, so that the lives of infants may not be endangered.

It works no injustice to anyone, since it gives all dairymen an opportunity to work towards this high standard, upon the attainment of which the Milk Commission will be only too glad to grant a certificate.

At the last meeting of our State Medical Society a special committee of five was appointed, of which the writer was made chairman, to cooperate with the Legislative Committee of the State Society in securing the passage of such a bill, and I think the Milk Commission of this society can render valuable assistance. In order to overcome the powerful commercial interests opposed to us we should enlist the co-operation of the State Board of Health, the State Dairyman's Association, the State Grange, the State Live Stock Commission, the State Pure Food Commission, as many county and local medical societies as possible, the boards of trade of the

larger cities in the State, the State Agricultural College, and the Department of Agriculture at Washington. With an active campaign prosecuted along these broad lines, I think there is no doubt but that we will succeed in our efforts.

In closing I wish to tender you my sincere thanks for the honor conferred upon me in electing me your president for the past year, and also beg leave to make a quotation from Osler, whom I love:

It may be that in the hurry and bustle of a busy life I have given offense to some—who can avoid it? Unwittingly I may have shot an arrow over the house and hurt a brother—if so, I am sorry, and I ask pardon. So far as I can read my heart I leave you in charity with all. I have striven with none, not for the reason given by Walter Savage Landor, because none was worth the strife, but because I have had a deep conviction of the hatefulness of strife, of its uselessness, of its disastrous effects, and a still deeper conviction of the blessings that come with unity, peace and concord. And I would give to each one of you, my brothers, you who hear me now—and to you who may elsewhere read my words—to you who do our greatest work, laboring incessantly for small rewards in towns and country places—to you the more favored ones who have special fields of work—to you teachers and professors and scientific workers—to one and all, throughout the length and breadth of the land—I give a single word as my parting commandment: "It is not hidden from Thee, neither is it far off; it is not in Heaven, that Thou shouldst say, Who shall go up for us to Heaven, and bring it unto us, that we may hear it, and do it? Neither is it beyond the sea, that Thou shouldst say, Who shall go over the sea for us and bring it unto us that we may hear it, and do it? But the word is very high unto Thee, in thy mouth and in thy heart, that thou mayest do it—'Charity,'" which I think is one of the most important lessons one learns by attending the meetings of the Kent County Medical Society.

Dr. R. R. Smith, the newly-elected president, has announced the following committees for the new year:

Public Health and Legislation—F. C. Warnshuis, Chairman; J. A. McColl, J. G. Huizinga, J. D. Brook, D. Emmett Welsh,

Library—A. H. Williams, Chairman; Eugene Boise, A. J. Baker.

Anti-Tuberculosis Committee—Thomas M. Koon, Chairman; Ralph Apled, J. M. De Kraker, W. E. Rowe, P. S. Miller.

Visiting Sick—Earl Bigham, Chairman; F. A. Rutherford, A. V. Wenger, M. E. Roberts, J. S. Edwards.

Social Committee—Ralph H. Spencer, Chairman; R. J. Hutchinson, A. Noordeweir, R. T. Urquhart.

Milk Commission—Collins H. Johnston, Chairman; G. L. McBride, A. M. Campbell, W. H. Veinboer, B. R. Corbus.

Grand Rapids Items.

Dr. R. J. Hutchinson announces his marriage to Miss Campbell. The ceremony was performed in Chicago last September.

Dr. E. C. Dudley, of Chicago, gave an interesting clinic at Butterworth Hospital on Wednesday afternoon, December 8th.

Dr. E. M. Dunham died suddenly December 10th, aged 61 years.

Miss Elizabeth G. Flaws, superintendent of Butterworth Hospital, was elected president of the newly created Board for Registration of Nurses. The board will commence issuing licenses on January 1st.

Dr. T. C. Irwin was called to Alliston, Canada, December 11th on account of the serious illness of his mother.

Dr. Burton R. Corbus has resumed practice again, having fully recovered from his operation for acute appendicitis.

Dr. Harrison J. Trask has written to his friends from Australia describing his trip. The doctor is making a trip around the world, and expects to devote some eighteen months on this tour. He is accompanied by Mrs. Trask.

Dr. Canfield, of Ann Arbor, appeared before the Academy of Medicine on December 15th. The doctor was entertained by a dinner at the Peninsular Club, given by Dr. Rogers.

Dr. Henry Hulst underwent an operation for the radical cure of a hernia at Butterworth Hospital on December 26th.

The new scarlet fever and diphtheria hospitals,

located on North Fuller street, were opened for the reception of patients last month. These new buildings are model contagious hospitals, and fitted with every convenience. The one for scarlet fever patients is built on the cottage plan of wood and cement, in the form of a cross, 86 by 96 feet, with 10 private rooms. It has 35 beds and, if required, five or ten more may be added. The diphtheria building has 30 beds with its four private rooms. Seven nurses are in charge, and as many more as may be necessary will be added as required. Throughout the hospital the modern system of round corners at floor and ceiling is followed, so there is no place for the accumulation of dust or infectious material. Each ward has its bathroom, besides bath for the nurses. Modern and scientific plumbing and ventilation are provided throughout. There is a public telephone beside each bed in the scarlet fever, diphtheria and tuberculosis departments, so each patient may converse with his relatives and friends in the city. There is also a private system of intercommunicating hospital telephones. Each bed is equipped with compressed air for spraying. The hospital is provided with aseptic metal furniture and has its own operating rooms and instruments. The services of surgeons are provided. It also has its own disinfecting plant and "release room," where a discharged patient may receive his disinfected clothing and leave the institution without coming in contact with other patients.

Ottawa.

The December meeting of the Ottawa County Medical Society was held December 14th at the office of Dr. H. Kremers, Holland, and was well attended. Dr. Bernard Bueker, of Graafschaf, was elected to membership and Dr. J. H. Gervers, formerly of Jennison, but now of Grand Rapids, was granted a transfer to the Kent County Medical Society.

Dr. R. J. Hutchinson, of Grand Rapids, read a paper on "Surgery of the Brain," which was in the nature of a report of interesting cases occurring in his practice, and not a resume of current literature on the subject. The most prominent point brought out, both in the paper and in the discussion, was the inability to give even a reasonably accurate diagnosis in cases involving brain injury, as the doctor showed from a review of his cases,

Those cases which were of a seemingly mild character, and offered a favorable prognosis, were either of a rapidly fatal nature or long drawn out convalescence, and cases which offered an almost hopeless prognosis were frequently the most rapid in recovering.

Another point brought out in the paper was the serious character of all cases affecting the base of the brain, while frontal injuries were more usually followed by recovery.

Dr. J. J. Mersen read a paper on "The Repair of the Perineum," and offered apologies for presenting the subject for the second time before the Ottawa County Society. An apology was unnecessary, however, for the doctor presented his subject in a most instructive and interesting manner.

The subject of repair of the perineum is very important, and always timely, and offers the surgeon the most gratifying results, for the amount of technical skill required, and chances taken, of any operation in the whole field of surgery.

The discussion following the paper was energetic in character.

Dr. J. G. Huizenga, of Zeeland, reported a case of Cesarean Section which was successful as the patient was delivered of a live child after failure in eight previous pregnancies. The operation in this case being of the short incision, and the uterus remaining within the abdominal cavity during delivery. The technic being as usual in such cases. The unusual features in this case were: First. Normal labor having begun three hours before the operation. Second. The operation being performed in the patient's house without the advantage of a well-equipped hospital. Third. The operation being performed by a man in general practice.

The epidemic of scarlet fever in Holland is abating and Health Officer Boot has raised the quarantine from the public schools, which have been closed for three weeks. Twenty cases quarantined was the height of the contagion, but they were all of a mild type with no fatalities. There are also several cases of measles of a mild type.

GEORGE H. THOMAS, Sec'y.

Mecosta.

At the annual meeting of the Mecosta County Society officers were chosen for next year as

follows: President, A. A. Spoor, Big Rapids; vice-president, B. L. Franklin, Millbrook; secretary-treasurer, Donald MacIntyre, Big Rapids.

D. MACINTYRE, Sec'y.

Newaygo.

At a meeting of the Newaygo County Medical Society, held in Fremont, the following officers were elected: President, Dr. G. G. Burns, Fremont; first vice-president, Dr. Chas. Whitehead, Rollison, Hesperia; third vice-president, Dr. W. E. Fowler, White Cloud; secretary and treasurer, Dr. Nicholas De Haas, Fremont.

NICHOLAS DE HAAS, Sec'y.

County Society News

Bay.

The annual meeting and election of officers of the Bay County Medical Society was held at the Wenonah Hotel Monday evening, December 13, 1909. The retiring president entertained the society at a sumptuous banquet at 6 p. m., after which the business meeting was held.

The following are the new officers: President, J. W. Hauxhurst; vice-president, R. C. Perkins; secretary, H. N. Bradley; treasurer, C. H. Baker; delegate, H. N. Bradley; alternate, John McLurg.

H. N. BRADLEY, Sec'y.

Chippewa.

The annual meeting of the Chippewa County Medical Society was held at the Park Hotel, with the president, Dr. J. J. Griffin, in the chair. The report of the secretary-treasurer showed that the society is in excellent condition.

The following officers were elected: President, C. J. Ennis, Sault Ste. Marie; vice-president, J. A. Cameron, Pickford; secretary-treasurer, J. V. Yale, Sault Ste. Marie; delegate to the Bay City meeting of the State Society, to be held in September, G. J. Dickinson, Sault Ste. Marie; alternate, E. H. Webster, Sault Ste. Marie.

Following the meeting a banquet was tendered the members by the retiring president.

JAMES GOSTANIAN, Sec'y.

Delta.

Concerning the meeting of the Delta County Medical Society, held December 9, 1909, the *Escanaba Morning Press* says:

"One of the most enjoyable banquets of the Delta County Medical Society ever held in this district was that conducted last night at the new Ludington hotel, when a number of prominent members of the profession from different points of the peninsula were present in addition to representatives of the different professions of Delta county. In addition to a banquet, which was both good and well served, the physicians provided a program which was intensely interesting throughout. Probably the most interesting address of the evening was that delivered by Dr. E. T. Abrams, of Dollar Bay. His address was filled with humor and yet had much on which the guests could think deeply. The address delivered by Dr. Abrams was easily a masterpiece and was without doubt one of the best of its kind ever delivered in this district. The address by Rev. Father Langan, representing the clergy of the county, was another which particularly attracted the notice of the physicians and their guests. Father Langan traced with his master hand the relation of the medical profession to the clergy and bringing the two so close together that the relation was in some instances identical. The address of Father Langan was unique in its kind and met with most hearty approval which was shown by hearty applause.

"Attorney A. H. Ryall represented the bar of the county. Dr. R. E. Hodson represented the dentists, John A. Allo the business men and J. P. Norton the press, and all of whom responded to short addresses.

"The officers elected were: Dr. William Elliott, president; Dr. A. J. Carlson, vice-president; Dr. W. A. Lemire, secretary; Dr. O. C. Breitenbach, treasurer; Dr. A. F. Snyder, delegate to state convention; Dr. A. L. Laing, alternate; Dr. E. T. Torrell, trustee for three years; Dr. W. A. Cotton, member of the Medico-Legal Committee."

W. A. LEMIRE, Sec'y.

Grand Traverse.

The regular meeting of the Grand Traverse County Medical Society was held December 7, 1909. The president, Dr. Mueller, was in the

chair, and Dr. Thurtell was present as a guest.

The president gave a short address, in which he detailed the purposes and benefits of the society. Drs. Lawton, Holliday and Wilhelm were appointed on the Program Committee.

Dr. Minor moved that the society adopt the plan of medical defense as set forth by the State Society, and Dr. J. B. Martin, of Traverse City, was elected as the society's representative on the Medico-Legal Committee.

Dr. Minor presented three interesting cases of anterior poliomyelitis. Papers were read by Dr. Holliday on "The Prophylaxis of Typhoid Fever," and by Dr. Martin on "The Complications of Typhoid Fever." In opening the discussion, Dr. Wilhelm reported a case in which the clinical symptoms of perforation appeared twice in the fourth week, with recovery of the patient without operation. The condition of the patient seemed so good that operation was delayed. Two or three other physicians saw the patient and all agreed on the diagnosis of perforation.

The Grand Traverse County Medical Society program for the year is as follows:

January—Surgery. Surgical Emergencies, Dr. Garner; Surgical Treatment of the Thyroid, Dr. Purdum.

February—Psychotherapeutics, Dr. J. D. Munson.

March—Infectious Fevers. Measles, Dr. Sarah Chase; Scarlet Fever, Dr. Lawton; Diphtheria, Dr. Wilhelm; Complications, Dr. Holdsworth.

April—Syphilis. Etiology, Dr. Wells; Symptoms and Treatment, Dr. Moon; Para-syphilitic Diseases, Dr. Johnson.

May—Miscellaneous. Hydrotherapeutics, Dr. Kelley; Common Complications of Labor, Dr. Shilliday; Infantile Enteritis, Dr. Bunce; Menstrual Disturbances, Dr. Fenton.

June—Miscellaneous. Homeopathic Materia Medica, Dr. Bartlett; Medical Gynecology, Dr. Clark; Acute Articular Rheumatism, Dr. Brownson.

July—Miscellaneous. Arterio-sclerosis. Dr. Mueller; Radiotherapy, Dr. Minor.

August—Miscellaneous. Trachoma, Dr. James Gauntlett; Appendicitis, Dr. Branch; Lobar Pneumonia, Dr. Shank.

September—Tuberculosis. Prophylaxis, Dr. Rowley; Early Diagnosis, Dr. Purdum; Bacteri-

ology, Dr. Wells. A special effort will be made to get some outside physician to address the society.

October—Diabetes Mellitus. Diet, Dr. Wilhelm; Advanced Treatment, Dr. Johnson.

November—Election of officers.

All meetings will be held in Dr. Wilhelm's office unless otherwise stated.

R. E. WELLS, Sec'y.

Jackson.

The ninth annual meeting of the Jackson County Medical Society was held at the Y. M. C. A. rooms December 2, 1909, and according to the usual order of business the following officers were elected:

President, Joseph L. Kugler, Jackson; vice-president, Dr. Peter Hyndman, Jackson; secretary, Dr. George E. Winter, Jackson; treasurer, Dr. A. J. Roberts, Jackson; delegate to the State meeting, Dr. E. N. Palmer, Brooklyn.

Following some committee reports a very able and interesting paper was read by Dr. Reuben Peterson, of Ann Arbor, on "Relations of the General Practitioners to Obstetrical Surgery."

Dr. Smithies, of Ann Arbor, also read a very interesting paper on "Treatment of Pulmonary Infections by Kuhn's Mask (Passive Hyperemia)," with demonstraitons which were heartily enjoyed by all members present.

The ninth annual banquet was held at the Otsego Hotel at 8 o'clock, at which a fine repast was served, followed by a program consisting of some splendid oratory and vocal selections.

G. E. WINTER, Sec'y.

Kalamazoo Academy.

The annual meeting of the Kalamazoo Academy of Medicine was held on December 14th, at which meeting Dr. G. F. Inch was elected president; Dr. J. B. Jackson, of Kalamazoo, first vice-president; Dr. L. E. Clark, second vice-president; Dr. G. F. Young, of South Haven, third vice-president; Dr. C. E. Boys, of Kalamazoo, secretary and treasurer; Dr. Dan Eaton, of Kalamazoo, and Dr. David Levy, of Kalamazoo, were elected to the Board of Censors. Delegates to State Medical Society, Dr. L. G. Rhodes, of South Haven, and Dr. A. S. Youngs, of Kalamazoo;

zoo; alternates, Dr. E. P. Wilbur, of Kalamazoo, and Dr. L. F. Ladd, of Martin.

Dr. Rudolph Holmes, of Chicago, read a paper on Criminal Abortion; Dr. Frank Billings a paper on the Remote and Local Effect of Chronic Focal Infection, and Dr. F. A. Beley, of Chicago, a paper on Fracture of the Skull. There were about 75 present and in the evening a banquet was held.

C. E. BOYS, Sec'y.

Marquette—Alger.

The annual meeting of the Marquette-Alger Society was held at the Negaunee Hospital on December 15, 1909. The meeting was well attended. President Picotte read a presidential address in which he reported two interesting cases of "Accidental Detachment of Normally Implanted Placenta." In both cases the physician was called late and in spite of all measures employed to relieve, both patients died.

Clinical cases were presented by the Negaunee physicians.

Application for membership was made by Dr. Florentine, of Kenton, which was referred to the Board of Directors.

The following officers were elected for the ensuing year: C. F. Moll, Kenton, president; A. W. Hornbogen, Marquette, vice-president; H. J. Hornbogen, Marquette, secretary-treasurer.

At the November meeting the society endorsed the Medical Defense Plan of the State Society, by voting unanimously to avail itself of the benefits to be derived therefrom.

The membership of the M. & A. Society, with but one or two exceptions, includes every practicing physician in the two counties.

H. J. HORNBOKEN, Sec'y.

Oakland.

At the annual meeting of the Oakland County Society the following amendment to the constitution was adopted:

To Chapter 1, Sec. 1 of the By-Laws add: "Membership in the society shall be forfeited by anyone who continues to engage in so-called lodge practice after January 1, 1910. By the term lodge practice is understood the rendering of professional services to the members of lodges, orders or societies on the plan of a

definite fee for an indefinite amount of service, or for such fees as are less than the conventional fees established by usage in any particular locality."

J. T. BIRD, Sec'y.

Sanilac.

The eighth annual meeting of the Sanilac County Medical Society was held at the court house in Sandusky, December 19, 1909.

The features of the program were the talks given by Drs. W. E. Blodgett on "Diagnosis and Treatment of Non-Tubercular Joint Diseases," and J. E. Gleason on "Arthritis of Tubercular Origin," giving technic for removal of tonsil in capsule. The talk given by the latter was demonstrated by an operation performed upon a patient, and created considerable interest among the members of the association who were present.

After the talks by the two Detroit physicians occurred the election of officers, which resulted as follows: President, G. S. Tweedie, Sandusky; vice-president, J. E. Campbell, Brown City; secretary-treasurer, J. W. Scott, Sandusky; delegate to state convention at Bay City, C. G. Robertson, Sandusky; alternate, R. Smith, Carsonville; member of the Medico-Legal Committee, D. D. McNaughton, Argyle.

J. W. SCOTT, Sec'y.

Shiawassee.

At the annual meeting of the Shiawassee County Medical Society, Dr. Walter T. Parker, of Corunna, was chosen president, and Dr. Harold A. Hume, of Owosso, secretary-treasurer.

A. C. MAHONEY, Sec'y.

St. Clair.

The annual election of the officers of the St. Clair County Medical Society was held Thursday evening, December 16, 1909, and the following were elected: President, Dr. S. K. Smith, Port Huron; vice-president, Dr. Alex Thomson, Adair. No secretary was elected, the present incumbent holding over until his successor is elected.

R. K. WHEELER, Sec'y.

St. Joseph.

On November 30th the St. Joseph County Medical Society met at Sturgis, under the presidency of Dr. Clemens. In the absence of the secretary, Dr. J. R. Williams was chosen secretary pro tem.

Dr. W. H. Haughey, of Battle Creek, councilor for the third district, was present and gave an excellent talk upon Medical Defense. The plan of the State Society was adopted for our County Society.

A motion was made and carried that the president appoint a member from each town in the county upon a committee to meet with the various school boards in conferences regarding the care of the eyes and ears of school children. The members of this committee will be appointed later.

On motion of Dr. Runyan, Dr. Wilfrid Haughey, of Battle Creek, was made the choice of this society for secretary of the Michigan State Medical Society.

Dr. Robinson presented the application of Dr. Fred Wade for active membership, which application was referred to the proper committee.

J. R. WILLIAMS, Sec'y pro tem.

News

On December 18th Dr. Carl G. Huber, of Ann Arbor, delivered one of the Harvey Society lectures in the New York Academy of Medicine, his subject being "Renal Structure."

Work in an American university has been recognized substantially abroad in the recent award to Dr. Clemens von Pirquet, Johns Hopkins, of the Goldberger prize of 2,000 crowns by the Imperial and Royal Society of Physicians of Vienna, for his discovery of certain phases of immunity and skin reaction in the diagnosis of infantile tuberculous disease.

Hospital Tag Day in St. Louis, November 27, is said to have netted more than \$30,000 for the hospitals of the city.

The first tuberculosis preventorium for children in this country has been established at Lakewood, N. J., through the generosity of

Nathan Straus. The institution not only treats children, but also furnishes them with an industrial education suitable to their individual needs.

The Tennessee Medical College, Knoxville, lately known as the Medical Department of the Lincoln Memorial University, is said to be in the hands of a receiver, due to action taken by creditors of the institution.

Dr. P. M. Hickey, Detroit, has been very ill with quinsy, complicated by metastatic infection in the shoulder joint, but is now on the road to recovery.

Dr. Carl S. Oakman, Detroit, has withdrawn from the active practice of medicine, to become associated with the Ray Chemical Company of Detroit.

Drs. C. B. Burr, of Flint, and C. W. Hitchcock, of Detroit, have returned from abroad, where they attended neurologic and psychiatric clinics, chiefly in Munich.

Dr. Eugene Smith, Detroit, has returned from a trip abroad.

Drs. W. F. Metcalf, C. G. Jennings, H. E. Safford and W. H. Hutchings have recently been on a journey to the east, in company with a local architect, to inspect hospitals, preparatory to drawing plans for the new Detroit General Hospital.

The New York Academy of Medicine is discussing the project of building a new \$700,000 structure, with library space for 225,000 volumes. Their present quarters are becoming inadequate, on account of the increased membership and rapid growth of the library.

The next course of lectures on the Herter Foundation in Johns Hopkins Medical School will be given October 5, 6, 7, 1910, by Dr. Hans Chiari, professor of pathologic anatomy in the University of Strassburg. His subjects will be: 1. "Significance of the Amnion in the Origin of Human Monstrosities." 2. "Necrosis of the Pancreas." 3. Spondylolithesis.

Nearly \$4,000 in cash prizes have just been awarded to French investigators in medical science by the Academy of Sciences.

Columbia University has received \$1,500,000 as a bequest from the late George Crocker, to be devoted to the prosecution of researches as to the cause, prevention and cure of cancer.

The Nobel prize for medical research was conferred this year on Theodor Kocher, of Berne, Switzerland, chiefly because of his contributions to the knowledge of the pathology and surgery of the thyroid gland.

A case of leprosy has been reported in Calumet. The man is a Finn, and the diagnosis has been confirmed by Dr. A. S. Warthin, of Ann Arbor.

Dr. William A. Stone has resigned as assistant superintendent of the Michigan State Hospital at Kalamazoo, and will be succeeded by Dr. Herman Ostrander.

Dr. A. S. Warthin, of Ann Arbor, gave a public lecture in Detroit on November 19th, on the subject of Eugenics.

Dr. J. Earl McIntyre, recently an interne at Harper Hospital in Detroit, has located in Jackson, his home city.

Dr. C. H. Brucker, the newly-elected president of the Ingham County Medical Society, has announced the following committees: Program for bi-monthly meetings, Dr. L. W. Toles, Dr. Freeland, of Mason, and Dr. Seager, of Leslie; committee for clinical club, Dr. M. L. Holm, Dr. G. M. Dunning and Dr. Clara M. Davis; press committee, Dr. Samuel Osborn, Dr. Bret Nottingham and Dr. C. V. Russell; committee on public health, Dr. J. F. Campbell, Dr. Anna L. Ballard and Dr. F. J. Drolette; committee on legislation, Dr. Charles J. Jenkins, Dr. R. E. Miller and Dr. J. G. Rulison; executive committee, Dr. Bruegal, Dr. Wade of Laingsburg, and Dr. R. E. Miller.

The Detroit Society of Neurology and Psychiatry held their regular meeting Thursday, December 2d. The meeting was followed by a dinner at the Hotel Ste. Claire. The program was as follows: Report of case, gunshot wound of head, by A. W. Ives, M. D. Papers: (a) "The Influence of the Momentum Upon the Adding Single Figures," by Emil Amberg, M. D.; (b) "Psychoses Occurring in Acute Infectious Diseases" (illustrated with lantern slides), by A. M. Barrett, M. D., of Ann Arbor.

A special conference on Medical Education and Medical Legislation will be held at the Congress Hotel, formerly the Auditorium Annex, Chicago, on February 28, March 1 and 2, 1910.

The number of students in the medical department of the University is 277, against 361 last year.

Physicians of Owosso have organized the Owosso City Physicians' Association. Dr. Phippen is president, Dr. Gooding vice-president, and Dr. A. M. Hume secretary-treasurer.

Dr. Jasper N. Grahek, Calumet, who was recently elected supreme physician of the National Croatian Society, will make his headquarters in Pittsburg. He will be succeeded by Dr. H. H. Ruonavaara as supreme physician of the United Croatian-Slavonian Societies of the Upper Peninsula.

The annual meeting of the Michigan State Association for the Prevention and Relief of Tuberculosis was held at Ann Arbor Saturday, December 18th, in the Sarah Caswell Angell Hall.

The new "Detroit Tuberculosis Sanitarium," as it is to be called, has been incorporated. The trustees are as follows: Mrs. Charles F. Hammond, Mrs. E. D. Stair, Mrs. B. C. Whitney, Mrs. James Arthur, Miss Doyle, Henry Stephens, Raphael Herman and Austin E. Wing. The trustees in office before were: Mrs. Philip H. McMillan, Mrs. W. A. McGraw, Miss Dyar, Dr. C. G. Jennings, Dr. Burt R. Shurly, Frank B. Leland, Dr. Henry J. Hartz, Dr. H. M. Rich and Dr. E. S. Sherrill.

Marriages

Melvin John Rowe, M. D., Kalamazoo, to Miss Derthick, of Ionia, November 25.

Alfred E. Graham, M. D., of Detroit, to Miss Maybelle E. Cowan, on November 24.

Deaths

Dr. C. N. Lake, of Detroit, died December 27th from a sudden attack of pneumonia. Dr. Lake had been a practicing physician in Detroit for 12 years. He was unmarried, his sole near living relative being Mrs. G. D. Wandless, of Detroit.

Dr. Lake was a graduate of Harvard Medical School in 1895, and of the University of Michigan. Interment was in Highland cemetery, Ypsilanti, the doctor's native town.

Dr. Charles Quick died at his residence, in Grand Rapids, December 26, 1909. He was born at Lowell, Mich., July 23, 1859, where he spent the greater part of his life. He was bookkeeper for King, Quick & King until 1890, when he bought the Lowell Journal, which he edited successfully for 11 years. He was appointed Postmaster at Lowell in 1899 and again in 1904. He was a member of several societies and lodges, and united with the Methodist Episcopal Church in 1895. In 1907 he came to Grand Rapids and transferred his church membership to the Division Street Methodist Church, where he was appointed a member of the official board. In 1902 Charles Quick began the study of medicine in the Grand Rapids Medical College and received his degree four years later. Dr. Quick located in Grand Rapids the next year and practised his chosen profession successfully, making many warm friends, both within and without medical circles.

Bandaging the Eyes After General Anesthesia.—Jackson says that if at the time the surgeon says "no more ether" you will carefully bandage the eyes, with small pieces of gauze over them to protect them (if irritated from ether, saturate pieces of boric acid solution) and allow the bandage to remain until the patient asks for it to be removed, you will find it very beneficial. How it acts is not understood.

During my service as surgical interne at the Philadelphia Hospital all of the cases under my care were subjected to this simple procedure. The summary of the results is as follows:

1. In all cases patients rested more quietly until consciousness was restored.
2. Vomiting only occurred in very few cases, and if it occurred the patient usually spat up a small amount of mucus and was not nauseated further.
3. Post operative vomiting in its truest sense was not encountered.

These few remarks and results are offered to those who are in a position to study the effects more fully with the hope of preventing this most disagreeable sensation as well as detrimental complication.—*Indianapolis Medical Journal*.

Progress of Medical Science

MEDICINE.

Conducted by

T. B. COOLEY, M. D.

Exudative Diathesis, Scrofula and Tuberculosis.—CZERNY (Breslau) says that in recent years the one-sided feeding of many children with milk and eggs has made the exudative diathesis especially prominent. Such anomalies of constitution are inborn, and are likely to manifest themselves as soon as the infant has used up the reserve supplies which it had at birth, and which have carried it through the first period of rapid growth. At this time, normally toward the end of the first year, it needs a nourishment which shall supply every requisite form of structural material for the body. Under abnormal conditions, such as the exudative diathesis, disturbances of nutrition occur earlier, when the congenital reserve is too soon used up, and proper therapy does not supply the defect. These nutritional disturbances give rise to the disease symptoms. Infectious processes as well as metabolic troubles may act as exciting causes. CZERNY notes that this can be shown experimentally to be true of vaccination and often the use of tuberculin has a similar effect. Among the infectious diseases measles and florid tuberculosis are especially likely to bring out the symptoms of the exudative diathesis. The latter combination produces the disease picture formerly known as scrofula. By proper feeding the exudative symptoms are made to disappear, while the tuberculosis remains, demonstrating the fallacy of the former conception of scrofula as a purely tuberculous process.

The exudative diathesis is not identical with the urate-diathesis, for it is observed on purin-free diet, and diminishes instead of increasing with age. It is a remarkably wide-spread condition—much more common than tuberculosis, and its symptomatology has not been sufficiently studied. It seems to depend on congenital defects in the chemistry of the organism, affecting chiefly the tissues which take care of wide variations in the water content.—*Versamml.-deutsch Naturforsch. u. Aerzte*, 1909, *Abstr. Centralb. f. Stoffwechsel*.

Eosinophilia and the Exudative Diathesis.—ROSENSTEIN has been able to confirm by his

studies the relation which has often lately been assumed between eosinophilia and the skin diseases of infants. Of 15 cases with constitutional eczema 12 showed decided eosinophilia, which is found, moreover, as well in the healed as in the florid stage, and is, therefore, not dependent on the local process but a coördinate symptom. Since the eczema is only one manifestation of the symptom complex that Czerny has grouped under the term "Exudative Diathesis," it is natural to look for eosinophilia also in connection with the other symptoms, and it is found, in fact, in many cases of bronchial asthma, scrofulous infantum, the so-called eosinophile intestinal catarrhs, etc. The author therefore regards it as an independent symptom of the diathesis—seen most frequently, however, in connection with eczema.—*Jahrb. f. Kinderheilk.*, v. 69, p. 631.

Butyric Acid Test in Diagnosis of Metasyphilitic and Other Nervous Diseases.—NOGUCHI and MOORE found that in the secondary and tertiary stages of syphilis, without direct involvement of the nervous system, the cerebrospinal fluid gives a weak butyric acid reaction, but no definite result either by cyto-diagnosis or the Wassermann test. The lumbar fluid in hereditary syphilis gave positive butyric test in 90% and the Wassermann reaction in 80% of cases. In cerebral and spinal syphilis butyric tests and cytodagnosis were always positive, while Wassermann is positive in only 50-75%. In progressive paralysis the acid test was positive in 90%, cell examination positive in 91% and Wassermann in 73%. In tabes the first two were positive in 100% and Wassermann in 53%. In psychoses with no definite history of lues, the first two were positive in 28% and Wassermann in 13%. In acute inflammations of the meninges Wassermann is always negative, and the acid reaction positive. In other febrile diseases both are negative. The reaction depends on the precipitation of increased globulin in the lumbar fluid by a 10% solution of butyric acid and the authors consider it a positive sign of syphilis or parasyphilitic disease.—*Jour. Exp. Med.*, 1909, p. 604.

SURGERY.

Conducted by

C. S. OAKMAN, M. D.

Intrahuman Bone Grafting and Reimplantation of Bone.—SIR WILLIAM MACEWEN reports cases of bone grafting done many years ago, with the technic of operation and the data of convalescence and end results.

The first was a three-year-old boy, whose right humerus was entirely destroyed by osteomyelitis, including the diaphysis and distal epiphysis. After healing from this loss, the proximal epiphysis produced a conical spike of bone less than two inches long. There was no growth from the condylar end. An operation was done, placing chips of healthy bone, removed from other patients, in contiguity with the freshened end of the proximal spike; these fused together into a continuous osseous structure, and twice later at intervals of two months the same procedure was repeated with similar success. Hardly was this accomplished when the new humerus was accidentally fractured; open fixation was performed, with complete success. The end result, as determined at present, 28 years after the operation, is as follows: length 11 inches, following the curve of the bone; (the normal left humerus is 14 inches); the arm has been useful in a life of physical labor as a joiner and pattern maker. The growth of bone has been entirely from the proximal epiphysis; if the distal end could have assisted in the reproduction, probably a normal length would have been attained.

Another case was of a nine-year-old boy, who sustained an extensive compound fracture of the skull, involving mostly left frontal and parietal bones. Operation was done, elevating the fragments, 11 in number; they were all ground in with dirt, cement, and brickdust, and were removed, scraped clean, aseptized, and then carefully repaced in as good a mosaic as was possible. This was difficult, because of laceration of the dura and scalp. Nevertheless, all the fragments lived but two, and ten years later the skull was of equal firmness everywhere, and the man strong and well.

Another case was a girl, age 15, who had a hideous deformity of the face from a defective horizontal ramus of the lower jaw, consequent upon disease in early childhood. The healthy

side had been pulled over, uniting with the stump, causing the upper teeth to project into space, with drooling and defective mastication. An operation was done, separating the healthy mandible and inserting between it and the stump, in the space belonging to the horizontal ramus, longitudinal strips of human rib, secured firmly in place. The result was entirely successful, cosmetically and functionally.—*Annals of Surgery*, Dec., '09.

Further Observations Upon the Bismuth Paste Treatment of Tuberculous Sinuses.—RIDLON and BLANCHARD base their study on the treatment of various tuberculous sinuses by paste in over 126 cases. They did not have a single case of serious bismuth poisoning, using the paste cautiously. The best results were obtained in the treatment of old sinuses of tuberculous joint disease. A group of cases in which the results were good was that in which excision of the tuberculous head of the femur was followed by multiple fistulæ.

Bismuth paste should never be used when there is evidence of progressive destruction or when a sequestrum is found by probing or by x-ray examination. Cases of amyloid disease are never improved by injections of bismuth paste. Its continued use is dangerous when large sacs are filled with residual bismuth. The paste should not be employed for sinuses of only two or three months' standing; in these cases the sinus-walls are perforated by the paste and widespread inflammation may follow. The treatment was injurious when the sinuses were surrounded by diseased skin or when they extensively undermined the skin.

Skiagrams show that, in cured cases, the injected bismuth may be unabsorbed for months or even years. Ridlon and Blanchard do not believe that bismuth is the essential constituent of a flooding paste. They therefore employed a combination of white wax, 1 part, vaseline, 8 parts—mixed while boiling—and in a number of cases in which it was used they obtained good results.—*Am. J. of Orthopedic Surgery*, Vol. vii, No. 1, abstracted in *Am. J. of Surg.*, Dec., '09.

PHARMACOLOGY AND THERAPEUTICS.

Conducted by

H. A. FREUND, M. D.

The Therapeutic Value of Calcium Chloride.

—CARLES enumerates the various conditions under which calcium chloride may be beneficially administered. Its hemostatic properties have been useful in cases characterized by a diminution in the coagulability of the blood, such as chilblains, urticaria, acute edema, certain forms of headache, serious eruptions, and nephritic disorders. When the blood contains too little lime it does not affect coagulability, but an excess renders it again incoagulable. Large doses therefore may be dangerous, while smaller ones are very useful. Carnot was one of the first to recognize its hemostatic properties, and it is now employed daily in obstinate epistaxis, repeated hemoptysis, purpura, bleeding piles, metrorrhagia, hemophilia, and the like, where it acts by favoring the production of fibrin. In albuminuria it acts partly by virtue of its antihemolytic properties, and partly by the direct influence which calcium salts exert on the kidney. A third use of the drug is as a moderator to the nervous system for which reason it is employed in spasms of the glottis, laryngismus stridulus, convulsions and tetanus, and it has been found useful even in epilepsy. Lauder Brunton was the first who employed it as a cardiac tonic, and in the same way it proves useful in pneumonia. The dose is 15 grains to 1 drachm, given in milk, beer, syrup, or cordial, to disguise the rather disagreeable taste. It is contraindicated in old people, as it tends to favor calcification of the arteries, having a strong affinity for the blood vessels.—*Le Nord Medical*, Apr., '09, through *Brit. Med. J.*, Oct. 16, '09.

Treatment of Mucous Colitis.—DR. JOHNSON says that therapeutic measures may be considered (a) with a view to giving temporary relief, and (b) with the object of benefiting the general condition.

He believes that the pain is apparently due to the intestinal spasm. The large bowel may often be felt as a hard ribbon, especially in the left iliac region; softening occurs under manipulation. Whether this spasm is the result of ordinary contraction of the gut-fibres, or to abnormal lengthening, morphine appears to be the only drug which will control. Belladonna, so far as his experience goes, is of no avail, either in large doses or in small. Morphine should not be resorted to until the motions cease to have a fecal color and odor; only when pure mucus begins to be passed should it be exhibited. It is best given in the form of a suppository ($\frac{1}{4}$ grain). The application of heat to the abdomen

is grateful. Rest is important, but need not as a rule be long continued, a few hours are usually sufficient. A milk diet is indicated, but a return to ordinary food should be made as early as possible. Patients recover with phenomenal rapidity; if properly treated, they should seldom be off work more than a day or two.

In the treatment of the general condition, the patient should understand his own case. He must be relieved from the haunting fear that he is the victim of serious organic disease; must be helped to recognize that, although his troubles are the result of an inborn nervous defect, they are nevertheless compatible with a long and useful life. Moreover, the obsession—which almost always possesses these patients, as it does the subjects of gout—that salvation lies in diet, must be banished from their minds.

Wholesome ordinary meals are all that are required. Professor von Noorden believes in a largely vegetable diet—spinach, potatoes, brown bread, etc. He claims that the bolus so formed sweeps away the mucus from the intestinal walls, thus preventing its accumulation and spasmodic ejection. Inasmuch, however, as he treats his patients in a special home, where the general hygiene is of the best, one is inclined to think that this may have as much to do with his undoubted success as the special diet. The main thing is to avoid overloading. The food should be neither too hot nor too cold. Red wines and fruit of acid nature should be forbidden as tending to set up undue gastric peristalsis.

There is no medicine which will cure the disease. All locally acting remedies—bismuth, preparations of tannic acid, lead, nitrate of silver, intestinal antiseptics, digestive ferments, such as taka-diatase, have, in the author's hands, proved useless. Colon lavage is equally unavailing. Tonics might seem to be indicated, but strychnine, the tonic par excellence, does not appear to be well tolerated, perhaps because it increases reflex nervous irritability.

To put the matter shortly, the drug treatment during the subacute (predominant) phase resolves itself largely into that of the associated constipation. A motion every day should be the ideal aimed at, and enemata should be alternated with medicine by the mouth. Violent purgation is to be avoided. The penalty for two or three days' neglect is generally a vicious outbreak of diarrhea. Cod-liver oil, when the stomach will tolerate it, is useful as a food, and also as tending to keep the motions soft. Iron is often of value to females, in whom also any associated pelvic trouble should be appropriately treated.—*Practitioner*, Nov., 1909.

PATHOLOGY AND BACTERIOLOGY.

Conducted by

C. E. SIMPSON, M. D.

The Bacterial Content of the Feces.—With the idea of determining the number of bacteria in the intestinal tract under normal and abnormal conditions and of testing the value of various intestinal antiseptics the writers conducted a number of experiments on human beings. Other observers have attempted the same thing, some by making plate cultures from a measured quantity of feces and counting the number of colonies, others, notably Strasburger, by separating the bacteria from the feces and weighing both.

The experiments reported here were made after Strasburger's method as modified by Steele which is roughly as follows: The possibility of separating the bacteria from the rest of the feces depends on the fact that the bacteria are so nearly of the same specific gravity as distilled water that they cannot be centrifugalized out of a watery suspension of feces but remain suspended in the supernatant fluid. The bacteria can thus be removed by washing with the centrifuge. Then if the specific gravity of the wash water is lowered by the addition of large amounts of alcohol the relation of the bacteria to the fluid is changed to such an extent that the microorganisms can be thrown down, separated and weighed. The feces are first rubbed up with a known amount of distilled water until they are smooth and semi liquid. Two portions of 5 c.c. each are then measured off and one portion is dried over a water bath and later in an oven to determine the dried weight. The other portion is mixed with 100 c. c. of wash solution (.5% of HCl) and centrifugalized a portion at a time, the residue being left in the tube each time and the several wash waters saved as they contain the bacteria. The residue is then mixed again with the wash solution and again centrifugalized until the supernatant fluid is clear, showing that approximately all the bacteria have been washed out. The bacteria remain in suspension in the wash water from which the solid portion of the feces has been removed by repeated centrifugalizations. This suspension is mixed with a liberal portion of alcohol and evaporated down slowly at a temperature between 40° and 50° C., until it amounts to not more than 50 c. c. in all. The specific gravity is

then lowered by the addition of at least twice the volume of alcohol and the bacteria are readily centrifugalized out. After washing with pure alcohol and then with ether in the centrifuge the residue, consisting of bacteria, is evaporated to dryness, dried and weighed. Having now the dried weight of 5 c.c. of feces, the weight of the dried bacteria in 5 c. c. and the original volume of the stool, it is easy to calculate the percentage of bacteria in the dried weight of the stool.

Many experiments were made, extending over a considerable period of time, both in normal individuals and patients suffering with digestive disturbances. Following experiments made when no drugs were administered, various drugs were given and the results compared. The results obtained in the case of patients suffering with gastrointestinal disorders are rather conflicting. In a case of intestinal catarrh neither salicylate of bismuth nor thiocol reduced the bacteria to any degree, while an actual increase was observed after the exhibition of bismuth salicylate in a case of chronic colitis. In a third instance, a case of marked hyperacidity with intestinal catarrh, a very marked reduction was observed under a restricted semi-solid diet, a reduction of 18 per cent., whereas no reduction was effected with salol, aspirin, or thymol, which clearly indicates that we cannot assume that the action of the so-called antiseptic drugs is the same in diseases of the gastrointestinal tract as in normal individuals.

From these observations the writers conclude:

1. Regulations of diet, together with evacuation of the bowels is the most effectual method that we have at hand of reducing the excessively high bacterial content of the intestine.

2. Beta-naphthol and bismuth salicylate appear to be our most effectual intestinal antiseptic drugs in normal individuals, while aspirin and ichthialbin effect slight reduction and salol gives no results whatever.

3. The results produced by means of intestinal antiseptics in patients suffering with gastrointestinal disturbances do not seem to be marked, whereas the best results are obtained by regulation the diet.—FRIEDENWALD and LEITZ in *Am. Journ. Med. Sciences*, Vol. 138, p. 653.

GENITO-URINARY SURGERY.

Conducted by

W. A. SPITZLEY, M. D.

A Review of 600 Cases of Total Enucleation of the Prostate.—J. P. FREYER urges the earliest possible removal of the prostate when there is enlargement of the organ giving rise to symptoms that necessitate the use of the catheter, before grave complications supervene. The risk of the operation is then at its minimum. Another reason for early operation is that the adenomatically enlarged prostate has a tendency to assume a cancerous type under the irritating influence of the catheter and the complications incidental to catheter life. He quotes Pauchet of Amiens as putting the proportion of adenomatous thus degenerating at as high a figure as 10 per cent.

Prostates weighing from 2 to 6 ounces are most easily and rapidly enucleated. Those weighing less than $1\frac{1}{2}$ ounces present the greatest difficulties in the way of total enucleation. For these cases the catheter is completely dependable. The size of the organ is determined by bimanual examination and the cystoscope.

The author reports on 600 cases of the operation of total enucleation of the prostate for enlargement, the patients varying in age from 48 to 89 years, with an average age of $68\frac{1}{2}$ years. There were 47 octogenarians between the ages of 80 and 89, and 7 patients aged 79 years. The prostate ranged from $\frac{1}{2}$ to $16\frac{1}{2}$ ounces, with an average weight of about $2\frac{1}{2}$ ounces. The great majority of the patients had been entirely dependent on the catheter for periods varying up to 24 years. Nearly all were in broken health and many apparently dying before operation. Existence was simply intolerable to most of them. Few were free from one or more grave complications, such as cystitis, stone in the bladder, pyelitis, kidney disease, diabetes, heart disease, chronic bronchitis, paralysis, hernia, and in a few instances there was malignant disease of some other organ than the prostate. Such were the unfortunate circumstances under which the operation was undertaken.

In connection with these 600 operations there were 37 deaths, in periods ranging from six hours to 37 days after the operation, or a mortality of 6.15 per cent. The mortality has been steadily decreasing from 10 per cent. in the first 100 cases to 4 per cent in the last. The causes

of death were: Uremic symptoms due to chronic kidney disease, 16; heart failure, 6; septicemia, 2; shock, 3; exhaustion (kidneys much diseased), 1; mania (hereditary in 1), 2; malignant disease of liver, 2; heat stroke, 1; pulmonary embolism, 1; acute bronchitis, 1; pneumonia, 1; and cerebral hemorrhage with paralysis, 1. Though all these deaths are accepted in connection with the operation, in not more than half the number can the fatal result be attributed thereto, the remaining deaths being due to disease incident to old age and unconnected with the operation. In 108 cases vesical calculi were removed at the same time, but all the deaths in these cases are accepted in connection with the prostatectomy, none being put down to the suprapubic lithotomy involved.—*Am. Journ. of Dermatology and G. U. Diseases*,

Abnormal Micturition and Pain.—A. C. STOKES dwells at length on the diagnostic value of pain associated with micturition and concludes that pain before urination may be due to adhesions of bladder to peritoneum or intestine, especially in women, to ulcers, to infections in the trigone and posterior urethra.

Pain during urination may be due to stricture of urethra, foreign bodies in urethra, acute urethritis, infection in Cowper's Glands, and in glands of Littré or Morgagni, tumors, tuberculosis and wounds of the urethra.

Pain after urination may be due to ulceration of bladder, vesical calculus, tumors in bladder, acute cystitis, so-called urethro-cystitis and tuberculosis.

Many of these general statements are open to exception; pain is not a pathognomonic sign of any one particular disease with which we are acquainted and must only be regarded as one of the factors in a symptom complex of any disease. It is, however, an important one, and the proper interpretation of it is of vast importance in the diagnosis of genito-urinary diseases. It must be properly weighed in its relation, and this can only be done, if done at all, by a careful study of the anatomical and physiological laws of the nervous system.—*Am. Journ. of Dermatology and G. U. Diseases*, Sept., '09.

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PROGNOSIS IN CARDIAC INSUFFICIENCIES.*

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Detroit.

The past ten years has witnessed a marked revision in our understanding of cardiac diseases. Many of the obscure symptoms and signs of cardiac incompetency have in the light of recent researches been fully explained, and our knowledge of hitherto inexplicable conditions has been so enhanced that we must needs consider each patient from a totally different point of view. The physician has long been prone to lay too much stress upon the findings of auscultation. It is so simple a matter to hear a murmur, that he has neglected palpation and percussion, and disregarded, in a measure, abnormal pulsations and arrhythmias. Studies in the last decade upon the physiology and embryology of the heart have led us into new fields, and fortunately we are turning our energies to the solution of problems that these newer discoveries disclose.

This clearer knowledge that we have gained of diseases of the heart has had one salutary effect, namely, the placing of the essential feature of prognosis on a more substantial basis. We can safely say that in no field of internal medicine are more inaccurate diagnoses made and more unsatisfactory prognoses given. Not alone

do these reflect on the attendant, but the harm that such advice has done to patients is incalculable. Not infrequently has the whole course of an individual's life been so changed as to unalterably affect a promising future. I have in mind now a young woman of 28 who from the age of 16 to 20 years was obliged to lead a sedentary life because two physicians had found a murmur which, the parents were led to believe, presaged an early death, if their daughter were allowed more than the ordinary exertion of walking.

In 1907 this young woman, whose boundless energy had led her into literary pursuits that overtaxed her mental strength, consulted me. I failed to discover the murmur, but I did get a history suggestive of a severe anemia from the age of sixteen to eighteen. I found in addition an undersized, undernourished girl, of unusually keen mentality. She was easily exhausted now upon mental effort, and lived in such fear of what might happen to her, should she overtax her strength, that the ordinary tests to determine how the heart responded to exertion disturbed her greatly. Suffice to say I changed the mode of this young

*Read at the Kalamazoo meeting of the Michigan State Medical Society, September, 1909.

woman's life, and by impressing upon her the fact that her's was a healthy heart, I gradually guided her into fields of physical activity, that have in the past two years changed her into a robust, athletic woman.

Improper prognoses are daily affecting individuals in other ways. Long courses of treatment are unnecessarily imposed at great sacrifice and expense. A fruit vendor, aged 52, whose little business had netted him and his family a comfortable livelihood for many years, had a mitral systolic murmur with edema of ankles, dyspnea and cough. He was told he had "a leakage of the heart," and advised to sell out his little route and change climate. Four months later I saw him, a discouraged, disheartened subject. His cough, he told me, was not improved, he was quite dyspneic and the incompetency was worse. The poor man and his family were now subjects of charity. I need hardly tell you what rest and proper treatment did for this man, in surroundings far less favorable than he could afford six months before. But the former means of earning his living were gone. With a proper knowledge of his limitations for exertion, he began a less strenuous pursuit of clerking in a grocery, and though he occasionally gets short of breath on lifting or walking too rapidly, he is able to care for his family in a meager fashion, and will be spared for many years of usefulness.

Permit me to allude for a moment to the usual life insurance blank. In this the examiner is called upon to describe those conditions that make for definite prognosis. But what do the questions on most of them mean? "What is the pulse rate standing?" "What sitting?" "Do you find any evidence of past or present disease of the heart?" That is not all. A fully compensated regurgitation, perfectly compatible with health and longevity advances the rate from 10 to 20 years. Again I have heard physicians tell applicants who

showed an insignificant extra-systole, to rest up for a few days or stop smoking, and return so that they might pass them—I presume with a clear conscience.

The laity stand in horror of any condition that suggests disease of the heart, for it brings to their mind fear of sudden death. It is for this reason more than any other that we are consulted, when an individual has reason to suspect any cardiac affection. Hence I am entering this subject with some insistency and detail, for I am certain that we must feel the responsibility that rests with each of us in making a prognosis.

I shall consider in this discussion those insufficiencies that result from purely intrinsic causes.

Let me say at the outset that no accurate prognosis can be made from the bronchitis, edema, dyspnea, cyanosis, etc., alone. We must consider the habits and previous family history of the individual, and the effect prolonged incompetency has had on the bloodvessels, lungs, liver, gastrointestinal tract and finally on the mental attitude of the patient. These are the general features that appear in almost every case in a more or less pronounced fashion. Yet the true guide must always be the manner in which the heart responds to increased activity. In absolute incompetency this can be measured by the amount of reserve force demonstrated by the heart, when placed under ideal conditions of rest.

But we should go one step further before giving a prognosis. We must analyze each function of the heart so far as possible, and determine how completely this or that property has been lost or destroyed, and what are its individual powers of recuperation.

They are best divided into those heads that have to do with the normal functions of heart beat. Hence we may have (1) failure of tonicity of heart muscle; (2) failure of conductivity; (3) loss of contractility; (4) improper production of

rhythmic stimuli; (5) abnormal excitability of the heart.

There is a group of cardiac conditions occurring frequently in young people, characterized by irregularity of the heart during excitement. It is seen after febrile conditions and also in more grave conditions, such as cerebral syphilis, and general tuberculosis. It is purely an abnormality in stimulus production, arising in the great veins and transmitted throughout the heart. It is without danger or significance.

Clinically, failure of tonicity is recognized in many ways. Enlargement of the heart and abnormal pulsations; symptoms produced by backing up of circulation on the venous side, and sensory symptoms localized to the precordial, pectoral, epigastric and left axillary regions. Marked failure in tonus of heart muscle as seen in extreme dilatation, does not necessarily presage dissolution. If the heart muscle takes care of the increased influx of blood with reasonable comfort to the patient, the outlook is good, for it means a sound heart muscle. The therapeutic test of digitalis is invaluable here, because if the heart does respond promptly to the drug, the prognosis is more favorable; if not, then the muscle is worn out and the prognosis serious.

The conducting medium of heart beat is the auricular-ventricular bundle of His. Lesions from the node down, cause a dissociation of ventricular beat, recognized by slow radial pulse or apical beat, and normal or rapid jugular pulsations. There may be all degrees of such incoordination, but, as a general rule, the severity depends upon the completeness of the block. In complete dissociation of beats, the outlook is grave and the frequency of syncope attacks augments the danger. In milder cases where only an occasional stimulus fails to pass through, the condition is perfectly compatible with years of health. I have such an instance now in my care, where a cardiosclerosis is the

cause of a mild block. Exertion sometimes brings on attacks of temporary giddiness, and is a warning that only a quiet routine will maintain comfort. In these cases we have a distinct warning against the use of digitalis which seriously disturbs the conductivity. I have lately seen the heart of such a case, where I am certain that administration of this drug brought about an untimely end.

No cardiac sign gives us as many clues for making a correct prognosis, when properly considered along with other symptoms, as abnormal contractility. It is a sign often overlooked, because it occurs without any evidence of dilatation, dropsy or dyspnea. Exhaustion of contractility is one of the earliest features of lessening of the heart's reserve force. It either means that the healthy heart is working against an abnormal load or that the normal resistance of the blood in the chambers of the heart is too much for a weakening muscle to take care of. The signs of this form of failure are manifested in two ways. Sensory symptoms, such as angina pectoris and the associated phenomena that go with it, are frequent signs. More often these patients complain of headache, breathlessness, extreme prostration, sense of fulness in the epigastrium and finally tumultuous beating of the heart. These cases usually present remarkable arrhythmia known as *pulsus alternans*, in which a strong beat is followed by a weaker one with normal time interval. When failure of this function begins, it is often hard to define. It may progress to a marked degree without any fall of blood pressure, without cardiac dilatation, or without any changes except those already mentioned. But I do not know of a single case in which I have observed it, that has ever recovered to such an extent as to enjoy the freedom of ordinary activities. In using the signs of failure of contractility further in prognosis, the underlying conditions must be perfectly understood. In the acute infectious

diseases it is a sign of the utmost gravity. Occurring in the course of valvular insufficiencies, with good heart muscle, the immediate prognosis is favorable, if rest can be procured. In arteriosclerosis it offers no hope, because it means that the muscle has degenerated beyond repair.

I have left the discussion of abnormal stimulus production to the end. That form that has to do with the production of extra-systole may be quickly dismissed with the remark that it should never be the cause for alarm. In a large number of cases it disappears. In the few where it persists other signs of failure of cardiac reserve force form the basis for the prognosis. There is a form, however, of abnormal stimulus production that is of a more serious import. It is that type in which contraction no longer begins in the great veins, but originates in a node in the auriculo-ventricular septum or in the ventricle itself. It is clear that in such a case the rhythm is seriously disturbed, because the auricle and ventricle beat in unison.

The prognosis in these cases depends upon the degree to which the general circulation is disturbed, for it is evident that there will be much damming back of the circulation upon the venous side. In young individuals it usually rights itself. In elderly subjects the outlook is more grave, for it not infrequently goes on to a persistent tachycardia resulting in failure of tonicity. There is, however, some factor at work in these conditions that we do not understand and which has led at times to mistaken prognoses.

We have, therefore, four factors that must always be considered in our prognostications: tonicity, contractility, conductivity, and production of rhythmic stimuli. They all must be investigated in connection with gross signs of incompetency, general condition of the patient and other anatomic lesions. All these, however, are guides which can only rightly be estimated when we have determined the responsive power of the heart itself to exertion and stimulation.

Adult Syphilis of the Lung.—Pelton of New York says that syphilis of the lung resembles tuberculosis or other lung diseases so closely that it is often not diagnosed. There are two types, catarrhal pneumonitis, in which there are in the alveoli a considerable number of large cellular elements; and interstitial pneumonitis, with thickening of the connective tissue framework of the lung, and infiltration of all the tissues. Gummatous tumors may also be developed. Sclerosis of irregular distribution is the usual lesion of lung syphilis. Bronchiectatic cavities form containing pus, or with necrotic and gangrenous walls. The *Spiracheta pallida* is rarely found in acquired lung syphilis. Syphilis and tuberculosis of the lungs when found in the same subject do not affect one another. Diagnosis is almost impossible. When syphilis is engrafted on tuberculosis the latter becomes more severe and rapid. When

tuberculosis appears early in syphilis the course is rapid and prognosis bad. When tuberculosis is engrafted on an old syphilis the slow, afebrile type is developed. Absence of tubercle bacilli in the sputum is a valuable negative point. Syphilis is unilateral, circumscribed, and has no predilection for the apices. The general health is not easily affected, evolution being slow. The presence of syphilitic lesions in other organs is a valuable sign. The author gives the history of a case which extended over about four years.—*Medical Record*, January 22, 1910.

Complete health may justly be regarded almost as an accident, a perishable possession of most uncertain tenure, to be jealously safe-guarded and enjoyed in a rational way while it lasts.—*N. Y. Med. Journal*, November 6.

UTERINE FIBROIDS*

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In our contention with any particular disease it is well that we occasionally pause, review our work and that of others and attempt to draw certain conclusions based upon increased experience relative to the disease in question. The subject of fibroids is, of course, one of the oldest in gynecology and it is only because, of the reason given above, its general interest and the fact that certain points apparently admit of some discussion, that I venture to bring it before you today. With any disease that is not necessarily fatal, but in which the bearer may live for years without serious disability, differences of opinion as to treatment are bound to hold. Still, we may note that there has been a gradual and general acceptance of many ideas formerly much debated—for instance, the question of radical removal or so-called conservative or medical treatment. Today we may possibly discuss whether a certain case should be operated or not, but it is generally admitted that no treatment is of any avail except operation. We either operate or do nothing. I wish today to restrict the discussion to those points which have a more or less direct bearing on the treatment, and in doing so it may be well to review a few points in pathology.

Fibroids are no longer to be regarded as a comparatively harmless disease; they are benign only in the sense that they do not recur when removed. A glance at the possible complications that frequently follow in the course of their growth, puts them at once in the list

of serious diseases. In a review of 2,274 cases operated by himself and others, Noble found complications which seriously threatened life or health in 1553, or 68 per cent. In my own list of 86 operated cases, there were present 51 (over one half) whose lives or good health were seriously threatened.

Pathologically we may classify uterine fibroids according to location.

First—Submucous fibroids which ordinarily are rapid in growth, but do not reach a large size—first, because they may be early extruded, and secondly, because they are peculiarly liable to infection. They are very apt to cause hemorrhage.

Second—Interstitial fibroids. They are very common, are usually associated with hypertrophy of the uterine wall and may attain a large size.

Third—Subperitoneal or subserous fibroids. They are very common, are often pedunculated, apt to obtain a large size and are not, when alone, apt to be associated with hemorrhage. Cervical myomata are very rare.

This is the classical classification and it sounds simple enough. Not so, however, the conditions found, for these growths present almost infinite variety in size, number, position and relationship with each other, the uterus, and all its surrounding parts. The study is one of never ceasing interest to the surgeon at the time of operation and in the laboratory. There is scarcely a characteristic of these growths that remains in any way constant; they vary in number from one to scores, in rap-

*Read at the Kalamazoo meeting of the Michigan State Medical Society, September, 1909.

idity of growth from the tumor that remains perfectly quiescent for years to that which in a few months fills the abdomen. In size they vary from those seen only with the microscope, to those presented in the literature—one by Stockard weighing 135 pounds, and one by Hunter of 140 pounds, the cadaver weighing but 95 pounds after removal of the fibroid. Kelly successfully removed one weighing 89 pounds. Those weighing ten pounds nowadays are unusual.

The influence and relationship of each tumor depend considerably upon its point of origin in the uterus and the presence of others. We will go far in explaining matters if we start with the simple conception that early in the history of each growth the uterine muscle attempts to expel it, the tumor gradually tending to pass toward the interior or exterior, that the uterus hypertrophies in proportion to the work demanded of it in accomplishing this. If this is completed the growth appears as a polyp in the uterine canal, or as a pedunculated external one. This attempt is often abortive or found incomplete, the growth being found surrounded by hypertrophied or perhaps subsequently atrophied muscle wall. The shape of the individual growth is influenced by pressure of other growths, of the uterus itself or its surrounding parts. The size, shape and position of the uterus itself is very often markedly influenced by fibroids. For example a growth springing from low down in its wall is apt to displace the bladder or strip the pelvic peritoneum from the pelvic wall, press upon the ureters, and is often very hard to remove. A fibroid uterus is often made fast in the pelvis by such peritoneum, and the blood supply is apt to be from multiple sources and difficult to control. A fibroid extruded between the broad ligaments pushes the uterus to the opposite side; likewise one in the anterior or posterior wall pushes the body in the opposite direction,

Again, we may note interesting facts connected with the blood supply. If the growth is well surrounded by uterine tissue any extra blood supply demanded is met by an increase in size of the four cardinal vessels; in a growth of this kind of 22 pounds weight, I found the uterines were as large as carotids. Let the tumor grow to any great size beneath the peritoneum, and it may readily derive part of its supply from enlarged vessels lying beneath this structure. If the growth becomes pedunculated and its pedicle encroached upon, or too small for its nourishment, it may become adherent to surrounding structures, new vessels being formed, or the omentum may attach itself to it and maintain its nutrition, the vessels increasing in size and the omental fat disappearing. It is possible for a fibroid to completely detach itself from the uterus in this way—the so-called parasitic fibroids. When attached to the omentum, the growth is apt to be rapid. The rapidity of growth is usually indicated by the amount of fibrous tissue found, the softer, more vascular growths being the most rapid. The climacteric may result in a cessation of growth, but can by no means be depended upon to do so, as we know by common experience.

Aside from the great variation in gross appearance and relationship, fibroids present changes of several varieties within themselves.

You may have first such changes as are associated with a diminution of the blood supply. The commonest is a simple atrophy in which the individual growth has become rather smaller, harder and contains but few vessels. This condition is very often found in fibroids removed from uteri after the climacteric. They may also occur before that time. To this simple atrophy may be added calcification. Such tumors are extremely hard and may, if infected, cause suppuration in their neighborhood.

Hyaline degeneration is present in very many myomata and may even be seen macroscopically in a considerable number of specimens. Fatty degeneration, myomatous and amyloid degeneration are also occasionally to be met with. We may also have a simple maceration due to a disturbance of the blood supply, although such a condition is very apt to be promptly followed by a suppuration. Simple inflammation, due to infection, necrosis, gangrene and simple edema, due to impairment of the circulation, are not rare sequelae. I shall not speak of the adenomyoma more than to say that they are usually derived from the uterine glands, but some are found—the so-called Von Recklinghausen tumors—which are derived from remnants of the Wolffian duct. Teleangiectatic or lymphangiectatic tumors, the latter not uncommon, are also described. Besides these we have malignant diseases, either associated with, or the direct outcome of the presence of fibroids. Winter has estimated that as high as 4% of fibroids would be found to be sarcomatous, if careful examinations were made. In Noble's statistics of 2,274 cases of fibroid, there were 2% sarcomatous. Out of 86 cases, I have had no instance of this, though I have seen several which have been recognized either before or after death as sarcomas of the uterus.

It is doubtful whether cancer of the cervix is ever caused by fibroids, but cancer of the fundus, associated with fibroids, is 27 times as common as when not so associated. This is commonly supposed to be due to direct impingement of the fibroid against the opposite uterine wall and the consequent irritation. Altogether cancer of the body is found with fibroids in about 1.5% of the latter. (Noble). Conservatively estimated it may be said that malignant disease occurs in fibroid uteri in at least 3%, and since this is higher than the mortality of uncomplicated cases that are operated, it

in itself constitutes a valid reason for removal of practically every fibroid.

But this is not all: We may have more or less serious changes external to the uterus. Infections of the appendages are found very frequently with fibroids, also peritoneal adhesions, due to the irritation of the fibroid, or inflammatory changes within them. We may also have pressure upon the ureters, upon the bowel or the bladder. The discomfort caused by the carrying of a large, heavy abdominal tumor may amount to actual invalidism. Olshausen's figures show that about 30% of these women are sterile. If they do become pregnant, they not infrequently suffer serious consequences, requiring operation.

My own experience covers 86 operated cases. Of these, the principal indication for operation was the presence of the fibroid in 59 cases. In the remaining 27, the removal of the fibroid was more or less incidental, there being more urgent reasons for operation. Out of the 86 cases, there were 14 myomectomies, 8 removals of polypi, and 64 hysterectomies. Of the 86 cases, 6 died as the result of operation, a comparatively high mortality rate. Of these 6 deaths, three were in my earlier experience and should be charged directly to it and the less perfect technic of ten or twelve years ago. The fourth patient, with an extremely difficult tumor to remove, had also a degenerated heart muscle. She died four or five days after the operation. The fifth case, of rather recent experience, from whom we removed a suppurating fibroid, went home from the hospital apparently well, developed temperature, neglected to call her doctor, and died of sepsis several weeks afterward. An examination showed an extensive suppuration of the pelvic connective tissue. The sixth case was that of a woman of 65 from whom we removed a large fibroid, simply to get at the underlying tumor, which

proved to be a carcinoma of the bowel. She died shortly after operation. This might well be excluded from the list.

A review of my own cases and those of many others makes it safe to say that the mortality in simple or moderately complicated cases of fibroid of the uterus would be scarcely more than 1% or 2%—a higher mortality being due to extremely unusual or uncontrollable conditions.

Treatment.

In view of the evidence that is accumulating showing the marked frequency of serious complications, I believe we must abandon the older classical teaching, which told us to let a fibroid uterus that was causing no symptoms alone, and select only for operation those that were producing disturbance. I believe that radical removal of the growth should be by all means the rule and non-removal the exception. I can conceive hesitating in the case of a very young woman in the child-bearing age with a very small symptomless tumor, but such cases do not come to us often. The rule should

be removal.

As may be surmised from the above statistics, my own preference lies rather toward hysterectomy in the majority of cases of uterine fibroid and yet myomectomy, I believe, has a distinct and useful place among these operations. The principal reason for this is the matter of child-bearing. The younger the woman, the more urgent the need of conservatism. If a woman has already borne a number of children the reason for conservatism comes correspondingly less urgently. Conservatism for conservatism's sake has, it seems to me, but little place in the ever recurring argument. I have not considered it of any particular advantage to try to save a uterus in a woman of 40 or over, nor in others somewhat younger, if it were to be done with the possible risk of not curing her of her disease. It is conceded that except in the simplest cases, myomectomy is fully as dangerous an operation as hysterectomy. Certainly in good hands there could not be much variation in mortality one way or the other.

During the year that has passed since the International Congress on Tuberculosis met at Washington, one institution or organization for the treatment or prevention of tuberculosis has been established every day, Sundays and holidays included, according to a bulletin of the National Association for the Study and Prevention of Tuberculosis. Fifteen new beds in hospitals or sanatoria have been provided also for every day of the year.

A year ago the rate of increase was one organization or institution every other day, only one-half as fast as now. Less than a year ago there were 40 consumptives for every hospital bed provided. To-day the number has been reduced to 30. Nearly 20,000 beds are now provided in institutions for the treatment of consump-

tion, an increase of over 5,500. The number of special tuberculosis dispensaries in the United States has more than doubled, the number of anti-tuberculosis associations has increased 68%, and the number of hospitals and sanatoria 43%.

In one branch of anti-tuberculosis work, particularly emphasized by the International Congress, a signal advance has been made, that is, in the provision of hospital accommodations for advanced cases. In all parts of the country, state and municipal authorities have been urged to provide hospitals for dangerous cases of tuberculosis, with the result that over 1,000 beds have been established in the past year. At the present time there are, however, only 6,000 beds, and 75,000 advanced cases which ought to be in hospitals.

URINARY INFECTIONS, TREATMENT BY INOCULATIONS*

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Much interest was aroused in the profession a few years ago by the announcement of Wright of London, of the discovery of opsonins and the effect upon the blood of injections of sterilized bacteria.

The laboratories immediately became active in this work and have given us much valuable information. To the average practitioner, however, far from laboratories, the theory has continued to be a beautiful dream, perhaps, but not regarded as of practical use to him.

The following editorial from the *Journal of the American Medical Association*, March, 1907, fairly expresses the views of intelligent, general practitioners upon the availability of vaccine therapy. "It must be borne in mind that Wright bases the treatment on the consideration that in many localized chronic infections, bacterial products may fail to reach the circulating blood in sufficient quantities and at proper intervals to stimulate adequately the machinery of immunization or self healing, and that it is in order to supply the necessary stimuli in proper doses that sterile vaccines, prepared from the particular microbe causing the infection in question are injected. Hence it becomes absolutely necessary that an exact etiological diagnosis be made in all affections that it is proposed to treat with specific vaccine therapy. In the next place, in order that the vaccine may be the one most suited for the individual case it is regarded as highly desirable and even essential that vaccine be prepared from the particular

strain causing the infection. This involves the isolation in pure cultures of the bacteria in question, the preparation therefrom of sterile potent vaccines, the proper dose of which is to be determined by special methods. Finally, in order to determine the immediate effect of the vaccine and to interspace the injections properly, it is necessary that the way in which the body reacts to the combined effects of the injections and the infection be tested from time to time. This is now done by determination of the opsonic index, a procedure that requires special facilities, some skill and much time. It is evident for the reasons briefly outlined, vaccine therapy, for the present, must be delegated to specially trained persons with adequate facilities, such as may be supplied in connection with laboratories."

The writer might have added that the patients would also have to be sent to the immediate vicinity of the laboratory, for in no other way could the opsonic index be taken.

It soon became evident that this means of treatment would not be available to the greater mass of our people if the opsonic index were held to be an essential feature of the procedure and so experiments were soon made to ascertain if reliance could not be placed upon the symptoms presented by the patients. I find the following conclusions of distinguished clinicians:

"Opsonic index possesses very little value as a guide to the administration of vaccine," Barker and Cole, of Johns Hopkins.

*Read at the Kalamazoo meeting of the Michigan State Medical Society, September, 1909.

"The difficulties of obtaining an accurate index are great; even Wright himself admits that the careful observation of the clinical features of a disease is as good an indication for vaccination as is the opsonic index," Dr. M. H. Parks, Association of American Physicians, Washington, May, 1907.

The aid of the laboratory is necessary as a matter of course, but much time and expense are saved if the index be omitted. The suspected secretion may be sent to the laboratory under proper precautions, bacteriological diagnosis made, and vaccines prepared without moving the patient from his home at all. Experience has demonstrated that the germs causing infection most frequently have a great many strains indistinguishable in the laboratory from one another, but producing many variations in symptoms in the patients, and presenting wide variations in dosage. For this reason it is absolutely necessary in order to succeed in the use of this treatment to make use of homologous vaccines. "Strains of bacteria vary considerably, I believe, from my experience, in the reaction they produce, also individuals vary in susceptibility, some being quite susceptible, others relatively immune," personal letter from Dr. D. J. Davis, Presbyterian Hospital, Chicago.

This paper is intended to be a clinical discussion of the subject without reference to laboratory details. Our laboratory work has been done at the laboratory of Mercy Hospital under the direction of Dr. A. A. Spoor. Our first work was in cases of urinary infection proper, when the urine contained pus and thereby suggested the presence of infection. We soon found cases of infection elsewhere in the body in which the urine was normal, chemically and microscopically, and yet the infecting germ was obtained in pure culture from this apparently normal urine. Our interest was aroused by this discovery and a

search of available literature failed to find any reference to the subject. We commenced making cultures of the urine in all cases of known infections and so far have always obtained cultures of the infecting organism.

This is a very important point in the diagnosis of infectious diseases if further investigation should prove it reliable. It is difficult to get blood for culture and even in severe general infections it is sometimes difficult to obtain free growths from the blood. Our experience thus far indicates that disease germs are generally eliminated from the body through the urine, that in the process of elimination the kidneys may be irritated and finally inflamed and the seeds planted, by a passing infection, for subsequent chronic kidney disease, that in many cases the germs are eliminated through the kidneys without causing any apparent irritation in these organs. A case of general sepsis of severe character came to my notice in consultation. A great many inflamed nodules existed upon various portions of the body, some of them were suppurating. Urine was obtained with a catheter and some of the pus was obtained directly from one of the abscesses. Pure culture of the staphylococcus aureus was obtained from both the pus and the urine. The urine was chemically and microscopically normal.

Regarding dosage we have found it unnecessary to produce general reactions. We have followed the dosage used by Dr. Billings and his associates in Chicago. Many writers speak of doses of from one to fifty millions. We have never seen any effects from such dose. We commence with a hundred million bacilli and three hundred million cocci. If no local redness or soreness is produced, in two days we give a larger dose. When the dose producing local irritation is obtained we continue that dose every five days until no

effect is produced by it, when we again increase the dosage which oftentimes reaches one or two billions. In a limited experience in acute cases larger doses have been tolerated than in the chronic ones.

While the theory of vaccine therapy heretofore promulgated indicated that it is specially applicable in chronic infections, yet a few reports are beginning to appear in the journals of its successful use in acute general sepsis. My experience has been limited to two cases, one of colon infection, the other of streptococcus.

Dr. G. Martyn of Los Angeles, Cal., reports an interesting case in the *Journal of the American Medical Association*, Vol. 50, page 362, of general septicemia due to the streptococcus. Cultures were made from uterine scrapings and from blood drawn from the median basilic vein. From the scrapings a mixed growth of staphylococci and streptococci was obtained and from blood drawn before a chill a small growth and from that drawn after a chill a luxuriant growth of streptococci. From the last culture the vaccines were made. Several doses of antistreptococcic serum were given while the bacteriological investigation was taking place, without modifying the patient's symptoms.

The opsonic index was taken in this case and the findings correspond very closely with the symptoms. The first dose of vaccines was given at 9:30 A. M., November 3, 1907, the patient having a temperature of 104°; pulse flickering; extremities cold; color dusky with hectic patches on cheeks; opsonic index 0.4. By evening the temperature had fallen to 100.° and the index was 1.2. The next day the index was 2.0. On the fifth the index dropped to 0.9 and the patient's condition was again unsatisfactory. Another dose of vaccines was given, the index dropped to 0.7 and the patient's temperature went up with

development of other grave symptoms. A third and larger dose was given and by midnight of the 6th the temperature had fallen to 99.8°. On the 7th the index had risen to 1.1 and the average temperature of the day was 100°. From that time on the index remained high and the patient made uninterrupted progress to recovery.

My first case of acute infection was in April, 1909.

Mrs. H., visited in consultation. Had given birth to a child four weeks before my visit. One week after child birth, commenced having rigors and fever. Rigors had been a daily occurrence for three weeks and her temperature had not been below 103°. I did a thorough curettage but found nothing that appeared to be responsible for the continued sepsis. Her general condition was bad and her mental condition was dull and despondent. Scrapings from her uterus produced upon culture a few scattering colonies of staphylococci. Her urine was loaded with pus, casts and a trace of albumen; culture gave a luxuriant growth of colon bacilli. Two days later vaccine was given, the temperature at the time being 103°. A few hours afterwards she complained of a strong salty taste in her mouth. Her temperature fell to normal during the day, the fall being attended with a profuse perspiration. The temperature remained normal for three days and all her symptoms improved. Another dose of vaccines was given, which was followed by general reaction, after which the temperature again became normal. Subsequently, she had chills and fever occasionally and was brought to the hospital. We treated her with vaccines every five days, the reaction after dosage becoming gradually less, the urine steadily improving in appearance until the first of July, when only a trace of pus could be discerned and a few scattering colonies of bacilli were obtained upon culture of the urine.

My second case was one of streptococcic infection and illustrates that in general sepsis the infecting organism may be obtained in the urine without evidence of urinary infection being present. Mrs. W. had a recurring nodule removed from her chest wall together with the sheaths of the pectoralis muscles. The operation was done August 7th, and six days later, August 13th, she had chilly sensations and her

temperature reached 103.5°. The previous six days had been normal and the wound had healed very nicely. Although there was no evidence of infection about the wound a portion of it was opened for safety. A red flush appeared upon the skin of the thorax resembling, but not identical in appearance, with erysipelas. The flush spread gradually around the whole trunk. It was the color of erythema, elevated and moderately sensitive to touch. With each occurrence of high temperature there was an exacerbation of the eruption. August 16th, her temperature reached 104° and 20 c.c. polyvalent antistreptococcic serum were administered, a sample of urine was also taken and culture started. August 17th, 20 c.c. of serum were given in the morning, temperature went up during the day and reached 105.2° at 5 p. m. Culture revealed a luxuriant growth of streptococci; urine contained a few pus cells otherwise normal. Vaccine made and at 8 p. m. half a billion sterilized germs were given; no reaction followed at point of injection. August 18th, 8 a. m., temperature 101.6°; 7 p. m., 104°; August 19th, 6 a. m., 101.8°. One billion germs were injected; slight local reaction followed. Six p. m., temperature 102.4°; August 20th, 21st and 22nd, the temperature was normal all of the time, except at 6 p. m., August 22nd, when it reached 100.2°. August 23rd, 7 a. m., temperature 101°; vaccine given, one billion germs. Four p. m., highest temperature of day reached, 104.6°. No local reaction from vaccine. August 24th, morning temperature, 101.2°, highest temperature of 24 hours at 3 p. m., 103.2°. Patient's mental condition and general appearance much improved. August 25th, 7 a. m., 100°; 8 p. m., 99°. On the 26th and 27th temperature normal and patient feeling very well. On the 28th, morning temperature 98.4°, evening 103.8°, half a billion germs injected, no local reaction. August 29th, a. m., temperature 101.6°; evening 103.6°; one billion germs given, no local reaction. Accompanying this elevation of temperature there was an aggravation of the skin eruption. August 30th and 31st, temperature was normal and on the evening of August 31st, a half billion germs were injected. At this time the skin eruption had completely disappeared.

September 1st, a. m., temperature 98.9°; p. m., 103.6°.

September 2nd, a. m., temperature 99.6°; p. m., 102.6°.

September 3rd, a. m., temperature 100°; p. m., 102.6°. On the morning of September 3rd one

and three-quarter billions sterilized germs were injected and urine was taken for culture. A slight local reaction followed this injection. September 4th, morning temperature 100°, evening 102.2°. Report from the laboratory was to the effect that no streptococci appeared in the culture, the only growth being two small colonies of staphylococci. Suspecting the staphylococci to be a contamination, a fresh specimen was obtained and cultures made on blood serum and agar and no growth appeared upon either media. Patient had been having normal evacuations from her bowels throughout her illness, but the appearance of a true erythema on September 3rd, suggested that possibly not enough elimination was taking place by that channel, so saturated solution of Rochelle salts was given and continued that day and the next until watery stools were produced. A large amount of waste matter passed away, after which the temperature became normal on September 5th, and so remained thereafter. It is apparent that the last range of temperature commencing September 1st, was not due to the original infection. It is difficult in acute cases to be sure that a given remedy has produced the change in the symptoms. I give the symptoms of this case and the treatment for what they may be worth and hope that in time a sufficient number of cases may be recorded to give us a basis for conclusions concerning the efficacy of the treatment.

Since February 15, 1909, 61 patients have been treated with vaccines prepared from cultures made at the Mercy Hospital laboratory. The majority of them I heard more or less about when they came under treatment and I have obtained reports from their attending physicians concerning the present condition of all of them. One, a case of general sepsis from the staphylococcus aureus, referred to previously in this paper, was *in extremis* when the vaccines were made. She was given two small doses without apparent effect upon her condition, which ended in death.

Of the other 60 patients, 23 are free of infection and fully restored to health. Thirty-seven are still taking treatment, all of whom are improving and those

who have been under treatment more than 30 days are symptomatically well. We do not pronounce them cured until two cultures made at intervals of two weeks are negative and until their symptoms are relieved and all pus has disappeared from the urine.

Nearly all these cases had urinary infection proper with pus in the urine, many of them having been under treatment of various kinds for years without receiving relief. Germs were found in nine other cases, which for various reasons did not receive treatment, and cultures have been made in many suspected cases in which no germs appeared. The infecting agent was represented as follows:

Bacillus coli	41 cases
Mixed bacillus coli and pyocyaneus.....	4 cases
Mixed bacillus coli and streptococcus....	1 case
Mixed bacillus coli and micrococcus.....	3 cases
Bacillus pyocyaneus	8 cases
Streptococcus	1 case
Staphylococcus aureus	2 cases
Staphylococcus albus	1 case

A few of the more interesting cases occurring in my own practice I report in detail.

J. W. consulted me February 18th, 1909. He had been suffering from urinary infection for several years. In February, 1908, I operated upon him for prostatic abscess. For two years preceding that time I had seen him several times in consultation for prostatic and bladder irritation. The abscess of prostate soon healed after evacuating the pus, but the old bladder irritability continued, notwithstanding that he received daily bladder irrigations and other appropriate treatment. Last February urine analysis revealed large quantities of pus, hyaline and pus casts and some albumen. Culture resulted in a growth of bacillus coli communis. Vaccines were given every week and all other treatment was discontinued. Immediate improvement occurred in his symptoms and the condition of the urine. After the third dose of vaccine the urine appeared clear to the eye and in a few weeks the pus and casts had disappeared. July 17th culture

resulted in a few small colonies of colon bacilli. September 9th, culture made and no growth appeared. Symptomatically he has been well since April.

C. D. F. consulted me in February last for nervous symptoms. His principal complaint was that he could not apply himself to his business, that when he attempted to work at his office he had a full feeling come in his head, which culminated in dizziness and severe pain through the top of the head. I treated him for two months without affording relief and without discovering the cause of his complaint. He had a drawn, anxious expression, was losing weight rapidly and gave the appearance of a man suffering from some serious malady. His urine showed a trace of pus and culture made on April 23rd produced a luxuriant growth of colon bacilli. Vaccines were prepared and given every five to seven days. Immediate improvement in his symptoms took place. He commenced looking after his business at once which was important to him at that time of the year and by July 3rd he was not only feeling perfectly well, but his urine was found to be sterile.

E. W., aged 15 years, a sediment in his urine attracted the attention of his parents in March, 1909, and a specimen was brought to me. It contained a decided trace of albumen. His diet was regulated, various drugs prescribed and the urine examined weekly for two months. No improvement occurred and no other abnormality was discovered in the urine until May when a single pus cast was found. Culture was then made and a free growth of bacillus pyocyaneus obtained. Vaccine was administered every five days, only local reactions being produced and the lad continued in school all of the time. No albumen could be detected after the third dose. The germs had disappeared by July 24th.

Mrs. H., admitted to hospital June 19, 1909. She had been sick for two months, at first having symptoms of intestinal obstruction followed by fever and then a general arthritis involving every joint in her body. At the time of admission to the hospital her joint disease had assumed a subacute type with frequent acute exacerbations in the phalangeal articulations. She came for baths, thinking that her trouble was rheumatic. Her urine had been frequently examined and always found free from pus, casts or albumen. Salicylates had no material effect upon the joint inflammation. Suspecting that her joint

trouble was due to an infection I had a culture made from the urine and a luxuriant growth of the bacillus pyocaneus was obtained. Vaccines were administered every five days and rapid improvement took place from the start. She was soon able to go home where her physician continued the treatment. August 15th, her urine was

found to be sterile. In this case, obstinate constipation had been present for years. Only large doses of active cathartics had any effect. At the time she came under my care ten grains of phenolphthalein were required to move the bowels. After second dose of vaccines the bowels were quite regular without any assistance.

MIXED TOXINS IN THE TREATMENT OF SARCOMA, WITH REPORT OF A SUCCESSFUL CASE.*

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Detroit.

It is not my intention to review at length the views of Dr. William B. Coley regarding treatment of sarcoma, operable and inoperable, by hypodermic injections of mixed toxins of streptococcus erysipelatis and bacillus prodigiosus. I do, however, feel it my duty to place on record the results of this treatment which has certainly saved a limited number of patients from certain death. That sarcoma has in the past occasionally disappeared without treatment and more often following an attack of erysipelas is, I think, well authenticated, but that such cures have been frequent enough to engender much hope in a given case is hardly likely.

During the past 17 years, Coley has treated about 500 cases of inoperable sarcoma with the mixed toxins and feels quite sure that over 50 have been cured; while ten percent. may not seem at first a great ratio of cures following a given treatment, when one stops to think what the normal mortality is in such cases, one can not help but congratulate Dr. Coley upon these 50 individuals snatched from inevitable death as a direct result of his personal work. While Dr. Coley has been working on human beings, sarcomatous tumors have been made to disappear from dogs by

the same treatment, until there can be no doubt that the toxins have an inhibitive and curative effect upon these malignant growths.

In an abstract of Coley's recent paper on the subject read before the Wayne County Medical Society, published in the June number of the *Detroit Medical Journal*, it is stated that as a result of the work at the Pasteur Institute, it was found that the erysipelas germ was much more virulent, if grown with the bacillus prodigiosus and this lead to the Coley formula, but aside from its effect upon the erysipelas germ, injections of the toxins of bacillus prodigiosus alone will cause sarcoma in dogs to disappear. Dr. Coley would on no account advise this treatment to the exclusion of operation, but after operation as a prophylactic against recurrence, in inoperable cases and in some cases of sarcoma of long bones where operation, even if successful, may so cripple as to be nearly as much to be dreaded as death. In his recent paper he reports a considerable success in this class of cases.

Hertel, of Copenhagen, thinks this treatment should certainly be employed in selected cases, and reports three instances, one of which, a recurrent sar-

coma of the testicle, was cured. In one of the other cases the symptoms of spinal tumor improved but did not disappear under treatment. After operation and section of the growth, it was decided that the tumor was a sarcoma which had so undergone degenerative changes that it was queried whether earlier resort to the Coley treatment would not have been completely successful, or possibly persistence in its use have resulted in the disappearance of all symptoms.

In the case to be reported I used the Coley fluid as prepared by Parke, Davis & Co., although Dr. Coley recommends the mixed toxins prepared by Dr. Martha Tracy of the Huntington Cancer Research Fund. I began with injection of one-quarter minim diluted in sterile water, and had no difficulty in soon finding the quantity sufficient to produce the reaction, characterized by a chill, fever, temperature about 101° to 104°, pulse 90 to 130, followed in a short time by return to normal with a feeling of well-being. The injections were given daily and the dose had to be increased, but not above 5 minims. After about three weeks' treatment, the patient left the hospital and daily injections were kept up for two weeks, then every second day for a month, and twice a week until about May 20, 1909. The patient, examined September 12th, appears to be perfectly well. At home as well as at the hospital, thermometer readings were taken every two hours after each injection and the size of injections governed thereby.

Following is the report of this case and attached is the pathological report of growth:

Henry L., aged 55, carpenter, was referred to me January 6, 1909, by Dr. Stanley G. Miner. His wife has tuberculosis and two sons have died with it. While his general health has been good, patient has noted an enlargement of right testis for 20 years. About a year ago the tunica

vaginalis was tapped and a large quantity of serum withdrawn, leaving an infiltration in testicle or epididymus. Several times tapping has been resorted to, the last time a few weeks ago, when the fluid was bloody and small in quantity. On examination, a smooth, oval tumor is found in the right scrotal sac, eight inches long, from which a very much thickened cord passes through the inguinal canal. The upper portion of the tumor seems hard and the lower third elastic. A diagnosis of probable sarcoma was made and immediate operation advised. At this time the temperature was 100° and pulse 96, showing probable septic absorption.

Operation January 7th, removing testicle and cord high up in the ring. At the bottom of the sac there was perhaps one ounce of clear serum and a testis which on section looked quite normal, but the main body of the tumor seemed to have its origin and growth in the head of the epididymis. It had a firm outside with a dirty necrotic fluid amounting to perhaps one-half ounce in the center. The pathologist reported, "marked hyperplasia of muscular coats with plentiful round celled infiltration, not malignant."

January 8th, temperature 100.6°; January 11th, temperature 99.8°. There was a fullness in region of cord that I thought to be probably due to infection and an ice bag was applied. On the 14th, I worked a director down into the scrotum which, while healing nicely on the surface, was not right. Temperature had gone down to normal and a hematoma was in my mind but only a few drops of bloody fluid were evacuated.

January 20th, Dr. McGraw saw the patient with me and we felt that we had to deal with a very malignant neoplasm which, now only thirteen days after first operation, had developed a firm growth as large as one's fist, seemingly three large masses fused together, one growing from the stump of the cord and two masses from the side of the cleaned-out scrotal sack.

January 22nd. Operated in the presence of Dr. S. G. Miner at St. Mary's Hospital, removing scrotal skin on the right side, freeing cord well up within the inner abdominal ring and keeping well without the new growth. The operative field looked beautifully clean and the only question was whether I should not have made a regular abdominal section and followed the cord as far as possible toward base of bladder.

January 23rd. Report from the pathologist,

"greater part of section shows a degenerative process. Small areas of large round sarcomatous cells are not infrequent. Vessel walls are mal-formed and thickened. Diagnosis, mixed sarcoma. Dr. Hoskins." Patient did well. Temperature remained normal, but on the 5th day there was undoubted recurrence within the scrotum and canal. Coley fluid, Parke, Davis & Co., one-quarter strength, was injected near swelling at 1 p. m., and temperature taken every two hours. At 4:20 p. m., temperature 99.2°, and at 6:20 p. m., temperature 100°.

January 29th, M. 1 injected near stump. Temperature 99.2°.

January 30th, M. 2 injected near stump at 11 a. m. and at 3 p. m. Temperature 103.6°, with chill lasting 24 minutes. Suffered nausea and vomited after the chill. At 4 p. m., pulse 136. 7 p. m., temperature 100.4°, pulse 120, respiration 28.

January 31st, M. 1.5 injected. Chill followed, lasting 25 minutes. Temperature 100°.

February 1st, M. 1 at 10 a. m. At 1:30 p. m., temperature 100°, pulse 96, 7 p. m., temperature 98.6°.

February 2nd, M. 1.25 injected. No reaction.

February 3rd, M. 2 injected. No reaction.

February 4th, M. 2.5 injected, at 2 p. m. At 4 p. m., temperature 100°, pulse 100.

February 5th, M. 3 injected. Temperature 100.2°.

February 6th, M. 3 injected. Temperature 99°, pulse 84.

February 7th, M. 4 injected at 11:40 a. m. At 1:45 temperature 104°, pulse 118, with chill lasting 45 minutes. At 8:15 p. m. temperature 99.2°.

Here it is noted that for the past four days there has certainly been no increase in tumor growth and there is a well marked feeling on the part of all observers that perhaps the growth is beginning to disappear.

February 8th, M. 4 injected.

February 9th, M. 5 injected at 10:30. At 4:30 p. m. temperature 101.4°, pulse 90, but no chill.

February 11th, M. 4 injected into tumor. Temperature went to 102°, pulse 90.

February 12th, M. 4 injected at 1:30. Temperature at 8 p. m. 103.6°, pulse 104. Slept well after 11:30 p. m.

The patient gradually improved and left the hospital February 17th. At that time improvement was marked. The case was a spectacular one. The rapid growth of the tumor was so unusual and the melting away of the growth so

marked that some of those watching the progress of the case were willing to doubt its malignancy. However, the final report of the pathologist, Dr. Carl Oakman, to whom the specimens were submitted, seems to show conclusively that we have treated a case of sarcoma with the Coley fluid and that at the present writing the patient is perfectly well.

PATHOLOGIST'S REPORT.

Tumor of Testicle. There is very little tissue characteristic of testis to be seen in any part of the specimen; a few sections show some faintly stained seminiferous tubules, but they are ill-defined, atrophic, and in the midst of necrotic tissue. The larger part of the specimen shows a diffuse growth, of mesoblastic type, very irregular in its disposition; the cellular elements are fusiform, and fibrillary or branching, with considerable intercellular matrix, giving it a myxomatous character. Several degenerating areas show pronounced mucoid deposit, staining deeply with hematoxylin. There are many aggregations of small round cells, especially around the blood vessels. The vascularity is not marked, and much of the blood supply is primitive in character. There are many areas of hemorrhage, in all stages of retrogressive change. Occasional bundles of smooth muscle are seen, mostly rather hyaline in appearance. There is widespread necrosis, in all stages, as a result of pressure or deficient vascularity.

The tumor appears to be of the myxo-sarcomatous variety.

(Signed) CARL S. OAKMAN.

Recurrent Tumor of the Groin. The most conspicuous feature of the material is hemorrhagic and fibrinous exudate in various stages of degeneration. The small portions which show recognizable tissue consist of closely packed, thin, fusiform cells, arranged in interlacing bundles; these in some places resemble smooth muscle, and in others connective tissue; there is widespread necrosis and hyaline change, and poor blood supply, with numerous areas of pigmentation, evidently hematogenous. The excised portion includes a little striated muscle, which shows hyaline change and round cell infiltration. In the fleshier parts of the mass there are masses of round cells which appear sarcomatous in nature.

(Signed) CARL S. OAKMAN.

THE CIGAR VS. THE CIGARETTE.

A PRELIMINARY REPORT.

FRANK CAMERON KINSEY, A. M., M. D.,

Three Rivers.

Allow me to preface this paper by explaining that I never was fortunate—or unfortunate enough to acquire the art of smoking in any of its forms and, therefore, that I went into the experiments which follow without any bias, prejudice or preconceived notions whatever on the subject. Having cleared my moral atmosphere in this manner, you might ask what occasion there is, after all, for investigating this subject. Precisely this: Talk to any intelligent, well educated man—sometimes even to a physician—about the contents and effects of cigarettes, and you will soon discover how little you actually know about them and what an astonishing fund of information he possesses. He will tell you that he has always understood, and believes it to be a fact, that cigarettes are drugged, and that the paper contains arsenic. (I may remark, parenthetically, that the recent anti-cigarette legislation in many of our states is based on just such arguments). This man you are conversing with may tell you of horrible deaths in boys and young men due to smoking cigarettes, and will present a fairly convincing picture of the evils trailing along after the cigarette habit, “especially from inhaling the stuff” he adds, taking a deep puff from his fat cigar and blowing it out through his nostrils. It was after just such a conversation with just such a man, an intelligent, well-educated high school teacher whose arguments I could not answer from my own knowledge, that I

resolved to make some personal experiments along this most unpopular line. At some time in the future I hope to take up this work in greater detail, but I trust this preliminary paper may not be without interest.

In this research, my objects have been four: First, to find the total amount of crude nicotin contained in the tobacco of the ordinary domestic and Havana cigar, and compare it with the total nicotin content of the tobacco of cheap cigarettes; second, to find the amount of crude nicotin present in the smoke of cigars and cigarettes and compare it with the total amount present in the same tobacco; third, to determine the quantity of opium alkaloids or “dope” as it is called, contained in cheap cigarettes, if any is present; and fourth, to examine the various cigarette papers for arsenic and to determine the amount present, if any.

In our experiments to determine the total content of crude nicotin in any given tobacco, our method was as follows: The weighed quantity of cigar or cigarette was shredded, extracted with hot water, and evaporated to a small bulk without boiling. This was then mixed with calcium carbonate and distilled, (using the ordinary glass retort, Liebig condenser and receiver), over a glycerin bath at a temperature above 200 degrees C. (392°F.). The distillate was acidified with oxalic acid, evaporated to a small bulk and then decomposed with potassium hydroxid. When this product was extracted with ether, it

*Read at the Second Annual Meeting of the Third Councilor District, at Charlotte, October 7, 1909.

gave the amount of crude nicotin present in the tobacco used.

In our first tests we used 153 grains (9.935 G.) of tobacco as a standard, this corresponding to the weight of nine "Turkish Trophy" cigarettes or eight and one-half "Sweet Caporal" cigarettes.

Experiment No. 1.—This was on a five-cent domestic cigar whose composition, kindly furnished by the manufacturer, was as follows: Wrapper and binder, $\frac{1}{4}$ Connecticut, Havana seed; filler, $\frac{1}{4}$ Pennsylvania and $\frac{1}{2}$ semi-Spanish, from Spanish seeds grown in Montgomery county, Ohio. The weight of one of these cigars was $107\frac{1}{2}$ grains, consequently we used about $13\frac{7}{7}$ cigars in making up our weight of 153 grains. The tobacco was extracted with hot water, as outlined, treated with calcium carbonate, distilled, acidified with oxalic acid, reduced and extracted with ether, giving us nine drops or .6 G., corresponding to 5.8% of a substance which had the odor of stale tobacco and responded to all the tests for nicotin. This crude nicotin might have been purified by re-distillation in a stream of hydrogen, but, for our purposes of comparison, it was sufficiently pure. Nevertheless we tested this product for toxicity on animals, and found that four drops placed on the tongue of a six-pound tomcat killed the animal in 90 seconds. Almost instantly after the administration, his respiration increased to an uncountable rapidity. His nictitating membrane was drawn up, his salivary glands were stimulated (shown by the drooling of saliva), and he quickly lost his power of coördination. Clonic convulsions seized him, ending in a tetanic spasm in which he died. We noticed the so-called "cataleptic" stage in this cat, which has been previously reported in the frog. When the leg was drawn down and released, it at once returned to its former position. For some moments after his apparent death one could see

fibrillary twitching of his muscles. From this experiment, we roughly estimated, that the nicotin obtained was about 50% pure. Another tomcat weighing 8 pounds was tested by administering one drop by mouth, to observe the effect of less than the lethal dose. The stimulation of his salivary glands was almost instantaneous, and the abundant saliva flowing from his mouth must have washed away part of the drop. However, the respiration was increased to 132 at the end of the first minute, to 168 at the end of the second minute, 188 at the end of the third and 200 at the end of the fourth. His breathing was shallow and panting. Vomiting set in at the end of 40 seconds, the contraction extending throughout the intestinal tract, so that evacuation of the bowel occurred at the same time that he was vomiting fecal matter. He showed great muscular weakness and incoördination, staggering as he walked. His eyes were dilated at first, his nictitating membrane was drawn up and he stared straight before him with widely opened eyes. His heart action was too feeble to be perceived. This cat finally recovered from a dose which was possibly one-half drop of absorbed crude nicotin.

Experiment No. 2—153 grains of tobacco from Sweet Caporal cigarettes weighing 18 grains apiece, was extracted in the same manner as in experiment No. 1. This cigarette is stated by the manufacturers to be made from Virginia and Turkish tobacco, which is a mixture with a high nicotin content. Our tests showed 17 drops of crude nicotin were contained in the $8\frac{1}{2}$ cigarettes making up this weight, or two drops to each cigarette, giving about 11% of crude nicotin.

Experiment No. 3—Two small five-cent cigars of "pure Havana" were next tested, weighing $54\frac{1}{2}$ grains apiece, or 109 grains together. These were found

to contain 18 drops of crude nicotin, or 9 drops to each cigar. This experiment was repeated with the same result. From the high nicotin content and the low selling price, one might be led to believe that these "Havana" cigars originally came from Virginia.

Experiment No. 4—The same weight (109 gr.) of the tobacco from Turkish Trophy cigarettes was then extracted and yielded only nine drops of crude nicotin. As one Turkish Trophy cigarette weighs 17 gr., each cigarette contained only one drop of nicotin. Consequently, one of the little "Havana" cigars tested in our third experiment yielded as much crude nicotin as nine of the Turkish Trophy cigarettes.

We next tested tobacco smoke as it is drawn into the smoker's mouth. Occasionally you hear a medical man state that the nicotin in tobacco is destroyed in smoking it, so that none comes over in the smoke. This is a perennial echo from the prehistoric and unfortunate researches of Vohl and Eulenberg, who, in 1872, reported a series of otherwise masterly experiments on tobacco smoke in which they could find no nicotin—a result due to their ignorance of the fact that nicotin is decomposed by warm potassium hydroxid. In spite of the number of workers since their day who have found nicotin in tobacco smoke, the error of these men, so comforting to the smoker, still survives, and probably will survive for another thirty-seven years.

In almost all work on tobacco smoke, where the method of extraction has been described, the tobacco in weighed quantity is burned, the total smoke collected and the nicotin extracted. It is very evident that this method does not give the amount of nicotin actually taken into the mouth. When a man smokes a cigar or cigarette, much of the nicotin is volatilized and passes off in smoke at the point of combustion. Obviously

then, in order to determine how much nicotin a man actually gets as he smokes, the smoke must be collected from what the young experimenter on wasps called "the business end" of the cigar or cigarette. For this purpose, we devised a simple apparatus constructed like a water pipe, with a wide mouthed bottle holding a rubber cork through which passed two glass tubes, one running to the bottom of the bottle and the other only through the cork. The long tube was bent at right angles outside the bottle and ended in a cigar holder. The short tube was bent over and flattened, serving as a mouthpiece. In using this apparatus, the bottle was two-thirds filled with hot water, the cigar or cigarette was placed in the holder, lighted and smoked from the stem, the smoke passing up through the water and losing most of its nicotin there and on the glass tubes. Some nicotin still came over in the smoke, so the saliva was collected, together with the washings from the tubes, and distilled along with the water from the bottle, which was changed as often as it became saturated with nicotin.

Experiment No. 5—One small "Havana" cigar weighing $54\frac{1}{2}$ grains, was smoked in the apparatus, and the hot water and saliva distilled and extracted as before. The result was 7 drops of crude nicotin, as compared with the total of 9 drops contained in the cigar. Therefore a man gets 77% of the total nicotin content from the smoke of this cigar. The ash, together with the unsmoked stub weighed $15\frac{1}{2}$ grains. As the original weight of the cigar was $54\frac{1}{2}$ grains, the combustion products must have weighed 39 grains.

Experiment No. 6—When $54\frac{1}{2}$ grains of Turkish Trophy tobacco, represented by $3\frac{1}{4}$ cigarettes, were smoked in the apparatus, only $2\frac{1}{2}$ drops of nicotin could be recovered. Thus only $55\frac{1}{2}$ % of the total nicotin present in the cigar-

ette came over in the smoke, although 77% of that present in the cigar was recovered. This confirms the recent observations of W. R. Lee in the Pharmacological Laboratory of Cambridge University*. He burned equal amounts of a Virginia cigarette and a Manilla cigar and found that, although the Virginia tobacco in the cigarette contained nearly twice as much nicotin as the tobacco in the cigar, yet the smoke of the cigar was twice as toxic as that of the cigarette. He explains this as follows: During the combustion of ordinary smoking, there is an area immediately behind the point of combustion in which the water and other volatile contents of the tobacco condense. The hot gases passing through this area volatilize the nicotin. The smaller the area of combustion, the more complete it is and the less likely is the smoke to contain volatile toxic substances. "Hence," he says, "a cigarette or a slender cigar will yield fewer of these products than a thick cigar, and many smokers can testify that a thick 'fat' cigar has much more effect than a long, slender cigar of similar tobacco." Whatever the explanation, it is certainly true that less nicotin comes over in the smoke of cigarettes than in that of an equal weight of cigars containing the same amount of nicotin.

Experiment No. 7—This was for the purpose of determining the presence, or absence, of opium derivatives, or "dope" in the tobacco of cigarettes. Sweet Caporal and Turkish Trophy cigarettes were extracted with hot water and tested with the ordinary sulphuric acid plus cane sugar and with the nitric acid tests. No traces of opium derivatives could be found, nor, to tell the truth, did I expect to find any, although there is an unshaken and unshakable belief, even among medical men, that a philanthropic and benignant Santa Claus called the Tobacco Trust, is buying expensive opiates to mix with cheap cig-

arettes.

Experiment No. 8. This was to determine the presence, or absence, of arsenic in cigarette papers. After the number of chemists who have investigated this subject, I am ashamed to report any further work along this line, but the frequency with which one still hears arsenic mentioned as one of the deadly components of cigarette paper shows that one can scarcely give too much publicity to the truth regarding this matter. The La Croix Fils rice paper, which comes in red books, was macerated in hot water and the solution tested for arsenic by the silver nitrate plus ammonia, and various other standard tests for arsenic. No trace of arsenic could be found. The cheaper papers were then tested, including that given away with Bull Durham and with Duke's Mixture. No trace of arsenic. Next the papers were split off from Turkish Trophy and Sweet Caporal cigarettes and tested. No arsenic was present, even in traces.

And here are the results of our work: No arsenic in cigarette papers, no opiates in cigarettes and the smoke less toxic than that from cigars containing the same amount of nicotin.

Do you think I am telling you that cigarettes are harmless? Not by any means. Inasmuch as their bad effects must be entirely due to the nicotin contained in them, *per se*, they would be far less harmful than cigars smoked in the same manner and in equal quantity, but a pharmacological reason enters here which has been neglected because it is so evident. Cigarettes are dangerous because they are so harmless. When your little son, watching his chance, purloins one of your cigars and retires behind the house for his first smoke, he finds, to his sorrow, that smoking a cigar is not as easy as it looks. Unwittingly he performs an experiment in pharmacology. As the nicotin comes over in the smoke, his little

body begins to experience all the symptoms of acute nicotin poisoning. He feels a hot, burning sensation in his mouth which spreads down the esophagus to his stomach. He salivates profusely, is nauseated, vomits, thinks he is going to die and vows he will never smoke again if he comes out of this alive. On the other hand, if he smokes a cigarette first, the amount of nicotin which comes over in the smoke is not enough to make him sick and he continues to smoke cigarettes until nicotin tolerance is reached. Then, in the desire for something stronger, he either graduates into the cigar- and pipe-smoking class or inhales his cigarette. But cigarettes are not the only form of tobacco inhaled. On questioning a number of habitual smokers, I was astonished at the number who inhale their smoke. And this is not entirely confined to adults. A short time ago there came into my office a weak looking, anemic, hollow-chested boy of 16 who said he was afraid he was smoking too much and wanted me to give him something to cure the habit. He said he formerly inhaled cigarettes, but they are too weak for him now, and he habitually inhales both the cigar and pipe. Our recent anti-cigarette laws cannot touch this case. This boy may purchase all the cigars he pleases and inhale them to his heart's content, as long as he

does not try to buy cigarettes. In the zeal of our legislators to protect the young against the evils of the cigarette they have entirely overlooked the greater evils of the cigar and pipe. They have strained at a camel and swallowed a gnat.

Anti-cigarette legislation for the young should be anti-tobacco legislation. If the young are to be protected from the evils of smoking—and nobody doubts that they should be protected up to a certain age—let it be by legislation which is intelligent, pharmacologically and sociologically; which understands that it is not some imaginary "dope" or poison in the paper of cigarettes which makes them harmful, but that it is the nicotin and only the nicotin, and that all tobacco is harmful in direct proportion to the amount of nicotin it contains. But not until such intelligent legislation shall prohibit the sale of all nicotin-containing smoking materials to boys, can we hope to even make a beginning of protecting them from a habit which, for 500 years, has held a considerable portion of the human race in thrall.

I wish to express my thanks and acknowledge my indebtedness to Mr. Harry J. Collisi, a medical student in the University of Michigan, for valuable assistance in carrying out the details of many of these experiments.

**Quart. Journal Physiol.*, 1908, I, 335. Reported in *Jour. Am. Med. Assoc.*, Jan. 30, 1909..

Cancer of the Female Breast.—Jackson of Kansas City, considers that early diagnosis in cancer of the breast is of the greatest importance to the cure of the patient. At least ninety-five per cent of all tumors of the breast are malignant, and it cannot be determined which of the remaining ten per cent will remain benign. It is a disease of middle age, cancer being rare under thirty years of age. Under thirty a tumor is probably benign. Heredity, lactation, and injury as factors are of little weight. Diagnosis depends on the physical findings gained by palpation. The finding of a lump in the breast, with fixation to the skin or fascia and dimpling due to involvement of the fascia are sufficient to make a diag-

nosis. Pain is an unimportant symptom, and retraction of the nipple is only confirmatory. Involvement of the axillary glands, in the absence of inflammatory signs is pathognomonic of cancer. There is no known cure for any tumor of the breast, benign or malignant, except by surgical measures. Every tumor of the breast should be considered malignant and treated as such at the earliest moment after detection, unless incision and immediate examination of a frozen section has shown it to be benign. To trifle with tumors of the breast is criminal, since it fritters away the chance of life for the patient.—*Medical Record*, December 4, 1909.

SPECIALISM IN SURGERY.*

LOUIS J. HIRSCHMAN, M. D.,
Detroit.

I wish to here and now, thank the members of the section of surgery and ophthalmology for the high honor they have bestowed upon me, in electing me their chairman for the year just closing. When there are so many more deserving members, whose selection as presiding officer of the section would have been more fit, I cannot but feel that the honor was not meant for me personally, but rather a recognition of that department of surgery, of which I am but a poor representative, namely, proctology.

There was a time not many decades ago, when every general practitioner of medicine essayed to minister to all of the ills of both body and mind diseased. Every physician attempted the diagnosis and treatment of diseases of all the organs and localities of the human body. With the rapid progress of science, however, it became apparent to many medical men that the practice of surgery was not their forte, while others seemed to show a special aptitude and developed special skill in their surgical cases. Thus the first step in the development of specialism and specialists was the division of the practice of our profession into medicine and surgery.

With the further development of medical knowledge, a better understanding of the etiology of diseases; the perfection of diagnostic methods and instruments, soon demonstrated that there was a great number of diseased conditions of the various organs of the body, whose existence it would have been impossible to have dis-

covered heretofore.

With the discovery of, literally, thousands of diseased conditions where scores were thought to have existed previously, came a tremendous increase in the amount of surgical measures demanded for relief of patients suffering from these newly discovered diseases. In the meanwhile, in the great sub-division of medicine, the same development was going on. But inasmuch as our interests in this section are chiefly in matters surgical, we will devote our attention to the development of specialism in that other great division of medical practice—that of surgery.

The number of diseased conditions requiring surgical treatment for their relief has become so great, that in order that the best service be rendered a patient suffering from a given disease, sub-divisions of the practice of surgery or surgical specialties have been developed.

It is a well-known axiom that a "jack of all trades is master of none," and when one realizes that there are literally thousands of surgical procedures necessary to the successful treatment of surgical diseases, it becomes apparent that no one man, no matter how naturally gifted, scientifically trained, or thoroughly experienced, can devote the same amount of time or possess the required skill to treat a special disease of a definite organ as the man who devotes his entire time, skill, and knowledge to the study and treatment of diseases of that one particular organ.

It has been said in a recent article in the medical press, that any physician with a good knowledge of anatomy, who is a good mechanic and possessed horse sense

*Chairman's address delivered before the Section on Surgery and Ophthalmology, at the 44th Annual Meeting of the Michigan State Medical Society, Kalamazoo, September, 1909.

could operate. There is a vast difference, however, between a good operator and a skillful surgeon. He is the greatest surgeon who knows when not to operate!

The great surgeons of our day realize their limitations, and while there are a few general surgeons who attempt anything and everything amenable to surgical relief, from extracting teeth to hysterectomy, the vast majority are gradually limiting their work to certain organs or groups of organs. Even the general surgeon has given up the surgical treatment of diseases of the eye, the ear, the nose, the throat, the mouth, and the teeth, as well as the non-operative work of the orthopedic, the genito-urinary, the gynecic, the proctologic, and the gastro-enteric surgeon.

The time is coming, if it is not already here, when there will be no such specialty as general surgery. When a physician or one of his family is ailing from a surgical disease, does he consult the general surgeon, or the specialist in whose line the disease is included? In nine cases out of ten it is the specialist. The intelligent public today is educated up to the importance of special knowledge and skill in certain lines, and demands the care of the specialist. Would anyone within the hearing of my voice, suffering from a cataract, a club foot, a renal calculus, or an anal fistula, consult a general surgeon; when he knew that there were men who were devoting a large part, if not all of their time, to the study and treatment of these special diseases? I think not.

The development of the surgical specialist has been along lines which necessity has created. Men in general practice, realizing that the study and treatment of certain organs and diseases were neglected, began to give special attention to the study of these organs and their affections, and gave to the profession the results of their findings, and devoted their entire time to the study and treatment of certain specialized organs. Other general sur-

geons developed special skill in operations on certain organs, or on account of local conditions, secured an unusual amount of experience along certain lines. Others who developed a liking and a special aptitude for the study and treatment of some certain organ or organs, gradually limited their endeavors to certain restricted fields, with the result that the highest type of surgical knowledge has been developed by the surgical specialist.

For the general surgeon to do the same high grade of work in all of the surgical specialties as does the specialist, would require so much time given to the study of the diseases included in the various specialties and the latest methods of treatment, that he would have no time left for the practice of his profession. He would require so many special publications, journals and special instruments and apparatus, that it would pauperize him. He would have to work at least seventy-two hours a day to acquire the same amount of skill in the treatment of all of the special diseases, as the man who devotes his entire time and efforts to the study of any special branch or sub-division of surgery.

Inasmuch as the treatment of many diseases requires the knowledge of non-surgical and conservative measures as well as of surgical technique, the less radical methods do not find favor in the eyes of the general surgeon. Many cases require care of a surgical nature and non-operative treatment combined. This can best be given by one whose experience is great among the class of cases to which the one under treatment belongs; and who is continually (not occasionally) treating such cases. A specialist has just as much interest in those cases requiring non-surgical measures as in those demanding operative care. The general surgeon in the vast majority of cases, has little or no interest in the non-operative treatment of a given case.

Surgical specialism has developed today to such an extent that we have ophthal-

mologists devoting their time to the operative and non-operative treatment of the orbit; otologist doing likewise for the ear, and rhinologists and laryngologists for the nose and throat, respectively. The proctologist gives surgical and non-surgical treatment to diseases of the anus, rectum and colon, while the gynecologist limits himself to the treatment of diseases of the female generative organs. The abdominal surgeon limits himself to that region bounded above by the diaphragm and below by the pelvic floor. Deformities, malformations, and congenital defects are remedied by the orthopedic surgeon, who uses non-surgical and mechanical means fully as often, if not more so, than radical surgery. The urologist has for his special field, the surgical and non-surgical treatment of diseases of the genito-urinary system. The obstetrician limits himself to the employment of all measures necessary to the delivery of the new-born child, and must be prepared to do major surgery on short notice. There are in some of our medical centers gastro-enteric surgeons, who limit their field of operation to the organs of digestion.

The refinement of surgical specialism, however, is reached by those few men practicing in this and other countries, who have developed such superior skill and have acquired such vast experience in certain diseases, that they are limiting

themselves entirely to the treatment of but one disease. We have today, for instance, specialists in the treatment of hernia and of goiter.

I trust that these few remarks of mine will not be misunderstood. The treatment of a great many of the more common affections occurring in the practice of every specialty has been, is being, and will be successfully accomplished by every general practitioner of medicine. It is not intended that all the diseases to which human flesh is heir should be divided up among specialists, and the general practitioner merely degenerates into a bureau of information to direct the patient to his proper specialist.

What your chairman wishes to emphasize, however, is that the practice of surgery has become so vast, that the more complicated cases and those requiring special care which it is not possible for the general practitioner, on account of lack of training, experience, time, and special apparatus to give, should be in the interests of the patient given the benefit of the skill and knowledge which the specialist in his respective department alone possesses. The specialist in surgery did not "just happen," like "Topsy" in Uncle Tom's Cabin, but is the result of an urgent demand by a long-suffering public, and an over worked profession!

A one-sided conjunctivitis or irritative condition, with tearing, photophobia, and lid-spasm should always suggest the presence of a foreign body on the cornea or behind the lid. In the latter case puffiness of the upper lid develops very rapidly and is a diagnostic aid.

Intermittent mucoid or mucopurulent discharge from the ear without pain or fever suggest nasopharyngeal disease; in children, adenoids.

For the diagnosis of fractures of the upper end of the femur careful measurements are often of greater value than any manipulation—and much safer.

An old, narrow Graefe cataract knife is an ideal instrument for opening the drum membrane in otitis. Ethyl chlorid narcosis is the best for this brief operation.

When a patient with inflamed varicose veins develops suddenly dyspnea and cyanosis, don't sit her up to examine her—the probability of pulmonary embolism is too great.—*American Journal of Surgery*.

SENILE HYPERTROPHY OF THE PROSTATE*

DEAN LOREE, M. D.,Clinical Professor of Genito-urinary Surgery,
University of Michigan.Ann Arbor.

This is an important subject for discussion before the State Society, because of its prevalence. In nearly every community there are one or more old men using catheters, and in some there are practitioners who think the mortality for prostatectomy to be fifty per cent. It is unnecessary to recall the symptoms of the disease, but I wish to review in brief some of its pathology.

Senile hypertrophy is now regarded as a result of an inflammatory process; it does not follow that the inflammation is necessarily gonorrhoeal, as there are other ways in which infection may reach the gland. The size of the gland has little clinical significance, and the smallest may cause the complications incident to the disease, quite as readily as one, large in its proportions. Why the cells of the acini at times wander into the interstitial tissue to the formation of a malignant process, we do not know. "In no other locality in the human body can the changes from a simple inflammation to carcinoma be so readily demonstrated as in the prostate." The percentage of cancerous prostates now being found puts a new aspect upon the study of the disease of this gland, as well as added responsibility upon him who operates in this field of surgery. In those glands which show a malignant process from the first, the diagnosis is generally easy, but as is often the case, the neoplastic growth follows that of hypertrophy, rendering diagnosis impossible, as the symptoms are identical. Microscopical

demonstration of cancer, in these last mentioned, requires exhaustive search (because of its complication with inflammatory changes) by an expert pathologist, and the employment of a freezing microtome, while the operation waits.

Senile hypertrophy is entirely a surgical disease, and for the following reasons I wish to enter a plea for earlier operative interference for all cases of prostatic enlargement: Because of its liability to become malignant. The removal of the prostate, by either the perineal or the suprapubic route, will not cure posterior sacculation that has existed for years. It will not restore tone to long continued stretching of bladder muscles; nor will it remove cicatricial tissue from the walls of a viscus that has suffered from an old interstitial inflammation. Those patients operated upon between the ages of 55 and 62 years are the ones who sit up in the chair the second or third day following operation, gain control of the sphincter and bladder during the first week, and leave the hospital entirely healed and cured without the above complications, at the end of three weeks. The question of operative routes is of little importance as compared to that of earlier operation and better results will follow, not from perfection of technic, but from an educational reform that will insure these patients a much larger percentage of uncomplicated results.

During the year ending September 1st there have been presented at the Uni-

versity Hospital 32 cases of prostatic enlargement. One was refused operation because of complications. Another declined operation and returned home. Five were cancers, and have already been reported by me in the *Journal of the American Medical Association*, July 24, 1909; the remaining 25 were simple senile hypertrophies. Of these two died. I have had communications from the first 16 who returned to their homes; one has a fecal fistula, the result of one of my first operations, and tearing into the bowel. One has a severe cystitis, and posterior sacculation. I have no dribblers; none suffering from overflow, and all controlling the stream. I have performed all my enucleations by the perineal route. While I had the mis-

fortune to tear the bowel in this one patient, I think the accident is no more likely to occur to me again, than that I should open the general peritoneal cavity, if I employed the suprapubic route.

My decision in favor of the perineal route, and a continuation of its employment, has been greatly influenced by the following: A large percentage of prostatic cancers cannot be differentially diagnosed from senile hypertrophy before operation. Suprapubic enucleation should never be attempted for cancer, as only by chance it is removed in this manner. The operation of Young, of complete extirpation, is the only treatment that lends hope for the cure of prostatic cancer.

Sixteen states and territories of the United States provide no place where the poor consumptive can be treated, except in jails and insane asylums. This statement together with another, to the effect that not one in thirty of the victims of consumption who want to get in hospitals can find a place there, a fact which will mean a loss to the country of \$1,275,000,000 is made by the National Association for the Study and Prevention of Tuberculosis in a bulletin issued today.

The National Association states that there are in the United States at least 300,000 consumptives who are so poor that they cannot pay for proper medical treatment in tuberculosis sanatoria and hospitals. Some of them can pay small amounts a week for their maintenance, but the great majority of them cannot pay anything. For this large class of patients the entire country has provided only 10,000 beds for the free treatment of tuberculosis. In Alabama, Arkansas, Idaho, Kansas, Mississippi, Montana, Nevada, North Dakota, Oklahoma, Oregon, Philippine Islands, South Dakota, Texas, Utah, West Virginia and Wyoming there is no place where the consumptive without means can be treated but in jails or insane asy-

lums and in most cases he will get no treatment there. Sixteen other states provide less than 50 beds each for poor consumptives. In only two states, Massachusetts and New York, have beds for needy tuberculosis patients been provided, so that at least one in ten may find a place for treatment. In many of the other states, not one in 50 of the destitute consumptives can find a bed in a hospital or sanatorium.

It costs on an average about \$250 to cure an incipient consumptive or to care for an advanced case until death. If he is left in destitute circumstances without proper attention, he will surely infect with his disease at least two other persons, and possibly many more. Considering that the average life is worth to society in dollars and cents, about \$1,500, the net loss which would accrue to a community by not treating its poor consumptives in proper institutions would be for each case, including those who are unnecessarily infected, at the very lowest figure, \$4,250. On this basis, if the poor consumptives in the United States who are now sick were segregated from their families, and either kept in institutions until they died, or else cured of their disease, the saving to the country would be the enormous sum of \$1,275,000,000.

The Journal of the Michigan State Medical Society

All communications relative to exchanges, books for review, manuscripts, advertising and subscriptions should be addressed to Wilfrid Haughey, M. D., Editor, Battle Creek, Mich.

The Society does not hold itself responsible for opinions expressed in original papers, discussions or communications.

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JANUARY

Editorial

So of doctors. They like fees no doubt—ought to like them; yet if they are brave and well educated, the entire object of their lives is not of fees. They, on the whole, desire to cure the sick; and, if they are good doctors, and the choice were fairly put to them, would rather cure their patients and lose their fee than kill him and get it. And so with all other brave and rightly trained men; their work is first, their fee second—very important always, but still second. But in every nation, as I said, there are a vast class who are ill-educated, cowardly, and more or less stupid. And with these people, just as certainly the fee is first, and the work second, as with brave people, the work is first and the fee second. And this is no small distinction. It is the whole distinction in man; distinction between life and death in him, between heaven and hell for him.—Ruskin's *Essay on Work*.

The forthcoming revision of the pharmacopoeia will affect the work of every physician, and it is a hopeful sign of the times that there is perhaps greater interest in the subject than ever before. At no time in the history of American medicine have rational materia medica and legitimate pharmacy played a more active part in the every day work of the physician than today. This is in no small measure due to the work of the Council on Pharmacy of the American Medical Association, under whose leadership many of the frauds of pseudo-scientific therapeutics have been exposed.

In general it may be said that the practitioner has five sources from which to draw in prescribing. They are the pharmacopoeia, the national formulary,

books containing a compilation of favorite recipes, text books and current medical literature, and advertising matter. In the past it is probable that the last source has furnished more prescription material than the other four combined. The pharmacopoeia, on the other hand, has probably been the least used by the rank and file of the profession, despite the fact that the preparations contained therein have had a long recognized position, and are now acknowledged as of a certain legal standing, because of the importance given them by the Food and Drugs Act.

The "New and Non-Official Remedies" listed in the book of that name compiled by the Council on Pharmacy, comprise most of the newer drugs which are of scientific value, and it will be one of the difficult tasks of the forthcoming convention to decide which of these shall be admitted to the ninth edition of the U. S. P. In discussing these new drugs, Professor Long, of Northwestern University, in an able article says:

Many of the newer remedies are definite chemical compounds, so-called organic synthetics in most cases, and are usually patented by the firms manufacturing them. While often discussed in the journals they are best known through the advertising literature sent out by the manufacturers or their agents. It is universally admitted that the therapeutic value of some of these proprietary products is great, and their success has led to the production of a host of substitutes or imitations. I am not including here the so-called "patent medicines" which are usually frauds and which are popular because they contain alcohol, morphine, cocaine, or some other potent but dangerous drug. The real physician has nothing whatever to do with these mixtures, whose exploitation is little short of robbery of the public to whom they are popularly advertised. But I refer to such patented products as acetyl salicylic acid, introduced as aspirin, to the suprarenal compound epinephrine, sold under the name of adrenalin, adrin, suprarenalin, etc., by different firms, to the sulpho-methane bodies, the organic silver preparations, and to others which have become well known.

The most important and the most useful of these drugs will probably become official, making the new pharmacopoeia even more useful than it is today. The work of the convention is done by delegates from incorporated medical societies, medical schools and schools of pharmacy and societies of pharmacists.



The history of the development of the pharmacopoeia as we know it today is interesting. In 1817, Dr. Lyman Spaulding, of New York, proposed that the United States be divided into four districts, that each district should hold a convention and compile a district pharmacopoeia, and then that delegates from each district should bring their respective compilations to a general gathering at Washington, where a national pharmacopoeia should be made up. Two districts followed the plan, conventions being held at Boston and at Philadelphia on June 1, 1819. There were no meetings in the middle or western sections. The first national convention met in Washington on January 1, 1820, did its work and published our first pharmacopoeia at Boston, in December, 1820. A reprinting was made in 1828. The convention of 1820 was made self-perpetuating by instructing its president to issue a call in 1830 for three delegates from every incorporated medical society and college. The district plan was abandoned in 1840, but the general scheme has since been followed. In 1830 there were 13 delegates; in 1840, 20 delegates; in 1850, the incorporated schools of pharmacy were included, and there were 30 delegates; a like number met in 1860; this number was doubled in 1870 and in 1900 the number had grown to 207.

From this brief sketch we learn that this important book was originated by us and is our work. Yet, do not many of us feel that the U. S. P. is purely a pharmaceutical work, and not a thera-

peutic work guide? As the editor of the *Journal of the American Medical Association* puts it:

The medical profession during the past thirty years has not given to the revision of the Pharmacopoeia the attention which its importance deserves. In spite of the fact that this book originated with the medical profession and was compiled and published primarily for its use, it has come to be regarded too much by physicians as a book which is of interest and value mainly, if not solely, to the pharmacist and in which the physician is not especially concerned. Two definite steps should be taken before the meeting of the next convention in Washington: (1) All incorporated state medical associations and medical colleges entitled to representation should select the three best representatives possible and should see to it that they attend and take part. (2) Each county society should devote at least one meeting during the winter to a discussion of the present Pharmacopoeia and the formulation of suggestions as to its improvement.



Speaking of the editor of the *Journal of the American Medical Association* reminds us of a recent article in *The Midland Druggist and Pharmaceutical Review*, a journal of pharmacy published in Columbus. The December issue contains a sketch of the life and work of Dr. Simmons which is highly eulogistic, though none the less just. It speaks honestly of the splendid work which Dr. Simmons has done since becoming secretary of the association in these words: "Through his constructive efforts the association has evolved from a loosely coherent body into a closely knit and powerful organization the decision of which upon ethical and professional questions is accepted as the last word by the great majority of medical practitioners of the United States, and is received with corresponding respect abroad, while the *Journal* has developed from a comparatively unimportant publication of limited usefulness, into the most widely circulated and most influential medical pub-

lication in the world."

This appreciation of Dr. Simmons personally is very pleasing to his host of friends and supporters, yet it is even more gratifying to know that the journal of an allied profession which has formerly been out of sympathy with the work of the Council on Pharmacy should at last come to realize the vast importance of its work. This recognition is given in no uncertain words. To quote:

It was also due to his (Dr. Simmon's) constructive genius that the now celebrated Council on Pharmacy and Chemistry was organized, the efforts of which have been mainly devoted to the investigation and exposure of fraudulent proprietary medicines, whether advertised to the medical profession or direct to the laity. His work in this connection has been fearless and uncompromising. Many of the most blatant frauds of the proprietary class have been entirely driven from the market, the sale of others has been greatly reduced by their exposure, while still others have largely modified their claims as to therapeutic efficiency.

So effective have been the efforts of the Council in this respect that the bare announcement that it is on the trail of a fraudulently described or advertised preparation is sufficient to send makers and dealers scuttling for cover.

Naturally Dr. Simmons is *persona non grata* with the proprietors of the medical and pharmaceutical frauds which he has exposed, but he remains apparently undisturbed by this contraction of his visiting list.

There is certainly no better moral or other reason why the makers and distributors of a proprietary medicine should practice fraud and deception without restraint than that the makers or dealers in any other fraudulent product should escape exposure and punishment.

For many years the laws of nearly all the states have been such that if one sought to practice medicine or pharmacy in a single neighborhood, he was permitted to do so only after passing the gauntlet of a medical or pharmaceutical examining board, and was then required to practice under certain restrictions, but if he went into the business in a wholesale way he might practice either or both professions over the entire United States without let or hindrance and without any other restraint upon his ability to de-

ceive than those imposed by the physical limitations of type and printers' ink, and as a consequence the public has been the prey of charlatans of every class and degree.

For a long time those who grew rich by the practice of such wholesale fraud have been permitted to flourish without molestation, but these halcyon days are passing, and for this, so devoutly to be wished-for consummation no one is entitled to so much credit as Dr. Simmons.

Others, among these who have violently opposed the work of the Council, will sooner or later appreciate what it is doing, and will come to feel, as do we, that the reforms brought about by the association along these lines will be looked upon as the most important event in the medical history of the decade just closed.



To keep their policyholders in good health would seem to be a good business proposition on the part of insurance companies. Just as the agents of casualty companies inspect factories and elevators in order to detect imperfections before harm results, so life insurance companies should look after, to some extent at least, their policyholders and endeavor to keep them well. This principle has been recognized by several of the fraternal benefit societies which have established sanatoria for those of their members who contract tuberculosis, and it will likely not be many years before the old line companies undertake similar work.

About six months ago the Provident Savings Life Assurance Society of New York inaugurated prophylactic work of this kind. The matter, however, has not received the attention from the medical press which it deserves. In connection with a notice to the examiners that the fee would be again \$5.00 for an examination, the following paragraphs were included. They are self explanatory.

The Society is about to establish a bureau for

the purpose of keeping the policyholders informed on matters of hygiene and the latest scientific developments in the prevention of disease. This bureau will, of course, be conducted on strictly ethical lines and in conformity with the laws affecting the practice of medicine in the various States. No medical treatment will be given to policyholders, but the bureau will endeavor to guide them as to the proper measure to take for the protection of their health and the early detection of disease. Under the rules of the bureau each policyholder will be entitled to an examination by one of the Society's examiners, free of cost, at intervals of two years. These examinations will usually be made at the examiner's office and involve an inquiry into the general health, condition of the heart, lungs, arteries, nervous system, etc., and a very brief report of the examiner's findings, on a special blank form. No urinary analysis will be required of the examiner, as this will be made at the home office.

For such examinations the Society will pay a fee of \$2.00, which is the maximum that can be allowed, inasmuch as no charge is made for the examination and no new assurance will be issued thereon. It should also be remembered that it is entirely optional with the policyholders as to whether they shall avail themselves of this privilege, which is extended to them for the benefit and protection of their health.

Naturally, it is expected that a benefit to the Society will result in increased mortality savings.

As a result of the activities of this bureau it is hoped that the policyholders will be brought into closer relations with the medical profession, and, that they will be awakened, not only to the importance of taking thought for their health, but to the dangers of experimentation with quacks, charlatans and patent remedies.



The Officers of the Society. On account of ill-health in his family, Dr. Mortimer Willson, of Port Huron, has resigned as councilor of the sixth district, and President Carstens has appointed Dr. W. J. Kay of Lapeer, to fill the vacancy.

At the January meeting of the Council, Dr. Wilfrid Haughey, of Battle

Creek, was chosen secretary-editor, and Dr. George F. Inch of Kalamazoo, treasurer of the State Society.

Book Notices

Systematic (including special) Pathology. By J. George Adami, M. D., and Albert G. Nicholls, M. A., M. D., F. R. S., Assistant Professor of Pathology in McGill University. In one octavo volume of 1082 pages, with 310 engravings and 15 colored plates. Cloth, \$6.00, net. Lea & Febiger, Philadelphia and New York, 1909.

The second and last volume of Adami's Pathology has just appeared and it completes the first really great work upon the subject in English. With the appearance of the first volume the old opprobrium that our pathology is but the echo of that of the Germans was disposed of, for that volume was highly original both in material and in the manner in which it was set forth. The immediate and widespread welcome accorded it furnished abundant proof that the profession was in need of just such a work and the fact that it was appreciated may be said to be a test of the intelligence of the American physician.

In this volume systemic pathology is covered in a thoroughly logical manner. One striking feature is the inclusion of much matter relating to diseased function. It is well that this is so, for to the clinician it is perhaps the most important aspect of pathology. We find then a departure from the time honored morbid anatomy and histology (which, however, have received due attention) the text being based to a greater extent than is commonly done, upon embryology, physiology and chemistry.

The subject is covered under ten headings, each referring to a "system," beginning with the cardio-vascular and ending with the osseous. A certain quite definite order has been followed making the whole logical, one subject following the preceding in a systematic manner.

The same easy and charming literary style, and the same tracing of cause and effect, give the reader the reasoning in a way he will not forget, and endow him with a mastery of his profession that will render him a better practitioner, no matter what his previous attainments may have been. The reputation already won by the first volume will render every reader anxious to possess its companion, and will set American medicine on an even higher plane, both of science and practice.

The Diagnostics of Internal Medicine. A Clinical Treatise upon the Recognized Principles of Medical Diagnosis. By Glentworth Reeve Butler, M. D., LL. D., Physician-in-Chief, Methodist Episcopal Hospital, Brooklyn. Third Edition, 1193 pages, 5 colored plates and 272 text illustrations. Cloth, \$6.00. New York, D. Appleton & Company, 1909.

This book has been a favorite with many since its first appearance, and justly so, for it is well arranged, clear in diction, well illustrated and well indexed. It covers the whole field of the diagnostics of internal medicine, both clinically and from the laboratory standpoint. In the preparation of a new edition the author has carefully gone over the material and has eliminated those portions which experience has proven of little practical value, as for example, the section on Kryoscopy. There are many changes in the text, few perhaps of prime importance but taken in the aggregate they go to show the progress which we are making in methods of exact diagnosis.

A Text-Book of Surgical Diagnosis. For students and practitioners. By Edward Martin, M. D., professor of Clinical Surgery, University of Pennsylvania, Philadelphia. Very handsome octavo of 764 pages, with 445 engravings, largely original, and 18 full-page plates. Cloth, \$5.50, net. Lea & Febiger, Philadelphia and New York.

This is one of the most useful books which has come to our notice within the past year, for it contains a fund of most valuable information set down in a readable style, systematically arranged and so indexed as to be easily found. Since the family physician is the one who is usually called upon to make the first diagnosis, a book of this kind is invaluable to him.

The work opens with a chapter by Longcope on laboratory diagnosis. It is clear and concise. H. K. Pancoast wrote the chapter on X-ray diagnosis, Anspach the one on gynecological diagnosis, and Weisenburg the section on diseases of the nervous system.

There are chapters on the blood-vessels, lymph-vessels and glands, muscles, tendons and bursae, bones and joints, and genito-urinary organs; the chapter on the last named subject is an especially good one, as one would expect from the author's large experience.

A marked feature is found in the illustrations which, like the text, are inserted for instructiveness and not embellishment. They are mostly original and are designed to exhibit the diagnostic points. It would have been easier but

worse than useless to fill the book with shocking pictures of fully developed and hopeless disease, but true to his theme, the author has chosen to delineate the early symptoms, showing them in as simple and clear a manner as possible.

The book is to be heartily recommended.

A Text Book of Physiology. For Medical Students and Physicians. By William H. Howell, Ph. D., M. D., LL. D., Professor of Physiology, Johns Hopkins University, Baltimore. Third Edition, thoroughly revised. Octavo of 998 pages, fully illustrated. Philadelphia and London: W. B. Saunders Company, 1909. Cloth, \$4.00, net; half morocco, \$5.50, net.

The third edition of this valuable work is a worthy successor to those that have preceded it. The advances made since the appearance of the last edition have been carefully incorporated in the text.

A thorough review reveals changes in diction in various parts of the text which add to the ease with which it may be read. New topics have been added as well as new illustrations. Several recent theories are included, e. g., DeVries theory of mutations, and Mendel's law of inheritance, usually known as the Mendelian Law. Rubner's observations on growth and the laws formulated as a result are exceedingly interesting and instructive.

Many other additions to topics are worthy of note, for example, studies on capillary and venous blood pressure, on the ventricular output of the heart, on heat regulation, chemical and physical, on fatigue and its specific toxin, on ferments, on dietetics, etc.

There is a notable absence of superfluous material, which fact makes the book more valuable to those for whom it was intended, the practitioner and student.

The work will remain the best work on physiology in English.

Essentials of Laboratory Diagnosis. By Francis Ashley Faught, M. D., Director of the Laboratory of Clinical Medicine, Medico-Chirurgical College, Philadelphia. Pages 309, 34 illustrations and 6 plates. Limp cloth. Philadelphia, F. A. Davis Company, 1909.

This is a very attractive manual covering the subject in a practical manner and containing all information necessary to provide a working outline of clinical laboratory methods.

Besides the sections usually found in such books, covering the use of the microscope, the examination of the sputum, blood, stomach con-

tents, feces, etc., there are sections on the opsonic method and bacteriological methods. An appendix contains useful formulae, tables of weights and measures, forms for reports, etc.

In the section on the animal parasites the common names should have been given. In describing the inflation of the stomach by means of tartaric acid and soda bicarbonate, the tartaric acid should be given first and not as advocated by the author. There is a discrepancy in technic on page 134. "Poisoning by toad stools is also a frequent cause of serous stools," was carelessly allowed to pass on page 144. There is now and then a misspelled word. However, for a first edition the text is remarkably free from errors.

The book is to be recommended.

Books Received.

The Practitioners' Visiting List. Edition for 1910. Wallet-shaped book, bound in flexible leather. For 30 patients per week, \$1.25. Lea & Febiger, Philadelphia, 1910.

Treasures of Truth. By George F. Butler. Board covers, 75c. Published by S. DeWitt Clough, Ravenswood Station, Chicago, 1910.

The Physician's Pocket Account Book. By J. J. Taylor, M. D., bound in full leather, 24 pages of practical instructions for physicians, 216 pages of accounts. Price \$1 per copy; published by The Medical Council, 4105 Walnut St., Philadelphia, Pa.

Practical Medicine Series. Edited by G. P. Head, M. D. Vol. IX. Skin and Venereal Diseases, by W. L. Baum, M. D., and Miscellaneous Topics, by H. N. Moyer, M. D. Year Book Publishers, Chicago, 1909.

Third Report of the Welcome Research Laboratories. Published for the Department of Education of the Sudan government, Khartoum. Balliere, Tindall and Cox, London, 1909.

Vital Economy, or How to Conserve Your Strength. By John H. Clarke, M. D. Pages 118, cloth. New York: A. Wessels, 1909.

International Clinics. Vol. IV. Nineteenth Series. Edited by W. T. Longcope, M. D. Octavo, pages 320. Illustrated. Philadelphia: J. B. Lippincott Company, 1909.

County Society News

County Secretaries' Association.

The second annual meeting of the County Secretaries Association of the Michigan State Medical Society was held at the Cadillac hotel, Detroit, on January 13, 1910, at 2 p. m.

Those present were: Dr. George H. Simmons, general secretary of the American Medical Association; Dr. J. H. Carstens, president of the State society; Dr. B. R. Schenck, retiring State secretary; Dr. Wilfrid Haughey, secretary-elect; councilors Baker, Bulson, Dodge, Ennis and Seeley, and the following secretaries and members: Bird, Oakland; Bower, Montcalm; Bradley, Bay; Chapman, Muskegon; Chase, Lenawee; Conboy, Huron; Eggleston, Lapeer; Garver, Tuscola; Green, Hillsdale; Hastie, Kent; Hume, Shiawassee; Keating, Washtenaw; Kinsey, St. Joseph; MacLean, Saginaw; MacKinnon, O. M., C. O., R. O.; Scott, Sanilac; Wheeler, St. Clair; Williams, Muskegon, and Winter, Jackson.

The president, Dr. F. C. Warnshuis, of Grand Rapids, not being present, Dr. H. L. Bower, of Greenville, was chosen chairman and Dr. F. C. Kinsey, of Three Rivers, secretary pro tem.

The following papers were read. (To appear in later issues of The Journal.):

Medical Organization Work, Dr. A. E. Bulson, of Jackson, Councilor of the Second district.

The Councilor's Relation to the County Secretary, Dr. W. P. Dodge, of Big Rapids, chairman of the Council.

Business Affairs of the County Secretary, Dr. A. C. MacKinnon, of Lewiston.

Post Graduate Work, by Dr. Wilfrid Haughey, secretary-elect of the State Society.

The Relation of the County Secretary to the State Society, Dr. B. R. Schenck, retiring secretary of the State society.

Some Ethical Problems of the County Secretary, Dr. F. C. Kinsey, of Three Rivers.

The Muskegon-Oceana Plan of Meetings, Dr. V. A. Chapman, Muskegon.

Legal Defense Work, Dr. F. B. Tibbals, of Detroit, chairman of the Legal Defense Committee of the State society.

The papers were all interesting and well received. The annual election of officers held immediately after the meeting, resulted as follows: President, Dr. V. A. Chapman, of Muskegon

(Muskegon-Oceana County); Vice-President, Dr. D. Conboy of Bad Axe (Huron County); Secretary, Dr. W. C. Garvin, of Millington (Tuscola County).

The meeting was then adjourned until evening, when the visiting secretaries were the guests of the State society at a five course dinner served in the Florentine room of the Hotel Cadillac. After dinner, Dr. J. H. Carstens, president of the State Society, spoke on "The Michigan State Medical Society." He was followed by Dr. George H. Simmons, general secretary of the American Association, who closed the evening with a paper entitled, "The County Society, and How It Can Be Made More Effective for good."

F. C. KINSEY, Secretary Pro Tem.

Grand Traverse.

The regular meeting of the Grand Traverse County Medical Society was held at the residence of Dr. H. B. Garner, Traverse City, January 4, 1910. The vice-president, Dr. E. B. Minor, presided. The attendance was large.

Dr. Garner read an interesting paper on "Surgical Emergencies," which was followed by a general discussion. Dr. H. D. Purdum read a paper on "The Present Status of Thyroid Surgery."

Dr. E. B. Minor was elected delegate to the Bay City meeting of the State society, to be held September 27, and 28. Dr. Martin was elected alternate.

R. E. WELLS, Sec'y.

Houghton.

The December meeting was held at the Red Jacket Council rooms, Calumet, with a very large attendance. Dr. A. R. Tucker, Mohawk, reported a "Case of Cyst in the Inguinal Canal Simulating Inguinal Hernia." The cyst was large, attached to the internal ring, with an adhesion to the tip of the appendix.

Dr. S. S. Lee, of Osceola, read a paper on "Cystitis." He said that a classification based on etiology is difficult on account of the numerous causes. It is due to a microbic infection and generally a purulent process. Various conditions favor infection, as obstruction to the passage of urine, traumatism, foreign bodies, new growths, etc. The symptoms are frequency of urination,

pain, tenesmus, pus, epithelial cells and sometimes blood in the urine, the microscopic and chemical analysis being used to confirm the diagnosis. Those possessing the dexterity to use the cystoscope find it of great value, especially in differentiating cystitis from pyelitis.

The treatment of the acute form gives the best result, but in any form we are liable to have a relapse. The following are the principal indications in treatment. (1) Remove the cause, if possible. (2) Relieve pain and frequent urination. (3) Change the urine into a condition unfavorable to germ growth. (4) Check suppuration.

Dr. C. H. Rodi, Calumet, had for his subject "Pyelitis," which he said manifests itself in three forms, viz., That arising from inflammation of the substance of the kidney, from the pelvis of the kidney; and abscess of the kidney.

The infectious diseases as a causative factor are frequently overlooked. A frequent examination of the urine would reveal cases that are usually not recognized. Pus would be found, but sometimes in very small quantities. The cases ushered in by a slight chill are usually self limited. Where the chill is heavy we usually get a suppurative pyelitis. Foreign bodies may cause pyelitis, or it may arise from the extension of disease upward. In the chronic form cystitis and tuberculosis are common causes. In the tubercular form we have emaciation and slight evening rise of temperature, with tubercle bacilli in an acid urine.

In cystitis the urine is ammoniacal, but this does not exclude the presence of tuberculosis of either kidney.

Obstruction of the ureter, preventing the escape of pus, gives rise to a tumor and may simulate floating kidney, distended gall-bladder, etc. The essayist related a case of tumor in the region of the appendix, simulating appendiceal abscess, but pus in the urine made the diagnosis easy. The abscess was evacuated through the loin, but the patient is now suffering from Bright's disease.

Dr. S. S. Lee related a case on which he had performed an autopsy and found a smooth stone in the pelvis of the right kidney. It was as large as a hen's egg. The patient's physician had known her for years, but during this time she had never made any complaint of trouble in the kidney.

Dr. W. T. S. Gregg reported two cases of pyelitis. The first case was reported at the June meeting. The second was a more recent case. In this case there was a distinct tumor in the left

pelvis with pus in the urine. The kidney was opened and drained. The sinus closed, but opened a third time. The kidney was removed extraperitoneally through an anterior incision and the patient made a good recovery.

Dr. L. A. Farnham reported two cases of cystitis without any demonstrable etiological factor. No catheterization. No infectious disease.

Dr. H. H. Runonavarro related a case of colon bacillus cystitis which was placed under an opsonic treatment with a gradual diminution of pus and final recovery.

Dr. Rodi closed the discussion with a report of a case of cystitis following catheterization for overdistention, treated years ago by a method in vogue at that time of constant and free drainage gradually becoming worse, extending to the ureters and kidneys and finally terminating fatally.

JOHN MACRAE, *Sec'y.*

Huron.

The January meeting of the Huron County Medical Society was held at Bad Axe, in the Court House, on January 10, 1910. The following papers were read: Hypernephroma of Kidney, with Report of a Case, Dr. B. Friedlaender, and Indigestion Due to Hyperacidity, Dr. D. Conboy.

D. C. CONBOY, *Sec'y.*

Ionia.

At the meeting of the Ionia County Medical Society, held January 13, 1910, the following program was carried out in full:

1. "Infantile Paralysis," Dr. John McCan, Ionia.
2. "Appendicitis," Dr. Jos. F. Pinkham, Belding.
3. "Cancer from the Viewpoint of the General Practitioner," Dr. F. A. Hargrave, Palo.

Drifted roads and delayed trains did not deter the faithful and we had the largest attendance in months, although the banquet was delayed nearly two hours in waiting for trains to get in. The banquet was greatly enjoyed, the smoker full of comfort and the speech-making piquant.

The papers were all presented and were fine, being followed by discussions, everyone present taking part. There was no stiffness, no diffidence, each felt at home, and all expressed the sentiment that this was the best meeting yet.

C. S. COPE, *Sec'y.*

Lenawee.

At the regular meeting of the Lenawee County Medical Society, held at Adrian, January 11, 1910, the following officers were elected: President, Dr. George Lamley, Blissfield; Vice-President, Dr. O. Whitney, Jasper; Secretary-Treasurer, Dr. A. W. Chase, Adrian.

Dr. Esli Morden read a paper on "Mastoid Disease" and reported a case. The papers are always followed by an experience meeting in which every man reports a case, which is discussed by everyone.

Lenawee has a good live society and we have a meeting the second Thursday of every month. We always have some good papers and a good lively time.

A. W. CHASE, *Sec'y.*

Manistee.

At the annual meeting of the Manistee County Medical Society, held at the Dunham House, December 28, 1909, the following officers were elected for the ensuing year:

President, Dr. Harlan McMullen, Manistee; Vice-President, Dr. R. A. Jamieson, Manistee; Secretary, Dr. J. C. Christianson, Manistee; Treasurer, Dr. H. D. Robinson, Manistee; Delegate to the State Meeting, Dr. J. C. Christianson, Manistee; Alternate, Dr. Harlan McMullen, Manistee; Member of the Medico-Legal Committee, Dr. Jas. R. King, Manistee.

The society also adopted the plan for Medical Defense at this meeting.

A fine banquet was served and matters of interest to the local profession were discussed.

J. C. CHRISTIANSON, *Sec'y.*

St. Joseph.

The annual election of officers of the St. Joseph County Medical Society was held on January 5th and resulted as follows:

President, Dr. F. C. Kinsey, Three Rivers; Secretary-Treasurer, Dr. S. R. Robinson, Sturgis; Delegate to State Meeting, Dr. A. W. Scidmore, Three Rivers; Member of Medico-Legal Committee, Dr. Fred Robinson, Sturgis.

S. R. ROBINSON, *Sec'y.*

Tri-County.

At a meeting of the Tri-County Medical Society, held in November, 1909, the following of-

ficers were elected: President, Dr. David Ralston, Cadillac; Vice-President, Dr. John Barry, Harrietta; Secretary-Treasurer, Dr. W. J. Smith, Cadillac; Board of Directors, Dr. A. Brodeur, Cadillac; Dr. W. Wallace, Manton; Dr. J. Gruber, Mesick; Program Committee, Dr. C. C. Miller, Cadillac; Dr. J. Vermeullen, Cadillac; Dr. W. J. Smith, Cadillac; Delegate to State Meeting, Dr. W. B. Wallace, Manton; Alternate, Dr. O. L. Ricker, Cadillac; Finance Committee, Dr. J. M. Wardell, Cadillac; Dr. C. E. Miller, Cadillac; Dr. S. C. Moore, Cadillac.

W. J. SMITH, *Sec'y.*

News

Dr. H. B. Garner, of Traverse City, has recovered from his recent illness and is planning a removal to Detroit.

Dr. C. Hollister Judd, of Detroit, has removed his office from the Fine Arts Building to 32 Adams avenue west.

During the Christmas holidays a number of physicians of Detroit, accompanied by Mr. F. B. Stratton, of Stratton & Baldwin, architects, visited Cincinnati, Washington, Baltimore, New York and Boston, in the interests of the new Detroit General Hospital. Plans for the new hospital are being pushed and ground will be broken when the plans are completed. Detroit is greatly in need of increased hospital facilities, and never has the need been more acute than during the past month.

Dr. C. A. Carlson, formerly of Rapid River, has been located in Escanaba for the past two months.

Dr. G. L. Renaud, of Detroit, has returned from a southern trip.

Efforts to reduce the mortality of infants in Detroit will be made along the lines followed in some of the larger eastern cities. The board of health recently, on the recommendation of Health Officer Kiefer, voted to establish a mothers' clinic in which mothers will receive instruction and aid in the care of their babies. This clinic will be opened in the board of health building as soon after January 1 as possible, and until July 1 next will be conducted without expense to the board,

A physician and nurse will be in attendance and proper food will be supplied for infants. Dr. Francis Duffield has volunteered to give his services.

Dr. F. W. Shumway, Secretary of the State Board of Health, spent six weeks in Mexico recently. He was accompanied by Governor Warner and State Banking Commissioner Zimmerman.

At the last meeting of the Board of Regents a committee was appointed to investigate the possibilities of removing the fourth year of the Medical Department of the University to Detroit, where better clinical facilities may be obtained.

The annual meeting of the Detroit Tuberculosis Sanatorium was held January 18th in the Hotel Pontchartrain. Annual reports were read and the following Board of Trustees elected: Dr. H. J. Hartz, Mrs. Wm. A. McGraw, Clarence Neely, Mrs. James Arthur, Dr. W. G. Henry, Mrs. B. C. Whitney, Dr. C. G. Jennings, Dr. B. R. Shurly, Mrs. E. D. Stair, Mrs. Chas. F. Hammond, Raphael Herman, Henry Stephens, Miss Clara Dyar, Austin E. Wing, Dr. H. M. Rich, Frank B. Leland, Miss Mary Doyle. The meeting was an enthusiastic one and the reports showed a very satisfactory progress in the work. The sanatorium fund now amounts to over \$22,000, and the association is meeting with a very cheerful and ready response for help. Offers have been made by individuals to erect several cottages. Immediately following a meeting of the new trustees was held, at which the following officers were chosen: President, Frank B. Leland; Vice-President, Dr. B. R. Shurly; Secretary, Dr. H. M. Rich; Treasurer, Austin E. Wing. The Executive Committee is composed of the officers and Dr. W. G. Henry.

It is said that many thousands of letters were received at the Dead Letter Office, because senders believed that the Red Cross stamps would take the place of regular postage stamps.

Dr. A. W. Abbott, of Ludington, is in California.

Dr. John H. Crosby, of Otsego, has returned from Berlin, where he spent several months in study.

The following members of the State Society have recently joined the American Medical Association; Drs. W. A. Campbell, Muskegon;

J. T. Cramer, Muskegon; L. L. Goodenow, Michigamme; J. B. Jackson, Kalamazoo; W. T. Wing, Allouez; J. W. McEwan, Detroit; G. G. Rober-son, Utica; M. M. Wickware, Cass City; P. S. Wilson, Negaunee.

Recent registrations with the State Board of Examiners are: Charles R. Walsh, Detroit, Ken-tucky School of Medicine, 1908, by examination; Frank J. Maha, Traverse City, Bennett Medical College, 1900, reciprocity with Illinois; William G. Gardiner, Flint, University of Pennsylvania, 1906, reciprocity with Ohio; William H. Perry, Addison, Homeopathic Medical College of Mis-souri, 1898, reciprocity with Kansas; Robert A. Davis, Clinton, University of Illinois, 1906, reci-procity with Illinois; Alfred M. Wheeler, Wake-lee, Chicago College of Medicine and Surgery, 1909, reciprocity with Illinois; H. B. Weinburg, Kalamazoo, University of Illinois, 1909, reci-procity with Illinois; J. Martin Voorhees, Marshall, Long Island College Hospital, 1897, reciprocity with New York; Royal T. Farrand, Houghton, University of Michigan, 1892, reciprocity with Wisconsin.

At Bomget France, a city of 18,000 inhabitnats, the 14 physicians recently found that the sick benefit societies were greatly decreasing the pro-fessional income. The rates paid were twenty-cents per visit, day or night. The physicians banded together and asked forty cents for an office consultation, and sixty cents for a residence call, with a twenty per cent discount if the bill was paid within a certain time. The societies were incensed and did all within their power to get new medical men to come to Bourge. The French medical journals are warning the pro-fession "not to pick up the bone which the local physicians have found to be too bare."

Deaths

Neil McKinnon, M. D., a graduate of McGill University in 1895, died at his home in Alpena, December 12th.

Joseph James Moore, M. D., a well known member of the Oakland and Wayne County Med-ical Societies, died at Farmington on December 28th. Dr. Moore graduated at the University of Michigan in 1876.

Guy Melville Dunning, M. D., a prominent member of the Ingham County Medical Society, and a well-known specialist on the eye and ear, died of pneumonia, at Lansing, December 24th. Dr. Dunning was a graduate of the University of Michigan and was 40 years of age.

John W. Steffin, M. D., health officer of Che-boygan, died December 3rd, aged 52 years.

William J. McHench, M. D., of Brighton, died in Bradentown, Florida, where he had gone for his health, on January 1st. Dr. McHench grad-uated at the University of Michigan in 1858. He was an acting assistant surgeon in the Union army during the civil war, and for many years surgeon to the Pere Marquette Railway. He was 78 years of age.

Darius W. Loree, M. D., University of Michi-gan, 1860, died at Ridgeway, January 9th, from disease of the stomach, aged 76 years.

William H. Haze, M. D., of Lansing, died at his home January 21st. Dr. Haze was born in Port Hope, Canada, April 13, 1816, and in 1841 came to Oakland county, where he resided until 1862. For several years he was a circuit rider in the Methodist conference, preaching in both Wayne and Oakland counties. His medical edu-cation he received at an Ohio medical school, and for a number of years he practiced at Farming-ton. In 1857 he served in the legislature from that county and in 1862 he served one term as a representative from Ingham county. In 1865 he was elected by the Republicans of Lansing as mayor, and later represented the first ward as an alderman. Last summer he and his wife cele-brated their sixty-ninth wedding anniversary, and when she passed away a few weeks ago the shock materially hastened his death.

Frank D. Summers, M. D., one of the best known physicians in Detroit, died from nephritis, at his home, January 20th. Dr. Summers grad-uated at the Detroit College of Medicine, in the class of 1883, and was in his 50th year.

Health officers in large cities are beginning to fall in the bad habit of ascribing most typhoid fever cases occurring in their municipality as being "contracted in the country."

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BATTLE CREEK, MICHIGAN, MARCH, 1910

No. 3

ORIGINAL ARTICLES

DIAGNOSIS AND TREATMENT OF PROSTATITIS AND SEMINAL VESICULITIS *

M. A. FECHHEIMER, M. D.

Detroit, Michigan

The diagnosis of chronic prostatitis and seminal vesiculitis may often be made after a careful history of the patient. A chronic urethritis is invariably complicated with both a prostatitis and also a spermatocystitis. Oftentimes, and this especially applies to the chronic forms of the disease, all symptoms directing one's attention to these organs are very vague, and often lacking. My experience has been that close and thorough questioning of patients has very frequently failed to reveal a single symptom by which I could make my diagnosis previous to examination, and in those cases where I have found them, the idea occurred to me that they were all referable to an existing posterior urethritis. In those cases in which the prostate gland or seminal vesicles were alone involved, where the urethritis itself was cured, the only method of diagnosis upon which I could rely was by rectal examination, and careful microscopic examination of the expressed secretions. It is equally true that the prostate may become infected as early as eight days following the onset of

an acute gonorrhoea, and this is especially so where gonococci are still present in the urethral discharge. When it is remembered that with many cases of chronic prostatitis there is present an existing sexual neurasthenia we can readily see that the symptoms should not be solely relied upon.

I find the following method of procedure in making the examination to be most satisfactory: The patient first urinates. The anterior urethra is then thoroughly washed by means of a blunt pointed syringe with a capacity of 150 c. c., or with a glass irrigator. A two per cent solution of Boric acid is used for this purpose.

This flushing is continued until the returning fluid is clear. The solution is then allowed to flow into the bladder and then expelled. This procedure is repeated until the solution returns absolutely clear. The object in doing this is to prevent, as nearly as possible, the secretions from the prostate and seminal vesicles from becoming mixed with any urethral discharge. The bladder is then once more filled with this liquid and retained. The patient leans across a chair or table, his body at right angles to his

*Read at the Forty-fourth Annual Meeting of the Michigan State Medical Society, at Kalamazoo, Sept. 15 and 16, 1909.

hips, his feet widely separated and his knees rigid. The index finger, covered with a thin rubber finger cot and anointed with any simple emollient, as zinc oxide ointment or plain vaseline, is then slowly introduced into the rectum. Another and most excellent position for the patient to assume is to have him remove his trousers and one side of his underclothing and to have him lie flat upon the table. His thighs should be widely separated and flexed on the abdomen and his legs flexed on the thighs. His feet should not rest upon the table. The surgeon's forearm should be parallel to the table.

The prostate gland is first carefully and gently palpated, its size, general contour, all points of induration, tenderness, softening and fluctuation being carefully borne in mind. The finger then being inserted a little further, the seminal vesicles can be felt and their condition likewise observed. It must be remembered that the seminal vesicles in their healthy and normal condition are often imperceptible to the touch of the examining finger.

To obtain the prostatic secretion it is necessary to gently stroke the prostate from above downwards, going over each portion eight to twelve times, and then with one sweep of the finger go over the entire surface. The secretion escaping from the meatus may be either allowed to drop upon a glass slide or into a graduate. The former is more practicable. A cover glass is now applied over the specimen, which is immediately examined with a $\frac{1}{8}$ objective. In cases of prostatitis, the secretion is seen to be composed of pus cells, which vary in number and depend upon the degree of inflammation, epithelial cells from the prostate, globules of lecithin, amyloid bodies, and spermin crystals. The secretion from the seminal vesicles is obtained in like manner and the findings

are the same, with the addition of living and dead spermatozoa.

Another glass slide is now placed over the specimen (the cover glass having been removed) and the two are firmly pressed together and then slowly drawn apart. The specimen is now fixed and stained with methylene blue. With a $\frac{1}{2}$ oil immersion, gonococci and other bacteria are often found in addition to what has been previously mentioned. Searching for these micro-organisms is more difficult than when looked for in urethral discharge.

The presence of numerous leucocytes or pus cells, even where the bacteriologic findings prove negative, in these secretions is pathologic and is absolutely indicative of an existing prostatitis or seminal vesiculitis. The curability of these diseases can only be determined by repeated microscopic examinations of the stained and unstained secretions.

The prognosis is excellent and depends greatly upon the thoroughness and persistency with which the treatment is administered and continued.

The treatment, and here I shall speak only of the chronic forms, consists, first, in the avoidance of all violent exercise, as horseback riding, bicycling, etc. Alcohol in all forms is best avoided. Tea and coffee, when weak, may be moderately used. Constipation should be guarded against. Sexual intercourse must be absolutely prohibited. Light outdoor exercise and nourishing foods are beneficial. Highly seasoned articles of food should be avoided. Internal medication is of doubtful value. A well-fitting suspensory is advisable. Locally the treatment depends greatly upon the bacteriologic findings. Should gonococci be present in the secretions, the bladder should first be filled with a weak silver albuminate solution, such as Albargin 1-1000, Protargol 1-500, etc. The prostate and seminal

vesicles should then be massaged as previously stated. The patient then urinates, thus ridding the bladder and urethra of any infecting material. Should the findings prove to be other bacteria than gonococci I use a solution of mercury oxycyanatum varying in strength from 1 to 4000 to 1-2000 in the same manner. The object of the massage is to cause a greater and firmer contraction of these glands and also to empty and expel these foci of infection. These treatments are continued until there is a total disappearance of the pus cells and gonococci. After the disappearance of these pus cells and bacteria, many tests, six to ten in number, at weekly intervals, should be made, and thereafter every one or two months for the following year. The patient may be pronounced cured if at each of these consecutive examinations there is a total disappearance of pus cells and bacteria. This massage may be repeated every two or three days if well borne. Instillations to the prostatic urethra are also beneficial, and especially so if there is an existing posterior urethritis. All other disorders of the urethra, when present, must also receive the treatment appropriate to these conditions. Various instruments have been devised for massage, but the finger is the best for this purpose.

Rectal suppositories consisting of:

℞ Icthyol 1.0-2.0

Ext. Belladonnae 0.15

Oleii Cacao qs Suppos. No. X,

or,

℞ Kalii Iodi. 2.0

Iodi (Pure) 0.5

Ext. Belladonnae 0.15

Butyr Cacao qs Suppos. No. X

are often of value and may be used night

and morning. Hot rectal irrigations, preferably through a rectal psychophore are often of great benefit.

The sexual neurasthenia, when present, requires the most careful and painstaking attention. The various urethral dilators, especially those made for the posterior urethra, the use of both the rectal and urethral psychophores, with either hot or cold water, and the application of faradic electricity by means of the urethral or rectal electrodes are all of most decided value.

In closing, I wish to sound one caution as relative to prostatic massage, and this is, that massage is absolutely contraindicated in acute gonorrhoeal urethritis, or where there is an exacerbation in the discharge, or where there is profuse discharge, containing many gonococci. Better to try to rid the urethral canal of gonococci and discharge, and this having been accomplished, to then proceed with the massage.

In those cases of prostatitis attended with immense swelling and enlargement of the prostate and where signs of fluctuation point to the presence of an abscess, the prostate gland should be treated surgically through the means of a perineal section. The abscess should be well opened and its contents removed, and then drained and packed. Fortunately these cases are of infrequent occurrence, and when present generally occur during the acute stage. Oftentimes following the recovery from this operation, what is left of the prostate will still show remains of the old inflammation, and this requires the treatment as previously outlined.

403-404 Gas Office Building.

The Forty-fifth Annual Meeting of the Michigan State Medical Society will be Wednesday and Thursday, September 28th and 29th, 1910, at Bay City.

SUPRAPUBIC PROSTATECTOMY*

ANGUS McLEAN, M. D.

Detroit, Michigan

During the past two decades a very voluminous literature has been published on the various phases of prostatic disease. To this literature clinicians from all nations have contributed. In the beginning, however, history reveals slow progress in combating it. Since the prostate gland was first described by Massa in the 16th century and since Riolan in the 17th century first showed that obstruction to urination could be produced by its enlargement, fully two centuries elapsed before means were suggested for its removal. These suggestions came through Mercier in 1856 who snared or otherwise destroyed the median lobe. This in 1867 was followed by Billroth's partial perineal prostatectomy, in 1874 by Bottini's well-known galvano-cautery operation through the urethra, and in 1882 by Leisrink's total extirpation with suturing of the divided ends of the urethra.

It is true that parts of the prostate were removed prior to these dates, but such procedures were only accidental. They were coincident with operations for stone in the bladder. Thus in the course of a perineal lithotomy, as early as 1639, Covillard removed or rather tore away a hypertrophied middle lobe. Others as Amussat in 1827 and Sir Wm. Ferguson in 1848 did likewise. These procedures, however, cannot be classed as prostatectomies.

With the work on prostatic diseases well

started it began to multiply indefinitely. Many different operative procedures have been suggested and practiced. Perineal and suprapubic routes each have their advocates.

The perineal route was strongly recommended by Gouley in 1874, Leisrink in 1882, by Billroth as mentioned above and Goodfellow. The latter in 1891 published many successful cases.

The suprapubic route on the other hand was upheld by Belfield in 1887 and McGill in 1888. The latter in 1889 reported 24 cases.

In these operations only the middle and parts of the lateral lobes adjacent to the urethra were removed.

In 1894 Fuller, of New York, did the first complete suprapubic operation. He used pressure against the perineum with one hand while with the fingers of the other he did the enucleation through the suprapubic opening.

About the same year, *i. e.*, 1894, Nicoll and two years later Alexander advised the combined methods. Performing the operation perineally while the gland was forced downward through a suprapubic opening.

In 1901 Syrus proposed the use of the rubber balloon to accomplish this same purpose, and in 1903 the tractors of Young and Lydston and numerous similar instruments were discovered and tried, some only to be discarded.

The men thus far mentioned together

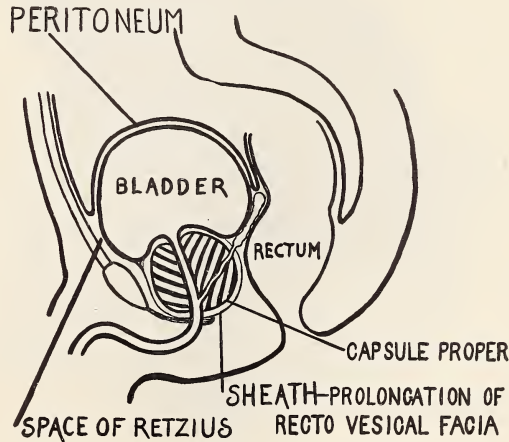
*Read at the Forty-fourth Annual Meeting of the Michigan State Medical Society, at Kalamazoo, Sept. 15 and 16, 1909.

with Dittel, Fuller, Alexander, Syrus, Murphy, Bigean, Young, Freyer and Guiteras, Deaver and a host of others gave to prostatic disease and its surgical treatment the substantial and well-recognized place it has at the present day.

The etiology of this malady is as yet a mooted question. Excessive sexuality and inflammatory disease each has been considered a causative factor; yet, numerous cases of prostatic hypertrophy are on record in which no such history is obtainable and *vice versa*. It is, however, in some

gland is involved, then again small isolated tumors found similar in structure to the myo- and fibro-myomata of the uterus though they differ from these tumors in that they appear when sexual life is well on the decline instead of during its period of greatest activity.

The neoplastic outgrowths are most commonly adenomatous or fibro-adenomatous in nature. Pure myoma and fibroma are rarely found. Epitheliomata formerly considered of rare occurrence have in the light of present knowledge be-



way associated with the sexual functions. Never do we find it in eunuchs or in persons who suffer from a congenital absence of the testicles or who have lost them through accident or disease.

The hypertrophy of a prostate is either a glandular hypertrophy, a fibrous hypertrophy, a mixed hypertrophy or a prostatic epithelioma.

Time will not permit a discussion of the histology and pathology of each of these phases of this disease. Suffice it to say that prostatic hypertrophy is always of neoplastic origin. At times the whole

come more frequent. Wallace in 65 cases gives 14%; Keen in 318 cases gives 21% or a ratio of about 1 in 5.

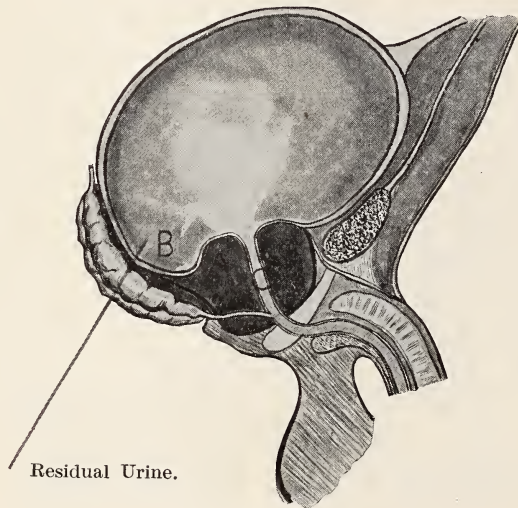
The diagnosis of prostatic hypertrophy is as a rule easy, with the symptoms of increased frequency and difficulty of urination, of incomplete retention accompanied by attacks of complete retention requiring the use of the catheter, with the finding of residual urine, all in a man above 50 years of age, this condition is at once suspected. If now we examine the prostate gland through the rectum the enlargement is readily discovered, for the

stage at which hypertrophy causes symptoms will rarely escape detection by a careful and thorough digital examination. Exceptions here are few and will be found in those cases in which the median lobe alone is enlarged. Here the cystoscope alone can absolutely determine. It will reveal enlargement of this lobe which even the most expert fail to recognize by palpation.

In the diagnosis of this disease there are, however, two conditions which should always be excluded before coming to a

cle muscle is contracting in an effort to expel the urine. This, too, explains the presence of vesicle trabeculation and pouch formation as often seen in this condition and which is certainly a sign of obstruction. Besides when incontinence is prominent and spinal cord disease is thought of, other symptoms such as loss of patellar reflexes, iris reflexes, shooting pains, etc., can usually be elicited.

In chronic prostatitis the frequent urination is not due to obstruction but to irritability. Here there is no residual urine.



A—Hypertrophied Prostate.
B—Undrained pouch of Bladder.
C—Urethra.

definite conclusion, namely: Spinal Cord disease and chronic prostatitis.

In Spinal Cord disease incontinence of urine is usually a prominent symptom. This together with early loss of sexual power should make one suspicious. Examination then will also usually show a flabby condition of the perineal muscle, a weak sphincter, and redundant rectum. Residual urine is usually present but is due to the spasm of the sphincter which fails to respond to the call to urinate and accordingly remains closed when the ves-

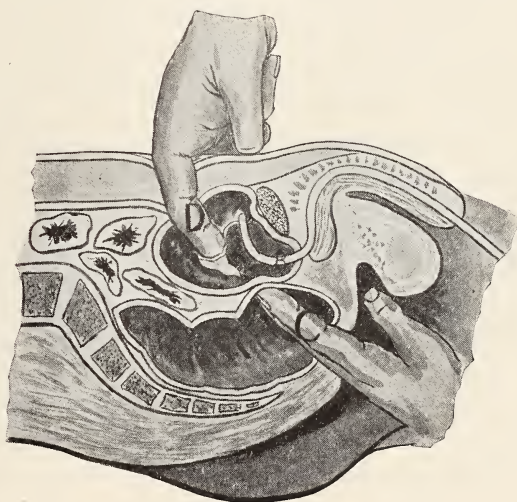
The symptoms are intermittent, a period of weeks and sometimes months intervening between attacks of most severe irritation, frequent urination and pain. These facts will usually differentiate this condition.

With the diagnosis of prostatic hypertrophy established the question comes up: Is it benign or malignant? This, if the disease is far advanced, is readily determined by the amount of infiltration which is present. This infiltration is always first in the direction of the seminal ducts and

vesicles because these structures together with the vessels, nerves and lymphatics proceed from the base of the gland where there is no capsule and where consequently the progress of the carcinomatous degeneration finds least resistance. With these areas involved the diagnosis is an open book and the chances of cure by surgical intervention are practically nil. The probability of cure here bears an inverse ratio to the extent of the disease consequently and to the ease of recognition.

Carcinoma should be diagnosed or at

calculi feel somewhat indurated, but it is not that induration, that inelastic stony hardness so characteristic to carcinoma. Besides in passing a catheter a difference is noticed. In carcinoma obstruction, a circular constriction is encountered near the apex of the prostate gland. This is in marked contra-distinction to benign hypertrophy where the circumference of the urethra is generally increased but much distorted by pressure of the enlarged lobes. *In the latter, too, the beak of the instrument can be felt through rectum which is*



A—Prostate.
B—Catheter in Urethra.
C—Finger in Rectum elevating Prostate.
D—Finger in Bladder shelling out Prostate.

least suspected when it is confined to the prostate; held in, as it were by the capsule. The popular idea that a prostate to be carcinomatous must present an irregular, nodular, and roughened posterior surface, is not tenable, for carcinoma is often found where the posterior surface is smooth. The sign, however, which is usually found and which we might say is almost pathognomonic is marked induration. In most cases this is general. It is true cases of simple hypertrophy with considerable inflammatory thickening, concretions, or

impossible in carcinoma. These points will usually suffice to differentiate the two conditions, the importance of which cannot be overestimated. Errors of diagnosis are of serious import. For instance: If in a given case of carcinoma with mild urinary symptoms the diagnosis of benign hypertrophy is made, palliative measures might be instituted. Radical measures are then necessarily delayed and often until the disease has advanced to a stage where excision is utterly impossible.

The treatment of this malady has been

palliative and radical. Of the former line of treatment catheterization, dilatation, vasectomy and castration have been recommended and tried with some temporary benefit, but without any permanent improvement. All are rapidly giving way to the radical treatment. This latter consists in the complete or partial removal of the prostate gland. Two methods have been advocated and adopted, namely: The perineal and suprapubic operation.

The majority of patients suffering from enlarged prostates are usually well advanced in years, have degenerated arteries and in general are debilitated from the disease. For this reason the time necessary for any operation, whether suprapubic or perineal together with the amount of anæsthesia required is of paramount importance. If one procedure can claim any advantage over the other of safety, thoroughness, and of a better condition of the urinary organs afterwards, that operation or method is the one to be selected. Such advantages are exemplified in the suprapubic or intravesicle operation and it should be, we believe, the method of choice in a majority of cases.

The advantages of the suprapubic method are:

1. The operation can be done in a shorter time, five to twenty minutes.
2. It permits of more perfect inspection and palpation of the interior of the bladder, a procedure quite essential for a thorough operation.
3. It obviates the danger of tearing or puncturing the rectum, eliminating the possibility of a urethro-rectal fistula.
4. If enlargement of the median lobe alone exists or if there is present a pedunculated lobe it permits of its removal without disturbing the body of the gland.
5. The membranous urethra as well as the compressor urethra muscle remains

uninjured and thus insures a better urinary control.

We do not mean to infer that the suprapubic route is best suited to all prostatic enlargements. The fibrous variety with infiltration and dense fibrous adhesions, in which the enlargement is principally downward, are perhaps better suited for the perineal operation. These cases, however, form a rather small percentage. The large soft variety, the adenomata and fibro-adenomata, projecting upward into the bladder are more common. And it is to these we refer. The greater the hypertrophy the easier the enucleation.

Free Catharsis, urinary antiseptics, and copious amount of fluid favoring free elimination are preliminary measures which add to the success of the operation. Without them the system remains loaded with toxic products, and lymphatics, inactive.

In those cases where the patient is toxic with fetid urine and dilated bladder it is safer to do a suprapubic cystotomy and drain the bladder for several days, removing the gland at a second operation.

The patient is prepared in the usual manner, the bladder thoroughly irrigated with normal saline or some mild antiseptic solution. Two or three ounces are then left in the viscus to distend it and push the fundus upward. The bladder is opened in the manner of doing a suprapubic cystotomy and cavity inspected.

The index finger of the left hand of the operator or an assistant is inserted into the rectum and the prostate pushed upward toward the incision. With the finger of the right hand in the bladder the mucous membrane covering the projecting prostate, now easily reached, is torn and pushed aside and the prostatic sheath encountered. Its fibres are separated with the finger also and the enucleation of the lateral portion begun. The ease with which it shells out from this sheath bears a direct

relation to the amount of hemorrhage that will ensue. The more forcible the manipulation the greater will be the injury to the sheath and the prostatic venous plexuses contained in it. After the gland or an enlarged lobe is loosened from this fascia or sheath it will be delivered into the cavity of the bladder. It is as a rule easily rolled off from the structure. The cavity thus left is quickly explored to see whether parts of the gland still remain. If so, they are removed in a similar manner. At best there is always a little oozing from this space. This is easily controlled by firmly placing a strip of gauze in the cavity and allowing it to remain there. The wound may be separated by retractors and a catgut stitch inserted in margins of the sheath and cavity compressed.

A good-sized drainage tube of about $\frac{1}{2}$ inch in diameter, is placed in the bladder and a strip of gauze placed in the prevesicle space. The remaining part of the wound is brought together in the usual manner with

catgut and silkworm sutures. This completes the suprapubic operation which ordinarily should not consume more than ten to twenty minutes.

Upon returning the patient to bed the drainage tube is connected with a bottle at the side of the bed and the amount of urine voided carefully measured. The head of the bed is elevated and saline solution given per rectum. As soon as he is able the patient is induced to take liquids freely. On the second day he is allowed to sit up in bed and on the third or fourth day out of bed.

The method and principles here given we have been using for the past five years with great satisfaction. It is the least time-consuming method and it leaves the patient's urinary organs in the best possible condition. In a series of 22 cases by this route we have had one death which was due to pulmonary embolism on the 4th day following the operation.

PRIMARY SARCOMA OF THE SPLEEN

After noting the rarity of primary neoplasms of the spleen, CAMILLUS BUSH, San Francisco (*Journal A. M. A.*, February 5), reports a case in a man of 48. Splenectomy was performed, but the patient died with metastases six months after the operation. The growth appeared to be possibly due to an injury received some three years before the appearance of the symptoms. The growth was rapid and painful, and led to a rupture of the spleen.

The removal of the spleen was followed by anemia of rather a severe type, but no lymphocytosis. There was also enlargement of the liver, reaching its maximum five weeks after operation and gradually subsiding under treatment with X-ray and Coley's fluid. There were finally recurrence of the growth and metastases causing death. A special feature was the occurrence of extreme cyanosis after rupture of the spleen. The significance of this is not explained.

MAJOR AMPUTATIONS*

RALPH H. SPENCER, M. D.

Grand Rapids

It is my purpose to report in this paper my personal observation where major amputation became necessary.

The meagerness of detail as given in most text-books on the subject of amputation has led me to report eleven cases giving the complications with which I have had to deal before a good and serviceable stump for the attachment of an artificial limb was acquired.

You will observe that four of the cases fail to survive the amputation due to constitutional disturbances. The causes for this fatal termination were as follows:

Tuberculosis, one.

Diabetes, one.

Chronic Nephritis, two.

Among the cases I report are three of double amputation of the lower extremity, one of which was fatal, due not to the amputation but to chronic nephritis and alcohol poisoning.

CASE 1

October 13, 1894, D. G., age 76.—Amputation for diabetic gangrene of the right foot, amputation junction of lower and middle third of the thigh, femoral artery so changed by sclerosis that it did not bleed; it was, however, tied but no other blood vessels were found bleeding, in this case the flaps showed no inclination to heal, patient sank away into a condition of coma and died at about the end of the first week, having been entirely comatose for about three days preceding death.

*Read before the Forty-fourth Annual Meeting of the Michigan State Medical Society, at Kalamazoo, September 15 and 16, 1909.

CIRCULAR FLAP AMPUTATION

CASE 2

January 29, 1907, S. T., age 70.—This man was very obese, weighing about 225 pounds, although he was only 5 feet, 6 inches in height. He was run down at a railroad crossing by a train that backed down and ran over him, crushing his left foot and ankle. Double flap amputation was done four inches below the knee, patient suffered greatly from shock. There was almost an entire suppression of urine for 48 hours though the catheter was used from time to time. First urine collected was examined and found to contain albumen about 25 per cent of its bulk. Microscope revealed fatty and hyaline casts showing that the patient was suffering from chronic Bright's disease. This case did not do well. The flaps suppurated and considerable sloughing occurred. At the end of a week patient lapsed into a state of uremic coma and died ten days after the amputation.

CASE 3

November, 1907, J. B. C., age 40.—Occupation switchman—fell under a train, both feet crushed so that double amputation was necessary, left leg crushed and was amputated at knee joint, right leg amputated four inches above the ankle. This patient had been a very intemperate man for many years, taking from a pint to a quart of whisky daily. He suffered profoundly from shock and as in Case 2, first urine examined revealed large quan-

tities of albumen and casts showing that he was a victim of chronic Bright's disease, although he appeared strong and husky previous to his accident. In this case also the flaps failed to unite and there was considerable sloughing. Patient rallied well from the shock but within a few days began to fail and in about two weeks developed uremic coma from which he died, proving that the alcoholic poisoning complicated by chronic nephritis makes a bad subject for major surgery.

CASE 4

April, 1907, Mrs. W. T., age 35.—Married, mother of three apparently healthy children. This patient had suffered from tuberculosis of the right knee joint since the age of 16. The knee had been for many years ankylosed at nearly a right angle. About six months previous to the amputation she had received a heavy fall, bruising the knee and setting up inflammatory trouble. An abscess formed and caries of both femur and tibia went rapidly on. It was a question in this case between council and myself whether to do resection or amputation. The patient elected to have amputation, which was done at the middle third of thigh by the circular method. In this case there was no attempt of union in the flap and the tissues began to melt down rapidly around the end of the bone. The tuberculous process seemed to extend up the sheath of the femoral artery and gave evidence of danger of secondary hemorrhage. An Esmarch bandage was always at hand and extra vigilance on the part of the nurses was ordered. On one early morning about three weeks after the amputation secondary hemorrhage from the femoral artery occurred, and before it was discovered she had lost so much blood that all our efforts to save her were in vain. The result in this case leads me to think the

lymph channels were so infiltrated with the tuberculosis infection that it prevented any attempt at healing of the flaps.

CASE 5

September 22, 1904, P. E., age 38.—While alighting from a passenger train he was drawn under the car wheels and both feet crushed. Patient was hurried to U. B. A. Hospital and as soon as he could be prepared, both feet were amputated by the circular flap method about four inches above the ankle. Patient rallied well from shock and stumps healed rapidly without any unpleasant complication. Patient is a furniture machine hand. He soon learned to use artificial feet and has been able to continue his occupation ever since, earning as much as he formerly did.

CASE 6

February 28, 1902, patient, J. B., age 12. While playing about the train in the railroad yards he lost his hold on the car, fell in such a manner as to be drawn under the train crushing both legs. In this case the injury was so high up that it was necessary to amputate the left leg at the knee including the patella in the anterior flap. The right leg was amputated about four inches above the knee. This patient suffered tremendously from shock and for several days his life was in danger. He finally rallied, the flaps were rather slow in healing, and after several months in the hospital he recovered, and within a year began to wear artificial legs. He has since learned the cigarmakers' trade and is able to make a very good income. He walks by the aid of two canes and can get about almost as fast as any one.

CASE 7

April 21, 1904, W. W., age 28.—While hanging on the ladder of a box car he was caught by the switch target and pulled from the car in such a manner that his left

arm was on the rail and the car wheels amputated the arm very near the shoulder. The muscles and skin were badly twisted and torn, and it was necessary to remove the small end of bone at the shoulder joint and use what little tissue left by the injury to close the stump. The main artery had to be ligated in the axilla and the skin covering was so short that it had to be stretched to cover the stump. Considering the serious nature of his injury, he made rapid recovery and within a month was discharged from the hospital.

CASE 8

March 18, 1894, A. J. F., age 21.—This patient was jerked from the top of a box car and fell landing on his right knee on the rail, causing a compound, comminuted fracture of the femur involving the knee joint. The two condyles were split apart and there were many fragments, so it was deemed best to amputate at the middle third of thigh. Amputation was done by the circular method and healing was uneventful. Patient left the hospital at the end of four weeks, wears an artificial leg successfully.

CASE 9

September 23, 1903, J. W. R., age 40.—This patient was run down at the railroad crossing, right leg was crushed involving the knee, amputation four inches above the knee by the circular method. Flaps united by first intention and patient was able to leave the hospital at the end of two weeks, which was the shortest time in healing of any case herein reported.

CASE 10

May 17, 1905, J. N., age 27.—Left foot being crushed by car wheels. Leg amputated at middle third by the double flap method. Flaps united by first intention. Patient discharged from the hospital in three weeks.

CASE 11

May 20, 1908, J. M., age 21.—While trying to board the pilot of a switch engine he fell in such a manner that his left foot was run over and crushed. Amputation four inches above the ankle by the double flap method. For some unexplainable reason, this case healed very slowly, although the usual care was shown in preparation. The flaps healed throughout about one-half by first intention, healing from either angle and remaining open at the center over the end of the bone, that space healing by granulation. The granulation seemed to be not healthy and twice it was necessary to curette in order to cause healing. He was in the hospital about ten weeks and when finally healed the stump was all that could be desired. He is now wearing an artificial foot and has resumed the duties of a railroad fireman.

GENERAL CONCLUSIONS DRAWN FROM THE ABOVE REPORT

First, as to the time to amputate, whether to wait if shock is present, or to amputate at once with a view to relieving the patient of the mangled member which is a cause for continuance of shock or to wait for reaction to take place. You will observe, I have in all the reported emergency cases operated as soon as the patient reached the hospital and could be properly prepared, though several of the cases were in extreme shock, and you will remember that three of the cases required double amputation of the lower limbs and one at the shoulder joint, still none of them died on the table but rallied well after the amputation.

All of them received the normal saline solution subcutaneously, also morphine and strychnia freely.

After the patient was prepared celerity on the part of operator and assistant was

used to expedite the amputation; both worked at one time to quickly secure the blood vessels and suture the flaps, thereby getting the patient off the table and into bed quickly.

As to the method of circular or flap amputation that was governed by circumstances. Endeavor to save an inch or two length of stump would never induce me to use mangled or infected tissues for my flaps. I have preferred to go high enough to avoid danger of sloughing or necessitating re-amputation, and in leg amputations where the feet were crushed, I believe a stump three or four inches above the ankle affords a better bearing for an artificial foot than one at the ankle, as you there have more muscle to use in the flap and thereby get a better covering for end of bones.

In text-books much has been said about making the flaps of unequal length, so as to avoid the scar coming over the center. My experience has taught me that this is of minor significance for the reason the artificial limb goes outside the stump like a socket, and is open at the bottom, con-

sequently it does not bear on the end of the stump.

In amputation of the fingers and thumb the palmer flap should be the longer as the cicatrix in this case should not be subject to friction.

As to the necessity of drainage it was at one time my custom to leave a small drainage tube under the skin flap, removing it at the first dressing or about the second day. I now place a few strands of catgut in either angle of the flaps which gives ample exit for serum and can be left in longer without delaying a prospective primary union.

I believe damage is frequently done by the Esmarch bandage by applying it too near the field of operation and too tightly, thereby causing vasomotor paralysis and anemia of the stump which leaves the flaps so poorly nourished as to cause failure of primary union and sometimes causing the flap to subsequently slough.

Hoping the report of cases and the few ideas I have gleaned from personal observation may lead to discussion, I shall feel I have not written in vain.

LANDMARKS IN THE DIAGNOSIS OF INCIPIENT CONSUMPTION *

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Battle Creek, Michigan

It is my purpose to present only an outline of the essential signs and symptoms to be observed in diagnosing early pulmonary tuberculosis. These, well borne in mind, would be of far greater value than *many* unclassified observations. It is of great importance to make the earliest possible diagnosis in every case. The prospects of

a recovery decrease in alarming ratio as the case advances by months or weeks and even by days. Really the best time to diagnose such a condition is even before it begins.

(I) THE SIGNS AND SYMPTOMS THAT ARE NOT POSITIVELY DIAGNOSTIC.—(1) The family history. (2) The cough. (3) Expectoration. (4) Night sweats. (5) The diaphragmatic excursions. (6) The so-

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called "phthysical chest." It would be very interesting to discuss each of these separately as undue importance seems to be laid upon them by the profession generally. Perhaps our eyes have even been blinded somewhat to those more essential and diagnostic features. Even a hemorrhage, though when found in the later stages is diagnostic, yet it, too, may be associated with other causes, though this is exceedingly rare. This seems to be a blow at the very foundation of our ideas as to tubercular manifestations.

It is even said by some authorities that "comparatively slight importance attaches to inspection, palpation and percussion in very early cases, though careful and special auscultation cannot be underrated."

(II) THE UNCERTAIN FACTORS THAT ARE PERHAPS GIVEN UNDUE IMPORTANCE ARE: (1) Dull areas upon percussion. (2) Cavernous resonances. (3) Hectic flushings. (4) One or two negative sputum examinations. (5) X-ray examination. (6) History of excesses in vital and procreative functions; or the varied vices.

(III) Now we come to the *Few Findings* that must determine the REAL DIAGNOSIS. (1) Demonstration of tubercle germ in feces and sputum or in a (possibly) early hemorrhage. (2) The spasmodic fluctuations in vasomotor phenomena or bodily temperature. (3) History of ailing health with loss of weight and appetite,—for reasons otherwise unaccountable. (4) The rapid and irritable heart even when the patient is at rest. (5) Anemia without leucocytosis, but strong tendencies to blood dyscrasias, such as hemorrhages, nosebleed, disorders of menstruation and vasomotor disturbances. (6) Eye and percutaneous tuberculin tests of real but debatable merit. (7) Last but not least, auscultatory findings of which I shall speak later.

The above points cannot be analyzed without due consideration of the fact that

we are dealing with vital phenomena in all its modes—and moods—if not its tenses. The following few points are to be especially borne in mind by those of us who would expect to obtain definite data upon which to base our diagnosis, and also the prognosis. Many of these cases have never even suspected the remote possibilities of tubercle infection. Especially would I emphasize the importance of noting any irregularities of râles and resonance in a lung having no history of active organic changes.

Then last and most important of all come the fine crackling râles, or auscultatory clicks at the end of an inspiration followed by a pause and a slight hacking cough. Expressed by others as "very fine, moist bubbles or semi-dry clicks," occurring at the very end of inspiration. As even forced breathing often fails to elicit these it is highly important to supplement it by the pause and the slight hack, in order to be assured of the presence of these adventitious diagnostic sounds.

I may be pardoned for adding a few possible errors that may creep in unless thoughtful attention is given to the interpretation of the physical findings. Upon *percussion*: (1) A consolidated lung or a cavity formation cannot be detected unless at least $1\frac{1}{2}$ inch in diameter, and lying near the surface of the lung. Deeper seated areas in order to be detected must be proportionately larger. (2) Relative differences in dullness must be guardedly interpreted. They may be due to atomical peculiarities or cardio-vascular conditions. (3) A dull area may sound tympanitic when percussed over a cavity or a bronchus. (4) Increased resonance usually accompanies emphysematous invasions, but when the tension becomes *very* great it may become of an absolutely dull pitch. (5) A cavity filled with fluid or detritus may be interpreted as a consolidated area. (6)

Compensatory conditions may mask an apparent consolidated cavity or emphysematous area.

As to *auscultatory* precautions, I may suggest: (1) Cavity connections with the larger air channels greatly increase the pitch of the voice sounds as also when a consolidated area intervenes between the stethoscope and a bronchus. (2) Plugging of an air passage with mucus, etc., greatly deadens the natural breath sounds. This is true whether the outlying lung conditions are normal, consolidated or cavernous. (3) When a distal lung area has open communication with the trachea then the natural pitch of the respiratory sounds is relatively increased. (4) A *close study* of râles is the most important aid to a definite understanding of the

condition of the underlying tissue.

In conclusion I would again emphasize the great importance attached to that peculiar sound previously mentioned. The sounds are characteristic and definite, and usually found only after an inspiration and a pause. I have found this strong point also made by Dr. Lawrason Brown, of the Adirondack Cottage Sanitarium for tubercular patients, located near Saranac Lake, N. Y., to be of very great aid in making an early diagnosis. In fact, I attribute the success of my diagnoses in recent years to a careful study of a few details in preference to a comprehensive analysis of all the considerations that might be brought orth by a professor before his class of medical students on practice.

EMERGENCY SURGERY*

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Traverse City

American practice of surgery has had three distinct periods of development, each of which was characterized by conditions sufficiently marked to constitute an era in the history of its evolution.

The first period extended from the settlement of this country to the organization of medical schools, and may be called the primitive era. During this period there were but few surgeons who had been qualified to practice by a systematic course of education, for to obtain such an education required an attendance upon foreign schools, and few students of that time had means necessary for such an undertaking. To meet existing conditions the future practitioner was compelled to

become an apprentice to a practicing physician and read medicine and surgery in his office. There were a few surgeons in the latter years of this period who had graduated from foreign schools, whose practice was of a high order for that time but their practice was along lines taught in the schools of London and Edinburgh.

The second period extended from the establishment of medical schools in this country to the introduction of anæsthesia and antiseptics in surgical practice (1846-72) and may be called the formation era. During this period the foundation of a distinctly American practice of surgery was laid by the organization of medical schools in which the future practitioners of

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surgery in this country were to obtain a competent education.

The two discoveries, anæsthesia and anti-septics, during this period swept away the long-established metes and bounds of the field of operative surgery and made it as limitless as are the diseases and injuries of the human body.

The third period (which is now passing) may be called the practical period or era; the surgeons of today are making the history of this period. The evolution of American Surgery began with the first organized efforts to give the medical students of this country systematic instructions for the purpose of fully qualifying them for practice (1765-67). American surgery has always been characterized by a freedom of thought, a promptness of action, and an affluence of resources quite unusual in British practice.

In 1765 the medical department of the college of Philadelphia was organized, chiefly through the efforts of Dr. John Morgan and Dr. William Shippen, Jr. This was a great step forward in the advancement of surgery and medicine in this country. During this period the advances in diagnosis and treatment have rendered necessary a new surgical literature and many excellent books have appeared, but most of them exhaustively discuss the more serious surgical conditions while minor surgery, which forms the bulk of surgical practice, is nearly lost sight of. Remember this neglected field of minor surgery is the only one into which the average practitioner will ever enter, and is also the one in which most surgeons will find the majority of their patients. What wonder, then, that the physician, untaught and unread in minor surgery, fails to achieve good results, and that more poor surgery is performed upon the hand than upon the organs of the abdomen. In every case of suppuration in

the hand, unless it is evident that the case is one in which the pus cavity is situated within or just beneath the skin, a general anæsthetic should be given and the parts rendered bloodless by elevation of the arm and application of a tourniquet around the upper arm. The following simple suggestions relative to infected fingers and hands, may be of some value in this class of surgery:

1. The incision should be made through the point of infection, giving free drainage.

2. Never hunt for pus with a probe in this portion of the body, as it may spread infection.

3. If a tendon sheath is exposed and found not distended with purulent or sero-purulent fluid, it should not be incised; but if found infected with these fluids, should be freely drained.

4. If the whole tendon sheath is distended with pus it will be necessary to drain its upper end. Incisions for this purpose in case of the index, middle and ring fingers should be made in the palm of the hand directly over the tendon involved.

6. If pus is secreted about or in the joint of a finger, pressure on the end of the finger will give rise to pain, while if the pus is in the sheath of the tendon the same pressure will cause little or no pain.

7. The tendon should never be laid open from end to end, as this procedure is almost certain to cause sloughing of the tendon.

One word in regard to palmer suppuration: The tendon sheath lies beneath the palmer fascia and this limits the swelling of the palm. On the back of the hand there is no such thing as fibrous tissue to limit swelling, and it sometimes happens that the back of the hand will be more swollen than the front, although the suppuration may be wholly confined to the space between the meta-carpel bones and the

palmer fascia. One should not be misled by the swelling into making a posterior incision. In case the suppuration involves the tendon of the thumb or little finger the situation is much more complicated, since these tendon sheaths usually extend to the wrist. In these cases three incisions may be necessary to afford sufficient drainage (1st, digital; 2d, palmer; 3d, incision in the wrist). If the radial artery is exposed to drainage, better ligate in two places and divide, otherwise its wall may become eroded and fatal hemorrhage result. I would like to call your attention to the nature of emergency as well as all kinds of surgery, during the period when anæsthetics and anæsthesia were unknown to the medical profession. Imagine yourself confronting a badly lacerated limb without the use of antiseptics or anæsthesia, what kind of a result would you figure on? Consider the vast improvement in surgical technique of all classes of surgery since the use of antiseptics and anæsthesia.

As this paper is to deal with emergency surgery, I would say that this special line of surgery will call for the same careful study, good judgment and conservatism that marks the success of any surgeon along any line; the immediate control of hemorrhage in all accident cases is imperative, after this is accomplished, take a complete inventory of your case and ascertain your patient's exact condition. If you find the patient suffering from shock, be careful and do nothing that will add more shock; in other words, never amputate a member when the patient is suffering from severe shock, for by so doing you simply add shock upon shock and can you expect good results from such treatment?

Always examine the patient carefully and especially in gunshot wounds. In gunshot wounds of the thigh near the hip,

always bear in mind the possibility of injury to the femoral artery high up, while perhaps the hemorrhage has been supposedly checked by placing a tourniquet above the injury yet not once thinking of the possibility of an opening high up in the femoral and blood constantly filling the abdomen, and the patient slipping quietly into the jaws of death. This is only one of many and is given solely for the purpose of impressing upon you most forcibly the need of taking into consideration every detail of the injury.

Be scrupulously clean about your work. Remember that soap and water are cheap and can be procured even in the poorest homes of those living in the rural districts. In cases of subcutaneous rupture, punctured and gunshot wounds of the stomach and bowels, nothing short of the most prompt interference may save the patient. The abdomen should be opened in the medium line and a careful search made for the site of injury. The wound is repaired by suture and the abdominal cavity carefully cleansed. Never flush the cavity but wipe gently yet thoroughly until you are convinced that the affected part is clean. Delay not only imperils the patient's life by permitting infection to take place from the extravasated contents of the stomach or bowels, but renders the operation more difficult owing to the presence of distended coils of intestine.

In Ectopic gestation, rupture of the tube is the most common termination of the pregnancy, and it is directly due to over distention of the tube by the growing ovum and to weakening the tubal walls by penetration of the villi. The rupture may take place in one of three directions: 1st. Into the abdominal cavity. 2d. In between the folds of the broad ligaments. 3d. Into the uterus. At the time of rupture or abortion the symptoms upon which a diagnosis is based are clas-

sified as follows: 1st. Careful study of previous history. 2d. Sudden acute excruciating pains over the lower abdomen and in the affected side of the pelvis which are followed by shock and collapse with symptoms of internal hemorrhage. Objective Symptoms.—1st. Presence of the enlarged tube. 2d. Hypertrophy of the uterus and softening of the cervix. 3d. The presence of free blood in the pelvis or a broad ligament hematoma.

TREATMENT—The indication is to operate in every case without unnecessary delay. We must not wait for reaction from collapse or shock to set in before operation as the patient may perish in the meantime from loss of blood. I am well aware of the advantages to be gained by not operating during the collapse if it can be avoided, but we must remember that the case is one of internal hemorrhage, and hence the danger of delay offsets all other considerations. Remember our sole object must always be the safety of the mother, as the child has no claim whatever to be considered even in those very rare cases in which gestation continues until viability is reached. If the rupture occurs between the 4th and 12th week, the entire tube should be removed but the ovary should not be extirpated unless it is diseased or extensively adherent prior to the end of the 4th month. The entire sac may usually be extirpated without causing uncontrollable hemorrhage, and consequently the placental circulation in cases in which the fetus is living does not

materially complicate the operation. In cases where the fetus is living after the 4th month it is almost impossible to remove the placenta without causing an uncontrollable hemorrhage.

If the fetus dies the placental circulation becomes obliterated by thrombi and at the end of fourteen days the vessels are completely obliterated, and consequently at end of three or four weeks from this time the placenta can be separated from its attachments with but little danger of hemorrhage at the time of operation.

In case of living fetus, after opening abdomen the sac is incised, fetus removed, cord ligated as close as possible to placenta and cut away, the sac is now stitched to lower edges of abdominal wound, cleansed with gauze sponges and packed with strip of plain sterile gauze, which should be removed in 48 hours and glass drainage tube substituted which is kept in position until the sac becomes obliterated. At the end of two weeks the placental circulation ceases and the placenta gradually comes away piecemeal, and when all is removed sac closes. Be careful and not separate the placenta, for if such an unfortunate accident happens it is apt to be followed by uncontrollable hemorrhage and death.

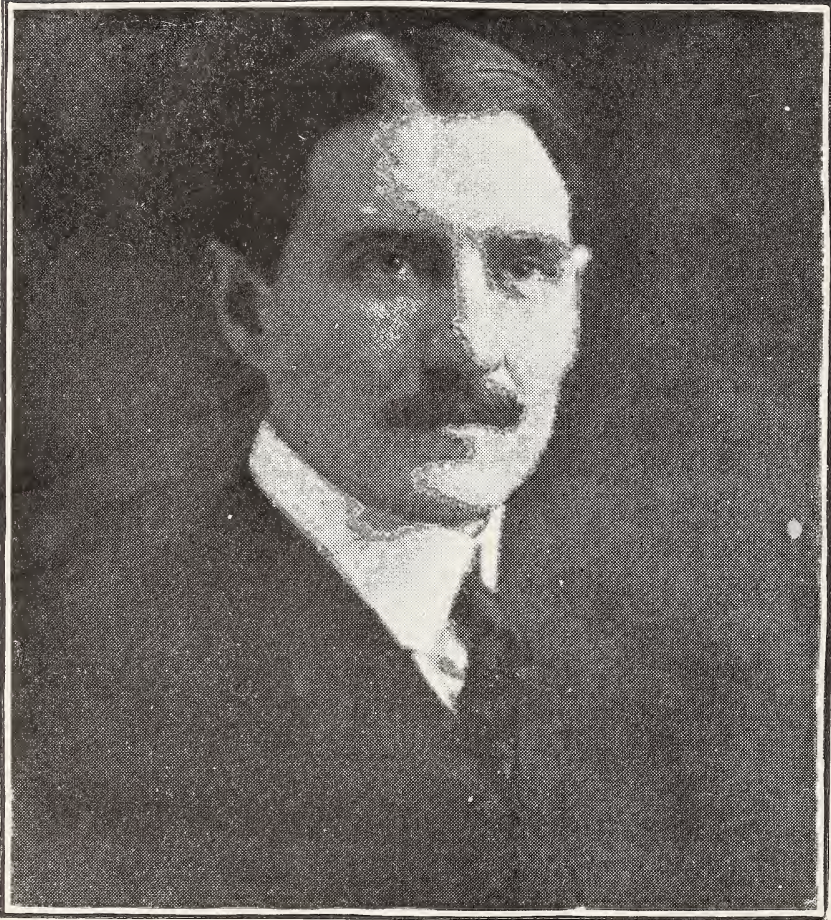
No physician can properly be given the title of surgeon without a thorough knowledge of anatomy and general medicine, combined with conservatism and the long use of the gift of reason.

DRESSING AFTER CIRCUMCISION

The best dressing for the glans after circumcision is the most simple, viz., an abundance of petrolatum, from one-half to one ounce, smeared over the center of a large piece of absorbent cotton and laid lightly over the organ in such a manner that the glans will be imbedded in and entirely surrounded with a liberal

supply of the emollient. The whole held in place by the diaper.

If this dressing is conscientiously changed as often as it becomes wet there will be no adherence of dressings to or cracking or bleeding of the glans; healing will be expedited and the maximum amount of comfort to the patient secured.



B. R. SCHENCK, M. D.

The Journal of the Michigan State Medical Society

All communications relative to exchanges, books for review, manuscripts, advertising and subscriptions should be addressed to Wilfrid Haughey, A. M., M. D., Editor, 15 East Main Street, Battle Creek, Michigan. The Society does not hold itself responsible for opinions expressed in original papers, discussions or communications.

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MARCH

EDITORIAL

DOCTOR SCHENCK RETIRES

Benjamin Robinson Schenck, A. B., M. D., was born in Syracuse, N. Y., Aug. 19, 1872. He prepared for college at the Syracuse High School, and received the degree of A. B. from Williams College in 1894. His medical degree he received from Johns Hopkins University, 1898, after which he served as interne in the Johns Hopkins Hospital, 1898-1899.

He was appointed Assistant Resident Gynecologist in Johns Hopkins Hospital in 1899, and served there until 1901 when he spent a year studying in Germany, returning to the Johns Hopkins Hospital as Resident Gynecologist and instructor in Gynecology in the University, which position he held until the summer of 1903 when he located in Detroit.

In January, 1906, he was elected secretary of the Michigan State Medical Society, and editor of the JOURNAL, retiring in January, 1910, because of his largely increasing private practice which is constantly demanding more and more of his time.

Dr. Schenck has taken an active part in medical matters in Michigan, being secretary of the Gynecological Section when elected to the office of Secretary-Editor, and we bespeak for him long years and a prosperous and successful practice.

Prefatory—This issue of the JOURNAL is the first under the new editorial manage-

ment, and the first printed and published outside of the city of Detroit. The sole purpose and desire of the new editor will be to maintain the JOURNAL in the high place it has earned in Medical Journalism, and to keep it representative of the best there is in Michigan medicine. Whatever changes of makeup or policy may develop will be determined by the individuality of the editor, consultation with the Publication Committee of the Council, and the exigencies arising from time to time. The JOURNAL was established to serve the members of the Michigan State Medical Society, and the constant aim of the editor will be to carry out that purpose as indicated by honest criticism and suggestions. We court and desire such criticism, for through it must we learn the wishes of our readers and thus shape our editorial policy.

Payment of Dues—We wish to call the attention of all our readers to Chapter IX, Section 10, of the By-Laws of the Michigan State Medical Society, published in this issue. This section provides that members in arrears for dues after June 1, of any year, shall not be defended in any suit the cause of action of which arose while in arrears. Further, the United States Postal Regulations require that subscribers to any periodical enjoying second-class postal rating, must not be carried more than six months after their subscription expires. Since the fiscal year of our State Society, and of the JOURNAL is the calendar year, our readers will readily see the advantage, almost the necessity, of prompt payment of dues.

Sporotrichosis Schenckii—We wish to call special attention to the article with the above heading under the department of Dermatology and Syphilis. The Schenck there referred to is the retiring editor of this JOURNAL.

IN MEMORIAM

Dr. John R. Bailey died at Fort Smith, Ark., Jan. 12, 1910, aged seventy-seven. He graduated Doctor of Medicine at Michigan University, March 30, 1854. He immediately settled at Mackinac Island, remaining there during his entire life. His appointment as surgeon to the United States Army Post and physician to Indian Agency, determined his choice of location. His army connection continued off and on during the life of the Mackinac Army Post. During the Civil War he was surgeon of the Eighth Missouri and served on the staff of General Sherman with rank of brevet Lieutenant-Colonel. He was a member of the Upper Peninsula Medical Society and the Michigan State Medical Society. He served as a park commissioner of Mackinac Island and did much to enhance its natural beauty. From his long familiarity with the evolution of the island he was an authority thereupon as is shown in his book on Mackinac, through its nearly three hundred pages. His close connection with the army post made him a cyclopedia thereupon; and his four years' service in the Union Army during the Civil War made him a storehouse of the facts enacted during Sherman's maneuvers. His appearance was striking, said to resemble the poet Walt Whitman.

Dr. James Mulhern, a pioneer physician of northern Michigan, honorary member of the Michigan State Medical Society and only honorary member of the Kent County Medical Society, passed away February 9th at his home in Grand Rapids.

Dr. Mulhern was born near Belfast, Ireland, sixty-six years ago. His father, the Rev. Dennis Mulhern, being the representative of the London Baptist Association and

having general supervision of all the Baptist churches in Ireland. The Doctor came to this country with his father and family when eight years old. He began the study of medicine at the University of Michigan in 1865 when the faculty was composed of such eminent and capable medical authorities as Professors Gray, Palmer and Gunn. After completing two years at the university he finished his course at the Detroit College of Medicine, graduating with the class of 1870. After graduation he was associated for a short time with Dr. McGraw, the present dean of the faculty, and then struck out for himself in the then pine wilderness of northern Montcalm county. It was a time and place for prompt and extreme measures in the practice of his profession and many were the lumber boys whose mutilated flesh was stitched with coarse sewing thread or, when that luxury was not at hand, even pink twine from some bystander's pocket. His supply of silk thread was exhausted and he had no antiseptic, but some way the patients always pulled through without any serious results. The Doctor practiced in Montcalm county until 1882 when he came to Grand Rapids, being prominent in the State Medical Society, and surgeon of the old Detroit, Lansing & Northern Railroad for several years.

After moving to Grand Rapids he continued the active practice of his profession until first stricken with his fatal illness nearly ten years ago. He is survived by his widow and one son, Wm. D. Mulhern, an attorney in Grand Rapids.

Dr. Mulhern was a kind, amiable, intelligent man of high moral character and good education. His professional ability, excellent principles and honorable dealing endeared him to his patients and commanded unbounded respect among his fellow practitioners. Diabetes was the cause of death.

MINUTES OF THE MEETING OF THE COUNCIL, MICHIGAN STATE MEDICAL SOCIETY

January 12-13, 1910.

The Annual Meeting of the Council of the Michigan State Medical Society was called to order by Chairman Dodge at Hotel Cadillac, Detroit, at 2:00 p. m., Wednesday, Jan. 12, 1910.

Present: Chairman Dodge, Councilors Biddle, Bulson, Rockwell, Spencer, Hume, Kay, Seeley, McMullen, Baker, Ennis, Haughey; also President of the State Society Carstens, State Secretary Schenck and Treasurer Anderson.

Absent: None.

The Minutes of the last meeting were read and approved without correction.

Under the head of communications the Secretary read a letter received from Dr. Tibbals, Chairman of the Medico-Legal Committee, stating that Dr. Taylor, of Jackson, desired to make an appeal to the Council and wished to be heard as early as possible.

Secretary also read a communication from Dr. Willis S. Anderson who desired not to be considered a candidate for re-election as treasurer.

The Chair announced the resignation of Dr. Willson, Councilor of the 8th District, and the appointment of Dr. Wm. J. Kay, of Lapeer, to complete his unexpired term, and requested Dr. Kay to act on all committees on which Dr. Willson was serving.

The Report of the Secretary-Editor was read by State Secretary Schenck.

On motion the report was accepted and that portion referring to blanks for receipts to members and all having to do with County Society matters was referred to the Committee on County Societies. So much as had reference to Finance to the Committee on Finance. That portion relating to the Journal, and in regard to Annual Meeting and Incorporation of the Society to the Publication Committee.

The Report of the Treasurer was read by Dr. W. S. Anderson.

On motion the report was received and referred to the Committee on Finance.

Moved by Councilor Biddle that we now take up the order of considering appeals from County Societies. Supported and carried.

Dr. E. C. Taylor, of Jackson, made the following appeal:

"TO THE COUNCIL OF THE MICHIGAN STATE MEDICAL SOCIETY

Gentlemen:

"At a so-called meeting of the Jackson County Medical Society held Sept. 21, 1909, the following action occurred:

"The question of the Jackson County Medical Society and its members, availing itself of the privileges of the plan of Medical Defense, as adopted by the House of Delegates, Sept. 16, 1909, was brought up for consideration. Dr. Langford as chairman of a committee on this subject, made a report adverse to the County Society participating in this privilege. With this report he presented a paper which purported to have been circulated and to have been signed, which paper had the following heading:

"September 21.

"In accordance with the amendments relative to Medical Defense, which were made a part of the by-laws of the State Society at the annual meeting at Kalamazoo, we, the undersigned members of the Jackson County Medical Society, elect not to participate in the plan of Medical Defense offered in said amendment.'

"It was stated that this paper had been signed by a majority of the members of the Society. On the report so made Dr. Langford moved that the 'report of the Committee be adopted, the documents placed on file, the vote be made the ballot of the Society and the committee be discharged.'

"In the face of many protests on the part of members of the Jackson County Medical Society that this paper be not considered as a ballot, and that it should not go upon the minutes of the meeting, the Chairman declared the motion carried, thereby recognizing this paper as the ballot of the Society regardless whether the members who signed it were present or not.

"It is my contention that this proceeding by the Jackson County Society referred to is void; that the vote is without legal effect as recording the sentiment of the members of that Society on the subject matter referred to. Inasmuch as my rights under Section 2, Chapter VII of the By-Laws of the Society are seriously affected by this action, and inasmuch as by this illegal vote I may be deprived of the privilege of medical defense which the State Society has decided to accord to its members,

"I desire to appeal to your Honorable Body and ask you to consider and pass upon the ques-

tion as to the validity of this vote as involving my rights as a member of the Jackson County Society, and also my rights as a member of the State Society, and I base my appeal on the following grounds:

"*First.* The Committee who circulated and attempted to obtain signatures to the paper referred to did so without the authority of the Jackson County Medical Society.

"*Second.* That the paper above referred to, which was declared a ballot, was never intended by the signers thereof to be used as registration of their vote at any meeting of the Jackson County Society; that it was nothing more than a temporary expression of opinion, brought about by unauthorized solicitation; that many of those who signed had on consideration of the subject changed their views and would not have voted in the manner in which their vote is attempted to be recorded, as above stated.

"*Third.* That there was no opportunity for negating votes, and that such members as were known to be favorable to the defense plan were not offered the opportunity to vote at the meeting at all.

"*Fourth.* That the so-called ballot contained names of persons who are not even members of the Jackson County Medical Society or of the State Society.

"*Fifth.* That non-resident members' names had been signed by the Secretary of the Society without a proper proxy and without any proxy at all.

"*Sixth.* That a large number of the signers of the paper referred to did not intend when they signed such paper to be recorded as voting against the plan, and were not told that their signature was to be so regarded, but many members signed only to bring the matter before the meeting in a proper form for discussion and education on the subject.

"*Seventh.* That one of the signers to the paper, at least, objected in the open meeting to the paper being used or recorded as his vote.

"*Eighth.* That the vote as attempted to be recorded, did not truly, properly and legally represent the sentiment or opinion of the majority of the members of the Jackson County Society.

"For the reasons above stated and because the rights of many members of the Jackson County Society have been affected by the recording on the records of that Society of an illegal vote, I ask your Honorable Body's consideration of the subject. E. C. TAYLOR."

Dr. Tibbals read the following opinion submitted by the firm of Bowen, Douglas, Whiting & Eaman, giving an interpretation of Chapter VII, Section 2, of the Constitution of the Michigan State Medical Society:

"Jan. 5, 1910.

"DR. F. B. TIBBALS,
Chairman Medico-Legal Committee,
Michigan State Medical Society.

"Dear Sir:

"We are asked for an opinion based upon facts, as we understand them, as follows:

"Under the constitution and by-laws of the Michigan State Medical Society, the members of that Society are made up of the members of the Component County Medical Societies. The Jackson County Medical Society is one of these Component County Medical Societies.

"The Michigan State Medical Society has in behalf of its members adopted a plan of Medical Defense, which is outlined in a circular. By means of this plan the right or privilege is extended to each member of the State Medical Society of availing himself of this plan of defense. The plan so adopted has been made a part of the by-laws of the State Society.

"At a meeting of the Jackson County Medical Society it is claimed that a vote was taken and recorded electing not to participate in the plan of Medical Defense offered by the amendment to the By-Laws of the State Society. When this question came to a vote, as we understand it, the vote was not declared upon the members present. Prior to the meeting a paper had been circulated and signed, having the following heading:

"September 21.

"In accordance with the amendments relative to Medical Defense which were made a part of the By-Laws of the State Society at the Annual Meeting at Kalamazoo, we, the undersigned members of the Jackson County Medical Society, elect not to participate in the plan of Medical Defense offered in said amendment.'

"This paper was signed by a large number of the members of the Jackson County Society, and as we understand, by a majority. At the meeting referred to the Chairman of a Committee apparently appointed to consider the matter, made a report recommending in effect that the Society do not participate in the plan of Medical Defense referred to. After reading the report the Chairman moved,—

"That the report of the Committee be

adopted, the documents placed on file, the vote be made the ballot of the Society, and the Committee discharged.'

"The 'vote' referred to in this motion, as we understand it, was the paper which had been circulated as above referred to, and which by this motion, without the presence of the signers of the paper, or at least a majority of them, it was sought to have declared a ballot. Protests were made by several members against having the paper referred to used as a ballot for voting purposes; and it is claimed and asserted that the so-called ballot or vote by which it is claimed the Jackson Society decided not to participate in the privilege of Medical Defense, was illegal; that it did not properly or in an orderly or legal manner record the sentiment of the members of the Jackson County Medical Society; and that this action so denying the privilege of Medical Defense to the members of the Jackson County Medical Society, who are members of the State Society, is void.

"Under the plan of organization of the State Medical Society, the counties of the State are divided into twelve Councilor Districts. A councilor is elected from every one of these districts, and the twelve so elected constitute the Council of the Society. In the Council so elected are vested certain powers defined in the by-laws. One of the powers so conferred is the consideration of 'all questions involving the rights and standing of members, whether in relation to other members, to the Component Societies, or to this Society.'

"The question arises, and concerning this we are asked an opinion, as to whether the Council, as so composed, under the by-laws of the Society, and under the powers bestowed upon it as a body, can consider and pass upon the question when presented to it in proper form by a member of the Jackson County Medical Society, taken in the manner above stated, as a binding action upon the members of the State Society, who are members of the County Society and whether such action is a valid or legal recording of the vote of the Jackson Society against the plan of Medical Defense as offered.

"It is our opinion that the Council of the State Society under the by-laws as promulgated has power to entertain an appeal made to it by any member of the Jackson County Society whose rights are necessarily affected by the so-called vote, to consider whether the vote so taken was properly or legally taken, and whether it is binding in any way as affecting the rights

of the members of the Jackson Society to participate in the privileges accorded through the plan of Medical Defense as proposed.

"As we view it, the action of the County Society in accepting a paper as ballot which was never intended to be a ballot, or used as such, and which had no force either as a proxy or even as an expression of opinion to be used at the meeting in question, was illegal and void and inasmuch as this action clearly affected the right or privilege of a member of one of the Component Societies, both in relation to that Society and to the State Society, the question of the validity of that vote is a proper question for consideration under Section 2, Chapter VIII of the By-Laws by the Council of the State Society at a meeting duly and properly called.

"We do not deem it necessary to consider any question affecting the right to appeal to the individual Councilor in the District in which the local Society is situated. Under Chapter XIV, Sections 6 and 7, for certain reasons therein set forth, a member of the local Society may apparently appeal to the local Councilor, and it is provided in Section 7 that in hearing such appeals oral or written evidence may be admitted as will best and most fairly present the facts. But in our opinion, the sections last referred to are not pertinent to the subject concerning which this opinion is rendered.

"Very truly yours,

"BOWEN, DOUGLAS & EAMAN."

Moved by Councilor Biddle that the matter of the appeal of Dr. E. C. Taylor be referred to the Committee on County Societies for report at the earliest possible moment.

Supported by Councilor Spencer and carried.

Recess declared until four o'clock.

Council called to order at 4 p. m. with all present.

As nomination of candidates for the position of Secretary-Editor had been made a special order of business for four o'clock they were now declared in order and were called for by Councilor Districts.

District No. 1.

Dr. Herbert Rich, Detroit, nominated by Dr. David Inglis; Dr. Walter J. Wilson, Jr., Detroit, nominated by Dr. James E. Davis.

District No. 3.

Dr. Wilfrid Haughey, Battle Creek, nominated by Dr. A. W. Alvord.

District No. 5.

Dr. Frederick C. Warnshuis, Grand Rapids, nominated by Dr. D. Emmet Welch.

District No. 7.

Dr. Daniel Conboy, Bad Axe, nominated by letter.

District No. 11.

Dr. Vernon C. Chapman, Muskegon, nominated by Dr. Geo. S. Williams.

Moved by Councilor Hume that the taking of a vote for the position of Secretary-Editor be made a special order for ten o'clock, Thursday morning, Jan. 13, 1910.

Supported by Councilor McMullen and carried.

The Chair called for the report of Committee on County Societies in regard to the appeal from Jackson County.

Councilor Haughey, Chairman of the Committee, read the following report:

“TO THE COUNCIL OF THE MICHIGAN STATE
MEDICAL SOCIETY

“Your committee, to whom was referred the appeal of Dr. E. C. Taylor, asking this body to consider and pass upon the question as to the validity of certain proceedings of the Jackson County Medical Society, the validity of which is questioned by him, and which he claims involves his rights as a member of the Jackson County Society and also his rights as a member of the State Society, begs leave to report as follows:

“The questions presented by this appeal appear to be:

“1. Whether this body has jurisdiction and authority to consider the appeal, and,—

“2. Assuming that this body has such authority under the Constitution and By-Laws of the Michigan State Medical Society as to whether the proceedings taken by the Jackson County Medical Society affect the rights, within the meaning of the constitution and by-laws, of the member claiming this appeal, and if so, whether the action taken by the Jackson County Society was legal, and is valid and binding upon its members;

“It is our opinion, and we so report, that under the Constitution and By-Laws of the Michigan State Medical Society this Council has full authority to consider and pass upon the questions here involved.

“Through action taken by the State Medical Society its members, which include the members of the County Societies, have been accorded certain privileges and rights of the Medico-Legal

League Fund created under the plan of organization adopted by the State Society as a part of its by-laws. This right, so accorded, a member cannot be deprived of except by a majority vote of all the members of the constituent County Society of which he is a member, voting not to avail themselves of this privilege.

“We have reviewed the facts submitted to us including the action taken by the Jackson County Society by which it is claimed that that Society elected not to avail itself of the privilege referred to, and are of the opinion that the proceedings of the Jackson County Society in which it is claimed that this vote was taken are invalid, and that the vote was improperly taken and had no binding force upon any member of that Society, and that inasmuch as by the vote so claimed to have been taken, it is sought to affect the rights of the member appealing, it is a proper question for consideration by this Council under Section 2, Chapter VIII of the By-Laws of this Society.

“It is our opinion, therefore, that no legal or valid vote has been taken by the Jackson County Society on the question referred to.

“Respectfully submitted,

W. H. HAUGHEY,
A. H. ROCKWELL,
C. J. ENNIS,
A. E. BULSON.”

Moved by Councilor Biddle that the report be accepted and adopted.

Supported by Councilor McMullen and carried.

Moved by Councilor Biddle that the Secretary of the Council be instructed to transmit a copy of this report to the Secretary of Jackson County Medical Society, with the request that a copy be mailed to every member of Jackson County Medical Society without delay.

Supported by Councilor Bulson and carried.

The following resolution was offered by Councilor Haughey who moved its adoption:

‘Resolved, That it is the sense of this Council that as our Constitution makes no provision for votes by proxy such votes are not legal; that no member has a right to vote by proxy in any county society.’

Supported by several and carried unanimously.

Moved by Councilor Bulson that a copy of this interpretation of the status of proxy votes be also furnished the Jackson County Medical Society.

Supported by Councilor Biddle and carried.

Moved by Councilor Biddle that the Secretary transmit to Dr. Willson, of Port Huron, by telegram or letter the sincere sympathy of the Council in his affliction in the illness of his wife, and in the loss we sustain in the lack of his membership.

Supported and carried.

President Carstens suggested that as the society was now financially able, three or four stenographers be employed at the next annual meeting of the Society, one for each of the sections and one for general business.

Moved by Councilor Haughey that the Council recommend that a sufficient number of stenographers be employed to attend the next meeting of the State Society to take care of the section work and all work of the Society.

Supported by Councilor Rockwell and carried.

The following nominations were made for Honorary Membership in the State Society:

RESIDENT HONORARY MEMBERSHIP

Dr. H. B. Landon, Bay City, nominated by Councilor Baker.

Dr. Geo. H. Williams, Bay City, nominated by Councilor Baker.

Dr. James Hueston, Ypsilanti, nominated by Councilor Biddle.

NON-RESIDENT HONORARY MEMBERSHIP

Dr. Geo. Dock, New Orleans, nominated by Councilor Baker.

Moved by Councilor Hume that we adjourn until nine o'clock Thursday morning. Supported and carried.

JANUARY 13, 1910.

The council was called to order by Chairman Dodge at 9:00 a. m., Thursday, Jan. 13, 1910.

Present Chairman Dodge, Councilors Biddle, Bulson, Rockwell, Spencer, Hume, Kay, Seeley, McMullen, Ennis, Haughey, President of the State Society Carstens, State Secretary Schenck, and Treasurer Anderson, Councilor Baker coming in later.

Councilor McMullen, Chairman of the Committee on Finance, made the following report:

"Your Committee on Finance begs to report that we have checked up the books of the Secretary and Treasurer and find everything corresponds, and recommend that the little discrepancy of \$1.30 which has been carried for a number of years on the books of the Treasurer be charged up to Profit and Loss and the books made to balance.

"Your committee would also recommend that

\$3000 of the surplus be invested in a good, safe bond at the best rate of interest obtainable.

B. H. McMULLEN,
A. L. SEELEY,
C. H. BAKER."

Moved by Councilor Rockwell that the report of the Committee on Finance be accepted and adopted. Supported by Councilor Haughey and carried.

Moved by Councilor Bulson as an amendment that when any money is placed at interest the security should be approved by the Chairman of the Council.

Supported by Councilor Haughey. Amendment accepted and carried.

Councilor Biddle, Chairman of the Committee on Publication, read the following report:

"The Committee on Publication commends highly the work of the Editor and Assistant Editor not only in relation to the literary style and make-up of the JOURNAL, but to the judgment which has been displayed on the business side of its publication; and while it commends the conservatism of the retiring Editor in the care with which he has selected the advertising matter, it feels that with the exercise of the same judgment advertising matter of a commercial nature, of material which the manufacturer may find a profitable field in the profession (as the automobile), might without prejudice to the good standing of the JOURNAL be not only accepted, if presented, but even solicited.

"The committee believes that in order to give legal form to the holding of bonds and property and to define the legal status of the relation of the Society to Medical Defense and other matters constantly arising, the Society should be incorporated without delay; and it recommends that the Council instruct its Secretary to take the necessary steps for incorporation.

"This committee would add to the sentiments already expressed by the Chairman of the Council its sincere regrets at the retirement of its present Editor, and would express to him its high appreciation of his earnest, conscientious and untiring work.

Respectfully,
A. P. BIDDLE,
W. J. KAY,
A. M. HUME,
R. H. SPENCER."

Moved by Councilor Bulson that the report of Committee on Publication be accepted and adopted.

Supported by Councilor McMullen and carried.

Councilor Haughey, Chairman of the Committee on County Societies, made the following report:

"Your Committee on County Societies report favorably on most of the recommendations referred to us from the report of the Secretary-Editor.

"In the matter of the receipts to members for dues paid, your committee have examined carefully the blank presented and would suggest that inasmuch as this is a complete change and many of the members have become accustomed to receiving the Certificate and rather like that method we would advise that the plan for the present at least remain as it is, and report adversely on the blank presented.

"Your committee concurs in the suggestion of the Secretary-Editor as to carrying delinquent members one year before dropping.

"Your committee would recommend that a new compilation of the Constitution and By-Laws be made.

Respectfully submitted,
W. H. HAUGHEY,
A. H. ROCKWELL,
A. E. BULSON,
C. J. ENNIS."

Moved by Councilor Biddle that with the exception of the recommendation in regard to receipts for dues, the report be accepted and adopted. Supported by Councilor McMullen and carried.

Moved by Councilor Biddle that the recommendation of the Secretary-Editor with reference to a new form of receipt to members for dues be adopted.

Supported by Councilor Rockwell and carried.

Chairman Dodge now declared the taking of vote for Secretary-Editor to be in order and appointed Councilors Hume and Seeley tellers, instructing them that a majority of the entire Council, or seven votes, was necessary for election.

Tellers declared the first ballot as follows:
Whole number of votes cast, 11.
For Dr. Warnshuis..... 1
Dr. Conboy..... 2
Dr. Rich..... 2
Dr. Chapman..... 2
Dr. W. Haughey..... 4
No choice.

Chair ordered second ballot taken.

Tellers reported whole number of votes cast, 12.
For Dr. Warnshuis..... 1
Dr. Rich..... 2
Dr. Chapman..... 1
Dr. W. Haughey..... 8

Dr. Wilfrid Haughey, of Battle Creek, was declared elected Secretary-Editor of the State Society.

Moved by Councilor Biddle that the election be made unanimous. Supported by Councilor Bulson and carried.

Dr. Haughey was notified of his election and introduced to the Council by President Carstens.

Nominations for Treasurer were now declared in order.

Councilor Haughey nominated Dr. H. A. Powers, of Battle Creek, for Treasurer of the State Society for the ensuing year.

Councilor Rockwell nominated Dr. Geo. F. Inch, of Kalamazoo, for Treasurer for the ensuing year.

Councilor Biddle nominated Dr. W. S. Anderson but at the request of Dr. Anderson this nomination was withdrawn.

Council proceeded to vote by ballot, the result of which was as follows:

Whole number of votes cast, 12.
For Dr. Inch..... 7
For Dr. Powers..... 5

Dr. Geo. F. Inch, of Kalamazoo, was declared elected Treasurer of the State Society.

Moved by Councilor Haughey that the election of Dr. Inch be made unanimous.

Supported by Councilor McMullen and carried.

Moved by Councilor Bulson that the Publication Committee confer with the Secretary of the American Medical Association with a view to having our JOURNAL printed on the Association Press, and report at the Bay City meeting.

Supported by Councilor Ennis and carried.

Moved by Councilor Bulson that the Secretary-Editor be added to the Publication Committee as an ex-officio member.

The Chair announced that there being no objection he would be so considered.

Moved by Councilor Biddle that Dr. Tibbals, Chairman of the Medico-Legal Committee, be allowed \$250 for the year 1910, this to cover his office expenses in connection with that work.

Supported by Councilor Bulson and carried.

Councilor Biddle stated that owing to an oversight the expenses of the Councilors for 1909 were not presented to the House of Delegates at the Kalamazoo meeting, and,—

Moved that each Councilor include them in a bill for expenses for the present year and submit them to the Secretary at least ten days before the next annual meeting for incorporation in the Report of the Chairman to the House of Delegates.

Supported by Councilor Spencer. Carried.

Moved by Councilor Hume that the date of the Annual Meeting of the State Society be fixed as Wednesday and Thursday, the 28th and 29th of September, with the meeting of the Council and the first session of the House of Delegates on the 27th.

Supported by Councilor Biddle and carried.

Dr. Simmons, editor of the *Journal of the American Medical Association*, was present and made a few remarks of encouragement and appreciation of the work that had been done by the Council of the State of Michigan.

Moved by Councilor Biddle that there be incorporated in the report of the Chairman of the Council to the House of Delegates a recommendation to transfer Emmet County from the

10th District to the 9th District. Supported and carried.

Dr. Alvord, in behalf of the Board of Registration, stated that reprints of the Directory for Michigan could be obtained from the *Journal of the American Medical Association* at an expense of about twenty or twenty-five cents each.

On motion of Councilor Baker the matter was referred to the Publication Committee to report. Supported by Councilor Haughey.

Councilor Rockwell moved an amendment that the matter be referred to the Publication Committee, Chairman of the Council and Secretary of the State Society with power to act.

Supported by Councilor Seeley.

Amendment accepted and carried.

Moved by Councilor Biddle that the bond of the Chairman of the Medico-Legal Committee be placed at Two Thousand Dollars

Supported by Councilor McMullen and carried.

On motion of Councilor Haughey the Council adjourned to meet in Bay City, Sept. 27, 1910.

W. H. HAUGHEY, M. D.,
Secretary of the Council.

COUNTY SOCIETY NEWS

ANTRIM

The Antrim County Medical Society held its annual meeting in the court house at Belaire, on Monday, Jan. 10, 1910. The following officers were elected:

President, L. L. Willoughby, Mancelona.

Sec.-Treas., Wm. A. Evans, Bellaire.

Delegate to State Society, L. L. Willoughby.

The society voted to adopt the Defense Plan and Wm. A. Evans was elected member of the Medico-Legal Committee from Antrim County.

It was voted that the society become incorporated, with the object in view of contracting with the superintendents of the poor for the care of the indigent sick. An attempt was made to secure the contract for the present year, but failed. The chief work of the Society for the next twelve months will be to see that the present unsatisfactory plan of caring for the indigent sick be discontinued.

WM. A. EVANS, *Secretary.*

CALHOUN

Calhoun County held its thirty-third annual meeting in Battle Creek, Dec. 7, 1909. Thirty-

five members were present and guests from Detroit and Kalamazoo.

The Medical Defense plan was formally adopted by a unanimous vote.

One of the best programs ever presented before our Society was given at this meeting.

1 "The Use of Quinin and Urea Hydrochloride Anæsthesia in Rectal and Genito-Urinary Surgery," by Dr. Louis J. Hirschman, of Detroit.

2 "The Diagnosis of Myocardial Insufficiency," by Dr. Albion W. Hewlett, of Ann Arbor.

3 "Some Roentgen Studies in Bone Pathology," by Dr. Preston M. Hickey, of Detroit. (Lantern slide demonstration.)

All the papers were scholarly attempts upon the part of their authors and held the interest of all the members present.

The annual election of officers resulted as follows:

President—H. A. Powers, Battle Creek.

Vice-President—Dr. W. C. Marsh, Albion.

Sec.-Treas.—Dr. A. S. Kimball, Battle Creek (re-elected).

Delegates—Drs. H. A. Powers and A. F. Kingsley.

Alternates—Drs. R. D. Sleight and M. A. Mortensen.

The annual banquet was served in the K. of P. hall in the evening and was well attended. A

splendid after dinner talk was given by former consul to Naples, Dean, of Charlotte, under President Cleveland.

The meeting was voted one of the most enjoyable and valuable in our history.

Adjournment was taken to March 1, 1910, in Battle Creek.

Following is a list of the committees of 1910:

REGULAR

Program—A. S. Kimball, W. C. Marsh, Chas. E. Stewart.

Necrology—A. F. Kingsley, S. K. Church, H. A. Herzer.

Entertainment—R. C. Stone, Wilfrid Haughey, W. L. Godfrey.

SPECIAL

Examination of School Children—Wilfrid Haughey, L. S. Joy, I. C. Foster, R. M. Gubbins, Geo. Haynes, L. S. Hodges, H. A. Shurtleff, E. VanCamp.

More Frequent Meetings—A. W. Alvord, Geo. B. Gesner, Geo. C. Hafford.

A. S. KIMBALL, *Secretary*.

GRAND TRAVERSE

The regular meeting of the Grand Traverse County Medical Society was called to order Feb. 1, 1910, at 8:30 P. M., at the Northern Michigan Asylum, by the president. Seventeen members were present.

Dr. H. Thurtell, of Manitowoc County Medical Society, of Wisconsin, was elected to membership.

Contract practice was discussed, and it was decided to notify all members that the question would be voted upon at the next regular meeting.

Dr. J. D. Munson, Superintendent of the Northern Michigan Asylum, read a very interesting and instructive paper on "Psychotherapy," also reading abstracts from the histories of cases in the institution.

The discussion was opened by Dr. Rowley, followed by a general discussion.

After adjournment, Dr. Munson entertained the members with a luncheon.

R. E. WELLS, *Secretary*.

HILLSDALE

The Hillsdale County Medical Society held its regular quarterly meeting Jan. 28, 1910, at Hillsdale.

Dr. Malcolm Graham, of Jonesville, was admitted as a new member.

Dr. B. F. Green, of Hillsdale, was elected the Hillsdale County member of the Medico-Legal Committee.

The scientific program follows:

"The Pulse," Dr. A. W. Chase, Adrian, Mich.
General Discussion.

"Drainage in Septic Condition of the Abdominal Cavity," Dr. Jno. H. Pyle, Toledo, Ohio.
General Discussion.

"Medical Inspection of Public Schools," Dr. Bion Whelan, Hillsdale.
Discussion, Supt. S. J. Gier, Hillsdale.

Commissioner Harry McClave, Hillsdale.

B. F. GREEN, *Secretary*.

HOUGHTON

The December meeting of the Houghton County Medical Society was held at the Red Jacket Council rooms, Calumet.

Dr. A. R. Tucker, Mohawk, reported a case of cyst of the inguinal canal simulating hernia. The cyst was about the size of a hen's egg, and was attached to the internal ring. There was also an adhesion to the tip of the appendix.

Dr. S. S. Lee, Opeche, read a paper on "Cystitis." He said that a classification based on etiology is difficult on account of the numerous causes. It is due to a micrococcus infection, and is generally a purulent process. Various conditions favor its development, as obstructions to the passage of urine, tenesmus, foreign bodies, new growths, etc. The pathology is that common to an inflammatory process. The symptoms: Frequency of urination, pain, tenesmus, blood, pus and epithelial cells in the urine. The microscope and chemical analysis should be used to confirm the diagnosis. Those possessing the dexterity to use the cystoscope find it of great value in differentiating from pyelitis.

In treatment, the acute form gives the best results, but in any from we are liable to see relapses. The following are the principal indications: 1. Remove the cause if possible. 2. Relieve pain and frequent urination. 3. Change the urine to a condition unfavorable to germ growth. 4. Check suppuration.

Dr. C. H. Rodi, Calumet, discussed "Pyelitis," which he divided into three general divisions, viz.: Inflammation of the pelvis of the kidney; inflammation of the kidney substance and abscess of the kidney. Infectious diseases as causative factors are frequently overlooked. A frequent examination of the urine would reveal more cases than are usually recognized; pus would be found, sometimes in very small quantities. The cases ushered in by a small chill are generally self-limited. Where the chill is heavy we usually get a suppurative pyelitis. Foreign

bodies may cause pyelitis, or the cause may be an extension upward of a disease process. In the chronic form, cystitis and tuberculosis are common causes. In the tuberculous form we have urine containing tubercle bacilli, a slight evening rise of temperature, emaciation, etc. In cystitis the urine is ammoniacal, but this does not exclude tuberculosis of either kidney. Obstruction of the ureter, preventing the escape of pus, gives rise to a tumor, and may simulate floating kidney, distended gall bladder, etc. He related a case of tumor in the region of the appendix with symptoms of appendiceal abscess, but pus in the urine made the diagnosis easy. The abscess was evacuated through the loin, but the patient is now suffering from Bright's disease.

JOHN MACRAE, *Secretary*.

HURON

The Huron County Medical Society held its regular quarterly meeting in Bad Axe, Jan. 10, 1910. Dr. B. Friedlaender read a paper on "Hypernephroma of the Kidney," and Dr. D. Conboy one on "Gastric Hyperacidity." Both papers were fully discussed by the members, of whom there were sixteen present. We have decided to make this year's due only \$4.00 per member, by paying the extra 50 cents out of the treasury of the County Society.

D. CONBOY, *Secretary*.

ISABELLA

The first quarterly meeting of the Society was held at Mount Pleasant. Dr. Goodwin, of Shepherd, read a paper, entitled, "Our Society and the Public." It was an interesting paper and opened up much material for discussion. Considerable time was taken in considering the medico-legal-defense plan of protection from malpractice suits and the same was finally adopted unanimously by the Society. As some misunderstandings had arisen relative to medical ethics, it was thought advisable to get pamphlets of the code and study up on the subject before the next meeting so as to avoid further misunderstandings and be able to discuss the matter intelligently when called together again. The Chair appointed a committee to formulate a course of reading and study, Drs. McEntee, Adams and Baskerville being chosen. The meeting then adjourned to meet at 7:30 at the Hotel Bennett, where a banquet was served. Dr. Richmond was selected as toast-

master and Drs. Johnson, Baskerville, Goodwin, McRae, Pullen and McEntee replied to toasts.

Plates were spread for the following:

Dr. and Mrs. Adams, Dr. and Mrs. Baskerville, Dr. and Mrs. Gardiner, Dr. and Mrs. McEntee, Dr. and Mrs. Pullen, Dr. and Mrs. Richmond, Dr. and Mrs. Abbott, Dr. and Mrs. Goodwin, Dr. and Mrs. McRae, Dr. and Mrs. Johnson, Dr. Gruber and Dr. Reeder. Everybody had a good time, the feeling being that such meetings and banquets would bring the members into nearer touch with each other and have much to do in doing away with many of the little differences that often arise between members of the profession.

S. E. GARDINER, *Secretary*.

KALAMAZOO ACADEMY OF MEDICINE

The annual meeting of the Kalamazoo Academy of Medicine was held at the Academy of Medicine rooms, at Kalamazoo, Dec. 14, 1909.

The scientific program consisted of three papers:

CRIMINAL ABORTION, Dr. Rudolph W. Holmes, Chicago.

REMOTE AND LOCAL EFFECTS OF CHRONIC FOCAL INFECTION, Dr. Frank Billings, Chicago.

THE CONSIDERATION OF SKULL FRACTURES, Dr. Frederick A. Besley, Chicago.

ABSTRACT: Medical history shows a knowledge of skull fractures in its earliest records, and volumes have been written on the subject, yet our views are changing in direct proportion to the advances made as a result of experimentation, research and clinical experience. There have been many classifications of skull fractures. Probably the best one is based on (1) the mechanism, (2) the presence or absence of open wound, (3) the form of the fragments and (4) the situation. The general classification, based, first, upon the division into simple and compound fractures, and, second, on the location, whether vault or base, is of more importance to us from the standpoint of treatment than are other classifications.

The present theories of the mechanism of fracture of the skull embody two definite principles; (1) The bending at the point of contact, and (2) the bursting of the skull at some distance from the blow. In all the experimental work that has been done it seems to me that none of the investigators have given sufficient weight to the fact that, no matter where the blow is delivered to the skull, the force must be trans-

mitted through it as a whole to the condylar articulation with the atlas; that is, there is always a counter force at this fixed point. I believe that this counter force as produced at the condylar-atlantoid junction, is the cause of most of the fractures at the base; they being fractures by bending rather than by bursting. I draw this deduction for the following reasons: (1) The fractures bear a similarity in point of direction and location, regardless of where the blow is struck upon the vault. (2) The fractures do not follow the lines of least resistance at the base, either as to thickness or as to tensile strength. (Diagnosis was discussed at length.) The main point in the treatment is the fatal mistake of packing the wound after carefully cleaning out all blood clots, and relieving all pressure. The main indication in many of these fractures is to relieve pressure, and the packing with iodoform or other gauze so often practiced defeats one of the chief indications for operation. The best thing to do is to use a gauze wick drain. The hemorrhage is seldom so profuse that there is any grave danger from that point, but when it is profuse, the indication is to control it by other means than pressure by packing.

About forty members assembled at the Rickman Hotel in the evening where an elaborate banquet was served by the hotel management. After the banquet the retiring president, Dr. R. E. Balch, gave an address which put forth the advantages of animal experimentation as related to the advancement of medical information, referring especially to the progress now being made in blood vessel surgery resulting from its use.

Dr. W. F. Hoyt, of Paw Paw, was then introduced as toastmaster of the evening and called upon the following members, who responded:

Drs. Carnes, of South Haven; Robinson, of Allegan; Jackson, A. S. Youngs and A. W. Crane, of Kalamazoo.

C. E. Boys, *Secretary*.

KENT

Dr. Charles Quick died Dec. 27, 1909, after a six weeks' illness from nephritis and myocarditis. The doctor was buried at his old home in Lowell, December 30.

Dr. R. R. Smith spent the first week in January at the Mayo Clinic.

The annual report of the U. B. A. Hospital contains the following:

Total assets	\$147,407.51
Total indebtedness	35,060.50
Total endowment	38,226.09
Receipts for the year	33,829.26
Patients received.....	931
Operations performed.....	645
Average daily number of patients	40
Death rate.....	.5%
Average cost per patient.....	\$2.35

The following was the program for the meeting of January 12:

"Some Problems in Acute Nephritis," Dr. Eugene Boise.

"Etiology and Treatment of Hernia of the Inguinal Region," Dr. Alexander Hugh Ferguson, Chicago, Ill.

Seventy-six members were present at this meeting and upon the completion of the program the meeting adjourned to a nearby café and all enjoyed participating in a Dutch lunch mingled with stories told by our invited guests and various members.

The meeting of January 26 was very well attended, the following being the program:

"Symposium on Anæsthesia,"

"The Use of Adjuncts," Reuben Maurits.

"The Anæsthetic from the Standpoint of the Anæsthetist," H. W. Dingman.

"Chloroform Accidents," Alden Williams.

"The Anæsthetic from the Surgeon's Standpoint," R. R. Smith.

"The Medical Library," Samuel H. Ranck, Librarian Ryerson Library.

Mr. Ranck has given the subject of Medical Libraries considerable study. Last year he read a paper before the American Librarians' Association upon this subject. He also arranged and catalogued the private library of Howard Kelly and of the College of Physicians and Surgeons, in Baltimore. The local library has some 4700 volumes of medical books; it has set aside a special reading room for doctors only. In this room may be found the leading current journals. The Library Board spends some \$60 per year for subscriptions to these journals. Mr. Ranck made several valuable suggestions as to how our local library may be made of more value to every physician.

At this meeting five new members were elected.

Dr. Pratt, of Sparta, has disposed of his practice and is doing post graduate work in the East.

Dr. John Vermeulen, formerly of McBain, is now practicing in Grand Rapids.

Butterworth Hospital will give its Second Annual Roof Garden Show for the benefit of the hospital, February 2, 3, 4, 5.

Extract from report of the Grand Rapids Board of Health for November:

Out of 22 deaths from all causes twelve were from consumption.

Thirty-four sputum examinations were made by the bacteriologist.

With the use of four tons of coal, the garbage burner incinerated 114 loads of garbage, 1045 loads of other refuse, 60 loads of paper, 20 horses, 99 dogs and 52 cats.

MARQUETTE

The regular monthly meeting of the Marquette Alger County Society was held at Marquette, Wednesday night Jan. 19, 1910. Upon formal ballot Dr. E. A. Florentine, of Kenton, was unanimously elected a member of the Society. Dr. McCrory, who has recently located in Negaunee, has made application for membership into the Society. Dr. F. D. McHarkin reported three cases of tetanus which occurred in his practice in the past six months. All three cases were treated with serum, resulting in two recoveries and one death. In the discussion following the fact was elucidated that tetanus is not a frequent disease in this district. Dr. Barnett reported a case of tetanus occurring in his practice at Ishpeming, and stated that it was the only case that had occurred in that city in twenty-five years.

Dr. H. H. Loveland, of Republic, reported a case of eclampsia in a newborn child, which also had an enlarged thyroid gland. The child died on the eleventh day and the gland disappeared at this time. In the discussion Dr. Felch expressed the opinion that the case was one of enlarged thymus gland instead of enlarged thyroid gland.

Dr. H. M. Cunningham made a preliminary report upon a case of skin graft to the lip, and the case of extraction of a small piece of steel from the vitreous humor with a giant magnet.

Interesting cases of appendicitis were reported by Drs. Lunn, Carriel, Hornbogen and Vandeventer.

By request of the Board of Supervisors the matter of the location of the County Tuberculosis Sanitarium was taken up for discussion. The majority taking part in the discussion were of the opinion that it should be built some distance inland from the shores of Lake Superior.

Lake Michigamee, situated some thirty miles west of Marquette, seemed to be the most favored spot, on account of its high altitude, dry atmosphere, pure water and beautiful scenery. From all indications Marquette will be the first of the Upper Peninsula counties to build, equip and support a modern up-to-date tuberculosis sanitarium.

H. J. HORNBOKEN, *Secretary*.

MONTCALM

The following is the program of the meeting of the Montcalm County Medical Society, held at Greenville, Jan. 20, 1910.

Variola—

- (a) Etiology of, Dr. L. E. Kelsey.
- (b) Pathology of, Dr. James Purdon.
- (c) Symptoms and Clinical Course, Dr. M. E. Danforth.
- (d) Diagnosis, Dr. A. B. Penton.
- (e) Prognosis and Treatment, Dr. C. O. Jenison.

These papers or talks were followed by general discussion.

Paper by Dr. W. T. Dodge, Councilor 11th District.

H. L. BOWER, *Secretary*.

OSCEOLA

The Annual Meeting of the Osceola-Lake County Medical Society was held at Reed City, Jan. 11, 1910. After the general business the following officers were elected:

President, C. D. Woodruff, Reed City.

Vice-President, E. N. Heysett, Baldwin.

Sec.-Treas., U. D. Seidel, Reed City.

Delegate to State Society, H. L. Foster, Reed City.

Alternate, A. Holm, Tustin.

We are sorry to lose our former Secretary and fellow practitioner, Dr. D. S. Fleischauer, who is going to Wabasha, Minn., as surgeon of the Elizabeth Hospital of that place.

U. D. SEIDEL, *Secretary*.

OTTAWA

The January meeting of the Ottawa County Medical Society was held Jan. 11, 1910, at 2 p. m., at the Court House, Grand Haven.

The meeting was poorly attended as a result of the condition of the roads.

Corie C. Coburn, Prosecuting Attorney of Ottawa County, read a paper, "Criminal Malpractice." Geo. A. Farr, of Grand Haven, who

was to have presented a paper on "Civil Malpractice," requested that his paper be given at some future meeting, and the time was taken up by Mr. Coburn, who answered questions of a legal nature, asked by many of those in attendance. The Society tendered a vote of thanks to Mr. Coburn and hope to hear from Mr. Farr at some future meeting.

Dr. Wm. A. Stone, former Assistant Superintendent of the Kalamazoo Asylum, and Albert M. Barrett, professor of Psychiatry and Diseases of the Nervous System at Ann Arbor, were appointed a lunacy commission by Judge Padgham, to examine George Seelman who is on trial for the murder of Mrs. Taylor. The physicians invited Drs. Stone and Barrett to address them at a smoker which was given at the Court House on January 21. A number of physicians from Holland, Spring Lake and Grand Haven were present, and also Drs. Corbus and Campbell of Grand Rapids who are to appear for the defendant.

Dr. Stone read a paper on "The Examination of the Insane." Dr. Barrett was called home on account of illness in his family.

Dr. T. A. Boat, Health Officer, of Holland, will spend the balance of the winter in Florida, and Dr. W. G. Winter, City Physician, will act as Health Officer in his absence.

The following cases of infectious and contagious diseases are reported: Typhoid fever, 1; pneumonia, 3; scarlet fever, 9; diphtheria and measles, 1.

Grand Haven and vicinity has experienced an epidemic of pneumonia during November and December which resulted in seven deaths in the city.

Dr. Richard R. Smith, President of the Kent County Medical Society, has announced that the members of the Ottawa County Medical Society will receive invitations to the Kent County meetings whenever they have an unusually interesting meeting. This courtesy will be appreciated.

D. W. A. Walkley, Acting Assistant Surgeon of the "United States Public Health and Marine Hospital Service," was compelled to take a short leave of absence on account of illness caused by a carbuncle on his neck.

Grand Haven physicians recently signed an agreement not to engage in contract practice for any organization.

GEO. H. THOMAS, *Secretary*.

NEWS

The second Annual Report of Mercy Hospital, Cadillac, contains the following:

Number of patients treated, 324; surgical, 242; medical, 75; obstetrical, 7; cured, 281; improved, 20; unimproved, 7. There were 16 deaths, of whom 12 were brought to the hospital in a dying condition; 7 died within twenty-four hours and 5 within forty-eight hours after admission.

CLASSIFICATION OF PATIENTS

Male 150; female, 174; white, 323; colored, 1; single, 129; married, 178; widowed, 17; Protestant, 278; Catholic, 39; no religion, 7.

Ages: Between one and ten years, 20; between ten and twenty years, 48; twenty and thirty years, 90; between thirty and forty years, 65; between forty and fifty years, 48; between fifty and sixty years, 32; between sixty and seventy years, 15; between seventy and eighty years, 5; between eighty and ninety years, 1.

Nationality: America, 247; Canada, 31; Sweden, 18; Germany, 7; Netherlands, 5; Denmark, 3; Finland, 3; France, 2; Ireland, 2; Norway, 1; Italy, 1; Poland, 2; Australia, 1.

Occupations: Actress, 1; agent, 1; barber, 1; blacksmith, 1; bookkeepers, 2; business men, 4; cabinetmaker, 1; carpenters, 2; clerks, 3; contractor, 1; cooks, 3; maids, 8; druggist, 1; electricians, 2; engineers, 3; farmers, 29; firemen, 1; hairdressers, 2; housewives, 107; inspectors, 4; janitors, 2; laborers, 55; linemen, 1; lumbermen, 3; machinist, 1; mason, 1; milliners, 2; nurse, 1; physician, 1; printer, 1; sawyers, 2; seamstresses, 6; students, 29; switchmen, 2; teachers, 4; no occupation, 21.

The report also contained a welcome from the Sisters at the hospital to all who are afflicted and a statement that all reputable physicians have at their command the facilities of the hospital.

RECEIPTS

Balance on hand year ending January 1909, \$702.37; cash on hand, \$5.67; board, \$6,646.31; operating room fee, \$626.50; donations, \$1,234.27; nurse services, \$657.15; discount on bills, \$8.57; total, \$9,875.17.

DISBURSEMENTS

For maintenance of hospital and improve-

ments on property, \$9,869.48; balance on hand year ending January, 1910, \$5.67.

At the commencement exercises for the nurses of the Mercy Hospital Training School, Cadillac, Rev. Fr. E. A. Lefebvre gave an address on the history and benefits of hospitals. He dwelt especially on the work of Mercy Hospital. In the course of his remarks he paid this tribute to the Sisters of Mercy who have charge of the hospital: "The most glorious page in the history of charity among men is the work of the Sisters of Mercy on the field of battle, the angels of the battlefield."

Other speakers were: Dr. Bartlett H. McMullen, who gave an address on the "Trained Nurse." Dr. J. M. Wardell spoke on the "Cadillac Spirit." The diploma presentation was made by Mrs. D. F. Diggins, the donor of the hospital, and the Hippocratic oath was administered by Dr. David Ralston.

Jan. 21, 1910, Mercy Hospital tendered the physicians of Cadillac and the donor of the hospital their annual banquet, which was held in the Sisters' dining-room. The decorations were simple. Dr. C. E. Miller acted as toastmaster. Physicians of the city responded to toasts. There were several physicians present from out of the city.

Beginning with the January issue the *Medical Review of Reviews* will be edited by Dr. William J. Robinson, and the editorial offices will be 12 Mt. Morris Park, W., New York City. The scope of the journal will be enlarged and the departments strengthened.

Dr. Wm. A. Stone, formerly Assistant Superintendent of the Michigan Asylum for the Insane, at Kalamazoo, announces the opening of his offices at the Kalamazoo National Bank Building. Nervous and mental diseases exclusively.

CONSTITUTION AND BY-LAWS OF THE MICHIGAN STATE MEDICAL SOCIETY

Adopted at Port Huron, June 26, 1902. (As Amended at various times.
Compiled February, 1910.)

CONSTITUTION

ARTICLE I—NAME OF THE SOCIETY

The name and title of this organization shall be the Michigan State Medical Society.

ARTICLE II—PURPOSES OF THE SOCIETY

The purpose of this Society shall be to federate and to bring into one compact organization the entire medical profession of the State of Michigan and to unite with similar Societies in other States to form the American Medical Association; with a view to the extension of medical knowledge, and to the advancement of medical science; to the elevation of the standard of medical education, and to the enactment and enforcement of just medical laws; to the promotion of friendly intercourse among physicians, and to the guarding and fostering of their material interests; and to the enlightenment and direction of public opinion in regard to the great problems of state medicine, so that the profession shall become more capable

and honorable within itself, and more useful to the public in the prevention and cure of disease, and in prolonging and adding comfort to life.

ARTICLE III—COMPONENT SOCIETIES

Component Societies shall consist of those County Medical Societies which hold charters from this Society.

ARTICLE IV—COMPOSITION OF THE SOCIETY

SECTION 1. This Society shall consist of Members, Delegates and Honorary Members.

SEC. 2. *Members.* The Members of this Society shall be the members of the Component County Medical Societies.

SEC. 3. *Delegates.* The Delegates shall be those members who are elected in accordance with this Constitution and By-Laws to represent their respective Component County Societies in the House of Delegates of this Society.

SEC. 4. *Honorary Members.* Honorary members shall be of two classes, resident and non-resident.

SEC. 5. Resident Honorary Members shall be chosen from those who have practiced medicine not less than *thirty* years and have been active members in good standing of this Society for at least *ten* years. They shall be nominated by the Council at any of its meetings and may be elected by the House of Delegates at the Annual Meeting following such nomination. They shall have all the privileges of the Society and receive all publications without the payment of dues. Not more than five Resident Honorary Members shall be elected at any one meeting.

SEC. 6. Any distinguished physician, not a resident of this State, may be elected an Honorary Member, provided he has been nominated by the Council at a previous meeting. Not more than two non-resident Honorary Members shall be elected at any one meeting.

ARTICLE V—HOUSE OF DELEGATES

The House of Delegates shall be the legislative and business body of the Society, and shall consist of (1) delegates elected by the Component County Societies, and (2) *ex-officio*, the officers of the Society as defined in this Constitution, without power to vote. (*As amended June 28, 1905.*)

ARTICLE VI—SECTIONS AND DISTRICT SOCIETIES

The House of Delegates may provide for a division of the scientific work of the Society into appropriate Sections, and for the organization of such Councilor District Societies as will promote the best interests of the profession, such societies to be composed exclusively of members of the Component County Societies.

ARTICLE VII—SESSIONS AND MEETINGS

SECTION 1. The Society shall hold an Annual Session during which there shall be held daily General Meetings, which shall be open to all registered members and delegates.

SEC. 2. The time and place for holding each Annual Session shall be fixed by the House of Delegates

ARTICLE VIII—OFFICERS

SECTION 1. The officers of this Society shall be a President, four Vice-Presidents, a Secretary, a Treasurer, and twelve Councilors.

SEC. 2. The President and Vice-Presidents shall be elected for a term of one year. The Secretary and the Treasurer shall be elected by the Council at its Annual Meeting in January,

and each shall hold his office for one year. The Councilors shall be elected for terms of six years each, these terms being so divided that four Councilors shall be chosen each alternate year. All of these officers shall serve until their successors are elected and installed. (*As amended May 15, 1907.*)

SEC. 3. The officers of this Society, not otherwise elected, shall be elected by the House of Delegates on the morning of the last day of the Annual Session; but no Delegate shall be eligible to any office named in the first section, except that of President or Councilor; and no person shall be elected to any such office who has not been a member of this Society for at least two years.

ARTICLE IX—FUNDS AND EXPENSES

SECTION 1. Funds for meeting the expenses of the Society shall be provided by a yearly fee of two dollars for each member, payable in advance to the Secretary of this Society by the Secretary of his Component County Society, and from the profits of its publications.

SEC. 2. Funds may be appropriated by the House of Delegates, subject to an approval by the Council, to defray the expenses of the Annual Sessions, for publication, and for such other purposes as will promote the welfare of the Society and the profession.

ARTICLE X—RECIPROCITY OF MEMBERSHIP AMONG STATE SOCIETIES

To broaden professional fellowship among the State Societies, the Michigan State Medical Society, by its President and Secretary, is ready to arrange with other State Medical Societies, having equal requirements, for the interchange of certificates of membership. Members removing from one of these States to another may thus avoid the formalities of re-election.

ARTICLE XI—REFERENDUM

The General Meeting of the Society may by a two-thirds vote order a general referendum upon any question pending before the House of Delegates, and the House of Delegates may by a similar vote of its own members, or after a like vote of the General Meeting, submit any such question to the members of the Society for a final vote; and, if the persons voting shall comprise a majority of all the members registered at the session, a majority of such vote shall determine the question, and be binding upon the House of Delegates.

ARTICLE XII—THE SEAL

The Society shall have a Common Seal, with

power to break, to change or to renew the same at pleasure.

ARTICLE XIII—AMENDMENTS

The House of Delegates may amend any article of this Constitution by a two-thirds vote of the delegates registered at that Annual Session, provided that such amendment shall have been presented in open meeting at the previous Annual Session, and that it shall have been sent officially to each Component County Society at least four months before the session at which final action is taken.

BY-LAWS

CHAPTER I—MEMBERSHIP

SECTION 1. All members of the Component County Societies, who are not in arrears for dues, shall be privileged to attend all meetings and to take part in all of the proceedings of the Annual Session, and shall be eligible to any office within the gift of the Society, except as otherwise provided. See Constitution, Art. VIII, Sec. 3.

Any member in arrears for dues to the amount of one year or more may regain membership either by paying up all back dues or by being again elected to membership. (*As amended June 29, 1905.*)

SEC. 2. The name of a physician upon the properly certified roster of members, or list of delegates, of a chartered County Society shall be prima facie evidence of his right to register at the Annual Session in the respective bodies of this Society.

SEC. 3. No person who is under sentence of suspension or expulsion from any Component Society of this Society, or whose name has been dropped from its roll of members, shall be entitled to any of the rights or benefits of this Society; nor shall he be permitted to take part in any of its proceedings until such time as he has been relieved of such disability.

SEC. 4. Each member in attendance at the Annual Session shall enter his name on the registration book, indicating the Component Society of which he is a member. When his right to membership has been verified by reference to the roster of his Society he shall receive a badge, which shall be evidence of his right to all the privileges of membership at that Session. No member or delegate shall take part in any of the proceedings of an Annual Session until he has complied with the provisions of this section.

CHAPTER II—ANNUAL AND SPECIAL SESSIONS OF THE SOCIETY

SECTION 1. The Society shall hold an Annual Session at such time and place as has been fixed at the preceding Annual Session.

SEC. 2. Special sessions of either the Society or the House of Delegates may be called by the President at his discretion or upon petition of twenty delegates.

CHAPTER III—GENERAL MEETINGS

SECTION 1. The General Meetings shall include all registered members and delegates, who shall have equal rights to participate in the proceedings and discussion, and to vote on pending questions. Each General Meeting shall be presided over by the President, or in his absence or disability, or by his request, by one of the Vice-Presidents. Before it, at such time and place as may have been arranged, shall be delivered the annual address of the President, and the entire time of the Session, so far as may be, shall be devoted to papers and discussions relating to scientific medicine. (*As amended May 25, 1906.*)

SEC. 2. The General Meeting shall have authority to create committees or commissions for scientific investigations of special interest and importance to the profession and public, and to receive and to dispose of reports of the same; but any expense in connection therewith must first be concurred in by the Council.

SEC. 3. Except by special vote the order of exercises, papers and discussions as set forth in the official program shall be followed from day to day until it has been completed. No paper shall be read by title nor read by any other person than its author except as a result of sickness of author, or by unanimous vote of the section to which it belongs. (*As amended Sept. 14, 1909.*)

SEC. 4. No address or paper before the Society, except that of the President, shall occupy more than fifteen minutes in its delivery; and no member shall speak longer than five minutes or more than once on any subject. (*As amended May 25, 1906.*)

SEC. 5. All papers read before the Society shall be its property. Each paper read shall be deposited immediately with the Secretary, but the author may also publish the same in any reputable journal not published in this State, provided the printed article bears the statement that it was "read before the Michigan State Medical Society."

CHAPTER IV—HOUSE OF DELEGATES

SECTION 1. Each Component County Society shall be entitled to send to the House of Delegates each year one delegate for every 50 members, and one for each major fraction thereof; but each County Society holding a charter from this Society, which has made its annual report as provided in this Constitution and By-Laws, shall be entitled to one delegate.

SEC. 2. The House of Delegates shall meet annually at the time and place of the Annual Session of the Society, and shall so fix its hours of meeting as not to conflict with the first General Meeting of the Society, or with the meeting held for the address of the President, and so as to give delegates an opportunity to attend the other scientific proceedings and discussions so far as is consistent with their duties. But, if the business interests of the Society and profession require, it may meet in advance, or remain in session after the final adjournment of the General Meeting. (*As amended May 25, 1906.*)

SEC. 3. A majority of the registered delegates shall constitute a quorum. All of the meetings of the House of Delegates shall be open to members of the Society.

SEC. 4. It shall consider and advise as to the interests of the profession, and of the public in those important matters wherein it is dependent upon the profession, and shall use its influence to secure and to enforce all proper medical and public health legislation, and to diffuse popular information in relation thereto.

SEC. 5. It shall elect representatives to the House of Delegates of the American Medical Association in accordance with the Constitution and By-Laws of that body in such a manner that at least one of the delegates shall be elected each year.

SEC. 6. It shall divide the counties of the State into twelve Councilor Districts. When the best interest of the Society and the profession will be promoted thereby, it may organize in each a District Medical Society, to meet midway between the Annual Sessions of this Society. Members of the chartered County Societies, and no others, shall be members in such District Societies. (*As amended May 27, 1904.*)

SEC. 7. It shall have authority to appoint committees for special purposes from among members of the Society who are not members of the House of Delegates, and such committees may report to the House of Delegates in person, and may participate in the debate thereon.

SEC. 8. It shall approve all memorials and

resolutions issued in the name of the Society before the same shall become effective.

SEC. 9. It shall present a summary of its proceedings to the last General Meeting of each Annual Session, and shall publish the same in the Journal of the Society.

SEC. 10. The House of Delegates shall provide for the division of the scientific work of the Society into appropriate Sections:

First—A Section on General Medicine.

Second—A Section on Surgery, Ophthalmology and Otology.

Third—A Section on Obstetrics and Gynecology.

CHAPTER V—SECTIONS

SECTION 1. Sections shall hold their meetings at such times and in such places as shall not interfere with the General Meetings.

At each Annual Meeting a Chairman shall be chosen for each Section, to serve for one year. A Secretary shall be chosen every second year to serve for two years or until his successor is elected.

All papers, communications and matters of technical or professional nature shall be referred to the Section to which they pertain.

CHAPTER VI—ELECTION OF OFFICERS

SECTION 1. All elections shall be by secret ballot, and a majority of the votes cast shall be necessary to elect, unless otherwise provided.

SEC. 2. The House of Delegates shall elect annually at its first meeting a Nominating Committee of five from the House of Delegates, no two of whom shall be from the same Councilor District. (*As Amended June 12, 1903.*)

SEC. 3. The Nominating Committee shall nominate the first, second, third and fourth Vice-Presidents, the Councilors from the Districts in which there are vacancies, and the Representatives to the House of Delegates of the American Medical Association. In so far as possible, the Vice-Presidents shall be selected with especial reference to the promotion of the work of the Councilors in the four Districts nearest their respective residence.

SEC. 4. The report of the Nominating Committee and the election of the officers nominated shall be the first order of business of the House of Delegates after the reading of the minutes on the morning of the last day of the Session.

SEC. 5. Nothing in this article shall be construed to prevent additional nominations being made by members of the House of Delegates.

SEC. 6. Any member of the Society is eligible to the office of President, and nominations to this office may be made and seconded by any member of the same.

SEC. 7. The nominations for President shall be made the first order of miscellaneous business at the General Meeting of the Society on the first day of the Annual Session. Under no other circumstances shall a nomination or announcement of candidates be made in open session.

SEC. 8. A locked ballot box, for the reception of ballots, in the custody of the Committee on Nominations above mentioned, shall be placed in or about the hall where the General Meetings are held. One or more of the Committee on Nominations shall receive and deposit the ballots in the box, at the same time checking the name of the voter from the list of those entitled to vote, which list shall include all the members of the Society registered at the meeting.

SEC. 9. The polls shall close at 11 o'clock a. m., on the last day of the Session. The result of the canvass shall be reported to the Society at the close of the General Meeting. (*As amended May 25, 1906.*)

SEC. 10. The person receiving the largest number of votes on the presidential ticket shall be declared President.

SEC. 11. In the event of a tie vote on the presidential office the presiding officer shall submit the names of the candidates in alphabetical order to the *viva voce* vote of the meeting, and the one receiving the greatest number of votes shall be declared President.

SEC. 12. The Secretary and the Treasurer shall be elected by the Council at its meeting in January, as provided.

CHAPTER VII—DUTIES OF OFFICERS

SECTION 1. The President shall preside at all meetings of the Society and of the House of Delegates; shall appoint all committees not otherwise provided for; shall fill all vacancies not otherwise provided for occurring by reason of death, disability or removal of any officer, councilor or member of any committee, occurring during the fiscal year of the Society; shall deliver an annual address at such time as may be arranged; shall give a deciding vote in case of a tie, and shall perform such other duties as custom and parliamentary usage may require. He shall, as far as practicable, visit by appointment the various sections of the State and assist the Councilors in building up the County

Societies, and in making their work more practical and useful. (*As amended Sept. 15, 1909.*)

SEC. 2. The Vice-Presidents shall assist the President in the discharge of his duties, and the Council in the organization and nurture of County Societies.

SEC. 3. The Treasurer shall give bond for the trust reposed in him, as fixed by the Council. He shall demand and receive all funds, except the Medico-Legal Fund, due the Society, together with bequests and donations. He shall, under the direction of the Council, sell or lease any estate belonging to the Society, and execute the necessary papers; and shall, in general, subject to such direction, have the care and management of the fiscal affairs of the Society. He shall pay money out of the Treasury only on the written order of the Chairman of the Council, countersigned by the Secretary of the Society; he shall subject his accounts to such examination as the House of Delegates may order, and he shall annually render an account of the doings and of the state of the funds in his hands to the Council. (*As amended Sept. 16, 1909.*)

SEC. 4. The Secretary, acting with the Committee on Scientific Work, shall prepare and issue the programs for and attend all meetings of the Society and of the House of Delegates, keeping minutes of their respective proceedings in separate record books. He shall be custodian of all record books and papers belonging to the Society, except such as properly belong to the Treasurer, and shall keep account of and promptly turn over to the Treasurer and Chairman of the Medico-Legal Committee all funds of the Society which come into his hands. He shall provide for the registration of the members and delegates at the Annual Sessions. In so far as it is in his power he shall use the printed matter, correspondence and influence of his office to aid the Councilors in the organization and improvement of the County Societies, and in the extension of the power and usefulness of this Society. He shall conduct the official correspondence, notifying members of meetings, officers of their election and committees of their appointment and duties. He shall be editor of the JOURNAL of this Society, and shall employ such assistants as may be ordered by the Council. He shall annually make a report to the Council at the January meeting and the essentials of this report shall be incorporated in the report of the Chairman of the Council to the House of Delegates at the next Session. (*As amended May 25, 1906, and Sept. 16, 1909.*)

In order that the Secretary may be enabled to give that amount of time to his duties which will permit of his becoming proficient, it is desirable that he should receive some compensation. The amount of his salary shall be fixed by the Council.

SEC. 5. The business of each Annual Session shall be completed by the officers who have served throughout the session.

CHAPTER VIII—COUNCIL

SECTION 1. The Council shall hold daily meetings during the Annual Session of the Society and at such other times as necessity may require, subject to the call of the Chairman or on petition of three Councilors. Three Councilors shall constitute a quorum for the transaction of business. The Council shall meet on the last day of the Annual Session of the Society for reorganization and for the outlining of the work for the ensuing year. At this meeting it shall elect a Chairman and a Secretary.

It shall hold a meeting in January of each year at a date and place fixed by the Chairman. It shall keep a permanent record of its proceedings, and through its Chairman make an annual report to the House of Delegates at such time as may be provided.

SEC. 2. Collectively, the Council shall be the Board of Censors of the Society. It shall consider all questions involving the right and standing of members, whether in relation to other members to the Component Societies, or to this Society. All questions of an ethical nature brought before the House of Delegates or the General Meeting shall be referred to the Council without discussion. It shall hear and decide all questions of discipline affecting the conduct of members or of a County Society, upon which an appeal is taken from the decision of an individual Councilor. Its decision in all such cases shall be final.

SEC. 3. It shall make careful inquiry into the condition of the profession of each county in the State, and shall have authority to adopt such methods as may be deemed most efficient for building up and increasing the interest in such County Societies as already exist, and for organizing the profession in counties where societies do not exist. It shall especially and systematically endeavor to promote friendly intercourse between physicians of the same locality, and shall continue these efforts until every reputable physician of the State has been brought under medical society influence.

SEC. 4. It shall upon application provide and

issue charters to County Societies organized to conform to the spirit of this Constitution and By-Laws.

SEC. 5. In sparsely settled sections it shall have authority to organize the physicians of two or more counties into societies, to be designated by hyphenating the names of two or more counties so as to distinguish them from district and other classes of societies. These societies, when organized and chartered, shall be entitled to all the privileges and representation provided herein for County Societies, until such counties may be organized separately.

SEC. 6. The Council shall provide and superintend the publication and distribution of all proceedings, transactions and memoirs of the Society, and shall have authority to appoint an editor and such assistants as it deems necessary. Further, to facilitate this work, it shall be the duty of the Secretaries of the Sections, during each Annual Session, or as soon thereafter as practicable, to deliver to the Editor, or his duly appointed agent, all such proceedings, reports, addresses, papers and other documents as may have been ordered for publication. All money received by the Council, or its agents, resulting from the discharge of the duties assigned to them, must be paid to the Treasurer of the Society, and all orders on the Treasurer for disbursements of money in any way connected with the work of publication must be indorsed by the Chairman of the Council and countersigned by the Secretary of the Society. All matters of the Society pertaining to the expenditure of money for other purposes shall be referred, during the Annual Session, to the Council, who shall report upon the same within twelve hours, and if the House of Delegates orders the expenditure of money in connection with said report, the payment shall be made by the Treasurer as provided above. It shall be the further duty of the Council to hold the official bonds of the Treasurer and the Chairman of the Medico-Legal Committee for the faithful execution of their offices, annually to audit and authenticate their accounts, and to present a statement of the same in its annual report to the House of Delegates, which report shall also specify the character and cost of all the publications of the Society during the year, and the amount of all other property belonging to the Society under its control, with such suggestions as it may deem necessary.

In the event of a vacancy in the office of the Secretary of the Society, or the Treasurer, or Chairman of the Medico-Legal Committee, the

Chairman of the Council shall fill the vacancy *ad interim* until the next meeting of the Council. (*As amended Sept. 16, 1909.*)

SEC. 7. Each Councilor shall be organizer, peacemaker and censor for his District. He shall visit each county in his District at least once a year for the purpose of organizing component societies where none exists, inquiring into the condition of the profession, and for improving and increasing the zeal of the County Societies and their members. He shall make, on blanks furnished by the State Secretary, a report of his doings and of the condition of the profession of each county in his District to the Council at its Annual Meeting in January. The necessary traveling expenses, not to exceed twenty-five dollars annually, incurred by such Councilor in the line of duties herein imposed, may be allowed by the House of Delegates upon a proper itemized statement, but this shall not be construed to include his expense in attending the Annual Session of the Society. (*As amended June 29, 1905.*)

CHAPTER IX—STANDING COMMITTEES

SECTION 1. The standing committees shall be as follows:

- A Committee on Scientific Work.
- A Committee on Public Policy and Legislation.
- A Committee on Arrangements.
- A Committee on Medical Education.
- A Medico-Legal Committee.

(*As amended May 25, 1906, May 16, 1907, and Sept. 16, 1909.*)

SEC. 2. The Committee on Scientific Work shall consist of the President, who shall be the Chairman, the Secretary, and the Chairman and Secretaries of the Sections. It shall determine the character and scope of the scientific proceedings of the Society for each session, subject to the instruction of the House of Delegates, or of the Society, or to the provisions of the Constitution and By-Laws. Thirty days previous to each Annual Session it shall prepare and issue a program announcing the order in which papers, discussions and other business shall be presented, which shall be adhered to by the Society as nearly as practicable.

SEC. 3. The Committee on Public Policy and Legislation shall consist of three members appointed by the President. Under the direction of the House of Delegates it shall represent the Society in securing and enforcing legislation in the interest of the public health and of scientific medicine. It shall keep in touch with profes-

sional and public opinion, shall endeavor to shape legislation so as to secure the best results for the whole people, and shall utilize every organized influence of the profession to promote the general influence in local, state and national affairs and elections.

No bill or proposed law or amendment thereto shall be introduced in the State Legislature or sent to any member thereof in the name of this Society or by any of its committees until such proposed Legislation shall have been indorsed and approved by the Council of this Society in regular session.

After any proposed legislation shall have been indorsed by the Council, it shall be referred to the Committee on Public Policy and Legislation, who shall thereupon have it presented for passage at Lansing, and take such steps as may be deemed necessary to secure for it the united indorsement of the Medical Profession throughout the State, and to that end it shall be the duty of the Secretary of this Society under the direction of the Committee on Legislation and Public Policy, to have printed and issued to the various County Societies, or to each member thereof as the case may require, circular letters and letters of indorsement to be addressed by physicians to their representative at Lansing, asking for the support and passage of the legislation so approved. (*As amended May 16, 1907.*)

SEC. 4. The Committee on Arrangements shall consist of five members of the County Society in the territory in which the Annual Session is to be held, and shall be appointed by the President of the Society. It shall, by committees of its own selection, provide suitable accommodations for the meeting place of the Society, the House of Delegates, the Council and the Sections, and shall have general charge of all the arrangements. Its Chairman shall report an outline of the arrangements to the Secretary for publication in the program.

SEC. 5. The Committee on Medical Education shall consist of three members, one to be appointed for one year, one for two years and one for three years, thereafter one member to be appointed each year; said committee shall select one of its own members as a Delegate to the yearly conference on Medical Education of the American Medical Association. (*As adopted May 16, 1907.*)

SEC. 6. The Medico-Legal Committee shall consist of an Executive Board of five, to be elected by the Council, and also one member from each component society not otherwise

represented, to be elected by the component societies. The Executive Board shall be elected for one, two, three, four and five years, respectively, and thereafter one member shall be elected each year to hold office for five years. All other members of the Committee shall be elected for one year.

The election of members of the Executive Board shall be made by the Council at the time of the annual session of the Society, and that of other members of the Committee shall be made by each component society at its first meeting after September 1, the term of office of all members of the Committee beginning on the first day of January following.

No County Society voting not to participate in the privileges of this bureau shall be entitled to representation on the Committee. (*As adopted Sept. 16, 1909.*)

SEC. 7. The Council, at the same meeting, shall elect one of the five members of the Executive Board as Chairman, whose term of office shall be for one year from the first of January following. He shall act as Chairman of the Executive Board and of the entire Committee, and shall be the custodian of the Medico-Legal Fund. No disbursement shall be made from the Medico-Legal Fund without the signatures of the Chairman of the Executive Board and the Chairman of the Council or the Secretary of the State Society.

In order that the Chairman may be able to give the requisite amount of time to his duties, it is desirable that he should receive some compensation. The amount of his salary shall be fixed by the Council. (*As adopted Sept. 16, 1909.*)

SEC. 8. The Executive Board shall report to the Council at its annual meeting, giving full particulars of the work of the Committee, and a detailed statement of income and disbursements.

It shall engage by the year a competent firm as general attorneys, and fix their compensation. Their duties shall be to compile from all available sources court decisions fixing the law of liability of physicians for civil malpractice, such compilations to be the property of the Society, and also to defend any member of the Society not in arrears, when sued or threatened with suit for civil malpractice, or to supervise such defense through a local attorney. (*As adopted Sept. 16, 1909.*)

SEC. 9. The Medico-Legal Fund, consisting of an initial assessment of one and one-half dollars from each present and future member of the

Society, and a subsequent assessment of one dollar for each year after the first, shall be collected by the State Secretary, and paid at least monthly as collected to the Chairman of the Medico-Legal Committee.

In the event that any County Society, by a majority vote of all its members, shall elect not to avail itself of the privileges of the Medico-Legal Fund, then this special assessment shall not be collected or accepted from any member of that component society and no member of such society shall be entitled to any of the privileges of the Medico-Legal Bureau. (*As adopted Sept. 16, 1909.*)

SEC. 10. Members in arrears after June 1 shall not be entitled to defense for any suit, the cause of action of which arose while in arrears, and any member sued or threatened before joining the society or before the organization of the Medico-Legal Fund must pay the actual cost of defense in such suit. (*As adopted Sept. 16, 1909.*)

SEC. 11. With the exception above noted, the Medico-Legal Committee shall undertake the defense of any member of the Society sued or threatened with suit for civil malpractice, regardless of the time when the alleged cause of action arose, and shall also defend any action for civil malpractice against the estate of a deceased member, provided he or she, while living, has conformed to the foregoing requirements. (*As adopted Sept. 16, 1909.*)

SEC. 12. In the event that during any one year the demands upon the Medico-Legal Fund be large enough to exhaust it, the Council shall be authorized to loan sufficient funds from the treasury of the State Society to meet the contingency. (*As adopted Sept. 16, 1909.*)

SEC. 13. It shall be the duty of any member of the Society threatened with action for civil malpractice to confer at once with the member of the Medico-Legal Committee from his component society and with his aid prepare the case and forward the same to the Chairman of the Medico-Legal Committee. He must agree not to settle or compromise his case without the consent of the Executive Board and the General Attorneys. He may recommend, in conjunction with the local member of the Medico-Legal Committee, the best available local attorney, but the authority to engage the services of local attorneys shall lie with the Executive Board and their General Attorneys. The local attorney chosen shall enter the appearance of his client and undertake his defense under the supervision of the General Attorneys. (*As adopted Sept. 16, 1909.*)

SEC. 14. All attorney's fees and court costs will be paid from the Medico-Legal Fund, and defense carried through all Michigan courts, but under no circumstances shall this fund be liable for any damages declared against an unsuccessful litigant. (*As adopted Sept. 16, 1909.*)

CHAPTER X—AUTHORITY IN EMERGENCIES

When prompt speech and action are imperative with reference to matters concerning which the views of the Society are well known, authority to speak and act for it is vested by the Michigan State Medical Society in its President and Council. (*As adopted June 30, 1905.*)

CHAPTER XI—ASSESSMENTS AND EXPENDITURES

SECTION 1. An assessment of two dollars per capita on the membership of the Component Societies, exclusive of the special assessment for the Medico-Legal Fund, is hereby made the annual dues of this Society. The Secretary of each County Society shall forward its assessment with a roster of all officers and members to the Secretary of this Society as soon after the annual meeting of the County Society as possible; not later than December 31. (*As amended Sept. 16, 1909.*)

SEC. 2. Any County Society which fails to pay its assessment, or to make the reports required, on the date above stated, shall be held as suspended, and none of its members or delegates shall be permitted to participate in any of the business or proceedings of the Society or of the House of Delegates until such requirements have been met.

SEC. 3. All motions or resolutions appropriating money shall specify a definite amount for the purpose indicated, and must be approved by the Council.

CHAPTER XII—RULES OF CONDUCT

The principles set forth in the Code of Ethics of the American Medical Association shall govern the conduct of members in their relations to each other and to the public.

CHAPTER XIII—RULES OF ORDER

The deliberations of this Society shall be governed by parliamentary usage as contained in Roberts' Rules of Order, unless otherwise determined by a vote of its respective bodies.

CHAPTER XIV—COUNTY SOCIETIES

SECTION 1. All County Societies now in affilia-

tion with the State Society or those which may hereafter be organized in this State, which have adopted principles of organization not in conflict with this Constitution and By-Laws, or with the code of ethics of the American Medical Association, shall, upon application to the Council, receive a charter and become a component part of this Society, subject to the condition described in Sec. 4 of this Chapter. A roster of its officers and members and the annual dues of \$2.00 for each member must accompany the application.

SEC. 2. As rapidly as can be done after the adoption of this Constitution and By-Laws a medical society shall be organized in every county in the State in which no component society exists.

SEC. 3. Charters shall be issued only upon approval of the Council, and shall be signed by the President and Secretary of this Society. The Council shall have authority to revoke the charter of any Component Society whose actions are in conflict with the letter or spirit of this Constitution and By-Laws or the Code of Ethics of the American Medical Association.

SEC. 4. Only one Component Medical Society shall be chartered in any county. Where more than one County Society exists, friendly overture and concessions shall be made, with the aid of the Councilor for the District if necessary, and all of the members brought into one organization. In case of failure to unite an appeal may be made to the Council, which shall decide what action shall be taken.

SEC. 5. Each County Society shall judge of the qualifications of its own members; but, as such societies are the only portals to this Society and to the American Medical Association, every reputable and legally registered practitioner of medicine shall be entitled to membership. Before a charter is issued to any County Society, full and ample notice and opportunity shall be given to every such physician in the county to become a member. (*As amended June 24, 1908.*)

SEC. 6. Any physician who may feel aggrieved by the action of the Society of his county in refusing him membership, or in suspending, or expelling him, shall have the right of appeal to the Council.

SEC. 7. In hearing appeals the Councilor or the Council may admit oral or written evidence as in his or its judgment will best and most fairly present facts. Efforts at conciliation and compromise shall, however, precede all such hearings.

SEC. 8. When a member in good standing in

a Component Society moves to another county in this State, his name, upon request, shall be transferred without cost to the roster of the County Society into whose jurisdiction he moves.

SEC. 9. A physician living near a county line may hold his membership in that county most convenient for him to attend, on permission of the Society in whose jurisdiction he resides.

SEC. 10. Each County Society shall have general direction of the affairs of the profession in the county, and its influence shall be constantly exerted for bettering the scientific, moral and material condition of every physician in the county; and systematic efforts shall be made by each member, and by the Society as a whole, to increase the membership until it embraces every qualified physician in the county.

SEC. 11. At the Annual Meeting in the fall, or at the first meeting after January 1, due notice having been given, each County Society shall elect annually a delegate and alternate, or delegates and alternates, to represent it in the House of Delegates of this Society in the proportion of one delegate to each *fifty* members or major fraction thereof. (See By-Laws, Chapter IV, Sec. 1.) The Secretary of the County Society shall immediately send the list of its delegates to the Secretary of this Society. (*As amended June 29, 1905.*)

SEC. 12. The Secretary of each County Society shall keep a roster of its members, and a list of the non-affiliated registered physicians of the county, in which shall be shown the full name, address, college and date of graduation, date of license to practice in this State and such other information as may be deemed necessary. He shall annually furnish an official report containing such information, upon blanks supplied him for the purpose, to the State Secretary by the first day of January. In keeping such roster the Secretary shall note any changes in the personnel of the profession by death, or by removal to or from the county, and in making his report shall be certain to account for every physician who has lived in the county during the year. (*As amended June 29, 1905.*)

CHAPTER XV—AMENDMENTS

These By-Laws may be amended at any Annual Session by a majority vote of all the Delegates present at that Session after the amendment has laid upon the table for one day.

COMMUNICATIONS

MEDICAL AFFAIRS IN CUBA

MIAMI, FL., Jan. 23, 1910.

TO THE EDITOR:

I have just returned from a trip to Havana, and thought, perhaps, you might care to hear something about medical matters in that city. There are a number of large hospitals in Havana. Three of these are supported by associations; they being very large, the largest being one called the "Clerk's," having more than 25,000 members besides associate members. Each member pays \$1.50 per month, which entitles him to medical or surgical treatment, and hospital care for a period of six months at least, and under special conditions even longer. There is also a hospital for foreign residents called the "American Hospital," but the capacity is small, with the membership on the same terms as the others mentioned.

The principal one of the public hospitals is the Mercedes, located in a beautiful part of the city called Védado, and not far from the beautiful bay. It was opened more than a century ago, but was not nearly as large as it is now. The main building is 200 feet long, and two stories in height, with a high basement. It is of the usual Spanish style of architecture,—brick, covered with cement. The entrance is in the center by a wide hall to a corridor which extends through the center of this whole building. On one side of this corridor are the administrative offices, and from the other side are doors opening into the wards, which are long, one story buildings, extending at right angles from this main building.

Between each of these ward buildings is a *patio* filled with a great variety of tropical plants and flowers. The wards are wide and high, and lighted by large windows which give light, ventilation and a view of the beautiful *patio* or garden on each side.

The floors everywhere are of cement or marble tiling—cement entirely in the wards and main corridors. The windows of the fever wards are heavily screened and the doors from the main corridor into these wards are double, having a space between, so that one set of doors is closed before the other is opened, thus using double precaution to prevent the entrance of mosquitos. There are no flies on Havana.

This hospital has medical, surgical, obstetri-

cal and children's wards. The operating room with its accessory departments, such as sterilizing room, preparation room for patients and for operators is built, arranged and fitted in the most modern way. I have never seen anything more complete anywhere.

Chloroform anæsthesia is used entirely, as the warm climate vaporizes the ether too rapidly. I was told no accidents have occurred from the use of chloroform.

All women applying for admission to the obstetrical ward must enter at least one month before the expected time of delivery. This is for the purpose of not only proper preparation, but to study the case in all its phases. The patients are employed at various kinds of work during this time, for the purpose of keeping up their general condition, and for partial payment of their expenses,—their care being entirely free to them. All the details of delivery are carried out in the most scientific manner. Many of these patients are from the poorest classes in the city, and poverty is most extreme in Havana. By entering thus before delivery they obtain better food, and are placed in a better condition than if they entered at the time of delivery.

In the children's ward the cases are nearly all surgical, and I was told the great majority are due to tuberculosis. I had the privilege of seeing wounds of various kinds dressed, and all the details were carried out in the most careful manner.

I spent an hour with Dr. Mindez who has charge of the X-ray and other electrical apparatus of the hospital,—a most complete equipment of X-ray, static and other forms of electricity, Finsen light, blue light and hot air. In this hot air apparatus the air is heated by electricity to 700 degrees if required. The X-ray is used both for diagnosis and treatment. The doctor showed me a patient who had had a large epithelioma of the lower lip, which after four weeks' treatment was now practically healed. The resulting scar was soft and pliable, and the glands entirely gone. He had some very beautiful X-ray plates of internal lesions.

There is an out-patient department with an average daily attendance of about three hundred patients. The material in this hospital is used for teaching purposes. All medical students in Cuba must have a literary education equal to a good high school, and the medical course is five years, the last two of which are largely clinical instruction in the wards in small classes under

the professors of the various departments. The out-patient department is also utilized for the purpose of teaching.

In Cuba there is no distinction of the races. One can see in the wards all shades of color from white to the deepest black, side by side and all treated alike.

Many of the older professors are graduates of French and Italian universities, and have visited many of the medical centers of both Europe and America.

From my observation I would place Cuba, taking Havana as the exponent, among the leading nations in regard to scientific medicine.

Yours very sincerely,

A. I. LAWBAUGH.

BOOK NOTICES

A Practical Treatise on Ophthalmology. By L. Webster Fox, M. D., LL. D., professor of Ophthalmology in the Medico-Chirurgical College, Philadelphia. Octavo, 807 pages; 6 colored plates and 300 illustrations in the text. Cloth, \$6.00. New York, D. Appleton & Co., 1910.

A few years ago Appleton & Company published an excellent book entitled, "Diseases of the Eye," by L. Webster Fox. The present volume is the outgrowth of a complete revision and amplification of the former work, and the result is one of the best books on the eye which has yet appeared.

In preparing the present volume the author has made an effort to present a comprehensive treatise, including references to the many researches and great advances which have been made in this department in recent years. He has succeeded well. The text is systematically and logically arranged, opening with chapters on embryology and anatomy. The important chapter on bacteriology is well written. The relation of general diseases to those of the eye is thoroughly discussed in two chapters. Operative technique is lucidly explained and the standard operations carefully described and pictured.

The book is well printed and bound in harmony with many of Appleton's medical books. It deserves a hearty welcome and will undoubtedly become one of the standard works on the subject.

The American Quarterly of Roentgenology. Edited by P. M. Hickey, M. D. Subscription, \$5.00, yearly. Published quarterly by the American Roentgen Ray Society.

The first number of the *Quarterly of Roentgenology* under the editorship of Dr. Hickey,

of Detroit, has appeared and is a very creditable publication. It is of handy size, excellently printed on good paper, has an attractive cover and is splendidly illustrated.

This initial number contains five original articles, the address of the retiring president of the society, Dr. G. C. Johnston, of Pittsburg, the minutes of the Tenth Annual Meeting, notes and abstracts.

The *Quarterly* is a distinct addition to American current literature.

Text Book of Hygiene. A Comprehensive Treatise on the Principles and Practice of Preventive Medicine from the American standpoint. By George H. Rohe, M. D., late professor of Therapeutics and Hygiene in the College of Physicians and Surgeons, Baltimore, and Albert Robin, professor of Pathology, Temple University. Fourth edition. Pages, 582; 50 illustrations. Philadelphia, F. A. Davis Company, 1909.

This well known volume has undergone a thorough revision, many advances made in hygiene and sanitary science having been incorporated. Several sections have been rewritten and many additions made to various portions of the text.

There are twenty chapters. The first four deal respectively with air, water, food and soil; chapters V and VI discuss the construction of habitations and hospitals; school, military and industrial hygiene are thoroughly gone over; chapter XII is an excellent resumé of personal hygiene; contagion, infection and epidemic disease receive due attention, as well as antiseptics, quarantine and vital statistics.

The style is entertaining and interesting, and a thorough study of the book will well repay the reader.

Medical Gynecology. By S. Wyllis Bandler, M. D., Adjunct Professor of Diseases of Women, New York Post-Graduate Medical School and Hospital. Second revised edition. Octavo of 702 pages, with 150 original illustrations. Philadelphia and London, W. B. Saunders Company, 1909. Cloth, \$5.00 net. Half Morocco, \$6.50 net.

A carefully written and well-edited volume that will be found of great value to the gynecologist and of wonderful help to the general practitioner.

With an unusual acumen the author has risen to the necessities in the matter of diagnosis. In this respect he has handled each subject with a distinctness and exactness that is truly refreshing; the methods advocated are precise; the reasoning clear and the conclusions logical. This feature is alone worth the entire cost of the book.

In treatment nothing medical is overlooked, drugs, hydrotherapy, mechanico-therapy, electrotherapy, all are recognized. The fault of

holding purely operative cases too long from surgery is not indorsed.

Head Zones are given deserved attention. The chapter on pain is of marked value. Many additions and new features are found. The work is brought down to date and should be well received by the profession.

Examination of the Urine. A Manual for Students and Practitioners. By G. A. DeSartos Saxe, M. D., instructor in Genito-Urinary Surgery, New York Post-Graduate Medical School and Hospital. Second edition, enlarged and reset. 12 mo. of 448 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1909. Cloth, \$1.75 net.

In this little book the clinical side of urinary examination has been more markedly emphasized than in the first edition. Many chapters have been added to meet the newly advanced ideas; new departments have been added and especial attention given to Diabetes and Texemias of Pregnancy. Tests that have proven valueless have been dropped. Among the new tests is a careful consideration of Carmidge's Reaction, with the author's own experience with it. The illustrations are many and good—urinary sediment, crystals, casts, etc. It should be a valuable book for the laboratory worker, and the general practitioner who only occasionally does laboratory work, for it will aid him to interpret the work done for him by others.

Modern Clinical Medicine. Diseases of Children. Edited by A. Jacobi, M. D., L.L.D. Authorized translation from Die Deutsche Klinik. Octavo, 828 pages, 34 illustrations. New York, D. Appleton & Company, 1910.

This volume seems to us to be of unusual excellence, and to fill, moreover, a very real need, in spite of the fact that we are already well supplied with books on pediatrics by American authors. Pediatrics is a specialty in which there are many noteworthy differences between American and foreign ideas and practice, and while much of the best and most advanced work in certain lines is being done abroad, it has not as yet been adequately presented to the profession of this country. A book of this kind, therefore, presenting the latest and best work of the great German schools and written by men nearly all of whom have an international reputation, while several of them are universally known as the highest authorities on the special subjects assigned to them, should be really indispensable to any man who is called upon to treat children, and who aims to keep abreast of the newer ideas. Some of the chapters moreover, deal with subjects upon which most of us have little knowledge, and which are

slighted or ignored in the ordinary text book. The discussion of speech disturbances of childhood by Gutzmann, for instance, brief as it is, would of itself make the purchase of the book worth while; and the articles by Finkelstein on hereditary syphilis and Neumann on functional nervous diseases are really classic.

One need only glance over the list of authors and subjects to be assured of the quality of the work, and to understand, too, that each collaborator has been assigned the subject best suited to him. Possibly most readers would not agree with the editor in selecting C. Keller's opening chapter on the diseases of the new born as the most noteworthy; but it is certainly of the highest excellence, and contains much material not readily accessible elsewhere. Czerny's discussion of feeding is unusually clear and simple, and will go far to dispel the prevalent idea that he is an extremist. Certainly he has for some years been one of the foremost in urging what have at times seemed very radical innovations, but the soundness of most of these is now very generally recognized abroad, and is constantly gaining acceptance in America, so that today few will find anything startling in his methods, and many will acclaim their simplicity and common sense.

Although nearly every one of the monographs which make up the book is a notable contribution by a distinguished clinician, space forbids a discussion of each of them. One, however, must have especial mention. Pneumonia of children is treated by the venerable Henoeh, the dean of all the pediatricists, who belongs to a generation even before that of our own Jacobi; and whoever has not yet learned the peculiar charm of Henoeh's clinical lectures has a great treat in store for him. They are comparable in keenness of observation and lucidity of presentation with those of the great clinicians of the last century, and their like is all too rare today.

Too much can hardly be said of the accuracy and literary quality of the translation, which was under the general supervision of Salinger. The editor of such work has, naturally, little to do, but one recognizes gratefully the good taste shown by Jacobi in not overdoing his task, as well as the value of such comments as he has seen fit to make.

A Handbook of Medical Diagnosis. By J. C. Wilson, M. D., Professor of the Practice of Medicine and Clinical Medicine in Jefferson Medical College and Physician to its hospital. Octavo, 1435 pages. Illustrated. Philadelphia and London, J. B. Lippincott Company, 1909.

The one striking feature of medical book making during the past two years is the large number of works on diagnosis. We have had new texts, and new editions of the older works dealing with diagnosis in almost every specialty. It is an indication of the trend toward perfection in medical science.

This new book is perhaps the most complete guide of the diagnostics of internal medicine which has yet appeared. It is a bulky work of over 1400 pages closely printed and is a perfect encyclopedia of facts and directions for ascertaining these facts. It gives evidences of having been carefully prepared and can be safely recommended.

The subject matter is divided into four sections. First, medical diagnosis in general is considered; second, the methods of diagnosis; third, symptoms and signs; and fourth, clinical applications. Laboratory as well as clinical methods are discussed and considerable care expended on interpretation.

One desiring a complete treatise on this most important subject will do well to decide on this volume.

Principles of Surgery. By N. Senn, M. D., LL. D., late professor of surgery, University of Chicago. Fourth Edition—revised by Emanuel Senn, M. D., and Emanuel Friend, M. D. Octavo, 706 pages, 231 illustrations. Philadelphia, F. A. Davis Company, 1909.

It is now twenty years since Senn published his well known book, in which he made the attempt, most successfully, to clearly set forth the fundamental principles of surgery in the same volume with practical or clinical surgery. This has been done a number of times since, but Senn's was one of the first books written with this end in view. The volume went through three editions during the author's lifetime and has now been revised and brought up to date by Emanuel Senn and E. Friend.

The book is too well known to require a detailed description. There are chapters on Regeneration, Inflammation, Necrosis, Suffocation, Ulceration, Fistulae, Septicemia, Tuberculosis and the other specific infections. Syphilis, however, is not mentioned, the word does not occur in the index.

SURGERY

Conducted by

R. E. BALCH, M. D.

A Skin Reaction in Carcinoma from the Subcutaneous Injection of Human Red Blood Cells—Charles A. Elsburg, Harold Neuhof and S. H. Geist, in *American Journal of Medical Science* for February, report the results of their study of 432 patients injected with human red blood cells for the purpose of diagnosing carcinoma. In all 684 injections were given.

The foundation for their work lies in the fact that in the growth and breaking down of malignant tumors, poisons are set free that, acting upon the red blood cells, cause anemia and cachexia characteristic of this disease. Some of these poisons are known to be lysins.

Instead of making the usual hemolytic test, they inject the washed red blood cells of a normal human being beneath the skin of an individual in whom a carcinoma is suspected. In obtaining the red blood cells an individual is chosen who is known to be free from tuberculosis or syphilis, and who has not been recently ill or undergone an operation or injury. Under proper aseptic precautions 5 to 10 C. C. of blood is aspirated from a vein of the arm. This blood is defibrinated and washed and may be kept as a 20 per cent solution for several days.

In making the injection, a hypodermic syringe previously boiled in normal saline and cooled, is filled with a 20 per cent solution. A spot on the anterior portion of the arm of the suspected individual is rendered aseptic and 5 minims of the solution injected in a spot free from veins and in an upward direction. Care should be taken to have the needle beneath the skin and not in it. The reaction usually begins in from two to five hours and reaches its height in six to eight hours. When fully developed the reaction appears in a somewhat irregular oval area with a well defined margin measuring from one by two to three by five cm. The margin is often surrounded by a whitish areola. The color of the lesions varies from a brownish red to a maroon, with rarely a bluish tinge. The lesion is distinctly raised from the surrounding skin surface. The lesion usually disappears in from six to twelve hours. When the lesion has disappeared, there remains behind a flat yellowish or greenish discoloration.

Four classes of patients were injected. Patients known to have carcinoma, as proven by autopsy or operation; patients in whom absence of carcinoma was positive, but in whom other chronic and acute diseases were known to be present; patients in whom carcinoma was suspected; and finally patients with advanced and miliary carcinoma.

CONCLUSIONS—89.97 per cent in whom the skin reaction was positive were proven to be suffering from carcinoma; 94.37 per cent in whom the skin reaction was negative were found to be free from carcinoma; in the advanced or miliary carcinoma no reaction resulted.

A Method of Anastomosis Between Sigmoid and Rectum—Donald C. Balfour, in *Annals of*

Surgery, for February, 1910, after calling attention to the high mortality following the usual methods of end to end anastomosis between sigmoid and rectum, gives the technique carried out by Dr. W. J. Mayo. The successive steps in the operation can be briefly tabulated as follows:

1. The patient is placed in high trendelenberg position and a long median incision made between pubes and umbilicus.

2. The intestines are carefully packed off above, leaving only the lower sigmoid exposed in the pelvis.

3. Liberation of the affected portion of the bowel by lateral incisions through the peritoneum, especially through the outer leaf of the sigmoid, and a semilunar incision along the base of the bladder connecting the two lateral.

4. Careful dissection of all the fat and glands as high as the abdominal aorta, the hollow of the sacrum being swept clean.

5. Ligation of the inferior mesenteric and middle sacral arteries at proper points.

6. Two pairs of forceps are clamped on the bowel at a suitable distance below the tumor, and two on the proximal side. The necessary amount of sigmoid with the tumor is excised and the cut ends sterilized.

7. A three-fourths inch rubber tube is passed into the lower segment of the bowel until the end protrudes through the anus. The upper end with a lateral eye is inserted into the proximal end of the sigmoid a distance of three inches. It is here secured by a transverse catgut stitch $\frac{1}{2}$ inch above the cut end of the intestine.

8. Traction is now made by an assistant upon the end of tube projecting from the rectum until the cut ends of the bowel meet and an anastomosis is made by interrupted through and through chromic catgut sutures with careful coaptation of mucous membranes.

9. Traction is again made upon the tube sufficient to accomplish a half inch intussusception, this being aided by a few forceps on the distal fragment to steady it. A second row of seromuscular sutures is then inserted. Sometimes the parts are so deeply situated that the second row cannot be well placed, but the ultimate result has been good nevertheless.

10. The defect in the peritoneum behind is remedied by sliding the peritoneum and suturing, and finally the omentum is drawn down over the anastomosis and if necessary, secured by a catgut suture.

11. The abdominal wound is closed in the usual way, drainage being provided for as a rule by two wicks carried down on each side of the anastomosis into the hollow of the sacrum and brought out the lower part of the abdominal incision. The rubber rectal tube remains in position about six days, or until the catgut suture has been absorbed. The abdominal drains are loosened on the fourth to the sixth day, but usually not removed for a week, because a temporary fistula sometimes occurs.

GYNECOLOGY AND OBSTETRICS

Conducted by

B. R. SCHENCK, M. D.

Appendicitis Complicating Pregnancy—Findley has written a very good resumé of this important subject and reports seven cases, in all of which there had been previous attacks of appendicitis. The details of these cases are interesting, but our space will not allow a recital of them.

Findley's conclusions are that pregnancy in no way incites primary appendicitis, but recurring attacks may be precipitated by pregnancy, labor and the puerperium. Severe attacks may be confounded with puerperal sepsis. Mild attacks do not influence pregnancy, while very severe attacks may cause death of the fetus, either *in utero* or shortly after birth. Deaths after birth have been ascribed to nonviability, toxemia and septicemia. A patient in the child-bearing period who has had one attack of appendicitis should be operated upon, lest she experience another attack during pregnancy.

Severe cases should be operated upon without delay. When occurring near the end of term, the pregnancy should be terminated and the appendix immediately removed. When an abscess has formed, immediate drainage is imperative, lest the contracting uterus which forms a part of the abscess wall, should liberate the pus and cause general peritonitis. To prevent miscarriage after an operation done in the earlier months, rest should be enjoined, opiates administered, and, during the operation, the uterus should be handled and manipulated as little as possible.—*Am. Jour. Obs.*, December, 1909.

Treatment of the Vomiting of Pregnancy by Adrenalin—Hyperemesis of pregnancy is generally considered as due either to nervous or toxic influences, or possibly to both combined. There are also frequently found vasomotor disturbances. It has been known for many years that during pregnancy there is an engorgement of the inferior turbinate, a condition found by Freund in 66 per cent of all cases examined. This leads to the possible conclusion that the vomiting is due to irritation of the vomiting center in the medulla, which is located very close to the vasomotor center. Hence it has been suggested that any treatment which will allay the vasomotor irritability and lessen

congestion, will also have a favorable effect upon the vomiting.

Rebandi, in a desperate case of pernicious vomiting in the third month, after all other measures had failed, obtained excellent results from the administration of adrenalin (1-1,000) by mouth, in ten drop doses, morning and evening. The results were immediate. After nine days the dose was diminished and after eleven days discontinued. The author recommends further trial of the method.—*Zent. f. Gyn.*, October 30, 1909.

Backache in Women.—The treatment of backache in women is complex and often unsatisfactory. Toxic and lumbar backaches are treated with laxatives, diuretics, and colon irrigation. To the congested type are administered ergot, digitalis, strychnine and bromides. The anemic are given iron and tonics. Temporary relief is afforded by the use of local counter-irritation. For neurasthenics the rest cure is advised. Surgical measures have for their object the sewing up of lacerations, the correcting of malpositions, and the removal of diseased organs and tumors. Krussen emphasizes the value of the drinking of large quantities of water in these cases. Frequently a rheumatic diathesis is associated with pelvic disease. Pains may be due to the lithemic diathesis, and a certain proportion of backache is due to traumatism. The fact that women are habitually constipated and that they drink small quantities of water are two factors to be borne in mind in treatment. Hydrotherapy plays an important part in the relief of symptoms.—*The Practitioner*, February, 1910.

Uterine Myomata at the Menopause—A case is cited in detail by Palm to show the necessity of early operation in all cases of fibroids, regardless of whether or not the symptoms produced are alarming. The case was a fairly typical one in which during the forties slight symptoms appeared and continued, under palliative treatment until the age of sixty when the tendency to hemorrhage ceased. Five years later, however, a secondary carcinoma had developed, at which time the patient was in no condition for a major operation.—*Arch. f. Gyn.*, LXXXIX, No. 2.

OTO-LARYNGOLOGY

Conducted by

WILFRID HAUGHEY, M. D.

Results in Matoid Operations for Extradural Lesions—Bryant in *American Journal of Surgery* for February, 1910, concludes: Strict attention to the following points has given the best cosmetic functional and curative results in matoid operations:

1. The employment of rigid aseptic technique.
2. The immediate closure of the external wound with a minimum of drainage.
3. In a simple matoid operation the non-interference with the tympanic contents.
4. The healing of the typanum before the post-aural opening is finally allowed to close.
5. The daily use of Politzeration, beginning three or four days after the operation.
6. The performance of a radical operation only in cases which demand it; and the modification of the technique of the radical procedure so that all the living tympanic structures may be conserved.
7. The preservation of the Eustachian tube intact and patent throughout.
8. Leaving the cochlea intact, except in cases where there are definite indications of an invasion of the cochlea by suppuration.

Laryngeal Diphtheria—C. H. Shutt, St. Louis, (*Journal A. M. A.*, February 5) thinks that non-instrumental methods are worthy of more frequent trial, at least in hospital practice, in cases of laryngeal diphtheria with only slowly increasing dyspnea, only moderate exhaustion and slight cyanosis. The local measures consist chiefly in inhalations, securing of favorable surroundings and perhaps the induction of vomiting to aid in removing loosened membranes. General medical treatment consisting of antitoxin and stimulation as needed, cathartics, diuretics, etc., should be employed as in pharyngeal diphtheria. Antitoxin should be employed in all cases and as early as possible, and he prefers moderate sized doses repeated every four to six hours as more effective and less depressing than massive ones. When the patient is very weak, toxic or much cyanosed, surgical or mechanical measures are indicated and the choice is between intubation and tracheotomy. The author's conclusions are as follows: "Physicians should be prepared and expect to treat laryngeal diphtheria which usually presents as an emergency. Although possessing intubation instruments, the physician may find himself without them in an emergency and be compelled to attempt tracheotomy. Non-instrumental methods of relief are worthy of more frequent trial, especially in institutional work

and in those cases in which dyspnea is increasing slowly, exhaustion is moderate, cyanosis is not severe and the surroundings are favorable. Intubation may be performed in cases in which the symptoms indicate recent and closely adherent membranes. It should be employed only when intelligent nursing may be had and when the physician is within easy reach. Every physician should be familiar with the technique of tracheotomy. The cadaver or lower animal may furnish opportunities in this direction.

Injury of the Ear—Manasse in *Deutsche Medizinische Wochenschrift*, Berlin, discusses mainly the accidents to the ear which the general practitioner is liable to encounter. In case of a bloody or serous collection in the auricle, conservative measures may induce reabsorption, but he prefers to aspirate the fluid with a Pravaz syringe and then push a ball of gauze into the hollow left and apply a compressing bandage. If there is already infection the granulations and necrotic cartilage must be scraped out to check the spread of the perichondritis, as otherwise severe disfigurement may result. He reviews the various injuries that may result from accidents, firearm wounds, etc., but insists that treatment is practically the same for all, namely, absolute abstention from local measures, from rinsing, syringing, probing, etc. The head should be kept at rest and the ear bandaged with dry gauze. Nothing else is necessary unless a bullet needs removal or otitis media develops, in which case the ear may be drained with strips of sterile gauze or 20 per cent boric acid in substance may be used, and cold water compresses are serviceable in case of violent inflammation. As a rule, however, ordinary perforation of the membrane heals without reaction under strict abstention. It is extremely important to refrain from attempts to syringe out clots of blood after a fracture of the bones of the ear or base of the skull as otherwise infection may easily be carried into the depths, with otogenous meningitis as the result. He has witnessed recovery under measures solely to promote reabsorption, even when the fracture of the base had induced facial paralysis and severe disturbances in hearing and balance. To hasten absorption he generally injects pilocarpin subcutaneously, commencing with one-sixth grain and increasing to one-third grain, and then gradually going back to one-sixth grain, with small doses of potassium iodid. Good results can be anticipated, he says, only when such measures are instituted early, before the extravasation has become organized.

PEDIATRICS

Conducted by

ARTHUR S. KIMBALL, M. D.

Important but Neglected Factors in Infant Feeding—Southworth calls attention to the proud position the so-called American method of infant feeding now holds in the medical world and suggests that it is worth while to consider some of the factors militating against its successful practice. He believes that many of the failures and much of the dissatisfaction with this method arise from the neglect of basic principles. This applies not only to bottle-fed but to breast-fed babies as well.

He firmly believes that the failure of breast feedings is due to hasty judgments as well as change of feedings, to an incorrect interpretation of the stools, to faulty maternal feeding and especially to too hasty acceptance of the opinions of others rather than reliance upon personal observations.

Weight is the best criterion as to the correctness or incorrectness of the method of feeding being employed. The supervision of breast feeding must be conducted with especial reference to this factor, but at least ten days should pass save in rare cases, after birth, or better, until a fair attempt at maternal feeding has been undertaken.

It is never proper to advise weaning from the breast a baby of stationary weight until all attempts at proper maternal feeding have failed. On the other hand, it is not good judgment to keep at the breast a baby which is perfectly contented there but whose weight remains stationary. It is becoming more and more generally acknowledged that the fat of cow's milk is most largely responsible for the indigestion of infants. Colic and likewise soft, curdy stools are more often due to fat than to the proteid constituent. The orthodox method in beginning bottle-feeding, of starting with a half and half mixture, often results disastrously and is then so often followed by a rapid course through the long gauntlet of prepared foods on the chance of hitting one that may agree.

Often, too, if the regulation of amount and time of feedings be more carefully gauged we will have fewer cases of that so common feature of "over-fed-starvation." If parents, nurses and physicians will all learn that the cardinal principles of a starvation diet for children with beginning fevers or stomach and intestinal disturbances is more essential than in adults much will be gained. No single formula and no single food, no matter how great its indorsement or of how high standing he who gives the testimonial, can fit every case. Each must be studied and treated on its merits alone.

He finally pleads for a more careful and personal observation of the stools of all babies as being the factor of greatest importance next to weight.—*Am. Jour. of Obs.*, December, 1909.

While the article reviews many old points of common knowledge it, nevertheless, tends to focus the attention of the practitioner upon a

few of the more fundamental points necessary of consideration by successful practitioners.

Infantile Bacillary Dysentery—W. P. Lucas, J. G. Fitzgerald and E. H. Schorer, Boston *Journal A. M. A.*, February 5, have studied the serodiagnosis of infantile infectious dysentery. The value of the agglutination reaction, which has been generally employed by investigators, would seem by common consent to be not very great an account of its delayed appearance and relative infrequency. The authors think, however, that the methods have not been so uniform as desirable and the susceptibility of the organism employed as a reagent and its relation to the bacillary type causing the infection should be considered: The conglutination reaction has been hitherto of interest in the more theoretical studies of immunity. In 1906 Bordet and Gay described a thermostabile 56 C. "colloidal" substance in bovine serum which has the property of producing a characteristic clumping and increased dissolution of red blood cells that have been treated with both a sensitizer (heated hemolytic serum, and an alexin. A probably analogous substance) was described about the same time by Manwaring. Streng has suggested the possible employment of this reaction for the diagnosis of infections of bacterial origin. The authors describe their method of experimenting both with serum diagnosis and with bacteriologic study in detail and tabulate their result. Comparing the results with the two types they find: "As regards the Flexner strain of bacilli: 1. Agglutination occurs rarely in negative cases (6.6 per cent), and frequently in cases of dysentery (53.5 per cent). Fixation occurs not infrequently in negative cases (28.5 per cent), but more frequently in positive cases. Conglutination does not occur in the negative cases but occurs in 63.1 per cent of the positive cases. 2. As regards the Shiga strain of bacilli: Positive reactions do not occur in negative cases. In the positive cases agglutinations were present in 24.4 per cent, fixations in 45.2 per cent, and conglutinations in 21.6 per cent." It is evident that the conglutination reaction is superior to the other two tests in the diagnosis of dysentery infection and as the relatively better indicator of the bacillary type. It is not to be confused with agglutination. This is evident by the appearance of the tube (clear with flecks on the sides) and other facts shown in the tables. Reactions with the Flexner strain are much more frequent than with the Shiga strain, partly the authors think, because of a greater agglutinability. No positive conglutination reaction was obtained in control cases. Conglutination was obtained in 50 per cent of the cases with the Flexner organism. It would seem that in this reaction we have a means of serum diagnosis in infections by the dysentery bacillus far superior to any other devised. Its further study will be of interest.

DERMATOLOGY AND SYPHILIS

Conducted by

ANDREW P. BIDDLE, M. D.

The Vaccine Treatment of Acne Vulgaris—Acne vulgaris may be described as a condition in which there is a hypersecretion of sebaceous material associated with, or caused by (according to different authorities) an infection of the ducts by a micro-bacillus. The condition is modified by secondary cell-proliferation, fibrosis, pus formation, and infection with other bacteria, hence various types of acne vulgaris are met with.

Whitfield regards the seborrhea to be the primary cause of the disorder, but to be independent in origin. He regards the acne bacillus as an accidental infection of the excessive secretion in the patulous follicle. The irritation so set up causes proliferation of epithelium and formation of the comedo. The suppuration he regards as due to a secondary infection with the ordinary pyogenic staphylococci, which he states "are invariably to be cultivated from the pus."

The acne bacillus, having gained access to the secretion in the orifice of the sebaceous gland, causes, by the mechanical irritation set up by its presence, and also possibly by means of extra cellular toxins, a proliferation of the adjacent epithelium. As a result of this the comedo is formed.

In Fleming's classification Group 1 consists of those cases where the acne bacillus is the *fons et origo malorum*. In this group he includes cases where the comedo is the dominant feature, also some of the indurated and pustular cases. The specific treatment will be with an acne bacillus vaccine.

Group 2 consists of those cases where the infection is mixed, acne bacillus and staphylococcus. In this group appear most of the indurated cases and some pustular ones, and the specific treatment must be directed against both micro-organisms.

Group 3 consists of cases where the staphylococcus is the main cause of the trouble, and the acne infection is slight and very much masked. These are treated primarily by the staphylococcus vaccine and later if need be by the acne bacillus vaccine.

In the case of both organisms either a stock vaccine or an autogenous vaccine may be used. In Western's experience it is seldom necessary to make an autogenous staphylococcus vaccine for a case of acne infected with that micro-organism; occasionally, however, cases appear to make no improvement until their own organism is used. This does not appear to be so definite a rule, however, in dealing with the acne bacillus. There is little doubt that the highest percentage of successful cases will be obtained when cases

are treated with an autogenous acne bacillus vaccine in preference to a stock, although the latter will suffice in many cases.

The dosage of the acne vaccine, it should be remembered, is very small compared with that of other vaccines, from three to fifteen million bacteria being sufficient in most cases.—G. T. Western, M. A., M. D., *British Journal of Dermatology*, January, 1910.

Sporotrichosis Schenckii—Under the heading of the "Naming of Diseases" an editorial in the *Journal of the American Medical Association*, says in part:

"At a recent medical meeting for instance one of the topics was 'Sporotrichosis Beurmanii.' In 1898 sporotrichosis was first described by Schenck in Baltimore, who recognized the disease-producing organism as a sporothrix and established its pathogenicity. Two years later Hektoen and Perkins in Chicago described the second case, confirmed the findings of Schenck, and with fairness and propriety gave the name Sporothrix Schenckii to the pathogenic micro-organism. The claims of these three authors to priority are beyond question; their work was complete, scientific and published in accessible literature. Now, three years after Hektoen and Perkins, and five years after Schenck described the disease and its organism, De Beurmann and his associates find the same organism in the same disease in France and appropriate the discovery for their own. There are no grounds for making any distinction between the organism described by De Beurmann and his colleagues and that described by Schenck, Hektoen and Perkins, and yet the disease is being described the world over, even in America, as 'Sporotrichosis Beurmanii.'

"The case of sporotrichosis Schenckii is merely a flagrant and recent illustration of the careless and unjust practice of ignoring the work of a discoverer or prior investigator for that of a later student; but unfortunately many similar instances could be given. . . ."

This Schenck is the recent secretary of the Michigan State Medical Society and Editor of its *JOURNAL*, Detroit.—*Journal A. M. A.*, Jan. 29, 1910.



J. H. Carstens

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ORIGINAL ARTICLES

FINAL RESULTS OF THYROIDECTOMY FOR EXOPHTHALMIC GOITRE*

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Detroit, Michigan

It is now most generally conceded that operative procedure gives, in the majority of cases, the only permanent cure for Exophthalmic goitre; many other methods of treatment have had their advocates, and some have been of much benefit, but with no other mode of treatment is the time of disability so much shortened, or the permanency of the result so well assured.

Just when to operate is now a much mooted question, as is also the preliminary treatment which most surgeons agree must be adopted in the severer types before operation can safely be performed. Such conclusions can best be drawn from the study of a number of cases so that we may see where we have erred and correct the faults.

In a review of the case herein reported, one fact predominates, namely, that the risk accompanying operation in those cases which previous to the appearance of one or more of the symptoms which characterize Graves disease, possessed some cystic or adenomatous enlargement of the gland, is far less than in those individu-

uals where the thyroid enlargement and other symptom complex, occur simultaneously.

For this reason we give preference to the division of these cases into two large classes; of which the latter is designated by the term "Primary Exophthalmic Goitre," and the former "Secondary Exophthalmic Goitre."

Of the forty-seven cases considered in this review, twenty-one belong to the first class, and twenty-six to the second. A glance at the severity of previous symptoms will show that these are almost invariably more marked in the case of Primary Exophthalmic Goitre, and also that all cases in which operation might be considered as contributory to death, belong to this division. This fact is of importance when giving a probable prognosis as to the outcome of operation and, the fact that the patient had a glandular enlargement previous to the appearance of exophthalmic symptoms is in favor of the patient. This statement is easily explained when we consider that the present etiological factor in the causation of exophthalmic goitre is supposed to be either an increased thyroid secretion or a chemically altered

*Read before Michigan State Medical Society, September 15-16, 1909, at Kalamazoo.

secretion of the gland. This being so, in those glands which normally have their functioning amount of tissue lessened, owing to the destruction of glandular tissue due to the presence of multiple or single cysts—we would naturally expect the symptoms to be of less severity than in those cases in which an entire glandular lobe is involved in the diseased process. Again, it is the opinion of the writers that exophthalmic goitre is a true infectious process. This being so, in those cases which belong to the secondary class the infection is usually limited to the lobe in which the cyst is found, which reduces materially the amount of true thyroid tissue involved. In the primary form the well-developed fascia may or may not limit the infection to one single lobe. However, one lobe is generally of greater bulk than the other, but even in this case, much more thyroid tissue is involved. Of the cases reported here both males dated the beginning of their illness from attacks of typhoid fever. Both of these were primary cases. Two of the eight primary cases in unmarried women also recall typhoid fever as an instigating cause, while married women who have borne no children furnish two more.

By far the majority of cases which present the symptoms of exophthalmic goitre are furnished from the ranks of married women. Just what the connection between pregnancy and Graves disease is, we are unable to state, but such a connection can be considered without error, we believe, when we remember that some thyroidal changes are certainly connected with menstrual function. Of these cases in our report, three gave histories of miscarriages, one had had "inflammation of the bowels," and another "articular rheumatism." This, we believe, adds weight to the infection theory which in itself causes either an increased thyroid secre-

tion or a modified chemical secretion which produces the symptom complex of exophthalmic goitre. Such a condition can be produced only by the various bacteria, such as the typhoid bacillus, that do not depend upon phagocytic action for the recovery of the patient. The pyogenic organisms would be more likely to cause abscess in the gland and their entrance into its structure would most assuredly be much less frequent than is the case of those bacteria which are always present in the circulating blood stream when the disease for which they are responsible is present.

The data that we have tabulated under Chart I and II would be of no value if we considered each case singly, but when taken as a whole, certain definite conclusions may be drawn without a great margin of error. We have attempted to gauge from these cases what the average result of operative procedure is and how soon after such procedure results may be looked for in each and every case.

In considering each individual case belonging to the primary type case No. 1, while showing rather severe symptoms of this disease, may be considered as a favorable case from an operative standpoint. The disease was of comparatively short duration, and the pulse fell rapidly and remained lowered under enforced rest and the ice-bag. The exophthalmos was of slight degree, so that no permanent eye change will result and the case may well be classed among those of permanent relief. Cases two, three and four are similar in all important details. Case five was one of much longer standing, and consequently the exophthalmos will never entirely disappear. Some degenerative heart changes are probably present so that the best result that can be expected is one of permanent improvement. Case six, while of severer type than case five

at the time of operation, still was of shorter duration, and consequently responded more rapidly to operation. The result should be a permanent cure. Number seven belongs to the same class as numbers one, two and three. This patient had previously suffered from very severe symptoms, but at the time of operation might be classed as an "interval case." Case eight was one of great severity when the

from quite severe symptoms which were better at the time of operation. They were exceedingly favorable cases. Case twelve is the only one in which operation other than partial thyroidectomy was performed. The symptoms here were of great severity at the time of operation and consequently simple ligation of the arteries after the method of Kocher was deemed best. Case thirteen was one of

PRIMARY EXOPHTHALMIC GOITRE.										
CASE NO.	TREMOR.	PALPITATION.	INTESTINAL SYMPTOMS.	EXOPHTHALMOS.	PULSE BEFORE OPERATION.	DAYS IN BED BEFORE OPER.	PULSE AFTER OPERATION.	PULSE ON LEAVING HOSPITAL.	DAY OF LEAVING AFTER OPER.	RESULT.
1. Miss T	++	++	-	+	112-86	4	120-84	84	11 th	CURE.
2. Mrs H	++	++	-	+	110-90	2	120-80	84	10 th	CURE
3. Miss R	+	++	-	+	110-80	7	156-60	64	14 th	CURE
4. Mrs T	++	+	++	++	110-70	3	100-72	72	12 th	CURE.
5. Mrs F	++	++	+	++	100-90	3	136-76	110	16 th	Improved.
6. Mrs B	++	++	+	+	124-92	2	128-80	98	13 th	CURE
7. Mrs D	++	+	-	+	108-94	2	100-74	80	12 th	CURE.
8. Miss S	+++	+++	++	++	128-108	2	140-100	106	12 th	Improved.
9. Mrs S	++	++	-	+	112-84	1	106-74	74	7 th	CURE.
10. Mrs Z	++	++	-	+	120-90	1	130-76	88	12 th	CURE.
11. Mrs S	++	++	-	+	100-90	2	150-76	80	12 th	CURE
12. Mrs A	++	++	+	++	120-100	2	132-88	106	10 th	Improved.
13. Mrs H	++	++	+	++	114-100	12	130-64	80	18 th	CURE
14. Miss S	++	++	+	++	138-110	8	156-130			Died 24hrs.
15. Miss S	++	++	+	++	140-118	14	150-90	90	14 th	Improved.
16. Mrs B	++	++	+	++	120-90	7	160-92	104	20 th	Improved.
17. Miss S	++	++	+	++	126-90	3	150-70	90	11 th	Improved.
18. Miss S	+++	+++	++	++	160-130	5	160!			Died 2 nd Day.
19. Mrs C	+++	+++	++	++	160-140	14				Died Preliminary Narcotics.
20. Mrs P	++	++	+	+	116-98	4	126-120			Died 24hrs.
21. Mrs B	++	++	+	++	142-100	7	140-120			Died 2 nd DAY.

CHART I

patient entered the hospital. However, under rest and the ice-bag improvement was rapid, so it was deemed a safe case upon which to operate. With this patient we believe that improvement will be slower than usual, but as the disease was only of moderate duration, the prognosis should be an eventual cure. Cases nine, ten and eleven were all patients who had suffered

marked severity and of rather long standing. Case fourteen was an unmarried woman of sixty years, in whom the disease was of several years' standing with marked secondary changes. Operation was not advised, but was performed at the solicitation of the patient. Cases fifteen, sixteen and seventeen were all of long standing and marked severity. These might well

be classed as doubtful cases when considering the advisability of operation. However, all other methods of treatment had been tried during the course of their illness, including Thyroidectine, radium implantation, etc.,—and in each case it was the patient's own desire that operation be performed. Case fifteen bids fair to make a permanent recovery. This operation was performed two years ago and although the patient still complains of slight palpitation at intervals, she has gained twenty pounds in weight, and the attacks of tachycardia are becoming less frequent. Case seventeen was operated at a more recent date but the recovery seems to be progressing quite rapidly. In both of these cases symptoms had been present for a period of ten years. Case sixteen belonged to the same class except that she was much farther advanced in years. This fact tends to make the prognosis of complete recovery more guarded since permanent heart degeneration and eye changes are more apt to be present. However, the patient reports much improvement. Case eighteen presents a very severe grade of acute exophthalmic goitre in a relatively young woman. At the time of entrance into the hospital the patient was delirious and in an extreme state. Rest and the ice-bag caused improvement of symptoms, so that the patient was conscious and the heart in much better condition than at the time of entrance. Operation was urged by relatives and attempted after one week of rest treatment, with death as the result from hyper-thyroidism at the end of two days. This is a case that in all probability would have ended fatally from the disease itself—however, we now believe that the rest treatment should have been continued for a much longer period. Case nineteen represents a woman of advanced years who had been a victim of exophthalmic goitre

for over twenty years. All the symptoms of this disease were present to a marked degree. Together with these severe exophthalmic symptoms were present secondary myxedema signs. The legs were swollen, and the skin thick and dry. Operation was not advised but sought by the patient. After the inhalation of about two drachms of ether, respiration ceased, the face and neck became deep blue and death was immediate. The cause was probably a clot located at or between the right auricle and the innominate bifurcation of the superior vena cava. A review of this case teaches that owing to the permanent vascular changes, operation should have been positively refused. Local anæsthesia would possibly have been safer than general narcosis.

Cases twenty and twenty-one represent severe types of exophthalmic goitre in men. While the disease was of severe form in both cases, yet they responded well to the rest treatment and were deemed suitable for operation. Certainly there were several cases amongst those recorded belonging to the opposite sex which were of greater severity, that made uninterrupted recoveries. The conclusion must be that the risk of operation for this disease is greater in the male than in the female.

Next we will consider those cases which belong to the class of Secondary Exophthalmic Goitre. Kocher terms these cases "Struma Gravesiana Colloides."

Cases twenty-two to thirty-eight inclusive are those of mild to fairly severe types of this disease. In two, twenty-nine and thirty-seven, the condition had persisted for several years, and the picture presented was fully as severe as that found in the marked primary cases. However, the risk of operation was considerably less, and the resulting recovery more rapid. Cases thirty-nine to forty-seven were of well-marked exophthalmos and might have been

confused with the primary type were it not for the fact that the history showed the presence of tumor formation in the thyroid from a few months to several years before the occurrence of exophthalmic symptoms. Case forty-seven was one of especially marked tremor, palpitation and exophthalmos as well as tachycardia. However, a favorable prognosis was given

isthmus. The left lobe also contained a small adenoma which enlarged about six months after the operation and caused a return of the symptoms, though in a milder degree. A year after the first operation, the tumor mass was enucleated from the remaining left lobe and the patient's condition shows much improvement.

It is of interest to note with what rapidity

SECONDARY EXOPHTHALMIC GOITRE.										
CASE NO.	TREMOR.	PALPITATION.	INTESTINAL SYMPTOMS.	EXOPHTHALMOS.	PULSE BEFORE OPERATION.	DAYS IN BED BEFORE OPER.	PULSE AFTER OPERATION.	PULSE ON LEAVING HOSP.	DAY OF LEAVING AFTER OPER.	RESULT.
22 Mrs. B	+	+	-	-	80-76	1	98-78	80	7	CURE.
23 Mrs. A	+	+	-	-	100-88	2	98-80	80	7	CURE.
24 Mrs. B	+	+	-	-	112-86	1	110-80	80	8	CURE.
25 Mrs. B	+	+	-	-	86-80	1	100-80	80	7	CURE.
26 Mrs. R	+	+	-	-	100-90	1	102-76	78	6	CURE.
27 Mrs. T	+	+	-	-	110-90	2	108-80	80	8	CURE.
28 Mrs. P	++	++	-	-	100-90	1	140-90	90	8	CURE.
29 Mrs. C	+	+	-	+	120-76	3	104-72	72	7	CURE.
30 Mrs. T	+	+	-	-	110-80	3	110-76	76	7	CURE.
31 Mrs. H	+	+	-	-	100-78	1	104-76	76	6	CURE.
32 Mrs. A	+	+	-	-	86-72	1	120-72	80	12	CURE.
33 Mrs. H	+	+	-	-	90-80	1	100-84	84	5	CURE.
34 Mrs. B	+	+	-	-	84-70	1	104-80	80	5	CURE.
35 Mrs. B	+	+	-	-	100-80	2	108-76	78	6	CURE.
36 Mrs. C	++	++	-	+	90-84	1	120-76	80	8	CURE.
37 Mrs. B	++	++	-	+	100-80	1	104-72	88	11	CURE.
38 Mrs. B	+	+	-	-	84-74	1	100-80	80	11	CURE.
39 Mrs. C	++	++	-	+	120-100	1	110-80	80	14	CURE.
40 Mrs. C	++	++	+	+	140-110	3	150-88	90	12	IMP.
41 Mrs. C	++	++	-	+	124-100	1	124-92	90	10	CURE.
42 Mrs. B	+	+	-	-	100-90	1	100-84	84	5	CURE.
43 Mrs. B	++	++	-	+	120-100	1	130-94	94	11	CURE.
44 Mrs. A	++	++	-	+	110-86	2	106-70	70	16	CURE.
45 Mrs. B	++	++	-	-	110-100	1	130-92	92	11	CURE.
46 Mrs. B	++	++	+	++	140-100	4	150-86	90	14	CURE.
47 Mrs. B	++	++	-	+	100-104	8	160-80	90	14	CURE.

CHART II

before operation and the improvement following was rapid, because it belonged to the secondary type.

In all cases operated upon in both divisions, removal of one lobe of the gland, or one lobe plus the isthmus, was found to be sufficient with the exception of case forty. This patient possessed a large adenoma of the right lobe which was removed with the

improvement in the various symptoms of this disease follows operative procedure, and a study of the above tabulated cases has caused us to arrive at the following conclusions: In many cases heart palpitation ceases within twenty-four hours after operation, and, as a rule, this is the first symptom to disappear. Within two to four days the intestinal symptoms have

usually subsided or are much improved. Next the tremor gradually disappears, usually being absent at the expiration of one week, although in severe cases a longer time must elapse. Within three to four weeks the entire expression of the patient has changed and the average case will report a gain in weight of from five to ten pounds. One patient, number twelve, the only one in which thyroidectomy was not employed, but the ligation of three arteries instead—reported a gain of fifteen pounds

tirely disappear although some improvement can be looked for.

Of special interest are the alterations in the blood count following operations for this disease. Kocher has called attention to the fact that in all cases of true exophthalmic goitre the relative number of polymorphonuclear leucocytes is greatly reduced, while the percentage of lymphocytes is correspondingly increased, and the resulting blood picture is almost diagnostic of this condition.

DIFFERENTIAL LEUCOCYTE COUNT IN HYPERTHYROIDISM.					
CASE—J.A.					
DATE	11-29-07	1-2-08	2-10-08	2-14-08	12-23-08
POLY.	40.6	46	OPERATION.	75	68.6
S. MONO.	38	33		19	25
L. MONO.	13.6	19		5	5.6
EOSIN.	6	2		1	0.6
MAST.	1.6				

CHART III

four weeks after operation. Number forty-seven reported a gain of thirty-five pounds within two months. Though this is exceptional, the average successful case should increase in weight slowly after the first rather rapid gain of five or ten pounds until a normal healthy equilibrium is acquired.

Where exophthalmos is marked, this symptom is the last to disappear. Indeed, if it has existed long, previous to operation, so that secondary changes have occurred in the orbital fatty tissue, it will never en-

One might be led to believe that the rapid improvement of nervous symptoms following these operations, is caused by some suggestive element rather than as a direct result of the treatment, were it not for the fact that the blood changes, over which the patient assuredly can have no control, progress with equal rapidity. As an example we might cite case fifteen, in which the percentage of polymorphonuclear cells was forty-six, the small mononuclear thirty-three, the large mononuclear nineteen, and the eosinophile two, before

operation. Four days after, the polymorphonuclear was seventy-five, small mononuclear nineteen, large mononuclear five, and eosinophile one. Ten months later a third examination showed that the percentage of the various blood cells still maintained their normal ratio. Charts of cases five and seventeen show an equally rapid adjustment to the normal of the various blood elements and the subsequent counts taken

goitre. If the patient is suffering from severe symptoms at the time of entrance into the hospital, the condition can be much improved by absolute rest and the application of ice to the gland and heart. It should be the object of the surgeon to operate between exacerbations of the disease. This we would term the "interval operation."

Second: No case in which the symptoms

CASE 5.					
	4/13/09	4/16/09	4/19/09	4/21/09	4/23/09
POLYMORPH.	55.7	OPERATION.	79.6	67.25	67
LARGE MONO.	7.6		3.2	3.75	6.3
SMALL MONO.	35.7		17	28	23.4
EOSIN.	1.		—	0.5	3
MAST.	—		0.2	0.5	0.3
CASE 17.					
	4/13/09	4/16/09	4/19/09	4/21/09	4/23/09
POLY.	42.7	OPERATION.	69.7	59.7	71.3
L. MONO.	5.3		6.3	6.6	5
S. MONO.	49.7		24	30.7	21.7
EOSIN.	2.3		—	3	2

CHART IV

varying periods after operation prove that the first rise is not a leucocytosis from infection or operation, but in reality a readjustment of the percentage of cellular elements. Total counts were made at the same time and showed no increase.

In conclusion we would state, first: That early operation before secondary heart and eye changes have occurred, practically assures a cure to the victim of exophthalmic

have been present for a period of over five years, and in which permanent heart changes and eye changes have occurred, can be promised a positive recovery, although their condition may be much improved. These are the dangerous cases for operation and each must be studied and treated according to the symptoms.

Third: The prognosis in cases of the secondary type is more favorable than in

those of the primary, and the risk of operation is slight.

Since this paper was given before the Society, Case No. 15, Series 1, after three years of apparently perfect health, following removal of the right lobe, returned with a slight recurrence of symptoms. The

patient attributed the relapse to severe mental suffering, but examination showed an adenomatous enlargement of the isthmus which extended for two inches below the sternum. This portion of the gland was removed one week ago and is now being followed by a rapid decrease of symptoms.

WINTER CHOLERA

M. L. HOLM, M. D., Bacteriologist

Michigan State Board of Health

Lansing, Michigan

The purpose of this paper is primarily to express an appreciation for the excellent contribution on this subject by Dr O. C. Breitenbach, Escanaba, Michigan, and to call attention to a few personal experiences with "Winter Cholera" since the laboratory of Michigan State Board of Health was established. The subject is so thoroughly covered by the author mentioned, that another description of the cases at this time can hardly be necessary.

There is and seemingly has been in many localities a tendency on the part of the community, and more especially public officials in charge of the water supplies, to endeavor to conceal the true state of conditions when their water supplies become contaminated, and investigations by public laboratories are by no means always satisfactory. In a few instances, public officials have deliberately substituted water samples of known purity when the general supply was contaminated.

In the *Journal A. M. A.*, February 15, 1908, in an editorial entitled "Winter Cholera" is a reference to the epidemic at Lansing, Mich., which occurred January

8, 1908. This editorial states, "The most natural supposition would be that the epidemic was due to impurity in the water supply, though at Lansing, where the State Board of Health has investigated the matter, this is disproved." This was criticised by Dr. Breitenbach, February 18, and later referred to in his paper before the A. M. A. in Chicago.

Lansing is a city of about 30,000 population and obtains its water supply from drive wells of the artesian type, ranging in depth from 250 to 350 feet. On the morning of January 8, '08, it was estimated that about 10,000 people had been taken sick with diarrhea, which cases had apparently begun since the previous day. It was noticed that the greater proportion of cases occurred in the south part of the city. A sample of water, said to be taken at the city pumping station, was examined at the state board laboratory and found entirely safe and free from contamination. This epidemic subsided in a few days except for a few lingering cases. Much speculation necessarily resulted as to the probable cause, some stoutly maintaining that contaminated

water was the cause, others blaming the atmospheric conditions. Investigations revealed a few cases in the surrounding country, but in East Lansing, which has an independent water supply, there was no unusual amount of diarrhea.

On February 22, the epidemic was repeated, but in a somewhat less extensive degree. At this time water samples were collected from the private residences of several families who were attacked, which led to the discovery not only of contamination in considerable degree, but that this contamination increased toward the south part of the city. Through this we gained the information, for the first time, that the city was supplied by two separate stations, pumping independently into the water mains. The one on the south side had been completed the previous year and had been used only occasionally. An examination of the water showed the results given below:

	No. 1	No. 2	No. 3	No. 4
Color	None	None	None	None
Odor	None	None	None	None
Turbidity	None	None	None	None
Sediment.....	None	None	None	None
N. as Free Amm.....	.050	.120	.170	.180
	.020	.040	.040	.040
	.000	.002	.001	.001
	.000	.000	.000	.000
	.000	.000	.000	.000
Parts per 1,000,000—	13.000	11.000	10.000	10.000
	1.200	1.400	1.400	1.400
	300.000	305.000	305.000	305.000
	275.000	250.000	250.000	250.000
	285.000	270.000	275.000	285.000
Iron.....	.600	.600	.600	.600
Colonies per cc at 20°C.....	2	120	220	400
Colonies per cc at 40°C.....	0	18	28	32
Red colonies per cc on L. L. A.....	0	14	21	27
B. Coli in 1 cc sample.....	No	Yes	Yes	Yes
B. Coli in 25 cc sample.....	No	Yes	Yes	Yes

- No. 1. Main pumping station.
- No. 2 and No. 3. Water from residences approaching the south side station.
- No. 4. South side station.

By order of the Secretary of the State Board of Health, the station in the south part of town was closed and the city

supply pipes were well flushed, after which the epidemic again promptly subsided. Since that time Lansing city water has been subjected to numerous examinations and has up to the present time always been found pure and the city has enjoyed an apparent immunity to "Winter Cholera."

This fact becomes significant when we read the following clipping from *The State Republican*, May 5, 1909:

"The 'epidemic' has struck St. Johns. Scarcely a family has escaped and in some every member has been ill at the same time. The first cases were reported the latter part of the week and the number has increased daily since that time.

"Some believe the illness is caused by city water and are taking precautions to boil all that is used. As many are ill in the country as well as in the city it seems that the cause cannot be impure

water. Many believe the sudden changes of the weather are to blame.

"Some of the city water was sent to the laboratory of the State Board of Health for analysis. State Bacteriologist M. L. Holm states that he finds the water to be contaminated with sewage and sur-

face water which has run into the reservoirs during the high water of the last few days. Dr. Holm states the impure water is, without doubt, the cause of the epidemic in the city proper."

St. Johns, Michigan, is a city of about 4,000 inhabitants and located about 15 miles north of Lansing. Authoritative investigations indicate that on May 4th, there were between 1,200 and 1,500 cases of diarrhea in the city of St. Johns. The city is supplied from drive wells of the artesian type, ranging in depth from 365 to 575 feet. The water is pumped into a reservoir from which it is distributed. Following is an analysis of a sample of water from the reservoir, taken on May 3rd and one from each of the three wells supplying same, taken on May 5th, 1909:

	Reservoir	Well 1	Well 2	Well 3	
Color	None	10	None	None	
Odor	None	Faint	None	None	
Turbidity	None	None	None	None	
Sediment	None	None	None	None	
Parts per 1,000,000—	N. as Free Amm.	.180	.250	.120	.250
	N. as Alb. Amm.	.030	.060	.030	.020
	N. as Nitrites	.010	.025	.002	.000
	N. as Nitrates	.080	.100	.020	.000
	Chlorine	22.000	11.000	10.000	32.000
	Oxygen consumed	1.800	2.500	1.500	1.800
	Alkalinity	280.000	290.000	250.000	300.000
	Hardness	250.000	225.000	200.000	275.000
Ignited solids	350.000	275.000	245.000	345.000	
Iron	.600	.700	.600	.600	
Colonies per cc at 20°C.	8,500	1,200	28	None	
Colonies per cc at 40°C.	72	11	None	None	
Red colonies per cc on L. L. A.	48	4	None	None	
B. Coli in 1 cc sample	Yes	Yes	No	No	
B. Coli in 25 cc sample	Yes	Yes	Yes	No	

It is worthy of note that the bacterial contamination found in the wells May 5th, is considerably less than was contained in the mixed water from the reservoir on May 3rd, indicating that the contamination was rapidly disappearing. The reservoir is raised above the surface soil so it is safe to exclude contamination at the reservoir except as it is pumped from the wells.

It is not necessary to go into detail

as to how these various wells became contaminated. Suffice it to say that in each case the contamination occurred from nearby sewers and the sewage gained access to the water by running in at the top of the well, a possibility which is due to improper precautions; and the remedy is simple.

The cases occurring in the country are easily accounted for. Our records show that out of 309 waters examined for potability, in the laboratory, from the State of Michigan, 186 (60%) were found to be contaminated. Improperly protected wells in the country is the rule. Many of them are curbed with boards, brick or stone, and offer absolutely no protection at times when the soil is highly flooded from rapid thaws and rain, such

as occurred at the time of each above mentioned epidemic. At such times, the accumulated filth of months is often washed into the wells and one may sometimes see shallow wells, which ordinarily contained only a few feet of water, filled nearly to the top with surface washings. At such times well waters are not alone to be contaminated, rivers and lakes receive their liberal contributions from stagnant sewers and polluted inland soil. This

is well illustrated by the findings from St. Clair River waters collected at the St. Clair city intake, April 28th, 1909, and again May 4th, 1909, following the same period of snow, hail and rain which led to the epidemic at St. Johns.

No. 1. St. Clair River sample, collected at St. Clair city intake, April 28.

No. 2. St. Clair River sample, collected at St. Clair city intake, May 4.

No. 3. St. Clair River sample, collected May 4th from Canadian Channel across from St. Clair. Given to show the normal water of the mid-river at the time.

No. 4. Grand River sample, collected May 4th, just above Grand Rapids city water works intake, where the same weather conditions prevailed.

from carelessness, it must indeed be a relief to those on whose shoulders the burden of responsibility falls, to be able to draw the etiologic factors of the resulting disease from the surrounding air and hush up the more intelligent citizens by "You'll hurt the town."

At Michigan City, when the sewage laden creek water was mixed with the public water supply December 21, 1901, there occurred within twenty-four hours a severe epidemic of "Winter Cholera."

In Mankato, Minn., when the sewers overflowed in the spring of '08, nearly one-half of the population using the public water were suddenly taken with diarrhea and during the month which followed there occurred one of the most appalling epidem-

	No. 1	No. 2	No. 3	No. 4	
Color	None	45	None	75	
Odor	None	Musty	None	Musty	
Turbidity	5	80	None	60	
Sediment.....	Trace	Consid.	Trace	Consid.	
Parts per 1,000,000—	N. as Free Amm.....	.010	.260	.010	.040
	N. as Alb. Amm.....	.060	.280	.050	.300
	N. as Nitrites.....	.001	.005	.001	.003
	N. as Nitrates.....	.070	.500	.060	1.500
	Chlorine.....	7.000	7.000	4.000	3.000
	Oxygen consumed.....	3.500	9.800	1.800	15.800
	Alkalinity.....	87.000	82.000	85.000	95.000
Hardness.....	75.000	90.000	75.000	95.000	
Ignited solids.....	85.000	150.000	75.000	140.000	
Iron.....	.400	5.500	.200	2.000	
Colonies per cc at 20°C.....	120	32,500	60	28,000	
Colonies per cc at 40°C.....	9	152	0	60	
Red colonies per cc on L. L. A.....	2	58	0	9	
B. Coli in 1 cc sample.....	Yes	Yes	No	Yes	
B. Coli in 25 cc sample.....	Yes	Yes	No	Yes	

These diarrheal epidemics are frequent at St. Clair. That they should occur at Escanaba, Wyandotte and Grand Rapids is not to be wondered at. These are cities whose public water supply is subjected to constant contamination, and together with them we could name a score of others in the State of Michigan. Aside from these, there are few cities whose water supply is not subject to occasional accidental contamination, and at such times, especially when resulting

ics of typhoid fever which has been recorded with modern sanitation. The city health officer reports over 500 cases of typhoid fever traceable to the city water supply which was examined at the State Laboratory and found to be contaminated with sewage.

On August 5, '08, there occurred at the Grand Hotel, Mackinac Island, an epidemic of diarrhea among the attendants of "The Annual Convention of the Association of State and National Food

and Dairy Departments" which affected the greater proportion of the members present. The report of the investigating committee shows conclusively that there occurred at that time a contamination of the water supply of the hotel from a nearby sewer and this contamination was given by the committee as the cause of the epidemic. While one may hardly speak of "Winter Cholera" in the early part of August, these cases were evidently the same, etiologically and pathologically, as those previously referred to. Whether or not we are to use the name "Winter Cholera," it would seem decidedly inconsistent to apply to the same disease a different appellation because it occurs in the month of August instead of the month of January.

The history of so called "Winter Cholera," like typhoid fever, in the State of Michigan and the world over is probably the history of contaminated water supplies. That these diseases may be conveyed by other agents is well known. That diarrhea may result from a variety of causes is equally clear. But when one-third of the population of a city is taken sick in a night, and on the next morning what was previously a pure water supply is found to be laden with sewage, it is not necessary to accuse the innocent air. If an honest revelation of facts is going

to "hurt the town," it is time for the town to act. We are dealing with remediable conditions and it behooves each locality to find the simplest remedy for their individual conditions and apply it. It is not a disgrace for any city to have had a contaminated water supply if steps have been taken to improve it. But it is hardly comprehensible that intelligent citizens of some cities are willing to go on suffering the horrors and agonies of disease and death, resulting from contaminated water supplies from year to year and yet not make even an effort to improve them.

1. Breitenbach, Dr. O. C., Choleriform Diarrhea of Cold Weather. *Journal A. M. A.*, October 31, 1908.

2. Breitenbach, Dr. O. C., Winter Cholera, *Journal, A. M. A.*, February 29, 1908.

3. Inches, Dr. J. W., A Report of an Investigation made by the State Board of Health of the Water of the St. Clair River, St. Clair, Mich., 1908.

4. Annual Report of Indiana State Board of Health, 1901-2.

5. Robison, Prof. F. W., Report of Investigating Committee on Poisoning at Mackinac. *The American Food Journal*, Nov. 15, 1908.

6. Bjelland, Dr. A. O., Annual Reports of the City of Mankato, Minnesota, 1908.

SURGICAL SUGGESTIONS

Ligation of the cystic artery at the beginning of a cholecystectomy often makes the removal of the gall-bladder a bloodless procedure.

A short drainage tube, and its early post-operative removal, are perhaps the best safeguards against the formation of an empyema sinus.

Colon irrigation, after the method of gastric lavage, is sometimes effectual when the most actively compounded enemata are not.

Unilateral deafness without known cause, associated with facial palsy on the same side, should suggest a lesion in the posterior cerebral fossa.—*American Journal of Surgery*.

DIRECT TRANSFUSION*

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Trimountain, Michigan

From an historical point of view the study of Transfusion of Blood is a very interesting one, for even as far back as what we are pleased to call the "Dawn of History" we may find accounts of transfusion of blood from one human being to another. According to La Martiniere is to be seen in the history of the ancient Egyptians that these people practiced transfusion for the healing of their princess. A translation on an ancient Jewish writing of this period contains the following: "Naam, Prince of the army of Ben'Adad, King of Syria, being attacked with leprosy, resorted to physicians who, in order to cure him, withdrew blood from his veins and replaced it with other blood." At a much later day, Labivius, in his treatise upon the sacrifices of the Emperor Julian, speaks of transfusion, as having been an eye witness of an operation of this sort. And later, the instance of Pope Pius III, in which the Pope was bled, his blood being replaced by blood drawn from two young men, his blood in turn being used to replace theirs. In this instance, it is interesting to note that all three died, the outcome in most of the other cases not being mentioned. Gesellius collected about a hundred references from the older literature, i. e., up to 1803, and 169 references from that date to the year 1872. The two or three decades following would doubtless show a still larger number of papers bearing upon this subject.

Landois in 1875 collected 347 cases of transfusion of human blood, of which in 150 cases the result was favorable, in 180

unfavorable, doubtful in 12, while in 3 no result was to be expected, and 2 died during the course of the operation. He also collected 129 cases of transfusion of animal blood into the human being, of which 42 resulted in a cure or continued improvement, in 25 cases transitory improvement and doubtful success were noted, and 62 operations were followed by no improvement and death. Statistics at these times, i. e., before anything was known of sepsis, of bacteriology or of the processes of the coagulation of the blood, etc., are certainly of no value and many if not most of them owe their apparent innocuousness from the exceedingly small dose of blood transfused or from its being injected into the body tissues instead of directly into the circulation; as witness, note the large proportion of reported improved or cured cases following transfusion of blood from some lower animal, an operation in which in the light of our present knowledge we should confidentially look forward to rapid dissolution and death from hemolysis.

Discussion pro and con and speculations as to the immediate and remote effect of this operation, i. e., as to whether transfusion of lamb's blood would give the recipient a lamblike character or would even cause him to grow wool and horns, indulged in at this time might be as interesting reading, I think, as the modern "Jessie James' Own Book," and were doubtless quite as bloody. However, no great stride in human knowledge was ever made that did not represent great sacrifices and often many lives in the making.

And out of all these experiments and operations undertaken in all good faith

*Paper read before the "Upper Peninsula Medical Society" meeting at Calumet, Mich., Aug. 3, 1909.

at that time, has come our present knowledge of the practical medico-legal determination of blood by biological test, of our present more or less complete studies on immunity and its most recent refinement in the determination of the state of infection by means of the Opsonic Index.

Studying these results and others of more recent time we have learned one most important fact, i. e., that the blood of each and every species of the animal kingdom is peculiar; the blood of two species cannot be mixed, because agglutination and dissolution of the corpuscles always result, e. g., the corpuscles of the sheep are dissolved by human serum in from 3 to 6 minutes, human corpuscles are immediately agglutinated by the serum of sheep's blood and begin to dissolve after 7 hours. Transfusion from one species to another would be an unpardonable error, and as in certain conditions agglutination will take place between individuals of the same species, it doubtless will be found that indiscriminate transfusion will, as our knowledge grows, be considered quite as unpardonable an error. However, with certain recent refinements in technique and in view of our more recent studies of the pathology of the blood, it seems to me that there will be found conditions in which direct transfusion will be adjudged the proper procedure and in certain of these, the only operation that can be done to preserve the patient's life. And the saving of life is the end in medicine.

Since the development of modern aseptic methods of operating many bright minds in all parts of the civilized world have been busy trying to devise some method of uniting the ends of a severed artery or vein that would be ideal and applicable in all cases, and while the ideal has probably not yet been attained, several methods have been perfected, which, I think, may be divided into three classes:

- (1) The invagination.
- (2) End to end suture.
- (3) The joining together of the cut ends with the aid of some mechanical prosthesis.

As concrete examples of these (3) classes we may mention "Murphy's Method of Invagination," in which the proximal end of the artery is invaginated into the distal end by means of three (3) "U" shaped sutures. This method, because of the shortening of the vessel which it necessitates is applicable only in a few locations, as the popliteal space, Scarpa's triangle and the axillary space, where the shortening can be compensated, before the time, by position, and has the further disadvantage that the distal end of the cut artery contracts and narrows the lumen. However, several successful clinical cases have been reported.

(2) Of the end to end suture methods, probably the best is that of Carrel, published in 1902. The main feature brought out in this is the three traction sutures of fine silk laid at equidistant points on the circumference of the cut ends of the vessel or vessels.

Traction upon these sutures approximates the edge of the vessel and renders the application of a continuous suture comparatively easy. At least easy in the hands of those men who have become skilled in this line of work.

In the hands of Carrel this method has become perfected to a remarkable degree, enabling him to transplant entire organs successfully, in his laboratory experiments, and as before, many brilliant clinical results have been obtained by this method. However, I think the feeling that most of us would have in trying to use this method would be comparable to those of the blacksmith who was endeavoring to weld the hairspring of his watch at his forge. It's delicate work!

(3) The third class, that of using mechanical prostheses, was presumably first done by Payr in 1900, who used a small cylinder of magnesium over which the proximal end of the artery was reflected and tied and over this the distal end was drawn and tied, thus bringing intima to intima, with no narrowing of the lumen and no foreign body exposed to the blood stream. This would seem an ideal method inasmuch as the magnesium is gradually absorbed in the same way that our animal sutures are; but for various reasons it has not found much favor with the workers in this field. However, this idea has been made use of by Dr. Crile and others in perfecting a method for direct transfusion from one animal or patient to another. It has been found to be the most successful in this work. Dr. Crile had some small metal canulas made after the manner of Payr's magnesium prostheses but with the addition of a small handle by which they can be more easily manipulated and with these has perfected a technique by means of which any ordinary practitioner may complete an anastomosis of an artery of one of his patients with the vein of another and accomplish a direct transfusion.

Dr. Crile's technique published in the *Annals of Surgery*, September number, 1907, in brief is as follows: "In the clinical transfusion we have utilized the radial artery of the donor and the proximal end of any superficial vein of the arm of the recipient. The radial artery was chosen because it is easily isolated and may be readily adjusted to the position of the vein of the recipient and on account of the very free anastomosis between the radial and ulnar, the destruction of the radial causes no inconvenience to the donor. Unless contraindicated the donor and recipient are each given a hypodermic of morphine twenty minutes before the transfusion."

This not only quiets the patient but also, I think, tends to prevent undue contraction of the vessels as soon as they are exposed. "Before they enter the operating room, their arms are prepared and their eyes covered with a wet towel, the donor is placed upon an operating table of the Trendleberg type so that, should he faint, the head may be readily lowered. The recipient is also placed upon an operating table with his head in the opposite direction from that of the donor. By the use of infiltration anæsthesia of 0.1% solution of cocaine about 3 centimeters of the radial of the donor is exposed, the smaller branches tied with very fine silk, a 'Crile' clamp is applied to the proximal end and the distal end is ligated, the artery is then divided, the adventitia is pulled over the free end as far as possible and snipped off, a moist saline sponge now covers the field.

"Three or four centimeters of a superficial vein of the recipient is prepared in exactly the same manner; the vessels are then examined and a cannula whose bore is larger than the actual tissue thickness of either is selected; the vein pushed through and turned back as a cuff and tied in the second groove; and the end of the artery drawn over this and tied in the first groove. The clamp is then removed from the vein and gradually from the artery when the blood stream may be palpated in the vein of the recipient. As little and as gentle manipulation as is possible must be done and the field must be kept covered with warm saline as the artery tends to contract and narrow its lumen on exposure."

The above outlined technique is really very simple and any one of us could do the operation with almost no assistance in a few minutes if occasion should arise in emergency.

My attention was first called to the

subject by hearing Dr. Crile read his report of a series of clinical cases at Atlantic City three years ago, afterwards published in the *Journal A. M. A.* I procured the tubes and with the assistance of Dr. Howlett repeated some of his experiments upon dogs in the winter of 1907-08, and in October, 1908, I performed the operation upon a typhoid patient. Thinking that some of you have probably not followed the published articles along this line, I will relate some of these experiments and clinical results in brief.

Referring to the experiments on dogs, I will relate one only that we did, which Dr. Crile has done something over 200 times upon dogs, with results uniform with our own single case. I produced two medium sized dogs, anæsthetized them and then dissected out about two inches of the carotid artery of one and about the same of the external jugular vein of the other and joined this artery and vein as in above mentioned technique, leaving the clamps closed. We then opened the femoral artery of the dog destined to be recipient in the experiment and allowed that to bleed until the blood could no longer be made to flow, i. e., until the circulation in that dog as such, had ceased to exist. At this time the respiration in this animal had stopped entirely for at least two or three minutes and we could no longer detect any movement of the heart through the chest walls. We now tied the femoral and opened the clamps on the jugular vein and on the carotid artery of the donor and blood began to flow from dog No. 2 into the vein of dog No. 1. We then began artificial respiration and massage of the heart in dog No. 2 as best we could and in a few minutes the heart began to beat again and natural respiration was resumed. The mucous membranes of the eyelids and mouth which had become a ghastly white began to show pink and the dog to show

signs of life, necessitating more anæsthetic, which had been stopped several minutes. We allowed the transfusion to go on 12 minutes when dog No. 2, the donor, began to show signs of collapse and the transfusion was stopped, the vessels tied, wounds closed and the dogs carried back to the kennel. The next morning the dog that had received the transfusion was up and looking for food, the other not able to walk alone but recovered his activity in about five days, when both appeared perfectly normal.

This experiment having been repeated scores of times with uniform results, as above stated, definitely proves that the blood of one normal animal may be transfused into the vessels of another normal animal of the same species and there functionate quite as the original blood had done, without hemolytic change and without change in the body tissues of the animal receiving said blood. Observations upon the urine and repeated blood count have been made which definitely prove the above statement. These we did not repeat. A large number of like experiments having been done on animals with uniform results, Dr. Crile and his associates determined to try the operations upon the human animal when opportunity presented itself after all other known means had been exhausted without benefit, and found that, given like conditions, exactly parallel results would be obtained in the human as in the lower animals.

This of course, opened a wide field for speculation. How far could we go? Could we pour into a man two or three quarts of normal blood who was dying from acute or pathological hemorrhage, the anæmias, purpuras, hemophilia, and make him well; or in acute disease could we thus tide over a patient dying of pneumonia, scarlet fever, or typhoid; or could we instil the necessary vigor to just overcome the down-

ward dip of the balance in consumption?

If you will bear with me a few minutes longer, I will endeavor to show as best I can a few of the conditions that seem to promise some measure of success for this procedure. Naturally the first to suggest itself will be acute hemorrhage. Now, you are thinking of what you have been taught; of the opinion expressed by Goltz some thirty years ago that "death in acute hemorrhage is not due to the fact that the organism had lost the cellular elements of the blood which are needed for the life metabolism of the tissues, but to the impairment of the mechanics of the circulation due to the loss of fluid, and advised that an infusion of physiological salt solution would save life quite as well as infusion of normal blood if that were possible." This has been the accepted idea from that time until very recently. Lately, Mandal, Feiss, Schram, Landois, Von Seimsem, working in different parts of the world, have proven that salines will not save life in fatal loss of blood.

Physiologists tell us that a patient can lose three per cent of the body weight of blood without fatal results. Experimentors tell us that a loss of blood of between $4\frac{1}{2}$ and $5\frac{1}{2}$ per cent of the body weight is uniformly fatal in the dog, and that in these cases, intravenous transfusion of salines will afford a temporary relief but that the dog will invariably die after a certain number of hours. And the administration of the normal sera, such as physiological salt solution, Locke & Ringers' solutions, have an additional shortcoming that has not been generally understood and that is that these solutions beyond a certain amount will not remain in the blood vessels. In excessive dosage these solutions accumulate in the gastrointestinal tract, the lungs, spleen, and many other parts of the body, constituting in itself a menace to life.

The use of these solutions is exceedingly valuable, but there is a limit to their usefulness. An effective method is that this class of cases must supply more isotonic blood.

Now, my point is that, given a case of presumably fatal hemorrhage whether it be a mine accident, obstetrical case or uncontrolled epistaxis, after we have tried the usual treatments and stimulants, bandaging of the limbs and compression of the abdomen, posture, dependent portions of the body elevated, etc., and a reasonable amount of intravenous saline without continued improvement, we ought to be prepared to do a direct transfusion and almost, I think, with the assurance that this will turn the tide and our patient be saved.

Another class of cases which promises much and in which success has been obtained is in the pathological hemorrhages, hemophilia, typhoid or other hemorrhages from the gastrointestinal tract, purpura hemorrhagica, hemorrhage in the jaundiced gall bladder following operation for stones, etc., hematuria and perhaps in some others. In quite a number of clinical cases of this class the transfusion has proven positive in improving the patient's immediate condition, and in most instances wholly controlled the hemorrhage itself.

As an example of one of these, I will repeat the words of Dr. Crile in reporting a case of chronic hemorrhage from the bowels. *Journal A. M. A.*, Vol. XLVII, No. 18.

"The case was that of a woman who had been bleeding from the bowels for four months, and during that time had been under medical treatment. Her secondary anæmia was extreme; the hemoglobin was approximately 12 per cent, red cells 1,200,000. She was in such a low state that it was not deemed safe even to anæsthetize and was brought in for the purpose of making a transfusion. The transformation in this case

was extraordinary. The lemon yellow color was replaced by white, then by pink, the lips became red, the blood count was more than doubled and the hemoglobin trebled. She felt invigorated and stimulated. All other treatment was withdrawn and her hemorrhage ceased; three weeks later a little blood was found in the stools. She was then anæsthetized and thoroughly examined, when it was found there was a marked varicosity in the rectum with some small ulcers. These were sutured over and the patient left the hospital at the end of six weeks with a red blood count of 4,000,000 and hemoglobin of 70 per cent. Before the transfusion she had no appetite and could scarcely be made to take nourishment. Directly after transfusion she had a vigorous appetite and gained rapidly in health and strength. Her red cells rose to 2,500,000 (more than double) and hemoglobin to 40 per cent. We have complete tables of observations in each case on the red blood count, the hemoglobin and the blood pressure of both donor and donee, extending over a period. The donor in every instance regained the blood lost in from five to seven days. The donee showed neither nephritis nor hemoglobinuria, no lacking of blood, and no evidence that the new blood had in any way affected the donee, nor that the donee had unfavorably affected the newly transfused blood. In other words, the conclusions reached in the laboratory were wholly realized in the clinic.

"The transformation in these cases has been unequalled in my surgical experience, except in the relief from asphyxia by intubation."

The immediate result in several other cases, including hemorrhage in typhoid and other like conditions was quite parallel with the above cited case, but in some instances the hemorrhage recurred after a time, and Dr. Crile advises that where it

is possible to do so, an operation to secure the bleeding point ought to be done immediately after the transfusion while the patient is in condition to withstand the shock incident to the operation.

Another case in which transfusion seems theoretically the most rational treatment, but of which no clinical cases have been reported, so far as I know, is in illuminating gas poisoning. Here the main toxic factor is carbonmonoxide which constitutes 6 to 10 per cent of illuminating gas. It occurs in the so-called "Water Gas" to the extent of 30 or 40 per cent and is an important toxic constituent of the "after damp" of mines, and of the gas from coal stoves and blast furnaces. Its affinity for hemoglobin is 300 times that of oxygen. And it is for this reason that these patients die despite treatment by inhaling of oxygen, etc., and theoretically at least, they ought to be saved by being first bled and then supplied with uncombined hemoglobin by transfusion. This has been found to work out exactly according to theory in every instance in the laboratory, dogs being used for the experiment. This, I think, we ought to bear in mind and if occasion arises, to try the effect of a transfusion before we allow the patient to die, if it is possible so to do.

Another field which promises much, and in which some work has been done is in the so-called self-limited diseases, typhoid, pneumonia, scarlet fever, etc. In these diseases, we know that the patient does not get well simply because of the medical treatment that he receives nor because the disease organism has exhausted all of the available material upon which to grow, but on account of the fact that certain immune or protective bodies are built up in the serum of the patient, by the patient, which neutralize the poisons thrown off by the disease germ, and cause that patient to become unsuitable

media for the further development of this particular disease germ. Now, why is it not reasonable to suppose that, given a patient dying of pneumonia, if we could bleed that patient to as great a degree as seemed safe and immediately replace that blood from another patient who had recently recovered from the same infection and was presumably charged with those antibodies, that we would save that patient.

Some work has been done along this line which seems to prove that this theory is well founded.

Referring to my own case, I will only make brief mention of the essential facts as they appeared to us, as there were no blood counts made and no blood pressure observations taken and therefore the report of this case has no scientific value whatever.

The patient was a man about 38 years of age, Norwegian, ill of typhoid fever which had run a relatively high temperature during its whole course, and in the third week had developed a pneumonia with consolidation of the right lower lobe. During the fifth week he began to have numerous large bloody stools and also had three distinct hemorrhages from the lung, a relatively rare accompaniment of typhoid with any complication; in two of these hemoptyses there was at least a teacupful of blood coughed up. And following the last hemoptysis the patient passed into a semi-comatose condition, could be roused for a moment with great difficulty, breathing stertorous, temperature between 96 and 97, skin cold and clammy, pulse at wrist could not be counted but by stethoscope heart was counted above 160 per minute, weak but regular. The usual treatment, including intravenous salines, had been given with no improvement. It appeared that the man had surely only a few hours at most to live and I determined to try Dr. Crile's method of direct transfusion, believing that it could at

least do no harm and in the light of Dr. Crile's reported results in like conditions, might cause the hemorrhages to cease and tide the patient over this critical stage.

I found a willing donor in the wife, a large, fleshy woman who had never had typhoid. It seemed as though she might be able to furnish as large a quantity of normal blood as we would wish, but really she was not a favorable subject on account of having such a large, fat arm and an exceedingly small radial, due, it seemed, to its having given off its digital branch high up in the arm instead of at the wrist. However, we dissected out about two inches of it under Schlich's infiltration anæsthesia and about two inches of one of the superficial veins of the arm of the man and were able finally to complete the anastomosis, using the smallest tube in the "Crile" set and were rewarded by being able to feel the pulse of the donor in the vein of the man. The man, by the way, did not require any cocaine. He made no movement to withdraw his arm and did not seem to feel the dissection. After the transfusion had been going on several minutes he awoke from his stupor, looked around and asked what the fuss was all about anyway.

In the effort to get the small artery over the cannula we had, I presume, caused some traumatism to the intima and at the end of about twelve minutes pulsation in the vein of the donee had ceased, due to clotting in the artery at the site of the anastomosis. And the vessels were tied and the wounds closed. The man was now fully conscious, talked well, said that he felt much better and was now going to get well. Radial pulse could now be easily counted about 150, quality greatly improved. This improvement in the patient continued several days, although the temperature again rose and remained about 102. But he died on the eighth day follow-

ing the transfusion, apparently from intense toxemia. Hemorrhage from the lung and bowels did not recur.

Judging from results, I should have to conclude that the operation was justified in that the immediate condition of the patient was greatly improved, hemorrhages were controlled and that I should advise the procedure under like conditions again with this additional proviso: that is, I should secure for donor a subject who had recently recovered from typhoid fever if that were possible.

Now gentlemen, in closing, I beg of you that you will not think that I am treating this subject lightly, that I am advocating direct transfusion in all the "ills that human flesh is heir to" but rather that it is a procedure that gives some promise of success, in certain conditions, and given those conditions, we are justified in trying this means, as a last resort, if you will, rather than that of allowing our patient to die without having given him the benefit of the trial.

REMARKS UPON SOME PHASES OF CHRONIC DISEASE OF THE STOMACH, DUODENUM, GALL BLADDER AND APPENDIX *

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The thing that most impressed me during my visit to the great clinic at Rochester, Minn., was the number of cases each day that were marked upon the operative list as "exploration, duodenum, gall bladder, appendix," meaning that the disease for which the abdomen was to be opened could not, with all their resources, be more definitely located. I had previously in a small way discovered from personal experience that one of these organs was diseased when I had made a positive indictment against one of the others, but had until my visit to the "Mayos" always held the opinion that the mistakes were due to lack of diagnostic skill upon my part. When it is reflected that the Mayo staff consists of highly experienced and competent men and that every patient passing through their offices is subjected to a general examination of all his organs, no matter what his symptoms may be, we must admit that conditions they find it impossible to differentiate in so large a number of cases must possess many features in common.

Chronic ulcer of the stomach or duodenum, cancer of the stomach, gall stones, infection of the gall bladder and chronic appendicitis are the affections which are most likely to be mistaken one for the other. If all the methods of diagnosis available are made use of it would be difficult to avoid recognizing an advanced case of cancer of the stomach, but occasionally if reliance is placed upon symptomatology alone, mistakes will be made in these cases also.

In early cancer it is often impossible to distinguish between that and chronic ulcer which has usually preceded it. The characteristic symptoms of ulcer of the stomach or duodenum are periodicity of attacks of pain, or burning distress, gas eructations or vomiting of sour substances. These attacks come on soon after eating in gastric ulcer and several hours afterwards in duodenal ulcer. In both cases relief follows immediately upon taking food. These attacks may last a few days or several weeks to be followed by varying periods of entire relief. All of you will recog-

*Read at the meeting of the Montcalm County Medical Society, January 20, 1910.

nize the above picture as applying as well to many cases of gall stone attacks, although there is less likely to be sour eructations in gall stones and relief is not generally obtained by taking food. Many cases, however, of gall stones are attended with but little pain and have more or less constant stomach distress.

Chronic appendicitis is ordinarily attended with pain and soreness in the right iliac region, often aggravated by taking food, but many cases have no such symptoms, all their distress being referred to the epigastric region. This is due to the fact that chronic irritation of the appendix is often the cause of pyloric spasm. The spasm is induced by partaking of food and is often so severe as to interfere with the proper nutrition of the patient. It is now pretty well established that a diseased appendix should be removed, but it is not so well known that many of our cases of so-called indigestion are due to disease in that organ, in the gall bladder or to gastric or duodenal ulcer. The average period after beginning symptoms at which cases of gastric or duodenal ulcer come to the operating table is twelve and one-half years according to Mayo. During this time most of them have been going from one physician to another, with occasional flittings to eminent gastro-enterologists, seeking relief. They have been fed with pepsin and acids. They have been told in one place that their peptic glands had lost their secreting power. At the specialists, that their stomach had dropped several inches below the normal position and then they are harnessed up with a high-priced abdominal supporter of the specialist's own invention, perhaps given a few pounds of magnesia in divided doses and sent on their way.

Each man consulted gains the reputation for a time of effecting a cure until the regular advent of another periodical attack reduces the patient to despair.

In my experience periodical attacks of indigestion do not often occur in patients who have no organic disease of the stomach, duodenum, gall bladder or appendix. The profession should recognize the fact that symptoms of this kind occurring periodically indicate a condition demanding surgical intervention.

It is not very important to the patient to have an exact diagnosis made. It is important that he should be cured. All modern diagnostic methods should be made use of, but when all is done that can be done along this line many cases will still be found at the operation to have disease in the one of these organs least suspected. This fact is not a serious matter. Cure can be effected in none of them without operation and our death rate will be materially lowered when all of these cases are brought to operation at a much earlier average period in this disease than they are at present. I will report briefly the history of two cases, both illustrating in a marked degree the transference of symptoms and consequent mistakes in diagnosis.

Mrs. F., aged sixty-five, had always been in good health until May, 1909, when she began having distress in her stomach after meals. She visited me once at that time and I gave her some medication for indigestion, asking her to come back for a regular stomach examination and analysis of stomach contents. She did not come back and took her own and her neighbors remedies during the summer without getting relief, when she went to one of our large college clinics. There she had many examinations made and the Director of the clinic wrote me when she came back that he was unable to make a diagnosis but had found that she did very well so long as she took only liquid nourishment and advised that it be continued for some time. The gastric juice contained no hydrochloric acid, some lactic acid,

a little pus, but no blood. I found her much emaciated and taking only half a pint of liquid food in twenty-four hours. I had her increase the amount of food until she was taking a quart in twenty-four hours. She then developed fever, vomiting and complete loss of appetite. She had never had pain at any time during her illness but had constantly vomited her food after several hours of distress following eating. After she recovered from the acute attack of fever I gave her one evening a little solid food and sixteen raisins. The next morning I recovered the skins of twelve raisins, much of the solid food and the washings contained a good deal of pus. I then felt justified in diagnosing obstruction of the pylorus with strong probability of cancer. I operated November 26th and found a perfectly normal stomach—by invaginating the duodenal wall I could put my thumb through the pylorus and the stomach presented no evidence of disease whatever.

I then examined the gall bladder and found a large stone measuring $\frac{3}{4}$ of an inch in diameter which I removed. The gall bladder contained thickened foul smelling bile which upon culture produced luxuriant growth of colon bacilli. Drainage of the gall bladder was established and the patient made a fine convalescence, a few days after the operation eating solid food with pleasure. In fact, it was at once noticeable that solid food agreed with her better than liquids. It should be noted in this case that while there was a gall stone present yet the real cause of her symptoms was the infected gall bladder. The same condition might be produced by colon infection of the gall bladder without the presence of a stone.

Mr. G., aged sixty, had suffered for ten

years from periodical attacks of severe pain in the epigastric region radiating toward the right lower border of the ribs. I have prescribed for him many times during these attacks which came several times a year at varying intervals. He usually required large doses of morphine to relieve the pain and the attacks seldom continued for more than one or two days. All the physicians who saw him during the attacks diagnosed gall stones. His stomach symptoms were never severe and were only present during the attacks of pain. Many times I recommended operation to him but with relief from pain ever came the hope that he would not have another, until last November when after six months of good health during which time he did hard farm work he was taken with severe pain and vomiting. I saw him several times during three weeks that he was in continual pain except when under the influence of opiates. His stomach was irritable and he was mildly jaundiced. I entertained no doubt that he had gall stones and made no special stomach examination. No tumor could be palpated. He finally consented to operation and upon opening his abdomen I found the gall bladder normal and the stomach the seat of cancerous degeneration. The entire organ was involved from the pylorus to the cesophegus. The liver was modular and enlarged and the mesenteric glands were extensively involved. I closed the incision, using linen mattress sutures in the facia and got him out of bed on the following day. He made a good recovery and strange to say has been much better since, having but little pain and retaining nourishment very well. This improvement is due to the mental impression as he has not been informed of his condition and thinks that he ought to recover.

THE CLINICAL IMPORTANCE OF BLOOD PRESSURE OBSERVATIONS*

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The only way in which the blood can fulfill its function is by continuous movement and it is with some of the phenomena which occur in connection with this continual movement that this paper has to deal. We have not the time to go into the comparative physiology of the circulatory apparatus but we must emphasize the fact that the heart is only a muscular portion of the apparatus, being an important but not the only factor in keeping the blood in motion, the remaining work being performed by the blood vessels and their surrounding tissues, while in some of the lower forms of life the whole of the expulsive and propulsive power is contained in the vessels without any heart. At each contraction of the ventricles a quantity of blood varying greatly under the various conditions is forced into the already full aorta and in connection with this I would emphasize the fact that while we all realize that the arterial walls possess a certain amount of elasticity not all realize its extent nor its importance. Able observers have found that the carotid of the dog could withstand twenty times the normal pressure without tearing. To quote Janeway: "The elastic arterial wall is a mechanical device of great importance. In it during systole a large part of the energy of the ventricles is made potential to be utilized in moving the blood during diastole, thus converting an intermittent into a continuous propelling force, and distributing the heart's work over more than twice the time of its actual muscular contraction." Were the arteries rigid and

non-expansile the blood flow would be intermittent—the same amount of blood would go through the capillaries into the veins as entered the aorta and the systolic interim would be without pressure. Upon this continual blood flow depends the proper functioning of the various organs of the body.

At the center of the circulatory apparatus is the heart, receiving the blood from the veins and redistributing it to the various parts of the body with great force and at regular intervals, and yet within the normal elastic arteries this intermittent and forceful output is transformed into a continuous and steady stream so that the economy by means of the great arteries which are continually branching until the capillary system is reached, is supplied with an even flow of blood supplying the tissues with nutriment and oxygen and carrying away the waste products, also regulating secretion and excretion; an important example of the latter being the kidney, where elimination is regulated almost exclusively by the blood flow. It is important that since liquids are almost incompressible we recognize in the arteries something more than a mere set of conducting tubes, and see the various pathological possibilities and lend our efforts to maintaining within the system an equilibrium or proper ratio between the elasticity and the *vis a tergo*.

The causes of blood pressure are those which confine the blood within certain bounds and the force which is required to keep it in motion, together, of course, with the ratio of the amount of blood to the confining surface. The heart is the

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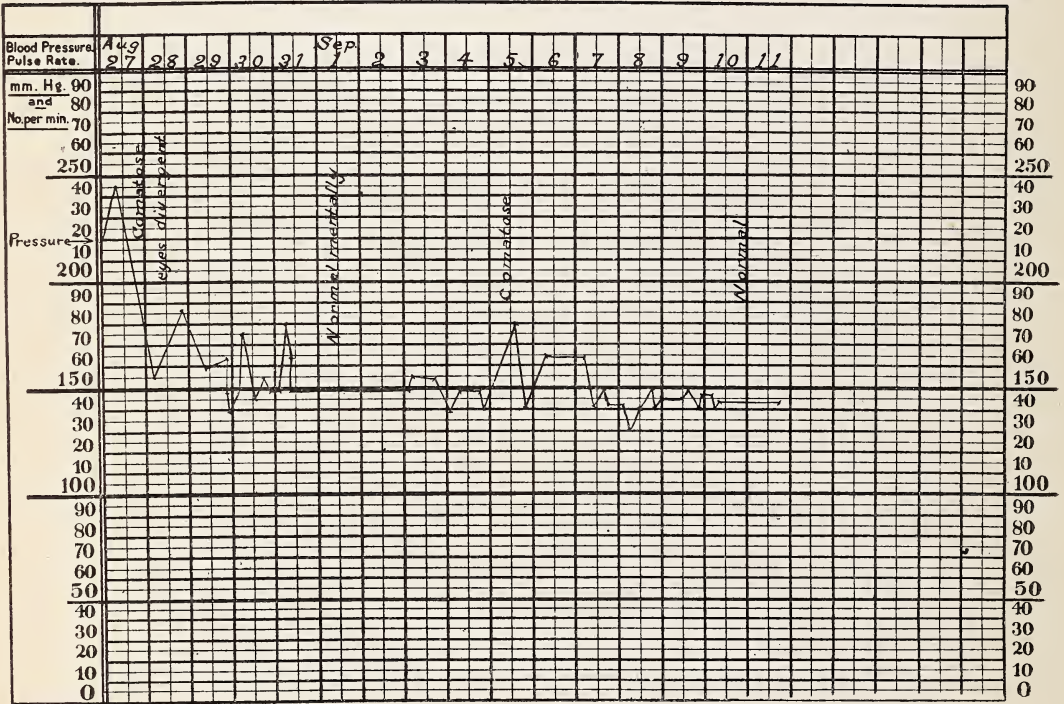
primary source of that energy, the sum and total of which makes up the blood pressure; but while it is the primary source we are tempted to estimate its importance too much to the exclusion of other elements. Changes in the volume and velocity of the output tend to alter the pressure and on the other hand if the pressure is increased the pulse rate is lowered probably through the effect on the vagus center since this effect is not

of abdominal pressure raises the arterial tension, but beyond this point pressure causes a fall in tension because of compression of the veins, lessening the amount of blood received by the heart and consequently a lessened output.

Every blood vessel which has muscle fibre, except in the brain, possesses a tonus which is governed by the vaso-motor nervous system and dilates or contracts the lumen of the vessel, increasing or

Blood-Pressure and Pulse Chart.

Date. _____ Name. _____ Age. 57 Female.



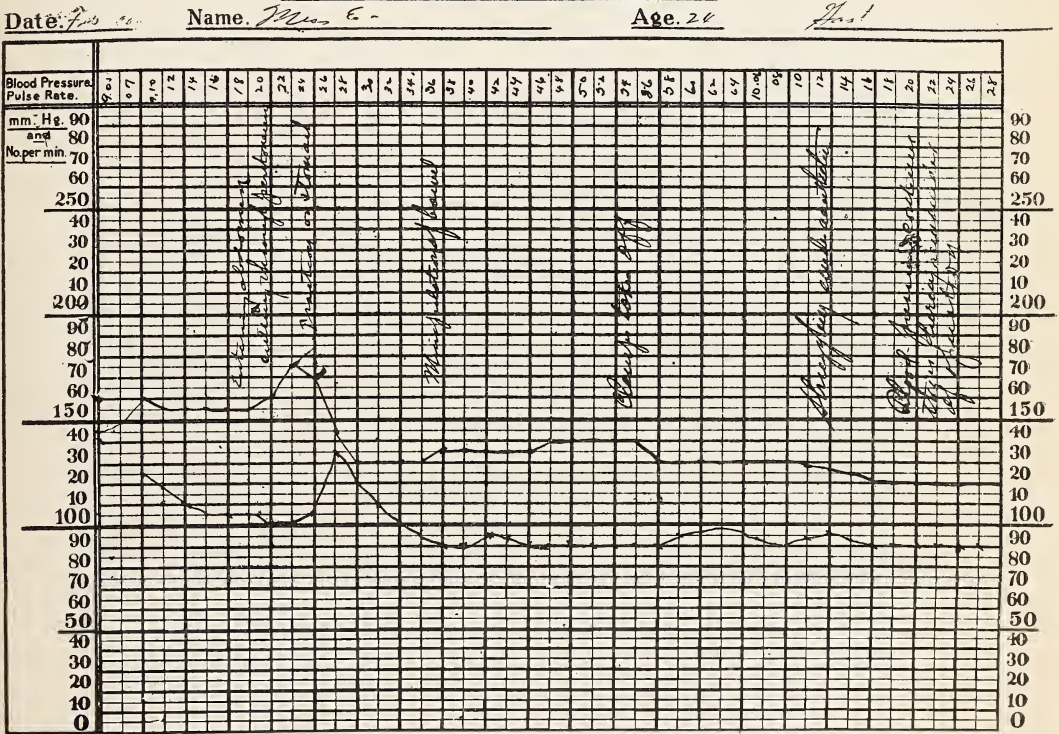
usually produced if the vagus is divided; thus if the heart is sluggishly filled, the force with which it is expelled is also markedly lessened, and of great clinical importance in this respect is the work of such men as Quirin of Germany and Crile of this country, who have done much excellent work along this line as well as other lines of research. They have found that up to a certain point the increasing

decreasing the peripheral resistance. Normally a balance is evenly maintained so that a compensated condition is maintained between the contents and container, but, as I shall emphasize later, if this compensation is broken the blood vessels of the brain being without vaso-motor nerves that organ is in the greatest danger either from hemorrhage if the pressure is high or if low from edema from the sluggish

stream. The vaso-motor tone in the various vascular organs, the kidney excepted, varies constantly with the needs of the organ, keeping a balance between the supply and demand, and an excessive demand in one part must be to a certain extent compensated for in another part, though by the vascular dilatation less force is lost from peripheral resistance and is simply a change in blood distribution which may occur without change in pres-

serious damage may be done in one part—usually the brain—while nature is trying to compensate for an injured mechanism by excessive pressure which she brings in such cases. Along with peripheral resistance as a factor in blood pressure we must consider the viscosity of the blood as it is by reducing this that we accomplish results by the use of potassium iodide, and though the blood vessels are probably not structurally changed yet because of the

Blood-Pressure and Pulse Chart.



sure. In the kidney, on the contrary, the blood vessels dilate and contract according to the poisons contained in the blood to maintain the blood flow necessary for elimination, and if from arterial changes, as we shall mention later, increased pressure is necessary to maintain the required blood flow to produce the excretion of urine in quantity sufficient to keep the body clear, we can see how

lessened viscosity the blood circulates with less resistance and the pressure is lowered.

A point that we must well consider to successfully handle certain cases is the great disproportion between the blood vessel capacity and the volume of blood in the body and its compensation by the contraction of the blood vessels.

Any disturbance which destroys this

tonus allows the blood to be rapidly forced out of the supplying blood vessels with more or less stagnation in the larger vessels and, as we often say, "a man may bleed to death into his own veins," and as we better understand this there will be a lower mortality from so-called surgical shock and other vaso-motor disturbances. Unless there is considerable vaso-motor disturbance the blood vessels will contract so that even a comparatively serious hemorrhage may show only a short duration of fall in pressure.

As to the normal limits to which the pressure may go there is slight difference of opinion among observers. Personally, in the course of several hundred observations, I have not found in a normal adult an excess of 150, nor lower than 100, and I believe that by more careful examination and better developed diagnostic methods we shall bring the normal average to even closer figures if we take into consideration the mental condition of our patient and other elements which may temporarily alter the pressure.

The causes and effect of both supernormal and subnormal pressures are one of the most vital and most interesting studies which confronts the internist or the surgeon. In the normal individual tissue supply, secretions and excretions are carried on with little or no change in pressure because of the compensatory contracting of the vessels in the distal parts and dilatation in the parts supplied unless a considerable demand is made upon the parts of which we shall speak later. Exhaustion, both physical and mental, reduces pressure, while rest and sleep restore, observers claiming that as the time of awakening approaches the pressure nears the normal point and thus nature produces her own remedy for the pathological condition. I should call attention to the fact that in people beyond

middle life some degree of sclerosis is so common that we will find a pressure higher than usual and yet normal for that individual and necessary for the functioning of the various organs and especially the kidneys, and we handicap elimination if we bring the pressure too low in those cases. I have not been able to find a fall of pressure during normal menstruation as reported by Weisner and I believe that normal menstruation and gestation have no effect upon pressure and any rise should be viewed with suspicion and all sources of elimination carefully watched and the sphygmomanometric observations are an additional safeguard to the pregnant woman. Labor raises the pressure by the increased abdominal pressure, offsetting the dangers of chloroform anæsthesia which reduces pressure ordinarily and in some cases of abnormally high pressure or where the arteries are diseased often proves very serviceable as a therapeutic measure aside from the anæsthesia produced in contrast to ether which may raise the tension. I believe sex to have little effect upon pressure.

In the present imperfect pathological knowledge of the cause of arterial degeneration it is difficult to outline with any degree of certainty the etiology which is, I believe, in most cases a chain of causes—the most important perhaps being biochemical—and I would emphasize the effect of our rapid American life with its nerve strain and consequent effect upon metabolism whereby imperfect digestion and constipation, half digested proteids and met-products of the bowel are thrown into the circulation and these with many other factors such as occupation, vicious drug habits and the various diseases form a chain which enter into every life and, in fact, arterio-sclerosis is the climax of all pathogenic changes that have entered into the life of the individual, and I believe a correct knowledge of the etiology will leave little

room for the idea that sclerotic changes occur as the result of functional hypertonicity. The so-called functional hypertension which has been heralded as the cause of much trouble by producing permanent changes in the vessel wall seems to me to be without foundation and simply another way of saying that we have been unable to determine the cause. Most cases of functional hypertension are simply false calls to the vaso-motor center, a simple illustration of which may be had by taking the pressure of a child and then have him imagine himself to be climbing a flight of stairs and if properly done the pressure will be found to be slightly raised by the false call because the vaso-motor center is more under the direct control of the cerebral centers and more susceptible than the other vital or medullary centers. When a mental shock is received or unusual mental activity is required, nature tries to supply the parts with the required increased supply of blood and in order to do this she must, as we have said before, compensate in other parts, but the blood vessels of the brain not being connected with the vaso-motor center is controlled by raising or lowering the pressure of the remainder of the system.

We find cases that do not present superficial sclerosis yet show a constant high tension and on the contrary we see cases of marked hardening of the superficial arteries with no marked rise in the pressure and we then feel like saying that the whole study of the blood pressure is a farce and misleading, but we must remember that the post-mortem table often shows cases with marked superficial sclerosis while the splanchnic vessels show very little change, and on the other hand the superficial vessels may appear normal while the pressure may be high, due to a sclerosis of the splanchnic vessels, for we seldom have a persistent high tension unless the

splanchnic vessels are involved as they are more capable of compensating because of their size. Any small set of vessels may become sclerosed, due to the pathological processes which may have taken place in the parts, and an important example is found in the coronary vessels after some inflammatory cardiac diseases, there being enough toxin to produce local sclerosis and yet not enough when mixed in the general circulation to produce such results.

In acute inflammatory conditions of the kidney the manometer will give but little aid in diagnosis, but as the case approaches an uræmic stage it is of great importance and serves as a guide or warning of the approach of such a condition. It is in chronic nephritis that the blood pressure observations are of inestimable value and could I have but one I should prefer the blood pressure chart to the urinalyses as I have mentioned before the close relation between blood pressure and elimination by the kidneys, and the effect which may be produced in the brain. Renal ptosis or general ptosis is not a disease which effects the system through the kidneys themselves but is only a symptom of that lax condition of the abdominal support of the splanchnic vessels allowing an engorgement by its effect upon the vaso-motor nerves at the expense of the rest of the system, causing nervous and mental symptoms because of the lack of blood supply, and it is the support of the blood column by a properly fitted renal bandage with its effect upon the blood pressure which relieves the symptoms more than the restoration of the organs to their normal position, and we can readily see why surgical measures fail to relieve the symptoms. In many individuals if the manometer shows a low reading it may be explained by a thorough examination of the abdomen while if the ptosis is due to other causes and the vaso-motor tonus

is strong we may find fallen kidneys which have produced no symptoms. The following cases best illustrate the point:

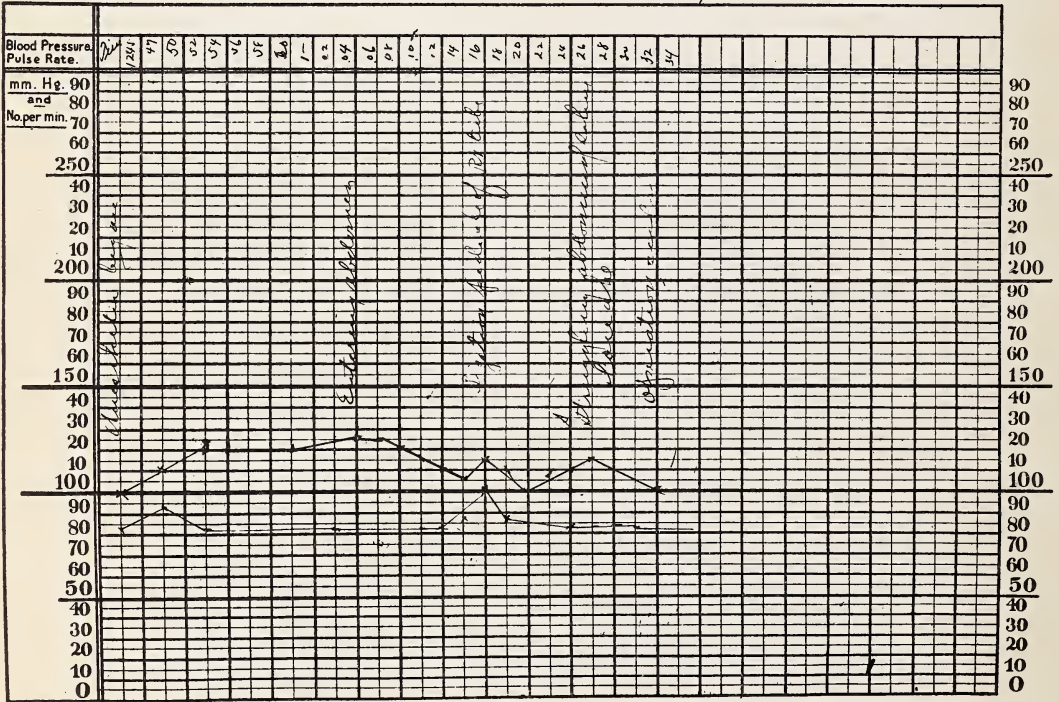
Case 1.—Female, age 52. Arteries show beginning sclerosis, ptosis of both kidneys, the right being more marked than the left, abdominal walls lax and nonsupporting, urine of low specific gravity, no albumin, no sugar, heart normal, blood pressure low, patient very nervous. When I first saw this case, patient was unconscious and

Case 2.—Male, age 42. Abdominal walls normal and giving proper support, blood pressure normal. About one year ago while operating for gall bladder disease I found ptosis of right kidney which could not be felt through the abdominal wall; patient recovered from operation and is doing hard manual labor and in good health.

I do not believe that the study of the subject in nervous and mental diseases

Blood-Pressure and Pulse Chart.

Date Jan 3-1909 Name Miss D. Age 29



remained so four days from an apparent edema of brain; since that time, four years ago, has had one spell which lasted only one day but nearly every day has one or two dizzy spells which are mild and only last a few minutes and are relieved by a drink of cold water which I believe stimulates the vaso-constrictors. Patient has consented to wear a renal bandage and have ordered one to measure.

has been sufficiently worked out so that we may lay down any firm rules, but bearing in mind that many mental disturbances are often the result of insufficient elimination and that nature endeavors to increase it by raising the pressure we will often be set on the right track quicker by the manometric reading than by any other means of diagnosis; and again I want to emphasize that the

finger is worse than useless in taking tension, for it will often mislead and cause the loss of valuable time. I know this from observation in my own work and of the work of others compared with the manometer observations.

The influence of alcohol is not a direct one upon pressure and observations do not show marked effect and while that fact does not lessen the value of alcohol in fevers it does as a remedy, in shock and other forms of vaso-motor collapse. The effect of tobacco is to increase the tension and this fact must be taken into consideration in handling cases of high tension.

The study of blood pressure in surgery and surgical conditions opens a field of immense interest and profit to the surgeon. My own experience in this line has been limited and what I am able to present along this line has been gained more from the experience of others and it is through the courtesy of Drs. Balch and Fulkerson of Kalamazoo that I present the two charts showing the blood pressure during operation, the one on the stomach and the other a pelvic operation. In the experience of every one the rapidity with which nature will restore the pressure after a severe hemorrhage by compensatory contraction of the blood vessels has been brought to notice while the same amount of blood lost by a hemorrhage lasting several days will require several times as long for recuperation because of exhaustion of the vaso-motor center, and not only do we get the effect of the loss of blood which has left the body but through the exhaustion of the vaso-motor system the patient, as we say, bleeds into his larger vessels and the manometer tells us the condition with which we have to deal as it does in collapse and shock, which are allied conditions, and in the treatment of which the saline injections have been used with such marked success because

it filled the vessels until nature gained enough vitality in the vaso-motor center to strike a balance between the contained and the container. In the hands of Turk the intra-gastric bag seems to have accomplished much in the treatment of collapse and shock by its stimulating effect upon the vaso-constrictors, and the stretching of the sphincter and also stimulates the constrictors and raises tension and it is because of this action that in cases of cardiac disease with a high tension that much caution is required in such procedures as compensation may be broken and our patient beyond help in a very short time. Alarming personal experience has impressed the author very forcibly of the dangers spoken of.

The use of the manometer in head injuries and diseases is of great importance, but we can only allude to it here with the statement that a low pressure after injury is a contra indication to early operation and the treatment is more the treatment of shock, there not being enough blood supply to the medulla, while Cushing and other observers consider a high tension an indication for operation for relief of pressure whether there is hemorrhage or not. In differentiating between a paralysis due to hemorrhage and that due to thrombus we find in the former a high tension while in the latter a low tension. The effect of operative procedures upon the brain on pressure are of vital interest to the head surgeon, but can not be discussed here for want of time. In the removal of pleural exudate the pressure is lowered and requires careful watching in marked cases. Crile has reported a moderate rise in pressure in his observation of a series of acute peritonitis which would make pressure observations of prognostic value in appendicitis, typhoid fever and allied diseases. In abdominal operations the skin incision produces a small rise but is followed by a

more marked one upon opening the peritoneal cavity after which there is no marked rise in a short operation unless there is considerable rough manipulation of the viscera. Chloroform reduces the pressure while ether has only a small effect and that is to raise the pressure. I have been unable to find the record of any careful observations made while using hyoscine, morphine and cocaine.

It is not the purpose of this paper to go into detail in regard to the merits of the various apparatus on the market for the measurement of the blood pressure, but since Hale made the first observation by inserting a tube into the crural artery of a horse and connecting it with a vertical glass tube we have developed manometers which, though of course not so accurate as the impossible direct method, yet give comparatively accurate results as compared with direct manometric observations. A few points should be considered in selecting apparatus. With the narrow 5 centimeter armlet in some cases where the arm is large and muscular the results may be misleading and untrustworthy, aside from this I have been unable to find the other objections to the apparatus using the narrow armlet of much importance, as in most cases the systolic pressure is all that is necessary. The manometers which depend upon a spring instead of mercury are not stable and have to be readjusted at intervals which makes them a source of inconvenience and at times unreliable. For an all around apparatus I believe the Stanton to be the most practical and at the same time it gives the diastolic pressure when it is desired. As to the method of taking the reading, ideas differ, some claiming that the point at which the pulse disappears and that at which it reappears are to be taken and the average

of these is to represent the mean pressure and for the unpracticed hand this is a good rule, but as one acquires practice in the work these two points draw very close together if they do not unite, the amount of pressure required to reopen the artery being very small as a rule.

Use your own apparatus.

The idea held by some that even after diagnosis of sclerosis and increased pressure nothing could be done is a reflection upon the science of medicine and far from the truth as in few conditions does a knowledge of physiology and pathology enable one to better accomplish results and add to the average length of life. Most of such cases are due to poor elimination from a handicapped organism, and aconite with thorough catharsis with a saline, preferably magnesium sulphate, will in most cases bring the pressure down below the point of immediate danger and should this fail the use of the coal tar derivatives may be cautiously tried, then by means of those diuretics which act upon the kidney cells as do the potassium salts and these with nitroglycerine will usually hold the pressure below a point which threatens the continuity of the vessel wall.

The diet should consist of nourishing and easily digested foods with only a small percentage of meats. Water should be taken freely, either distilled or some of the mineral waters being preferable. Alcohol even in moderate quantities must be forbidden. In short, the whole effort should be to assist nature in establishing and maintaining a condition of compensation and the patient must be forced to see the necessity of an absolutely moderate life and that there must be no intermissions when the daily routine of moderation in anything shall be broken.

HYDRONEPHROSIS AND PUS PRODUCING INFECTIONS OF THE URINARY TRACT COMPLICATING PREGNANCY*

CLARA M. DAVIS, A. B., M. D.

Lansing, Michigan

The introduction of the cystoscope and ureteral catheterization, and the advance in surgery of the kidney during the last five years, have thrown a new light on the infectious processes in the urinary tract, so that recognition of the milder and more transient cases is now possible, and the frequency of such conditions, as usually happens when diagnosis is made easier,—is found to be greater than was formerly supposed.

That this is a matter of interest to the gynecologist and is accountable for a definite, if small, number of cases, in which lumbar backache and inguinal (usually called "ovarian") pain, with general malaise and occasional slight febrile attacks,—the whole often summed up by the patient as "female trouble," with all the symptoms disappearing coincidentally—with the disappearance of the pus from the urine, the occurrence of two cases in the writer's small practice would seem to suggest.

But it is as a complication of pregnancy that I purpose bringing to your consideration the subjects of this paper, and with your permission I will report the following case:

REPORT OF CASE

At midnight, March 20, 1909, the writer was called to attend the patient, Mrs. C. M. B., whom the mother stated she had just brought home from another city and who was having a miscarriage.

On arriving at the house the following history was obtained—the personal his-

tory as given at this time being rather misleading:

Family history—parents both living. Father had pulmonary tuberculosis as a young man and went, soon after marriage, to the West for his health. Has been able to follow his business as a commercial traveler, but three (3) years ago had a rather severe pulmonary hemorrhage and is not strong. No history obtainable of any genital or urinary involvement, but has times of very frequent, alternating with times of difficult, urination. Mother is forty-one years old and frail—says coccyx was broken in first labor. Five years later and after second labor had abscesses along spine in sacral and coccygeal region, also on neck of uterus which had to be lanced frequently and discharged a large amount of pus. Also had "Bright's disease" with albumin in urine (no microscopic examinations were made), dropsy so extreme that skin of feet cracked open, "spinal trouble," with periods of stupor and unconsciousness and was confined to bed three years.

Does not have dropsy or edema now, and while frail thinks she has recovered with the exception of severe pain at periods and attacks of difficult urination.

One brother is living and well. Otherwise family history is negative.

PERSONAL HISTORY

Age twenty-three years; has always been rather frail; married four years; one child two and one-half years old born at seven and one-half or eighth month. Pregnancy was

*Read before Michigan State Medical Society at Kalamazoo, September 15-16, 1909.

normal except for large amount of lumbar backache and menstruation the first two months. Labor was instrumental and cervix torn and not repaired; slight "inflammation of bladder" with fever one day during puerperium; recovery slow. Menstruated regularly every month although nursing infant and until February, 1908, when periods stopped, and in May, 1908, had a miscarriage (cause unknown) and the attending physician said fetus was a six months' one.

Recovery was uneventful, menstruation regular and in August, 1908, no periods having been missed, patient was suddenly taken with hemorrhage and in a day or two a six weeks' fetus was expelled.

PRESENT PREGNANCY

Patient menstruated last, Oct. 30, 1908, and thinks she may have been pregnant a month earlier. Severe morning nausea during first three months. Life felt March first.

Yesterday morning, March 19, began to have violent pains in right lumbar region—lower abdomen and also low down in back, and as these were paroxysmal in character, lasting from one to two minutes, patient thought she was going to miscarry and called a physician. He examined and found no dilatation, but considered that miscarriage would occur and as mother wished to bring her home gave her some sedative tablets. Patient said that urine was examined and said to be free from albumin. There was no nausea and bowels had moved in morning. Pain since coming to Lansing had steadily increased and she was suffering greatly.

S. P. Patient in bed, dorsal decubitus, complains and looks to be in very great pain, and is very nervous. T. 98.9°, P. 78, skin sallow and pale and dark circles under eyes. Each wrist shows

on posterior surfaces several parallel linear scabs $\frac{3}{8}$ to $\frac{5}{8}$ in. long.

Abdomen is one (1) centimeter below level of ribs, right flank looks a little fuller than left one, fundus uteri 3 fingers above symphysis pubis. No contractions felt—no rigidity of recti muscles—marked tenderness in hypo-chondriac and right inguinal regions—and especially in right lumbar regions posteriorly.

Percussion shows tympany over course of large intestine, slight dullness in right flank.

Vaginal examination,—showed absence of dilatation or discharge—old bilateral tear of cervix with much cicatricial tissue and follicles that feel like shot—cervix 3.5 cm. long—low in vagina, being right against perineum which also shows old internal tear, marked tenderness in right vaginal fornix and posterior cul-de-sac.

As patient had urinated just before I came no specimen could be obtained for examination. No ice could be obtained owing to the lateness of the hour, so heat was ordered—and codein gr. 1, q. hour p. r. n. for pain.

March 21, at 9 A. M.—T. 99.0°, P. 80, good quality, patient had a fair night but had taken codein gr. 1, q. hour, and had suffered pain whenever the effects of the codein wore off. Had $\frac{1}{2}$ glass of milk which had been retained. Vaginal examination showed conditions the same as the previous night. Fetal movements visible and very painful to patient. Right lumbar region is fuller on palpation than left, and tenderness on pressure is extreme. There is also tenderness in the right flank and right hypochondrium, no rigidity of recti, tympany over large intestine and in left flank.

Examination of the chest was negative. At this time the following additional

history was obtained, after assuring the patient that there was no evidence of a miscarriage beginning, and after much questioning.

Patient had scarlet fever in childhood and when 17 or 18 years of age, more or less persistent, and quite severe pain in lumbar region, extending to spine. During the preceding month, February, she had several attacks of pain in the lower lumbar region so severe that she was obliged to lie down for an hour or two at a time. Also although drinking water very freely, she was passing urine scantily, sometimes urinating only twice a day and then only about $\frac{1}{2}$ a cupful at a time.

During February and March, too, the patient said the abdomen grew larger very rapidly (the bulk of the enlargement being on right side), so that she was unable to fasten any of her bands, and was as large as $7\frac{1}{2}$ or 8 months previous pregnancy.

On Monday, March 15, she had a severe nervous shock, and bodily strain, being choked, thrown backwards across bed, body bruised, etc.

The following Friday, March 19th (two days ago), the abdominal enlargement, to use the patient's words "went right down, so the abdomen was flat." Coincidentally without nausea, pain or tenesmus diarrhea ensued, ten or twelve movements occurring within twenty-four hours, the stools being nothing but water.

The same day patient urinated more freely, and on the next morning, the 20th, violent pains began.

As the pain was increasing morphine gr $\frac{1}{4}$ was given and icebag applied to the right lumbar region.

Blood and urine examinations were made that morning and showed the following:

White blood cells 12,500, polymorpho-

nuclears 78%, Hb. 75%, red blood cells 4,100,000.

Urine. Sp. G. 1.017. Color pale tan, turbid with flakes that look like pus, sediment on standing 1.25 cm. deep, reaction acid. Albumin 1-10 volume.

Microscope shows pus cells in enormous numbers. Masses of urinary epithelium, few red blood corpuscles, no casts, actively motile colon bacilli.

Stained smear of sediment showed colon bacilli, and a very few cocci.

Considering now that the conditions were probably originally hydronephrosis, and that pyelonephritis (or pyonephrosis) was present I asked permission to call a surgeon in consultation. The family refused until they could communicate with the patient's father who was out of town and could not be located for several hours. At 5 p. m. I was informed that the pain had suddenly left and the patient was comfortable, and was told that the mother who was somewhat interested in psychotherapy had given her daughter a treatment at about three-thirty, and the pain had stopped at about four. They now refused to have a consultation.

At four-thirty the patient urinated, the urine having been passed in three different portions in different vessels as directed. The three portions were equally turbid on passing, and looked like thin pus, the pus on standing being more than $\frac{1}{3}$ by volume, i. e., $2\frac{1}{2}$ ounces of the 7 ounces voided.

8 P. M.—T. 99 degrees, P. 78. Patient comfortable. Strict milk diet with water in large quantities ordered, and enema tomorrow morning if bowels have not moved. Also Hexamethylenamine gr. 5 q. 4 hrs.

March 22. A. M.—T. 99°, P. 78. Enema resulted in large stool, partly clay colored, partly dark, very offensive. Quantity

of urine in 24 hours, 750 cc. There was still a large amount of pus and albumin, and under the microscope many plugs of pus, a little larger than casts, and large masses of epithelium were seen. Patient had passed a good night without any severe pain, although there was moderate continuous aching in the right lumbar region. Tenderness was about as before. That evening, 5:30 or 7:30, the patient had severe pain in right lumbar region again which however stopped without any opiate or psychotherapeutic treatment.

March 23.—T. 99°, P. 78. No change in the findings on physical examination. Patient had passed a good night, and a good bowel movement. During this day there was a slight vesical tenesmus for an hour or so, and from 10 a. m. to 4 p. m. severe pain in the right lumbar regions which was relieved by gr. $\frac{1}{4}$ of morphine sulphate given by mouth. Twenty-four hours' quantity of urine was 900 cc, the quantity of pus and albumin being practically unchanged.

March 25.—T. 98.8°, P. 76. On examination tenderness was less and light, soft, meat-free diet was ordered.

Blood examination showed: Hb. 70%; reds 4,000,000; whites 9,200. Twenty-four hours urine was 1,280 cc., slight decrease in amount of pus and albumin. On this day methylene blue was given, gr. 5. This appeared in the urine passed six hours later.

From this time on until labor, which occurred July 20th, the urine examinations, which were made bi-weekly, showed an average daily quantity of 1,200 to 1,450 cc. S. G. from 1.012 to 1.017 and the quantity of albumin and pus steadily diminished, until the former disappeared. A large number of leucocytes were found, however, until labor and after. For a number of days after the dose of methylene blue was given, blue stained plugs of pus and

masses of epithelium continued to appear in the urine.

This appearance of methylene blue in the pus after the urine has ceased to show color, is stated by Edwin Beer to occur only in pyelonephritis, not in simple pyelitis, but I have been unable to find records of others' work confirming this.

Cystoscopic examination and ureteral catheterization were urged from the first but refused by the patient.

The patient sat up in about ten days and was about the house until her confinement. The tenderness in the right flank persisted for over eight weeks, and recurred after labor for about two weeks.

The blood showed progressive anemia; Hb. falling to 65%, reds to 3,400,000, whites counting from 7,000 to 9,000; during three weeks in May 12,000 to 14,000, dropping again to about 7,000. Evening temperature was 99° to 99.8°. P. 80 to 88.

Patient was very pale, ears looked waxy, there was a slight edema of face and ankles, severe attacks of facial neuralgia, and after sinking of the uterus, which occurred June 19th, edema of the vulva and difficulty in emptying the bladder except in the knee-chest position.

Labor was normal in every way, occurred at full term and an eight and one-half pound infant was delivered in good condition; vertex R. O. A.

Through a misunderstanding the first urine passed by the infant was not saved, so that it could not be tested for methylene compounds, but no blue stains were seen on the napkins.

During the first few days of the puerperium tenderness in the right flank was extreme and there was some recurrence of pain in the right lumbar region.

The urine showed a small amount of albumin during the first week and up to

the present still shows a moderate number of leucocytes. The blood has shown a steady improvement and the patient has, seemingly, made a good recovery and nurses her infant.

Systolic Blood Pressure (Cook's Instrument) was 122, June 25th.

The opthalgo-reaction to tuberculin was negative.

The pelvic measurements were { Intercrestal, 29.5
Interspinous, 26
External Conjugate 19.5

The interesting points of the case are:

1. The family history of long standing tuberculosis in the father and abscesses and "Bright's disease" with dropsy in the mother.

2. The importance of a correct anabasis and the difficulty of getting it in this case, owing to the fact that the patient and family had settled on a diagnosis of miscarriage.

3. The relation of the traumatism to the disappearance of the hydronephrosis and the subsequent course of the case.

4. Psycho-therapeutic treatment given by the mother with the coincident disappearance of pain, the sudden appearance at about this time of large quantities of pus in the urine, showing that cessation of pain was due, not to the mental treatment, but to the free drainage of pus, and illustrating how carefully cases should be scrutinized in which mental treatments are assigned as causes of relief of pain or cure of disease.

5. The importance for diagnosis of a microscopic examination of the urine in all cases of severe abdominal or pelvic pain in pregnant women.

6. Absence of bladder involvement throughout.

7. Benign course in the absence of any but the simplest treatment.

8. Normal character of the labor which occurred at full term, and the prompt convalescence.

CONSIDERATION OF THE SUBJECT IN GENERAL

That the dictum of Hirst "that pyelonephritis has the history of other infectious diseases, *viz.*, is aggravated by pregnancy and reacts unfavorably upon it" is correct, can, the writer thinks, hardly be doubted.

In support of this may be offered the facts that, as shown by the literature, it tends to recur with successive pregnancies, that at times it necessitates emptying the uterus, that it has involved such procedures as nephrotomy and nephrectomy, that fetal mortality is given as high as from forty to sixty per cent, and that a fatal outcome for the mother has resulted in a certain number of reported cases.

In view of these things the statement of Peterson and Cragin that the presence of such disease is a contraindication to marriage and pregnancy would seem to be correct.

That pyelonephritis occurs in pregnant women who have not had the disease before and in such has been cured by terminating the pregnancy and that it has been known to recur with successive pregnancies, the patient being free from the disease when not pregnant, are evidence that pregnancy is a true etiological factor. At least two theories have been advanced in regard to this, *viz.*, the theory of compression of the ureters and that of toxemia lowering the resistance of the kidneys.

Compression Theory—This is that the predisposing cause is the lowered vitality of the ureter and kidney (usually the right) due to compression of the ureter by the pregnant uterus especially in contracted pelvis.

The reasons for the more frequent in-

volvement of the right side as given by Cragin are—

(1) Rotation of the uterus on its long axis so that it tends to lie in the right oblique diameter of the pelvis, thus presenting the more room as the rectum encroaches on the left oblique diameter.

(2) In the latter months of pregnancy the fetal head lies more often in the right oblique diameter than in the left.

(3) As the pregnant uterus grows it tends to displace the ureters to the sides of the pelvis against which it compresses them. As the uterus usually develops more to the right than to the left, the compression is usually greater on the right side.

Cragin also claims that autopsies on pregnant and recently delivered women show that one ureter is frequently dilated, sometimes both.

Toxemia Theory—C. B. Reed states this as follows: "Pyelonephritis may be regarded as a distinct disease of gestation due to degenerative changes in the renal epithelium and parenchyma resulting from the transudation or excretion of the toxins of pregnancy through the kidney tissues, plus bacterial invasion, probably of vesical origin. The character of these changes should be such as accompany the kidney of pregnancy."

While *B. Coli Communis* is accepted as the usual infecting agent, it is by no means agreed as to how infection occurs, some considering that it is an ascending infection from a previously infected bladder, others that it is a descending infection coming from the blood stream by way of the kidney, and others, again, that it is propagated directly from the intestine. It seems to the writer that it might occur in any of the above ways.

On the other hand, hydronephrosis is commonly conceded to be due, when appearing in pregnancy, to compression of a ureter by the pregnant (often displaced)

uterus, and in the case just reported, compression of the right ureter with ensuing hydronephrosis, traumatism, and colon bacillus infection directly from the intestine, seems very probably to have been the course of events.

DIAGNOSIS

Pyelonephritis occurring in pregnancy has been more frequently confused with appendicitis than with any other condition, owing to the frequency of pain in the right iliac region. A. Sippel is of the opinion that many cases escape recognition or are diagnosed appendicitis and cites one case operated on under that belief. It has also been confused with gall stone colic and extra-uterine pregnancy.

As the symptomatology is obscure, the importance of a microscopical examination of the urine, if not in every case of pregnancy, at least in every case of severe abdominal pain in the pregnant woman, is at once apparent, and in conjunction with lumbar tenderness, fever and leucocytosis, the presence of pus and albumin in the urine settles the diagnosis.

In the literature examined no instance was found in which the condition had been mistaken for a beginning miscarriage. A hydronephrosis developing in pregnancy should not offer much difficulty in the way of diagnosis.

PROGNOSIS

On *a priori* grounds the prognosis of these troubles might be considered to be that of the same diseases under ordinary conditions plus the added risks entailed by pregnancy. It is interesting, therefore, to note that Edgar and Reed consider pyelonephritis a relatively mild affection rarely requiring more than conservative treatment, and it is not infrequently referred to as a self-limited disease lasting about two weeks.

Such a view seems to the writer hardly

warranted in a condition in which the usefulness of one kidney, and that at a time of unusual demands upon kidney capacity, may be greatly impaired and the patient forced to fight infection as well. The possible necessity of a major operation, as nephrectomy, or nephrotomy, would also place it among the serious complications of pregnancy and incline one to believe that if not alleviated it may prove fatal.

The fetal mortality is given at from 20% (Cadwallader) to 60%.

TREATMENT

Since a large number of cases will recover under conservative treatment, this should be tried except in cases seen late or those with urgent symptoms and signs. It consists in confinement to bed (position considered very important), the patient lying on the side opposite to the one involved to facilitate drainage, large quantities of fluids by mouth, urinary antiseptics, attention to the bowels and strict milk diet followed by light meat-free diet as patient improves.

The probability of danger to the other kidney should be kept in mind in conservative treatment, and in event of persistence of high leucocyte count, fever, lumbar pain, radical intervention by (1) induction of labor, or (2) nephrotomy or nephrectomy is indicated.

Since the object in view in either case is drainage, the kidney operation would seem to offer the surest means, besides giving a chance for the life of the child.

Ureteral catheterization should be done whenever possible in these cases, in order to determine the presence of one unaffected kidney when operation is to be considered and to give information as to the patency of the ureter for drainage, and the possible fatal inefficiency of the kidneys for continuing pregnancy in cases under conservative treatment.

It would also seem that if the catheterization were successful, renal lavage might give good results.

I have not in a somewhat brief survey of literature been able to find reports of ureteral examinations in pregnant women during various months of pregnancy, but think such might furnish interesting data.

In conclusion, further careful study of these cases is needed, especially in regard to the various etiological factors, and involves, (1) Study of course of pregnancy in women who have a known cystitis without pyelonephritis at time of conception.

(2) Pelvic measurements in cases of hydronephrosis and pyelonephritis in pregnancy to determine whether pelvic contraction is more common in these cases than in normal cases.

(3) Ureteral examinations to determine the question of pressure of ureters as a factor.

(4) Autopsies in fatal cases.

The literature of pyelonephritis and similar complications of pregnancy falls naturally into two classes, i. e., that of books on Pregnancy and Obstetrics, representing the specialists and teachers; and journal articles and case reports representing the recent experience of the profession at large.

In general it may be stated that there is no uniformity of opinion as to the frequency of occurrence, etiology, treatment, or prognosis for mother and child respectively.

The American Text Book of Obstetrics makes no mention of any of the conditions with the exception of pyelonephritis as a possible ascending infection from a primarily infected bladder.

Davis in his Treatise on Obstetrics for Students and Practitioners (2d edition) merely mentions that pressure on the ureters may occur, especially in cases of

contracted pelvis, causing dilatation, leading ultimately to inflammation.

Cadwallader, in the Handbook of Obstetrics, states that "Pyelonephritis (1) occurs later in pregnancy; (2) is easily confused with appendicitis; (3) the prognosis is grave; (4) 20% abort spontaneously; (5) conservative treatment is indicated, but (6) emptying the uterus will be necessary in many cases.

Edgar, Practice of Obstetrics, 3rd edition, says, of pyelitis, that "it is very rare during pregnancy, being far more common in the puerperium," and in considering pyelonephritis says: "(1) the etiology is entirely obscure, as compression of the ureters will not account for the lesion, and mentions that the bacillus-coli-communis is said by some to be responsible, it being held even that it gains access to the urinary tract by direct propagation from the intestine; (2) that it occurs any time after the fourth month of pregnancy; (3) that the symptomatology is obscure and diagnosis made by exclusion of cystitis; (4) that it persists till pregnancy is terminated and may recur with successive pregnancies, but does not seem to be severe enough to require the induction of abortion; (5) the treatment is conservative." Of hydronephrosis he says: "It may occur as a result of pressure on the ureters. The treatment should be replacement of the uterus or kidney and they should be held in place if possible. Interruption of pregnancy usually occurs."

Hirst, Text Book of Obstetrics, 5th edition, says that pyelitis has the history of all infectious diseases, viz., it is aggravated by pregnancy and it reacts unfavorably on it. He considers that it rarely develops primarily in pregnancy—that pressure on the ureters is the immediate cause; that induction of labor is indicated in the presence of (1) high leucocyte count; (2) fever; (3) large amounts of pus in the urine; and that spontaneous recovery after

labor is the rule, that premature expulsion of the fetus is apt to occur.

Hirst also mentions hydronephrosis as a complication of pregnancy, saying that a displaced and adherent uterus may occlude the ureters with this result.

Peterson in "A Text Book of Obstetrics in Original Contributions by American Authors," says: "Pyelonephritis and pyonephrosis are not common in pregnancy." Their probable etiology is compression of the ureters with an ascending infection from the bladder. It usually occurs when pregnancy is well advanced; the symptoms are unilateral; the prognosis of previously existing disease is made distinctly worse by concomitant pregnancy; that the treatment is conservative, i. e., medical and hygienic, with nephrotomy or nephrectomy if indicated, evacuation of the uterus being ineffectual, and finally it is stated that the presence of such a disease in a non-pregnant woman is a contra-indication to marriage or pregnancy.

Hydronephrosis is also mentioned as occurring not uncommonly in a slight degree in the latter part of pregnancy, while acute hydronephrosis occurs occasionally associated with a reverted uterus.

Williams, Text Book of Obstetrics, mentions a series of twenty-three cases reported in 1899, in *Philadelphia Medical Journal*, and concludes that it occurs in the latter half of pregnancy, that the etiology is compression of the ureters by the pregnant uterus, plus infection either ascending from the bladder or through the blood stream. That the disease may prove fatal if not alleviated, that the treatment is medical and hygienic, and if the condition becomes alarming premature labor should be induced for the sake of relieving pressure and getting drainage. He mentions two personal cases in which this has been done with good results.

The Journal of the Michigan State Medical Society

All communications relative to exchanges, books for review, manuscripts, advertising and subscriptions should be addressed to Wilfrid Haughey, A. M., M. D., Editor, 15 East Main Street, Battle Creek, Michigan. The Society does not hold itself responsible for opinions expressed in original papers, discussions or communications.

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APRIL

EDITORIAL

Of course questions of priority and credit are of minor importance, but for the sake of their own scientific standing, investigators should be scrupulously careful to give due credit to their predecessors and should avoid the inaccuracy and injustice of giving to one man the credit of another's work.

Editorial Journal A. M. A., Jan. 29, 1910, p. 380.

The Council on Pharmacy and Chemistry—“It was also due to his (Dr. Simmons’) constructive genius that the now celebrated Council on Pharmacy and Chemistry was organized, the efforts of which have been mainly devoted to the investigation and exposure of fraudulent proprietary medicine whether advertised to the profession or the laity.”—*Quoted editorially by the Journal M. S. M. S., Feb. 1910, p. 79, from the Midland Druggist and Pharmaceutical Review, Dec. 1910.*

We here group for the information of all interested, the official records at our command, bearing upon the establishment of the Council on Pharmacy and Chemistry.

Realizing the confusion that exists relative to the ethical status of the various medicinal preparations, especially with reference to their use by the medical profession and their appearance in the advertising pages of THE JOURNAL, and being also impressed with the desirability, if not necessity, of subjecting the entire question to a careful scrutiny in order to

reach an intelligent conclusion as to what articles are not in accord with the ethics of medicine and pharmacy, THE JOURNAL this week begins a series of papers on the relations of pharmacy and medicine. It is proposed to make a careful survey of the entire field, and to present the various phases of the many interests involved, including those of the advertiser and the readers of THE JOURNAL. What medicinal preparations shall be admitted to, and what debarred from, the advertising pages of a scientific medical journal is a vexed question, but the ever increasing number of preparations—many of which are secret nostrums—that are being foisted on the profession, makes it expedient that an answer be found if it is possible to find one. That the question is one full of interest to many is manifest by the large number of personal communications we have received on the subject since the appearance in THE JOURNAL, three weeks ago, of the Editorial, “What Shall We Class as Ethical Preparations.”—*Editorial, Journal A. M. A., Apr. 21, 1900, p. 1008.*

. . . It is therefore not only desirable, but a medical necessity, that a systematic attempt should be made to evolve a plan whereby the legitimate remedies of this class may be made to respond to the ethics of medicine and the requirements of scientific pharmacy.—*Journal A. M. A., Apr. 21, 1900, p. 988.*

A committee of control, as already proposed, would be of great service in protecting inventors and determining the status of the medicinal articles.—*Journal A. M. A., May 26, 1900, p. 1329.*

When some two months ago THE JOURNAL announced its intention to subject the matter of proprietary medicines to a thor-

ough investigation, it realized that the task was a difficult one. While sporadic attempts have been made from time to time, by medical associations and by medical journals, but little progress has been made in checking the evils complained of and, in fact, but little light has so far been shed on the subject. . . .

The necessity for this departure needs neither explanation nor apology. The members of the medical profession have a right to demand that THE JOURNAL should at all times furnish such information as may be necessary to keep them informed on everything that is of practical value and, as far as is practicable, to expose charlatanism, deception and quakery. . . .

It may be interesting to some to know that the policy of refusing to accept advertisements of secret nostrums has already resulted in an annual loss to THE JOURNAL of over \$8000. While a still further financial loss must come, there need be no fear as to THE JOURNAL being able to live on. In any event it will not shrink from the task it has assumed, nor permit any withdrawal of support or patronage of its pages to cause it to swerve from its position that secret medicinal preparations are incompatible with scientific medicine and rational therapeutics.—*Editorial, Journal A. M. A., June 2, 1900, p. 1420.*

Closely related to this (Journal Advertising) is our exact knowledge of the goods offered the medical profession and laity. Notoriously both parties are being humbugged by the sharp practices of commercial houses. To escape this a "clearing house" is a necessity. Such a house is beyond the reach of the Michigan State Medical Society but within that of the American Medical Association. It is suggested that the Michigan House of Delegates instruct its delegates to the A. M. A. to urge that body to establish such a "clear-

ing house" in connection with its *Journal*. Beginning in a modest way, it would secure an analyst of capability, honesty and fearlessness beyond question, to examine one after the other, drugs and preparations of unknown composition, yet widely advertised and sold. Probably lawsuits might follow, but if the work were legally done there need be no fear of the outcome. Such "clearing house" would strengthen the organization by practically exhibiting its willingness to do that which aided every doctor in knowing the nature of his daily tools, and so reducing his chances of failure. Such a clearing house would make it easier for both national and state journals to admit to their advertising pages those things helpful to the doctor. There is no reason why the organ of the medical profession of the United States should not aggressively give battle to the enemies of said profession. Medicinal agents of unknown composition are not the least of these.—*Learius Connor: Report of the Council to the House of Delegates, 39th Annual Session, Michigan State Medical Society. The Journal M. S. M. S., July, 1904, p. 306.*

Resolution by H. O. Walker, Detroit. "Clearing House for Medical Supplies of Unknown Composition."

Whereas, an exact knowledge of the composition and properties of substances used in the management of disease is essential to a physician's best success;

Whereas, commercial push, by advertisements and drummers, persuades many physicians (often the very elect) to use and commend drugs, mineral waters, artificial foods, etc., of unknown composition and effect;

Whereas, as it is impossible for the individual physician to verify the statements of sales agents, to separate fact from fancy, he often uses substances quite un-

like those indicated, to the discredit of himself and his art;

Whereas, the American Medical Association was organized to promote the exact knowledge and intelligent practice of its members;

Resolved, that the Board of Trustees, A. M. A., is hereby instructed to provide for the analysis of medicinal substances of unknown composition and undetermined effects and to promptly publish the results in the Association Journal.

Resolved, that the board of Trustees, A. M. A., be instructed to appoint a "Journal Clearing House Commission," three in number, to serve without salary, with authority to employ one or more competent experts, and to equip a suitable laboratory, at a yearly expense not to exceed five thousand dollars.—*Referred to Business Committee.*

"We endorse the recommendation of the Council and the resolution offered by Dr. H. O. Walker that our delegates to the A. M. A. be instructed to use their influence towards establishing a "Clearing House" in connection with THE JOURNAL in order that drugs and preparations may be examined by a competent analyst."—*Report of Business Committee, accepted and adopted. Journal M. S. M. S., July, 1904, p. 300.*

Dr. H. O. Walker of Michigan presented a preamble and resolutions which were unanimously adopted by the Michigan State Medical Society, May, 25, 1904.

(For resolutions see above.)

Dr. Harold N. Moyer, Illinois, moved that the resolutions be referred, first, to the Reference Committee on Medical Legislation. Seconded.

Dr. Harris, New York, moved as an amendment that the resolutions be referred to the Committee on the Establishment of a National Bureau of Medicines

and Foods, and that action be postponed until after the report of that Committee on allied subjects. Seconded.

Dr. Moyer accepted the amendment, and the motion as amended was carried.—*Journal A. M. A., June 11, 1904, p. 1576-7.*

Dr. Moyer, Illinois, renewed his previous motion that the resolutions offered by Dr. Walker of Michigan, on the report of the Committee on the establishment of a National Bureau of Medicines and Foods (provisional committee) be referred to the Reference Committee on National Legislation. Seconded and carried.—*Journal A. M. A., June 11, 1904, p. 1579.*

Report Reference Committee on National Legislation. Journal Clearing House Commission rejected.—He further reported instructions that the report on the communication from the Michigan State Medical Society was laid on the table. . . .

On motion of Dr. F. W. MacRae the report of the committee of the whole was adopted.—*Journal A. M. A., June 18, 1904, p. 1644.*

Five years ago we published a series of articles on "The Relation of Pharmacy to the Medical Profession." . . . The remedy suggested was a Board of Control to be composed of pharmacists and chemists, which should pass on all medicines offered for insertion in the advertising pages of THE JOURNAL. . . . Although its execution was deferred, the idea has never been abandoned, but has been kept in view ever since. For more than a year this idea has been under consideration and development. . . . In a quiet way tests were made regarding the practical working of the proposed plan, as it affected certain phases of the question and certain articles, and full consideration was given to the results to be expected, as well as to the possibilities and to the limitations,

before the Board of Trustees finally authorized the creation of the Council of Pharmacy and Chemistry, the name adopted, rather than "Board of Control," as originally suggested. . . .

The Board of Trustees at a meeting held Feb. 3, 1905, created by resolution an advisory board to be known as the Council on Pharmacy and Chemistry of the American Medical Association. The organization of the council was perfected at Pittsburgh, Pa., Feb. 11, 1905.—*Editorial Journal*, A. M. A., Mar. 5, p. 719.

Detroit, Mich. Mar. 4, 1905.

TO THE EDITOR:—I have just read the matter regarding the Council on Pharmacy and Chemistry. This meets the requests of the Michigan State Medical Society presented at the last session of the House of Delegates of the American Medical Association. The Board of Trustees has appointed a "clearing house for unknown medicinal products." The difference in name does not matter, the idea is identical.

I am sure that you have thus done much to promote organization of the profession. You have started an active effort to help it in some of its perplexities—a help which it will appreciate. Then you have made it possible to place the advertising pages of THE JOURNAL of the Association on a scientific basis—thus furnishing a standard for the new medical journals—and for all medical journals that are willing to be guided by intelligence. It is most gratifying to note that it has been possible to secure the best men in the United States to go on the Council, men whose signatures will have the weight of honest experts, men who can be trusted both for their knowledge and for fair treatment. Further I approve of having a laboratory in connection with THE JOURNAL with competent men working therein—to help separ-

ate the true from the false, the helpful from trash.

Medicine has fallen much in esteem because physicians have been so ignorant of what they prescribed. Now the national organization has decided to make it easy to escape the thralldom of such ignorance—hence medicine must rise again to its normal power. I congratulate you on the movement.

LEARTUS CONNOR.

Correspondence Journal A. M. A., Mar. 11, 1905, p. 805.

Undoubtedly this (composition of ethical and non-ethical preparations) was realized by the Michigan State Medical Society which in 1904 adopted resolutions asking that the Board of Trustees of the American Medical Association create a "clearing house commission which should provide for the analysis of medical substances of unknown composition and undetermined effects and should have analyses made in reliable laboratories, or should equip a suitable laboratory and should employ one or more competent experts." These resolutions were presented to the House of Delegates of the American Medical Association last year and were referred to the Board of Trustees, but no definite action was taken at that time.

Five years ago a proposition was made to create a body to be called a "Board of Control," to be composed of pharmacists and chemists, which should pass on all advertisements of medicines offered to THE JOURNAL, but at that time the plan was not considered feasible. At our February meeting, after giving the matter full consideration, the Board tentatively created a body to be called the Council on Pharmacy and Chemistry of the American Medical Association, combining in this the principle recommended by the Michigan State Medical Society with that underly-

ing proposition to create a "Board of Control" five years ago.—*Report Board of Trustees to the House of Delegates A. M. A., 1905, Journal A. M. A., July 22, 1905, p. 265.*

H. O. Walker, Detroit, presented the following resolutions:

Whereas, Last year the Michigan State Medical Society urged the American Medical Association to provide means for determining the exact composition of medicinal supplies of proprietary substances, in general use, and for publishing the same;

Whereas, Said A. M. A. has established a "Council of Chemistry and Pharmacy" for this purpose, composed of persons both competent and trustworthy;

Whereas, The results already published, foreshadow the great importance of the work, as indicated by the approval of friends, and howls of these fattening on the ways "that are dark" in pharmacy;

Resolved, That the thanks of the Michigan State Medical Society be extended to the American Medical Association for putting into practical operation its request, at so early a date, and in so admirable a manner.

Resolved, That we urge the Council to push its studies of medicines of unknown composition, as rapidly as possible, and publish the same, that the individual doctor may better know his tools, that medical journals may have a correct standard in regulating their advertising pages, that honest, open pharmacy may be encouraged, and that outsiders may be attracted to organizations which thus are trying to help them in their work.

Resolution supported and adopted.—*General Meeting, 40th Annual Session Michigan State Medical Society, Journal M. S. M. S., Sept. 1905, p. 447.*

mation has reached this office which seems to show that in the years between 1894 and 1900, Dr. Chas. T. McClintock was proposing and discussing the same work that the Council on Pharmacy and Chemistry is now doing.

DR. FLEMMING CARROW

In common with the profession generally throughout the State, we have received the announcement that Dr. Flemming Carrow, of Detroit, has entered into a partnership with Dr. L. E. Grant, for the practice of medicine, limited to diseases of the eye and ear. This announcement precedes one which will appear later, saying that Dr. Carrow has permanently withdrawn from practice, Dr. Grant being his successor.

Dr. Carrow has been prominently identified with medical and political matters in the State for twenty years past. He returned from China, where he had been a surgeon in the public service of that country for a number of years, and was called to the chair of Ophthalmology in the University of Michigan, succeeding the late Dr. Frothingham, in 1889. His energies were devoted to teaching and the management of a large ophthalmic practice in Ann Arbor, until 1904, when he resigned to engage in private practice in Detroit. The University conferred upon him the honorary degree of A. M. in 1902, in recognition of his services and attainments. His surgical work while in China was recognized by the French and Portuguese governments by special diplomas, and by the College of Physicians and Surgeons of Philadelphia for work done on the subject of foot-binding by the Chinese. In Detroit he has been honored by appointment as Consulting Ophthalmologist to Harper Hospital, and Governor Warner, in 1908, placed him on the Board of Reg-

Since the foregoing was in type, infor-

istration in medicine in this state. He has been especially commissioned by the Governor to represent the State at various meetings of an educational character during the past three years. He will retire this coming autumn to his property in the State of Washington to pass the remainder of his life in literary work. Dr. Carrow has been a contributor to medical literature for many years, and wrote the article on Diseases of the Vitreous Humor in the American Text Book of Diseases of the Eye, published by Saunders of Philadelphia.

MEDICAL DEFENSE

At a recent meeting of the New York State Medical Society, James Taylor Lewis, counsel for the Society since the inauguration of its work in medical defense, in 1900, reported that he had handled a total of over 250 cases, of which 138 had gone to actual trial. Every case but one resulted in favor of the defendant physician, and this case is now on appeal, with a confident expectation of a retrial and ultimate victory. Not one dollar of damages has ever been paid.

Such a record of success as this is the best answer to the critical queries of "Will it work," and "How can it be done with so little money?" Our Michigan plan is identical in its essentials with the New York plan, and with equal support from the profession, will accomplish equal results for the Michigan profession.

The Medico-Legal Committee report that *four cases* have already been brought to their notice. One case is brought for alleged malpractice against an infant, *over four years ago*, and under the Michigan law such an action survives until the babe becomes of age. No insurance policy would provide for such a contingency, but cooperative defense can and will protect the doctor in this case. Another member is charged with assault, not as a criminal

offense, but damages are asked, as in a malpractice case. One of the Physicians' Insurance Companies refused assistance on the ground that the charge was not malpractice, but the Medico-Legal Committee would have handled this case, had it not arisen before their work began, because such an attack against the reputation of a doctor (his co-workers believe it blackmail) is an attack upon the profession as a whole, and if ignored, would lead to the bringing of many other cases of a similar nature. Hence as a preventive measure, the Medico-Legal Committee should defend the action.

A third case has arisen in Lenawee County, against an able practitioner, who is sued for non-union of a compound comminuted fracture of the forearm. Neither negligence nor incompetence can be shown, but the doctor is blamed for a result, which in the light of all experience, is absolutely unavoidable. We hope by this work to eventually educate the laity and especially the profession, to the fact that bad results do not constitute malpractice. If the profession alone once learn this, and refuse to endorse and support the claims of dissatisfied patients, malpractice suits will become a rarity, because cases with legal basis are rare indeed.

ANNUAL MEETING OF THE AMERICAN MEDICAL ASSOCIATION AT ST. LOUIS

For the Annual Meeting of the American Medical Association, to be held at St. Louis, Mo., June 7 to 10, 1910, inclusive, Central Passenger Association Lines have authorized one and one half fare for the round trip from all points in the Lower Peninsula of Michigan.

Tickets will be on sale June 4, 5, 6, 7 and 8, 1910, good for return so as to reach original starting point not later than June

20, 1910. Passengers desiring a longer return limit can have their tickets extended at St. Louis by depositing same with Mr. F. C. Donald, Special Agent, not later than 12 o'clock noon of June 20th, and upon payment of extension fee of \$1.00 at time of deposit, thus entitling passengers to reach original starting point not later than July 20, 1910.

The Michigan Central and Illinois Central Railroads will run special sleepers leaving Detroit for St. Louis at 1:40 p. m. June 6, arriving at St. Louis 7:24 a. m. next morning.

The above route is most centrally located for all points in Michigan, as it provides for convenient connections with this train in Michigan at Ann Arbor, Jackson, Battle Creek, Kalamazoo and Niles, arriving at and departing from Illinois Central Station at Chicago, thus avoiding transfer.

Wherever convenient connections cannot be made, doctors and their friends can join the Michigan delegation at Chicago, leaving on the Illinois Central's 10:15 p. m. train for St. Louis, June 6th.

A large representation is anticipated. Sleeping car reservations may be made through the State Secretary at Battle Creek.

IN MEMORIAM

Dr. M. P. Fogleson, of Harvard, for some years a member of the Michigan State and Montcalm County Medical Society, died Jan. 26, 1910, of catarrhal jaundice, aged sixty-two.

He was born in Frederick, Ohio, in 1847. Ten years ago he came to Michigan and settled in Harvard, Kent County, where he enjoyed a large practice.

Dr. James M. Elliott was born at Yankee Springs in Barry County, Mich., Sept. 5,

1846. When he was two years old his parents removed to Hickory Corners, Mich. His preparatory training consisted of studies in the district school in Hickory Corners and in the Kalamazoo Baptist College from 1864 to 1866. In 1867 he took a course of lectures in Medicine at Ann Arbor. In 1868 he attended the Long Island Medical College in Brooklyn, N. Y., from which he was graduated. Since 1868 he has practiced his profession in Hickory Corners, Mich., with the exception of one year spent in Clinton, Iowa. In 1908 he removed to Battle Creek, where he has since resided.

Dr. Elliott was married in 1872 to Miss Ida C. Johnson. She died in 1880, leaving two children, Dr. James A. Elliott, of Battle Creek, and Fred H. Elliott, of Hickory Corners. In 1882 he married Miss Susan Court-right of Hickory Corners, who survives him.

He was a charter member and ex-president of the Kalamazoo Academy of Medicine, member of the Calhoun County Medical Society and the Battle Creek Medical Club, of the Michigan State Medical Society and of the American Medical Association. In all of these associations he was an active worker, contributing from a wellstored mind frequent papers of such practical nature that they were genuinely useful.

In the death of Dr. Elliott, which occurred January 28, 1910, from apoplexy, the profession of Battle Creek and the entire State have suffered a material loss. From a mind stored with the best of medical literature and carefully digested facts, he was able to bring to the bedside of the suffering help of no ordinary character. His mental activity gave him unusual power in the diagnosis of obscure conditions and ability to meet the needs of his patients.

He was a prominent member of the Baptist Church, and was deeply conscientious in the full performance of his duty. In social life none knew him but to love him.

PAPERS READ AT THE SECOND ANNUAL MEETING COUNTY SECRETARIES ASSOCIATION OF THE MICHIGAN STATE MEDICAL SOCIETY

HOTEL CADILLAC, DETROIT, MICHIGAN, JANUARY 13th, 1910

MEDICAL ORGANIZATION WORK

A. E. Bulson, M. D., Councilor Second District, Jackson

I esteem it a very great honor to again be invited to continue the talk of a year ago on medical organization.

That the wisdom of forming this organization of secretaries of the county societies into a permanent body, and an integral part of the plan of the organization of the medical profession of the state and nation, has been, I think, fully demonstrated by the experience of the past year, representing as you do every section of the State in your deliberations.

Certainly this is a step in organization, that will grow in interest and influence for the scientific betterment of the entire profession of the State of Michigan.

You, as secretary of this county organization, more than any other member, hold in your grasp the success or failure of your society.

You are, so to speak, the *vis a tergo* of your society; you must so plan the work that you may get the most out of opportunities open for the making of the society a success scientifically and socially.

There is an old adage that "water will flow no higher than its fountainhead" and, in order to disspell darkness, discord, jealousy, lack of interest and many other obstructing factors, there must be light. So you, more than any other member, as the secretary, must possess a special and peculiar fitness, coupled with an enthusiasm unremitting, and a spirit unquenchable if you would make of your society more than a name in your community.

The society should be made a living force to dignify medicine as a profession, to stimulate public respect for, and elevate the material, moral, and intellectual status of its membership. I am glad to say that most of our county societies are awake to the fact, that in order to make the most out of opportunities open to the membership, they have found it imperatively

necessary to have, first of all, a wideawake, active, devoted and conscientious secretary, one who is not to "think society once per month, twice per month, but is thinking and planning all the time." He should be a man honored and respected by the laity, as well as by his professional associates; he should avail himself of every meeting of the annual conference of the secretaries each year; he should keep in touch with the movement that he may receive the benefit, counsel and experience of his brother secretaries. "It does not require much of a mind to fully understand that we are now in the midst of a mighty era in medical advancement, and he who is heedless of these warnings will soon find himself outstripped and relegated to the class of the non-progressive."

Every physician owes it to his patients to keep in touch with the advanced methods and experiences of his brother practitioners in his particular line of work, but even more than this, I would urge upon every physician, whether he is a specialist, or engaged in general practice, the importance of being in touch with every department of progress, in every field of medical advancement.

The specialist will be better for this general knowledge, and the all-around doctor have the pleasing satisfaction that he is in touch with the more advanced achievements of his profession. With this, and no less, should he be satisfied. The experiences of the past have taught us that the average county society, if left to itself, will become lethargic or dormant. To be sure, there are many exceptions in our State, but this as you well know is the rule. We all believe that "if a society can be made a living active force for good in one locality, a similar society can be maintained in another community where similar conditions exist."

I will mention another important qualification of a successful secretary, and that is, being able to enter into the most cordial relations with every member, from the oldest to the youngest.

We will concede that this is not an easy thing

at all times to carry out; especially is it made more difficult, if not really impossible, by the attitude of some of the members who are ever ready to criticize the program, and in fact everything regarding the work.

I am glad to note that but few of our county societies are troubled in this manner. However, there are some of the members who are everlastingly possessed of this kicking proclivity, and it requires more than human patience and wisdom to keep them in line.

Dr. J. N. McCormack has a most unique suggestion relative to handling this class of doctors. He suggests "that you elect them to some important office, a place of responsibility and considerable work;" if this fails to cure, the case may be regarded as certainly hopeless.

Now a one man society is of but little worth to the profession or community as a whole. I will also mention that cliques are also dangerous, and, sooner or later, will be the cause of disrupting your society.

What is needed is a broad and liberal spirit towards each other and if a brother offends, "kindly efforts in the interest of peace, conciliation and reformation" should always be borne in mind by every member.

It is a good plan to have an occasional meeting with all medical topics entirely eliminated, for the express purpose of discussing and practicing social ethics, and in this way be an important factor in dissipating misunderstandings, and promoting professional harmony. To these meetings I would have the doctors' families and a goodly number of the laity.

For a change from the strictly medical aspect of the meeting, you could carry out the suggestion of the "Medico-Legal Committee" and have once each year a meeting devoted to the discussion of the "rights and liabilities of the physician." "The recognition of the importance of the county society, as a unit, is the basic principle on which the work of organization has been, and is being, conducted. The most important unit in the scheme of organization is the county society, then comes the state organization, and the American Medical Association. The last is least important of the three; the first, the county society, the most important."

Every effort that has been made by the American Medical Association in developing organization, has been made with the above principle in view, the importance of the county or local society. Now the machinery all over the country is practically complete, and results

must be looked for; these are many, but the most important is the making of the county society something more than a name, something more than the storing of an old garment. It must be a living torch in the community, in the front rank, fighting superstition and ignorance, ever ready to uphold the honor and dignity of the profession, and the betterment of society as a whole.

To accomplish these ideal requirements you will readily see requires the co-operation of every member. The secretary may direct, but he must have the hearty support of the entire membership. Each doctor must feel a personal responsibility in the success of the society; he should talk society among his associates, and when a new member comes into the locality, he should extend to him the friendly hand and invite him to the meetings.

THE COUNCILOR'S RELATION TO THE COUNTY SOCIETY

W. T. Dodge, M. D., Chairman of the Council, Big Rapids.

My experience having been limited to county societies in sparsely settled counties containing cities of moderate size, it is very likely that my conception of a councilor's duties will be inadequate for those whose districts include one or more large cities.

A councilor should become as intimately acquainted as possible with all the profession in his several counties. He should take advantage of every opportunity presented to become acquainted with the individual doctor residing in his district, whether the doctor be a member of his county society or not. If hard feelings exist between doctors in his district, or factions have been formed in any county, the councilor should not only be conversant with the facts, but should also know the causes that have brought about this state of affairs.

With a thorough knowledge of the condition of the profession in each of his counties, he will be in position to give valuable assistance when called upon.

The councilor should not try to reform every existing evil during one year nor even during his term of office, but with a full understanding of existing conditions he should give the officers of each society to understand that he is always ready to serve them when they so desire.

A councilor should be chary with advice

until called upon for it. Our county societies are quite competent to manage their own affairs and they are doing so very satisfactorily. They have a right to resent voluntary and officious advice even from the councilor of the district, and so the councilor should be tactful in any suggestions he makes at any time.

In the early days of our organization it was much different. The councilor first learned for himself the best methods of organization, and he found the doctors who assembled at his call to perfect a county organization, eager for instruction. Most of them had never belonged to any medical society and the councilor's hands were full in getting the various societies running smoothly.

Some of us may have developed during that period a dictatorial habit. We may have come to think it is part of our duty to continue in active management of our various county societies. If so, we have contracted a bad habit and should take treatment. The title of our office, councilor, in itself describes our duties. We should be ever ready with counsel when it is asked for. We should endeavor to visit each of our societies at least once a year, preferably upon invitation of the society, and thus keep up intimate social relations with the members. If the councilor confines himself within these limitations and also as far as possible leaves the management of the society to which he himself belongs, to his fellow members, his official life will be a happy one, his official visits will be green oases in life's memory and he will be broadened, developed, greatly improved in every way through his relations with the county societies.

THE BUSINESS AFFAIRS OF THE COUNTY SECRETARY

Archie MacKinnon, M. D., Secretary O. M., C. O., R. O. Medical Society, Lewiston.

In beginning the discussion of this subject the query that first confronts us is: What are the exact duties of the County Secretary? If I should attempt to enumerate the many duties imposed upon him it would entail a loss of valuable time, suffice it to say that the business side of the secretary's duties are enough to keep him in more or less trouble and anxiety.

If the mere sending out of notices that dues should be paid on a certain date would result in the prompt remittance of the same by each member, the secretary's duties would indeed

be very materially lessened. Doctors are as a class poor business men. It is easily understood how the busy practitioner, receiving his notice to pay up, may at that very time be worried about a long drive which he is obliged to make at once, or about many patients waiting in his office, and in the turmoil of his busy life the notice from the secretary is lost in the jumble of literature and papers on his desk, and for the time, forgotten. In the meantime the poor secretary is wondering what kind of a report he is going to be able to make. The question of how best to collect dues must of necessity be left to the discretion of the secretary of each society, as he alone knows the needs of practitioners in his particular district.

Entering on my third year as Secretary of the O. M., C. O., R. O. Medical Society, I am convinced that this office should not be held longer than two years in succession by one member. It is an honor and an education that should be passed around that it may stimulate an interest in the work. Meetings should not be called more than four days in advance, ours coming on Wednesday. I issue the call on Saturday by mail, sending out a printed letter which often contains the first information that most members have of who is to participate. The question of how to get a committee on programs and scientific work together is one on which I would like to have some information or suggestions. It has been my experience that this is next to impossible, and this fact adds to the many trials of the County Secretary. A suggestion, which is that the smallest societies through the State might materially add to the interest of their meetings and increase the attendance of the same by mailing to each member a small bulletin, giving notice of the coming meeting and a short synopsis of the paper read and business transacted at the preceding meeting. The expense of publication of such a bulletin, could be partially met by inserting advertisements for local merchants.

Any one secretary is not competent to report all classes of cases and this emphasizes the necessity of having a committee competent to report the work of the meeting. The effort to establish and carry out a course of post-graduate work as promulgated by the Journal of the A. M. A. has in the O. M., C. O., R. O. Society at least, proven to be a failure.

This is not caused by lack of clinical material but as stated above, is because of the lack of competent reporting of the minutes. Doctor

Carson's entire staff of stenographers could not get the best record of some of our meetings. It was a momentous subject when our president in 1907, Doctor A. J. Pettis, died and Dr. Oneal of Frederick was obliged to leave his extensive practice and go West on account of tuberculosis. Dr. Wright with a talk on opsonins would scarcely have been interesting. Then the boys expressed sentiments of brotherly affection, that would necessitate a Doctor Holmes to record where previous to the organization of the Society they knew each other but slightly. Good business would require the secretary to give bond to be held by the president; this is customary in fraternal orders and up-to-date business institutions.

Although the duties of the secretary are difficult and exacting, still there are many pleasant memories and associations connected with the position. Prior to the present reorganization of the medical profession along the line laid down by the A. M. A., many practitioners in certain localities were, if not bitter enemies, at least coldly indifferent to one another. Now it is different, the periodic getting together and discussing of mutual trials and tribulations has wrought many a lasting friendship and the Secretary has the satisfaction of feeling that he has in a measure aided in bringing this about.

POST-GRADUATE WORK

Wilfrid Haughey, A. M., M. D., State Secretary-Elect, Battle Creek.

During a lecture tour of this State, in the fall of 1906, Dr. J. N. McCormack, of Bowling Green, Ky., urged very strongly that medical societies should get out of the rut they were in. That they should undertake to make their meetings more interesting. He said the papers could often be improved upon by reading the text book within the reach of every medical man, and the discussions were stereotyped: "I am very much pleased to have had the opportunity of hearing the Doctor's paper. It shows an immense amount of work, and is a credit to him, and the Society. The Doctor is to be congratulated for his presentation of the subject, etc." McCormack gave the whole discussion, and then suggested that we do something to remedy the condition. He thought that the stereotyped discussion that we so often

hear at the Society meeting was the reason we have so few in attendance.

As a remedy, he suggested Post-Graduate Work,—meet every week at some convenient place, and listen to a lecture upon some medical or surgical subject, by some one of our members appointed beforehand. We should pass the leadership around, so that all the members would take part. After the lecture, a general discussion should follow, with the compliments left out.

Following his advice, the Calhoun County Medical Society appointed a committee to bring about the Post-Graduate Work as outlined. Calhoun County is peculiarly constituted. There are three cities in the county, the two farthest, and largest, are twenty-six miles apart. This makes it inconvenient, and practically impossible to conduct the work as suggested. To meet this difficulty, the committee decided to have the work done in each city simultaneously. A program was adopted for the remainder of the year, twenty meetings. Each city was to select its own speakers, and have the complete program printed in one folder. Albion and Battle Creek took up the work, but Marshall having only five doctors decided to attend the meetings either in Battle Creek or Albion, either city being only thirteen miles away, and on a street car line.

In making up our program we outlined four general courses of study, each of which should be considered once a month, for five months. These courses were: 1. Anatomy and Gross Pathology. 2. Physiology and Hygiene. 3. Laboratory Diagnosis. 4. Practice of Medicine. • These subjects were subdivided into five headings and assigned for the twenty weeks. In Albion every man was given a subject, as far as the men went, when they began over; thus every man knew for weeks ahead what his subject would be for a certain night, and could prepare for it. In Battle Creek we made four men responsible for the four courses, and gave them the option of having some one assist them, or take part of the work.

In Battle Creek we met Monday evenings, and in Albion Tuesdays. I do not know the method of notifying the members of the meetings in Albion, but in Battle Creek we called every man up on the telephone every Monday afternoon, to remind him of the meeting. We were so well pleased with the attendance and the work that at the conclusion of the twenty outlined subjects, we voted to have four more meetings

on assigned subjects. These four subjects were printed upon postal cards, and a card mailed to every member so that he would get it the morning of the meeting. The whole twenty-four meetings were well attended.

At the close of the first year's work we organized the Battle Creek Medical Club, as a branch of the Calhoun County Medical Society, for the purpose of conducting the Post-Graduate Work in Battle Creek.

This was in June 1903. During the same month the American Medical Association appointed Dr. John H. Blackburn, of Bowling Green, Ky., Director of Post-Graduate Work, and announced that they would publish outlines so that County Societies everywhere could pursue the work uniformly. The "Proconsul" of the A. M. A. was urging and advising the work all over the United States, and societies were asking for information and outlines of the work.

The Battle Creek Medical Club decided to hold meetings every Monday evening, except during July and August, and adopted the outline as provided by Dr. Blackburn. We met in the parlors of Nichols Memorial Hospital, which gave us a good opportunity to have clinical material presented, of which we had many and some quite rare cases. Our attendance for the past two years has averaged over fifteen every meeting, and we have had 42 meetings a year.

The question of getting the members out to meetings was solved by the postal card method, the program for each month being printed on postal cards, and mailed to every member so that they were delivered the morning of the meetings. In addition the officers urged the members every time we saw them to attend, until I fear we got to be regular bores. A program committee was appointed, consisting of the president, vice-president, secretary, and three members appointed by the president. This committee has endeavored to so arrange the program that one man will not appear a second time until all the other members have an opportunity of reading a paper. This year we have made a radical departure from the plan so far adopted, and do not know as yet what the result will be. Many had complained that we had too much "shop," so it was decided to have two nights a month assigned to members at which they could furnish any kind of a program they chose; the other two meetings to be devoted to the regular Post-Graduate Work, as outlined, two men being assigned to each night

and the program for two weeks being condensed into one evening's work. The meetings with no assigned program have so far been devoted to social entertainment, or lecturers from out of town. These meetings have been the better attended ones.

Those members who for the past three and a half years have faithfully followed this work, and there are some who have not missed over half a dozen meetings during that time, have improved in many ways. Some are more given to study, and their study is better directed. Some have come to better understand and interpret laboratory work, and others have more exact and concise knowledge of medical affairs and conditions. This work has been a training-school in which many have learned how to express their thoughts on paper, and how to present them to a medical society.

So much for the history of our work in Battle Creek.

The program as proposed by the A. M. A. divides the whole subject of medicine, surgery and obstetrics into forty parts, and assigns one part to each of ten months for four years. The present year is the third of the A. M. A. outline. Each subject is then subdivided into four parts, the first having to do with the anatomy and physiology, and the others dividing the rest of the subject, as for instance, the program for the present month: The general subject for the month is "Diseases of the Stomach, Intestines, and Pancreas." The first meeting is devoted to "Surface Anatomy, Gross and Microscopical Anatomy, and Physiology of Digestion"; the second is "Acute and Chronic Gastritis, Dilatation, Cancer and Neuroses of the Stomach"; the third, "Catarrhal, Croupous, and Ulcerative Enteritis, Dysentery, Appendicitis, Intestinal Obstruction, and Entroposis;" and the fourth meeting, "Diseases of the Pancreas."

To each man is assigned some one of the subdivisions of the subject with the request to prepare a twenty to thirty minute paper. He is supposed to review the subject and present those things that appeal to him as the most worthy. After the paper the whole subject is thrown open to general discussion. Very often the discussion is fully as interesting and equally as instructive as the paper. We have had quite a number of interesting clinical cases presented, many of our members illustrating their papers with actual cases. This has added very materially to the interest.

Many also have illustrated their papers with rough drawings such as they could make themselves. When possible, clinical cases or drawings should be demonstrated, as that helps to maintain the interest.

This Post-Graduate Work as outlined for the A. M. A. by Dr. Blackburn, is now being followed in about two hundred societies throughout the United States, one in Canada, and one in China.

SOME ETHICAL PROBLEMS OF THE COUNTY SECRETARY

By Frank Cameron Kinsey, A. M., M. D., Retiring Secretary St. Joseph Co. Medical Society, Three Rivers.

In this brief paper, I shall first say a few words about medical ethics in general, and, later, about those which more particularly affect the county secretary.

If there is any one thing about the physician which the average layman can never understand, it is his ethics. This is either regarded as among those mysterious concepts which exist, but whose "why" seems non-existent; or as a mere pose for the sake of dignity; or as pure unadulterated foolishness. And there seems, at first sight, to be some grounds for the last belief. For example, one sees practically every other line of business advertised in our daily papers. Then why not medicine? If we argue that the advertisements of physicians are more or less untrue and misleading, the obvious and just reply is, that this statement is not applicable solely to medical advertisements, for almost all advertising is exaggerated and misleading. But no one is fanatical enough to think that Mr. John Doe should not advertise the things he has for sale in his grocery store, or that Mr. Richard Roe should not increase the sale of his hardware stock by judicious advertising in spite of the exaggeration with which each of these gentlemen proclaims that he has the best goods on earth, and sells them at the lowest prices to be found on this side of the moon. The public expects a little touch of hyperbole nowadays. It adds a dash of spice which no well regulated family would care to lose. What is the harm, then, of a little exaggeration in medical advertisements also; and why should the fact that some of it is untrustworthy be used as an argument to condemn all medical advertising? The answer is, that there exists underneath the surface of things, a radical

difference between these apparent similarities. When a merchant advertises his hardware or groceries, the public has several checks on his veracity. It is privileged to examine goods whose value it can estimate rather closely. It can also go the rounds of various other stores to compare quality and prices. But in medical advertisements, conditions are altogether different. One must accept or reject a physician's statements with no other evidence than his bare word. There is no possible way to estimate the quality of the services advertised. For example, when an oculist proclaims that he can cure crossed eyes without the use of the knife, he forgets to mention the scissors with which he does the work, while the glowing testimonials of those who have been cured crowd out the much greater number of complaints from dissatisfied patients. The stock in trade of these men is mystery and darkness. And the public, awed by this mystery, feels its littleness and ignorance in the presence of so profound and overwhelming wisdom.

There certainly must be a few inherited molecules of fetishism hidden away among the cerebral cells of our brains. How else can we explain the belief that a man may be a "natural born doctor" although he may be almost a fool in everything else, or the childlike faith with which the average person receives all sorts of absurd medical statements from all sorts of absurd people?

Now it is this very credulity on the part of the public—this inability to distinguish the sheep from the goats—which has brought about the present attitude of physicians with regard to advertising. Rather than compete with the advertising quack in a Marathon of selfpraise and untruthfulness, we have agreed to a dignified silence. As a result of this attitude, most intelligent people now understand that a physician who blows his own trumpet in the newspapers is thereby giving the public fair warning that he is a good man to avoid.

But the attitude of physicians toward advertising, like most other questions of medical ethics, differs in different communities. When the American Medical Association was reorganized in 1901, most ethical questions were wisely put into the hands of the county society. It was recognized that what might be necessary or desirable in cities like New York or Chicago would be utterly impossible in, say, a backwoods county of Michigan. And so it gave each county not only the power to formulate laws for itself,

but to penalize any infraction of them as it saw fit. Returning for a moment to advertising: In the larger cities no advertising whatever is permissible, while in many of the smaller country towns it has become a custom for the best physicians to have their cards in the daily papers, which has the sanction of the American Medical Association. But, even in our smallest places, the limit is reached when a man publishes his name and office hours. It is regarded as strictly *de trop*, for instance, to insert such a notice as the following, which I have clipped from a newspaper published in the county in which I reside. I am reading it only as a literary curiosity, and trust that it will tempt none of my hearers to go and do likewise.

Dr. Blowhard's Schedule of Prices

On account of the absurd reports that have been circulated regarding the prices I have been charging, and none of which have ever contained one particle of truth, I have decided to publish following schedule of prices, which I shall follow, to take effect April 9, 1909:

Visits in village (including medicine).....	50c
Visits in country (2 miles or under).....	\$1.00
(Each additional mile 25c)	
Office consultation (including medicine).....	50c
Confinement cases (in village).....	\$5.00
Confinement cases (in country).....	\$6.00

Glasses properly fitted. I carry a fine line of optical goods.

Special care and attention given to confinement cases, infant feeding, surgery and diseases of women and children.

I also wish the public to know that I have no intention of leaving ——, as has been reported.

My office is on the corner opposite the courthouse, across from Mr. Thomas Greene's. I expect to remain here and give the public a square deal and value in full for their money.

DR. G. B. BLOWHARD.

Apart from the dignified and even classical style of the above, one cannot help admiring the closing promise to give value in full for the money. A grocery store selling cabbages could not invite patronage with greater delicacy.

And now in the course of my rambles, I have at length reached my subject: the ethical problems which more particularly concern the county secretary. (I might remark, parenthetically for the benefit of the apprehensive, that the length of my proem has exceeded that of the peroration.) When one thinks the matter over for a moment, one sees that the ethical problems of

the county secretary are, *ipso facto*, the ethical problems of the county society. Although, as provided by the constitution, most counties have a board of censors which is the tribunal before which ethical problems finally come for decision, nevertheless, as occurs in law, the majority of cases may be settled without ever coming to trial, through the agency of the county secretary.

This may occur in a variety of ways. A beginner in practice will sometimes, purely through ignorance, insert in the newspapers objectionable reading notices of sickness, accidents or operations. Frequently a tactful explanation from the secretary, showing the attitude of the society toward such matters, together with a little kindly advice as to his future conduct, will be worth bushels of *post factum* penalties from the board of censors. Few older physicians realize the dense ignorance in ethical matters of even the most highly educated of recent graduates. Our universities are too busy teaching the ever changing latest theories "made in Germany" to heed the practical problems of the student's future career. The consequence is that many promising young physicians make almost irreparable mistakes on the threshold of practice—mistakes which are entirely innocent as far as intent is concerned.

I remember an incident related to me several years ago by Dr. Richard Smith of Grand Rapids, which brings out this point. A most promising young man having graduated from Ann Arbor, thought he would round off his rough corners and learn to handle patients by beginning practice in a small country town. Utterly ignorant of ethics, he thought to hasten the arrival of his first patient by the distribution of some neat little handbills, announcing his arrival in the community and willingness to receive all comers. When he discovered what other physicians thought of his handbills, he did all in his power to retrieve his mistake, but without avail. He was ostracized by his professional brethren; and, even to this day, his reputation and usefulness are under the cloud of his first and only advertising. The remedy for such cases is prophylactic: early, informal, tactful and kindly remonstrance by the county secretary.

Again, questions of eligibility to membership, while officially in the hands of the board of censors for decision, are mostly so in appearance only. The secretary, by handling the correspondence, by interviews with the applicant,

by knowing all the facts of the case, has already passed judgment on the applicant and really becomes attorney for, or against, him before the board of censors, which votes in accordance with the evidence submitted.

Another ethical duty performed by the secretary is that of arbiter. One is supposed to have the ethics of his county at his finger tips, and is called upon to decide not only individual courses of procedure, but differences among physicians as well.

Again, the state secretary and the secretaries of other counties have no other first hand method of gauging a local society except by the correspondence of its secretary, and this will reflect his ethics as clearly as it does his education and cerebral capacity.

Many other minor ethical duties occur to all of us, no doubt, but the greatest of them all is the one we owe to our brother practitioners—the duty of getting worthy men into our society. Every county has men who are eligible to membership, perfectly acceptable, well educated men with high notions of honor, who are jogging along in a monotonous rut in the road of life, missing all the friendship and communion of the highest men in their profession—missing too, those little county meetings, which, humble though they be, send one out with a new interest in his profession—with a new strength for the battles of every day. Why these men are not members, no one knows. Perhaps it was the omission of some little courtesy on the part of the society, or perhaps they were never invited to join.

When a new physician comes into a county, the secretary should either call on him at the earliest opportunity, or delegate the visit to one of the most kindly and tactful of the older members of the society. It will not take long to find out whether he will be a desirable member, and a stranger in a strange land is usually appreciative of courtesies. This friendly attitude of physician toward physician should really be the keynote of our society. We are not a mob of union workmen boycotting a mob of non-union men, as some people seem to think. We have, or should have, higher motives than the little cut-throat jealousies which disgust everyone except the one who feels them. We should not be constantly on the watch for offenses and the opportunity to penalize offenders, but should seek to win them over, if possible, to a cleaner view of professionalism, to a better, more ethical way of living. And with this

willingness to give everyone the benefit of the doubt, to hold the ungloved hand of friendly peace and not the steel gauntlet of bitter war, we may hope for a reciprocity among physicians, for a mental attitude toward each other which will at length enable the secretary to write after his list of all the physicians in the county, "and everyone a brother."

THE MUSKEGON-OCEANA PLAN OF MEETINGS

V. A. Chapman, M. D., Secretary Muskegon-Oceana County Medical Society, Muskegon.

The context of this paper may appear to many of you to be of a nature too trivial and elementary to be brought before this body of county secretaries.

For the Muskegon-Oceana County Medical Society, however, it has done wonders. We have held our meetings under this plan for two full years. These years have been the most successful in every way that our County Society has known.

We believe in passing good things along. As this plan is largely original with our Society and has been found by us to be good, we present it to you for your consideration in whatever part it may be found to be of benefit to you.

Briefly the plan is this: At the beginning of the year, the committee on program and scientific work, composed of the Board of Directors and President and Secretary of the Society, hold one or several meetings at which the schedule of meetings for the entire year is definitely mapped out. A list of names of the entire membership of the Society is made out in alphabetical order. From this a second arrangement of names is drawn up in the following manner:

A name is taken from the top of the alphabetically arranged list; the next name is taken from the bottom, the third name is taken from next to the top, the fourth name is taken from next to the bottom and so on, alternating between top and bottom and working towards the center of the alphabetically arranged list until the names of the entire membership are again in a second list.

Beginning at the top of this re-arranged list of names of members a date for a meeting is placed after each name, consecutively, the meetings being held every two weeks, on Friday.

A re-arrangement of names is again made in order that the meeting dates set against the

names of members residing outside of the city of Muskegon, shall be in the late spring, summer and early fall when the season is pleasant and the highways throughout the country in good condition for automobile travel.

Each member of the Society is then notified of the date which is set against his name. This is *his* date for *his* meeting. If he has any good reason why this date should be changed or any really sufficient reason why he should be excused from taking charge of a meeting during the year, he is expected to notify the committee at once or forever after hold his peace and make good when the date for his meeting arrives.

When the schedule is finally completed every member is furnished with a typewritten copy of the entire schedule. His own name and date for his meeting has a red line drawn above and below it. This is his meeting and the responsibility for the success of that meeting rests entirely upon him. He writes and reads the paper of the evening and supplies such entertainment for the Society as he cares to furnish. Extensive expenditure for entertainment is not desired nor encouraged. If a member so desires he may invite a distinguished member of the profession from outside of the local membership to give the talk or paper of the evening in his stead.

The winter meetings are held with members residing at Muskegon. The late spring, summer and early fall meetings are held with members residing outside of the city. On such occasions the city members make up automobile parties to the outlying towns. These automobile trips have been very enjoyable and are anticipated with much eagerness.

They have served to bind the profession of Muskegon and Oceana Counties together more than any other social feature we have attempted. Nothing else promotes downright good fellowship among a bunch of physicians like all getting out and pushing an automobile over a sand hill or all bending to a rope to pull the machine of an over-reckless driver out of a swamp. Nothing beats this for genuine relaxation from pills and powders and the wailings of a weary, weary world.

We have visited every part of Muskegon and Oceana Counties. We have learned of beauties and wonders of our splendid counties of which before we never dreamed.

Some of our meetings have been held at distances of thirty-five and forty-five miles from Muskegon. We have learned that some Muske-

gon city physicians will go forty miles to one of these meetings when they will not attend a meeting held within three city blocks of their office. We have been entertained at summer homes on the shores of peerless Muskegon Lake; taken steamboat rides on beautiful White Lake and Lake Michigan; visited the famous fruit orchards of Oceana County and feasted upon the finest fruit the sun ever shone upon.

Instead of the members petitioning to be left off the meeting schedule, every member is anxious to fill his date and to get up just a little better paper than the one which was read before. If a name is inadvertently left off the schedule that member proceeds to stir up trouble for the program committee until they arrange a date for *his* meeting.

This plan has forced us to hold meetings every two weeks instead of once a month or once in two months. Last year we had to have them weekly for a few times to get them all in. It has doubled our membership, trebled our yearly attendance and has succeeded in getting us together as nothing else ever did.

It has been the salvation of our Society.

THE RELATION OF THE COUNTY SECRETARY TO THE STATE SOCIETY

B. R. SCHENK, A. B., M. D., Retiring State Secretary, Detroit.

At the time of the reorganization of the American Medical Association and soon afterwards of our State Society, certain broad plans were adopted—in general that the county society should be the unit, that membership in the county society should carry with it, *ipso facto*, membership in the State Society, and that only members of both the county and the state could be members of the American Medical Association. This is the fundamental principle on which we are organized. At the time this plan was adopted, Dr. Simmons made the prediction that such an arrangement would greatly increase the membership of both the local and the state societies. How well this prophecy has been fulfilled is indicated in our own State, where the membership has increased from 600 to over 2,100. The plan was broadly conceived and has achieved a success far beyond, I think, the most sanguine expectations of its most enthusiastic supporters. But a number of years of administration under this broad plan have proven two things: First, that the general

scheme could not have been better conceived, and second that perfect as it is in theory, it is lacking from the administration standpoint, in uniformity. Just as one State had one set of rules as to the carrying of members two or even three years when delinquent in the payment of dues and others a different set calling for their suspension at the end of six months, so in our own State there is no exact uniformity in the county societies, as to when dues shall be paid, how long a member shall be carried when delinquent, when the State dues shall be forwarded, when the fiscal year ends, etc.

All of this lack of uniformity results in more or less confusion and a large amount of useless correspondence, with now and then a little much-to-be-deplored friction and ill feeling. With an idea of remedying these small but irritating irregularities, Dr. Simmons asked, at the Chicago meeting, for the appointment of a committee to study the existing conditions and make such recommendations as seemed best. This committee reported at Atlantic City last year and was continued and enlarged. I have the honor to be a member of the enlarged committee and we are now working out the details. When the new set of rules is adopted by the American Medical Association as recommendations to state societies, the counties of the Michigan Society should put them into effect. This committee is pretty well agreed, I think, on most of the rules to be adopted and I wish to bring some of them before you for your consideration.

(1) As to the time of the annual meeting. Some of the committee, perhaps a majority, think that all annual meetings of county societies should be held in December or January. I agree that this would be the best plan, but in certain parts of our own State, because of weather conditions, a larger meeting can be secured in the fall than in the dead of winter, so that I believe that it would be unwise to change our present customs in this respect. However, this will not interfere with the second recommendation.

(2) That the fiscal year of all county societies should correspond with the calendar year. If this is adopted it will do away entirely with the necessity of making bills and receipts read for "1909 and 1910 dues." It will simply mean that dues will be collected in advance and receipts given for the next fiscal year. A new member joining at the annual meeting in November would pay one year's dues and be credited

for the next fiscal year. A new member joining after June 1st and before the annual meeting would pay half the dues for the current year.

(3) How long shall a delinquent member be carried. This is a somewhat vexing question. The method which we have employed here in Michigan has worked well. In July or August a list of all delinquents is sent to the County Secretary with the request that he attempt to get in their dues at once. This list is checked over and returned. From it a few errors, resignations and deaths are recorded. In September, after our annual meeting, a letter is sent to the individual delinquent, calling to his attention the omission, and asking him to remit to his county secretary. This has had during the past four years excellent results. In December another letter is sent, and those whose dues have not been received by December 31st are dropped and their names sent to the A. M. A. as ineligible to membership. By this method a member is carried one year and after two notices have been sent is dropped, to be reinstated on receipt of back dues. There is thus no list of suspended members. Either a man is a member or he is not. He has one year of grace, but is considered a member until the end of that year of grace. As soon as we admit in our classification a group of "suspended members" we invite confusion.

This plan, I believe, is a just one—it keeps up the membership by giving a man a year to pay—doctors are often slow but mean to be prompt—it is definite and it works. The same rule can be adopted in all county societies. It is easily understood and I think, because of its simplicity and fairness, is the ideal plan.

But the difficulty is this:—We are not supposed to send Journals after June 1st, unless the subscription has been paid. Our defense plan calls for payment by June 1st. One would think that six months instead of a year would be sufficient time to give delinquents. Perhaps it will be if the rule is adopted and our membership educated to it. Perhaps the defense feature will prove such a good collection agency as to make further consideration unnecessary. This year fully 550 paid after June 1st. To have removed them from the roll, from the mailing list, disfranchised them in the A. M. A., would mean a great deal of useless work and unnecessary expense.

Some definite plan, however, will soon be worked out and every county should adopt it, so that we shall all agree.

(4) Qualification for membership. I am con-

stantly receiving letters from county secretaries on this point. If your county society constitution does not agree with that of the State, it should be changed. The qualification in this State is now: "Every reputable and legally registered physician is eligible to membership."

(5) When shall dues be forwarded to the State Secretary? In the case of new members they should be sent immediately. Failure to do this has been the cause of more ill feeling than any other one thing. Dr. A. joins the county society after being urged and told of the advantages, etc. He sends in his application for membership in the A. M. A., together with his dues. He considers himself within the fold. He gets no State Journal, no Journal of the Association, and pretty soon a notice comes saying that his name does not appear on the certified list of the Michigan members. He writes a curt note to Dr. Simmons. Dr. Simmons writes a letter to me. I write a letter to the County Secretary. He replies and sends in the dues. I write to Dr. Simmons and to the aggrieved doctor, and Dr. Simmons writes to him and he curses the red tape of medical organization. Six letters and a half hearted member with a sore spot which takes months to heal result. Whereas if the name and dues had been sent promptly the whole thing would have been automatic and no one's feelings would have been hurt.

Dues collected from old members should be sent monthly, preferably about the 25th, as at the same time resignations, deaths, etc., may be recorded. The State office reports monthly to the A. M. A., this information. At the same time county news can be sent to the Journal with the assurance that it will appear in the next issue.

What a splendid plan it would be if each County Secretary would thus report monthly on a certain day to the State office.

Another little point. Make your check payable to the Michigan State Medical Society.

These are some of the points which concern both the county and state secretaries. The adoption of the medical defense has introduced a few changes in administration, but these, Dr. Tibbals, the Chairman of the Medico-Legal Committee, will doubtless explain.

As I tried to point out in my paper at the last meeting of this body,—the State society exists only as an aggregate body of the county societies. Hence the most important workers in the State Society are those who administer the affairs of the local associations. It is fitting then that

to you should be submitted the results of your work during the past year. This data has already been read to the Council and here is repeated that you may carry away something definite as to the condition of affairs.

**The Sixth Annual Conference of the Council on
Medical Education and the Fifth Annual Conference of the Committee on Medical
Legislation of the American
Medical Association**

This meeting began on Monday, Feb. 28, 1910, at the Congress Hotel in Chicago, continuing through March 1 and 2.

The address of the Chairman, Dr. Bevan, of Chicago, was an interesting exposé of the past standards of Medical Education throughout the country. He stated that the 160 Medical Schools of six years ago had been reduced to 140 at present and declared that only 60 or 70 of these were worthy to live; that the Medical School of the future should be developed as a medical department of the university; that the preliminary education should be eight years in the primary school, four years in the high school, and at least one year in a special preparation in the premedical sciences of chemistry, physics and biology; four years in the medical school, two in the laboratories of anatomy, physiology, pathology and pharmacology; two years in clinical work in medicine, surgery, obstetrics and the specialties; and finally one year of hospital work as an interne.

He recognized the examining and licensing boards of various States as a legal board to insist on the adoption of a proper course in medicine and urged medical practitioners to support these boards by seeing to it that the public opinion was properly educated in this matter.

The Secretary's report by Dr. N. P. Colwell, of Chicago, took up the inspection of Medical Colleges. After giving something of the history of such inspection made by himself and others he closed by declaring that "The State Licensing Boards are fighting the people's battle against ignorance and incompetence, sometimes without the support either of the public or of the medical profession and they are often seriously handicapped. That some States have not already been overrun with incompetence is due entirely to the examining boards, which have found methods by which the unfit could be excluded

even with the limited authority allowed them by the legislatures. The time has come, however, when the medical profession and people of each State should see to it that a competent board of medical examiners shall control the licensing of all practitioners of medicine and that this board should be given full authority. This one barrier between the sick and afflicted and the crowds of ill-trained and incompetent practitioners must be made effective."

The afternoon session was given up to addresses of the United States Commissioner of Education, Hon. Elmer Ellsworth Brown of Washington, D. C., on "Standards on Medical Education as Related to Standards on General Education;" then "The Obligation of the University to Medical Education," by President Henry S. Pritchett of the Carnegie Foundation for Advancement of Teaching, also, "The Relation of the University to the Medical School," by President J. G. Schurman of Cornell University; and "Some of the Functions of a University Medical School," by Dr. V. C. Vaughan of Ann Arbor, Dean of the University of Michigan College of Medicine and Surgery.

These addresses will be printed in the near future in the *Journal of the American Medical Association* and are worthy of a careful reading.

The practical ideas of President Schurman will commend themselves to the thinking man in the profession.

Tuesday morning's session was occupied with Reference Committees. The report of the Committee on "Organization of a State Board on Medical Examination and License" by Dr. W. H. Sawyer of Michigan, Chairman, brought out a very lively discussion as to the possible make-up of such boards. Nothing better than what already exists in Michigan was suggested. The report of the Committee on "Qualifications of Applicants, Recognition of Medical Colleges and Standards of Examination," by Dr. S. D. Van Meter of Colorado, Chairman. Report of the Committee on the "Definition of the Practice of Medicine" by Dr. F. C. Sharp of Indiana, Chairman, went through very smoothly, but when the report of the "Standards of Preliminary and Medical Education, and what should be Incorporated in the Model Medical Practice Act," was given by Dr. Bevan of Chicago, Chairman, a host of criticisms on the report, following the discussion, were elicited. There was a very good report from the Committee on "Reciprocity and Registration," by Dr. W. T. Swarts of Rhode Island, also a report of the Committe on

"Revocation of License and Penalties," by Dr. E. L. Stevens of Iowa.

In the afternoon Dr. C. A. L. Reed of Cincinnati occupied the chair, and in consideration of subjects of Medical Legislation the addresses were made by President Ernest Freund, of University of Chicago Law School, on "Some Of the Constitutional Aspects of Medical Licensure;" by Professor Roscoe Pound, of Chicago University, on "The Value of Uniform State Laws Regulating the Practice of Medicine;" by Chief Justice Olson of Municipal Court, Chicago, on "Importance to the Public of the Proper Enforcement of Medical License Laws;" by Dr. Henry B. Favill, of Chicago, on the "Attitude of the Medical Profession regarding the Medical Practice Laws." These were able, scholarly presentations of the various subjects and were all calculated to clarify the medico-legal vision of the hearer.

An attempt made to incorporate in the Model Medical Practice Act, a clause recognizing Osteopathy on the State Board, brought about a stormy discussion, the result of which was, this clause was omitted, and Osteopathy as well as Optometry must stand upon their own merits.

The Confederation of the State Boards met at the Great Northern Hotel, Thursday, March 3, Dr. Spurgeon of the Indiana Board, President, and Dr. Harison of the Michigan Board, Secretary. The address of President Spurgeon was an able paper and wide in its grasp. His recommendations showed a thorough study of the conditions and minute understandings of the situation to be met by the State Boards, some of them of an excellent practical nature and expressed the best thought for improvement in the methods of examining and licensing.

The committee to whom was referred the President's address brought in two resolutions, of much importance to the medical profession, and both were adopted unanimously. One provided for appointment by the President of a committee of seven, of which the President should be one, to take up the examination of Medical Colleges. The examinations heretofore made by Dr. Zapffe for the Association of Medical Colleges were made from the standpoint of an educator. Those made by Dr. N. P. Colwell for the Council on Medical Education of the American Medical Association were from the standpoint of that body, also made up of five leading college men. Those made by Dr. Abraham Flexner for the Carnegie Foundation were from the standpoint of the pure

scientist alone. It was felt that while these all had certain values, the really important examination was from the standpoint of the all-round practitioner in medicine. His judgment should decide whether the colleges were producing the highest type of general practitioner, and if changes were needed in teaching methods be prepared to suggest them.

The other resolution adopted was that the President should adopt a committee consisting of one from each State for the purpose of perfecting a medical practice act, and request each State governor to also appoint one member, who might be a lawyer, to be an integral part of said committee; said committee to report at our next annual meeting.

The report of the Secretary showed an extension of the work and adoption of many suggestions of the Confederation by the State Medical Boards of the country. The proposition for union of this body with the National Confederation of State Boards was received from

their body through its President and was entertained by an unanimous vote. A committee of this body was appointed to co-operate with a like committee from the National Confederation with power to act. This committee will report at the next annual gathering.

As a summary the report of the Committee on Organization of a State Board on Medical Examination and License, of which Dr. Sawyer was chairman, was adopted unanimously. The report of the Committee of Qualification of Applicants, Recognition of Medical Colleges, and Standards of Examination; the report of the Committee on Standards of Preliminary and Medical Education; the report of the Committee on Reciprocity and Registration were rejected almost unanimously; on the report of the Committee on Revocation of License and Penalties no agreement was reached. All Committees' reports supported by Michigan were adopted with one opposing vote, and all reports opposed by Michigan were rejected with the same vote.

COUNTY SOCIETY NEWS

BAY

The Bay County Medical Society in February issued the first number of the *Bulletin of the Bay County Medical Society*. This is a neat little folder of eight pages, giving the programs of the meetings and many items of local interest, also a short account of the annual meeting of the County Secretaries' Association.

BERRIEN

At a meeting of the Berrien County Medical Society, held in Benton Harbor, Jan. 20, 1910, the Society voted to avail themselves of the Medical Defense Plan adopted by the State Society.

Dr. W. L. Wilson was elected local member of The Medico-Legal Committee.

The following were elected as officers for the ensuing year:

President—Dr. H. G. Bartlett, St. Joseph.

Vice-President—Dr. H. C. Hill, Benton Harbor.

Secretary—Dr. C. N. Sowers, Benton Harbor.

Treasurer—Dr. C. W. Merritt, St. Joseph.

Delegate to State Society—Dr. F. M. Kerry, Benton Harbor.

Alternate—Dr. C. W. Merritt, St. Joseph.

Meetings will be held every three months during the year. C. N. SOWERS, *Secretary*.

CALHOUN

The first quarterly meeting of the Calhoun County Medical Society for 1910 was held in the rooms of the Battle Creek Industrial Association at Battle Creek, Tuesday, March 1st, 1910.

The meeting was well attended, twenty-five being present.

Dr. J. F. Byington of Battle Creek, read a paper on "Tonsilectomy," setting forth the advantages of this newer method over the old Tonsilectomies. The paper was well rendered and ably illustrated.

Dr. Max Ballin, of Detroit gave a very comprehensive talk on the "Surgery of the Thyroid Gland." It was fully illustrated with lantern slides of especial clearness and definition.

Two applicants were accepted as members, Drs. Anna Durrie and A. A. Hoyt of Battle Creek.

Tribute was paid Dr. James M. Elliott, a member in good standing of the American Medical Association, Michigan State and Calhoun County Medical Societies and the Battle Creek Medical Club, who passed away Jan. 28th, 1910, at his home in Battle Creek.

To the Officers and Members of The Calhoun County Medical Society:

Your Committee on Necrology is grieved to report the death of our esteemed brother, Dr. James M. Elliott, which occurred after a brief illness, at his residence on Post Avenue, this city, Jan. 28th, last.

The funeral was held at Hickory Corners, his old home, a brief service being held at the residence on Post Avenue, which was attended by the Society in a body.

Dr. Elliott was present at our last meeting, and was always very regular in his attendance, and energetic in his efforts to promote the welfare of his chosen profession.

The Battle Creek Medical Club, at a meeting held subsequent to his death devoted a half-hour to his memory, and adopted the following resolutions, as a fitting expression of respect and esteem.

Whereas, Death has taken our beloved friend and fellow practitioner, Dr. Elliott, and

Whereas, We feel deeply the loss of so good a man,

Therefore, Be it resolved, that in the death of Dr. Elliott this Society has lost a valuable member, the profession an able and competent practitioner, and society a distinguished and honorable man.

Be it Further Resolved, That these resolutions be spread in the minutes of the Society, and a copy sent to the family of the deceased.

Your Committee would recommend that these resolutions be adopted by this Society, by a rising vote, and that we, as members, stand for a brief interval with bowed heads, as a token of respect for our departed brother.

Dated at Battle Creek, this first day of March, 1910.	A. F. KINGSLEY S. K. CHURCH H. A. HERZER	} Com.
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Adjournment was taken to Ceresco, June 14th, 1910. A. S. KIMBALL, *Secretary*.

CHIPPEWA

On March 1st, the Chippewa County Medical Society held its third regular meeting for the year 1910. The following resolution was adopted by the Society in honor of the first president of the Chippewa County Medical Society, Dr. John R. Bailey of Mackinac Island. The Society requested that these resolutions be published in the JOURNAL and a copy sent his family.

IN APPRECIATION

It is with profound sorrow and a sense of great loss that we chronicle the death of a former member, and the first president of our Society, Dr. John R. Bailey, which occurred January 19th, at Fort Smith, Arkansas, where the diseased was visiting a sister. Dr. Bailey was a member of our own Society, of the A. M. A., of the Roll of Honor of the University of Michigan, an honorary member of the Michigan State Medical Society, and of the Upper Peninsula Medical Society.

Born in the profession—his father being a member—he attained an age not usually granted to one of our fraternity, that of seventy-six years.

Graduating from the Medical Department of our State University in 1854, he immediately took up the practice and was appointed Acting Assistant Surgeon in the U. S. Army, at Fort Mackinac, where he also engaged in private practice, and held the position of Indian Physician to the Chippewa and Ottawa Indians. He entered service in the Civil War as Assistant Surgeon, was soon raised to the rank of Major and Surgeon, and was chief medical officer on the staff of numerous generals of the army.

Following his activities in the Civil War, Dr. Bailey again took up his abode at Mackinac. His close identity with the life and progress of this beautiful and historically interesting place, together with his knowledge of the folk-lore of Mackinac and surrounding country, made him a part and parcel of this vicinity, and it is with great sadness that we witness the passing of this grand old man of the Straits of Mackinac.

Chippewa County Medical Society,

March 1st., 1910.

E. H. WEBSTER.

R. C. WINSLOW.

Dr. Rogers read a paper on "Modern Therapeutics" in which he took up the subjects of Psychotherapy in its various forms:—Osteopathy, Massage, Hydrotherapy and Chiropractic.

I. V. YALE, *Secretary*.

GRAND TRAVERSE

Regular Meeting, March 3, 1910.

Meeting called to order by the president. Fourteen members were present. Minutes of the last meeting read and approved.

Dr. Sara Chase read a paper on measles. Discussion opened by Dr. Moon. Dr. Lawton

discussed the seriousness of measles, stating that it was not generally recognized to be such a serious disease. He mentioned mild cases which later developed severe complications and sequelæ; such as, otitis media and lung diseases.

Dr. Lawton read a paper on scarlet fever. Dr. Thurtell opened the discussion and said that he had used diphtheria anti-toxin in scarlet fever with good results, and has not yet lost a case. He stated that he uses anti-toxin in cases in which the angina is severe and generally gets early results. His cases were typical scarlet fever. Dr. Moon mentioned an epidemic in which most of the patients died, and some without a rash. All had a severe angina.

Dr. Holliday, health officer, said that twenty cases had been reported to him since October in which the children had very few symptoms and most of them felt perfectly well. Some were discovered by the school teachers. He thought that probably twenty more cases had gone unrecognized.

Dr. Wilhelm read a paper on diphtheria. Dr. Bartlett opened the discussion and said that mercury was not supposed to be used in conjunction with anti-toxin. Several of the physicians stated that they had used the two together without any ill effects. Dr. Moon said that he had had good results with Monsel's solution in stopping the spread of the membrane.

Dr. Holdsworth read a paper on complications of measles, diphtheria and scarlet fever.

Moved and supported that the Membership Committee communicate with outside physicians and attempt to get them into the Society—carried.

Moved and supported that the members of the Society be not allowed to do lodge practice—carried.

Moved and supported to adjourn—carried.

R. E. WELLS, *Secretary*.

HOUGHTON

The January meeting of the Houghton County Medical Society was held at the Douglass House, Houghton, January 3, 1910. Dr. W. P. Scott, of Houghton, presided in the absence of the President. Drs. O. E. Varieo, D. E. Gadwin, and Isodore Stearn were elected members of the Society, and the names of Drs. James Malcolm Walsh and E. O. Kruger were proposed for membership.

The retiring Secretary, Dr. John MacRae, made his report for the year 1909, showing an

increase in membership from fifty-six to sixty-one and an average attendance of fifteen. The financial report showed a balance of \$250.10 in the treasury.

Dr. H. H. Runonavarro, of Calumet, reported a case of leprosy, showing stains of the *Bacillus Lepri* and exhibiting the lesions on the face, hands and feet of his patient who was present. The case had been watched by Dr. Runonavarro for two years and at first the nature of the disease was not suspected, but when the patient reported that his mother had been sent to a leper's hospital in Sweden, a diagnosis of leprosy was made in spite of the rarity of the disease in this country. Since this time the diagnosis was confirmed by pathological and bacteriological examinations. The pathological diagnosis being made by Dr. A. S. Warthin of Ann Arbor. The progress of the disease had been practically unchecked by any treatment and the patient's appearance at this time was quite characteristic of the disease. Especial attention was called to the fact that this disease is feared to a degree quite out of proportion to its danger as a contagious disease.

After this report the annual election of officers was held. The following officers were elected:

President—Dr. John MacRae of Calumet.

Vice-President—Dr. W. H. Machette of Hancock.

Secretary-Treasurer—Dr. L. A. Farnham of Calumet.

Member of the Board of Censors—Dr. W. S. Jackson of Houghton.

Delegate to the State Medical Society—Dr. S. S. Lee of Osceola.

Alternate Delegate—Dr. J. B. Quick of Kearsarge.

It was announced that the annual banquet would be held in Calumet on January 13th at the Miscowaubic Club. After the adjournment luncheon was served. Twenty-three members were present.

L. A. FARNHAM, *Secretary*.

INGHAM

The Ingham County Medical Society has issued a very neat program, giving the dates and papers for the entire year. Those still to be given are as follows:

April 5, 1910. Functional Diseases of the Stomach. J. E. McIntyre.

- April 12, 1910. The treatment of Lobar Pneumonia and some of its Complications, outside of Hospitals. Dr. Frank Smithies, Ann Arbor.
- April 19, 1910. Habitual Constipation. L. Anna Ballard.
- April 26, 1910. Diarrhoea. R. E. Miller.
- May 3, 1910. Prophylactic Management of the Acute Infectious Diseases. F. A. Jones.
- May 12, 1910. Bi-Monthly (Special Announcement).
- May 17, 1910. Chronic Inflammation of the Urethra. B. M. Davey.
- May 24, 1910. Cystitis. J. W. Hagadorn.
- May 31, 1910. Fractures of the Shoulder Joint. H. A. Haze.
- June 7, 1910. Blood Pressure. C. M. Davis.
- June 14, 1910. Intestinal Worms. J. A. Humphrey.
- July 14, 1910. Annual Picnic.
- September 8, 1910. Bi-Monthly (Special Announcement).
- September 27, 1910. Inflammations of the Conjunctiva. S. H. Jones.
- October 4, 1910. Office Gynecology. Cora P. Ganung.
- October 11, 1910. Minor Surgical Conditions.
- (a) Boils.
- (b) Ingrowing Toe Nails.
- (c) Wounds of Skin and Muscles. C. V. Russell.
- October 18, 1910. Hysteria. J. D. Heitger.
- October 25, 1910. Otitis Media. C. G. Jenkins.
- November 10, 1910. Annual Meeting.
- November 15, 1910. Chronic Diseases of the liver. J. G. Rulison.

KALAMAZOO ACADEMY

Report of Meeting of The Kalamazoo Academy of Medicine of February 8, 1910.

After a brief business meeting the following program was carried out:

Dr. V. D. Lespinasse, of Chicago, first gave the fundamental principles of the use of Carbon Dioxide Snow in the treatment of vascular naevi. He reports this agent the most useful which has as yet appeared for this kind of skin lesions. By freezing the part from one to a dozen or more times, the blood is coagulated in the veins and later a scar-formation occurs, thus blanching the part. An area of about a half inch in diameter is the usual size treated. A bleb usually results and some swelling but these soon disappear and the area is pale. Occasionally the first treatment shows very little results, but the suc-

ceeding ones are proportionately more rapid. He reports this a safe method as under even ordinary circumstance it is rare to hear of any sloughing or other bad effects.

The simplicity of the process is the most remarkable. The snow is collected by means of a chamois skin and formed into a cone by pounding it into a mold by a mallet. The flat base of this cone is then pressed firmly against the part to be treated for about 20 seconds.

In speaking of the newer surgery of the epididymus, Dr. Lespinasse compared the vas to the fallopian tubes in the female, or to the appendix. He held that accumulations of pus in these structures cause pain in a manner similar to that in the other structures, by pressure, and that the treatment should be similar—namely, to open into the tunica either in front if general anaesthesia is given, or if none, a posterior opening would be best. He advised inserting probe or forceps to insure good drainage. He also advised making a longitudinal slit into the vas itself and injecting argyrol in from 5 per cent to 20 per cent strength.

He demonstrated some specimens of work he has done on dogs with reference to this phase of surgery.

Dr. A. E. West of Kalamazoo opened the discussion.

Dr. J. H. Crosby of Otsego gave a very interesting paper which dealt with infant feeding. The principal points mentioned were:

1. The proteid elements of cow's milk interfere very little if any with digestion, and can be taken in most any percentage.

2. Bacteria are believed to play a very small part in the causation of infantile indigestion.

3. Cream is the usual cause of the so-called "curds in the stool," being due to the saponification of the fats.

4. The principal cause of digestive disturbances of this type is in the carbohydrates and salts rather than in any of the above, and especially in the sugars. The milk sugar was believed to be most difficult of digestion; cane sugar is more easily digested, but malt sugars are best of all as they cause the least trouble. Malt soups are often best taken.

Dr. Blanche Epler of Kalamazoo opened the discussion.

Dr. W. E. Collins gave a review of the work now being reported with reference to stovaine as an anaesthetic.

The regular meeting of the Kalamazoo Academy of Medicine for March was held in the Academy rooms at Kalamazoo, on the 8th. The program was as follows:

1. Treatment of Gonorrhoea, by Dr. A. E. West, Kalamazoo.

Discussed by Drs. Hochstein, Vaughan, Bernstein, Blach, Crane, West.

2. Diet after Abdominal Section, by Dr. J. H. Carstens, Detroit.

He recommended the giving of four quarts of water or saline solution immediately after every laparotomy by rectum. As soon as able give much liquid by mouth. If much nausea, may have to try many different expedients. Sometimes a glass of beer or a cracker will settle the stomach so that it will retain food. He believed stomach washing of value in many cases for this purpose.

He gives light diet for two or three days then increases until at the end of the first week, full diet is restored. He believes that milk is not a true liquid diet as it soon forms curds which are really solid food. Malted milk, however, is sometimes given, as is also buttermilk.

Certain exceptions to the above occur, as in stomach and bowel operations where appropriate changes should be made. After stomach operations, feed by rectum for five days, then begin by giving two ounces at a feeding. Use no enemas after operations on large bowel.

He advocated the use of morphine, but took a medium ground by saying that just enough to deaden pain should be used and no more; $\frac{1}{8}$ gr. doses being the usual day dose and $\frac{1}{4}$ gr. at night, so as to produce sleep. He said that large doses have done great injury to many patients.

He advocated strongly the use of eserine salicylate after operations. Alcoholics are used very little, though at times may stop nausea. Summary—

- (1) Give only liquid food for 48 hours.
- (2) Light diet until end of first week.
- (3) Full diet at end of first week.
- (4) Give unlimited amount of liquid.

The paper was discussed by Drs. Hochstein, Clark, Boys, Butler, Balch, Crane and Carstens.

3. Diagnostic and Prognostic Importance of Eye-fundus Lesions in Nephritis, with especial reference to that of Pregnancy. Dr. E. J. Bernstein, Kalamazoo.

Discussed by Drs. Jackson and Bernstein.

After the program, Dr. Carstens gave an informal talk upon the growth of the State Society

and its usefulness to practitioners. He mentioned the defense now given by the State Society and commended it very highly, saying that it alone "was worth the price of admission." He spoke of the coming duty of the physician to teach moral lessons as he has not done in the past, suggesting that the physician has an opportunity for this better than anyone else, not excluding the ministers.

He entered a plea for better education concerning cancer among the laity.

C. E. Boys, *Secretary*.

MENOMINEE

Following is the program for the Marinette and Menominee County Medical Society for the remainder of the year.

April 13.—Menominee.

Dr. E. Sawbridge

Dr. W. R. Hicks

Dr. H. F. Schroeder

Dr. A. F. Lyon-Campbell—Midwifery in Private Practice.

May 11.—Marinette.

Dr. A. T. Nadeau—Gastric Ulcer.

Dr. J. F. Hicks—Chronic Gastritis.

Dr. D. R. Landsborough—Gastric Carcinoma.

Dr. R. A. Walker—Biliary Infections.

June 8.—Menominee.

Dr. P. J. Noer—Contract Practice.

Dr. C. C. Stevens—Differentiation of Epithelia as found in Pathological Urine, as an Aid in the Diagnosis of Genito-Urinary Diseases.

Dr. H. R. Adams—Pneumonia in Children.

September 14.—Marinette.

Dr. E. V. McComb—The Management of Local Infections.

Dr. H. T. Sethyne—The Treatment of Tuberculosis with especial reference to Tuberculin.

October 12.—Menominee.

Dr. E. E. Axtell—Mastoiditis.

Dr. E. Grignon—Puerperal Sepsis.

Dr. M. D. Bird—Septic Peritonitis.

November 9.—Marinette.

Dr. B. T. Phillips—General Management of Infectious Diseases.

Dr. T. A. Lid—Scarlatina.

Dr. S. Berglund—Diphtheria.

Dr. A. B. Cotnoir—Acute Articular Rheumatism.

Dr. A. J. Marquis—Variola.

December 14.—Menominee.

Dr. H. F. Schroeder—Abortion.

Dr. H. A. Vennema—Chronic Appendicitis.

Dr. J. V. May—To be announced.

Dr. E. V. McComb—Internal Hemorrhage.

C. R. ELWOOD, *Secretary.*

MONTCALM

At our last meeting we had the largest attendance we have known for a long time.

We had with us our Councilor, Dr. W. T. Dodge, of Big Rapids, who read an interesting paper on "Some Phases of Chronic Disease of the Stomach, Duodenum, Gall Bladder and Appendix." (Published in this issue of the JOURNAL.—EDITOR.)

The subject for consideration at the meeting was "Variola." Four papers were read on the same by Drs. Kelsey, Highfield, Danforth and Penton. These papers were well discussed by all present.

Dr. W. H. Belknap was elected delegate to the State meeting in Bay City, with Dr. A. W. Martin, of Howard City as alternate.

The officers of our Society for 1910 are:

President Emeritus—Dr. John Avery, Greenville.

President—Dr. F. R. Blanchard, Lakeview.

First Vice-President—Dr. J. O'Dell Nelson, Howard City.

Second Vice-President—Dr. E. M. Highfield, Edmore.

Third Vice-President—Dr. W. H. Belknap, Greenville.

Fourth Vice-President—Dr. Walter A. Lee, Sheridan.

Secretary and Treasurer—Dr. H. L. Bower, Greenville.

H. L. BOWER, *Secretary.*

MUSKEGON-OCEANA

The meetings of our Society for 1910 have been started a little later in the year than usual. Several causes have combined to postpone the work of getting out the schedule for 1910. Your Secretary's candidacy regarding the secretaryship of the Michigan State Medical Society, which was taken up early in the year, took up considerable time early in January.

Your Secretary, herewith, wishes to thank the members of the Muskegon-Oceana County Medical Society, and especially the President and Board of Directors and Dr. George S. Williams, Chairman of the Board of Directors, for

their kindly interest and work done in an effort to make this candidacy successful.

The office of Secretary-Editor of the Michigan State Medical Society and Journal was not brought to Muskegon. No "sore spots" need be felt by anyone, however, regarding this matter.

Dr. George S. Williams, Chairman of your Board of Directors, and your Secretary, were at Detroit in attendance upon the meetings of the Council, January 12th and 13th, and the meeting of the Association of County Medical Society Secretaries of the State of Michigan, on the 13th. These meetings were very interesting and enjoyable in every way. Many points of interest were brought up and discussed thoroughly. The discussion of the Medical Defense Plan was entered into thoroughly and many points pro and con were brought up. Dr. Williams, your representative upon the Medico-Legal Committee, was present at the discussion and no doubt gained much information concerning the Medical Defense Plan. I believe it would be very interesting and beneficial to have a talk from Dr. Williams before the Society on this subject.

All of the meetings at Detroit above referred to, were full of vim and good fellowship. A spirit of fairness and intense interest was manifest throughout.

Dr. Wilfrid Haughey of Battle Creek was elected Secretary-Editor. Dr. G. F. Inch of Kalamazoo was elected Treasurer. The councilors' vote for Secretary-Editor, so far as the writer knows, was as follows: The first ballot, Dr. Wilfrid Haughey of Battle Creek, 4; Dr. Rich of Detroit, 2; Dr. Conboy of Bad Axe, 2; Dr. Warnshuis of Grand Rapids, 1; Dr. Chapman of Muskegon 2. Second ballot, Dr. Wilfrid Haughey of Battle Creek, 8; Dr. Chapman of Muskegon, 2. Dr. Haughey is an eminently capable young man and it is very certain that the office of the Secretary-Editor is well filled.

Your Secretary was elected President of the County Medical Society Secretaries Association of Michigan.

The schedule for meetings for 1910 is outlined as below given.

Each member is expected to give a paper upon some subject of his own selection, or exercise his privilege of inviting in some member of the profession from outside our counties to give a paper in his stead. Each member is requested to select two other members to open a discussion of his paper. Please notify the Secretary of the subject of the paper and names of members

who will open discussions at least one week in advance of date of meeting.

No member is expected to go to any extensive expense in providing entertainment for the Society, at these meetings. The entertainment feature is purely optional.

The train service on the Pere Marquette is now such as to permit of a scant hour's time in Muskegon between the afternoon trains. Your Vice-President, Dr. Griffin of Shelby, and the Board of Directors, after discussing this matter, decided to omit the afternoon meetings feature, as the time would not be sufficient to permit of an afternoon meeting between trains. All the meetings, therefore, will be held evenings.

The first meeting of the year was held with Dr. W. A. Campbell at Muskegon, with an attendance of seventeen members.

The next meeting will be held Friday evening, March 4, with Dr. V. A. Chapman at Muskegon, at his residence, 215 Terrace St. Take the Pine St. car and get off at Isabella St. It is necessary to call this meeting a little early. Dinner will be served at 7 o'clock. The meeting for business and scientific program will be taken up following dinner.

Your Secretary will appreciate it very much if each member expecting to be present at dinner will notify him as soon as possible.

Dr. Chapman will read a paper upon "Osteoma of the Frontal Sinus," with report of a case. Dr. Eames will talk upon the same subject from the pathologist's point of view.

Some business is to be transacted. The delegate and alternate delegate for 1910 should be elected. A large attendance would be very gratifying.

Out of town members will be taken care of and started home early Saturday morning, in good time and condition for the day's business.

1910

February 19—Dr. W. A. Campbell, at Muskegon.

March 4—Dr. V. A. Chapman, at Muskegon.

March 18—Dr. George S. Williams, at Muskegon.

gon.

April 1—Dr. J. T. Cramer, at Muskegon.

April 15—Dr. John VanderLaan, at Muskegon.

April 29—Dr. R. G. Cavanagh, at Muskegon.

May 13—Dr. A. A. Smith, at Muskegon.

May 27—Dr. J. D. Buskirk, at Shelby.

June 3—Dr. Charles F. Smith, at Whitehall.

June 17—Dr. V. J. Blanchette, at Walkerville.

July 1—Dr. G. F. Lamb, at Pentwater.

July 15—Dr. J. H. Nicholson, at Hart.

July 29—Dr. B. F. Black, at Holton.

August 12—Dr. W. E. Dockry, at Pentwater.

August 26—Dr. L. P. Munger, at Hart.

September 9—Dr. S. J. Drummond, at Casnovia.

September 23—Dr. J. M. VanderVen, at New Era.

October 7—Dr. W. L. Griffin, at Shelby.

October 21—Dr. L. W. Keyes, at Whitehall.

November 4—Dr. C. P. Donelson, at Muskegon.

November 18—Dr. P. A. Quick, at Muskegon.

December 2—Dr. L. N. Eames, at Muskegon.

December 16—Dr. F. B. Marshall, at Muskegon.

1911

January 6—Dr. P. J. Sullivan, at Muskegon.

January 20—Dr. W. P. Gamber, at Muskegon.

February 3—Dr. L. I. Powers, at Muskegon.

February 17—Dr. F. W. Garber, at Muskegon.

March 3—Dr. Jacob Oosting, at Muskegon.

March 17—Dr. G. J. Hartman, at Muskegon.

March 31—Dr. R. G. Olson, at Muskegon Heights.

April 14—Dr. I. M. J. Hotvedt, at Muskegon.

April 28—Dr. J. F. Denslow, at Muskegon.

The regular meeting of the Muskegon-Oceana County Medical Society was held at the residence of Dr. V. A. Chapman, at Muskegon, Friday evening, March 4th, 1910.

The members present were Doctors J. F. Denslow, P. A. Quick, Jacob Oosting, George S. Williams, A. A. Smith, R. G. Olson, P. J. Sullivan, F. B. Marshall, L. N. Eames, W. E. Dockry, L. I. Powers, W. P. Gamber, I. M. J. Hotvedt, J. T. Cramer, C. P. Donelson, and V. A. Chapman.

Following seven o'clock dinner, the regular business and scientific work of the Society was taken up. Dr. F. B. Marshall of Muskegon, Michigan, was elected delegate of this Society to the meeting of the Michigan State Medical Society for 1910. Dr. W. E. Dockry of Pentwater was elected alternate delegate. Dr. H. W. Hatch of Hart was elected to honorary membership of this Society.

Dr. Chapman read a paper upon "Osteoma of the Frontal Sinus," presenting a clinical case from which he had removed a large osteoma of the frontal sinus, which required taking away the major portion of the anterior table of the frontal bone and nasal bones and roof of the



ROBERT LE BARRON, M. D.

right orbit. The specimen removed was presented before the Society. Dr. Eames followed with a paper upon the same subject from the pathologist's standpoint. The papers were quite generally discussed.

Meeting adjourned to meet in two weeks with Dr. George S. Williams, at Muskegon, Michigan.

Very truly yours,

V. A. CHAPMAN, *Secy.*

OAKLAND

The regular March meeting of the Oakland County Medical Society was held in the beautiful rooms of the Court House at Pontiac on March 3, 1910.

At this time the Society had planned to give a complimentary banquet to Dr. Robert LeBarron, to mark the close of a half century of active work in the practice of the healing act. These meetings serve for much good to the County Society, as all who attended were convinced. Among those present as guests of Dr. LeBarron were Drs. W. F. Breakey of Ann Arbor, I. S. Townsend of Detroit, and C. B. Burr of Flint. As guests of the Society, Dr. J. H. Carstens of Detroit, President of the Michigan State Medical Society, Dr. Wilfrid Haughey of Battle Creek, Secretary of the State Society, and Dr. A. P. Biddle of Detroit, Councilor for the First District.

Dr. Carstens responded to the toast, "The Value of the Medical Societies," in which he gave a very beautiful word picture of how the whole populace could be educated and swayed by the energies of an honest doctor in teaching his people how to live; and that through organization he would be made stronger himself and better fitted as a teacher; that the doctor was closer to the hearts of his people than any other man; therefore, more potent in the community for good than were the theologian, lawyer, or general. The Doctor strongly recommended mutual fellowship among physicians.

Dr. W. F. Breakey paid some very pleasing tributes to his old classmate, Dr. LeBarron, and wished for him many years of usefulness.

Dr. E. A. Christian of the Eastern Michigan Asylum responded to "The Guest of Honor," in which he very nicely called to our minds the difference in the armamentarium of the physician of today, and of fifty years ago, when our guest started to practice, also that the Doctor had kept apace with the changes of equipment, still holding his honored place among the fellow practitioners.

Dr. Wilfrid Haughey, of Battle Creek, secretary of the State Medical Society and editor of the State Medical Journal, spoke of the immense amount of good the state organ was doing and said that its subscription list had grown until it was now necessary to print 2500 copies. He urged the county societies to contribute to its columns as often as possible.

Dr. C. B. Burr, of Flint, eulogized the Doctor and gave some very pert remarks on the life and doings of Dr. LeBarron as he remembered him for the last thirty years.

Dr. A. P. Biddle responded to "The Physician Himself, His Responsibility to the General Profession," that it is every man's duty to do all he can to raise the standard of the profession, throwing aside little personal matters and bending every honest effort to maintain and improve the Societies, County, State and National, even though he can not approve personally of each and everything done as a Society. After which Dr. LeBarron responded to "Reminiscences," giving an account of his professional life and thanking the Society for thus honoring him; stating that this would be a red letter day in his memory.

J. T. BIRD, *Secretary.*

ONTONAGON

At a meeting of the Ontonagon County Medical Society held in the village of Ontonagon, February 24, 1910, the following officers were elected:

President—W. B. Hanna of Mass City.

Vice-President—C. L. Rumph of Rockland.

Secretary-Treasurer—J. S. Nitterauer of Ontonagon.

Dr. C. L. Rumph gave a very interesting report of a case of leprosy with pictures of the case.

J. S. NITTERAUER, *Secretary.*

OTTAWA

The February meeting of the Ottawa County Medical Society was held at the Council rooms, Holland, February 8, 1910. The meeting was well attended. Dr. R. J. Walker, of Saugatuck, read a paper on "Diagnosis and Treatment of Diabetes." Dr. Walker presented nothing new in regard to the diagnosis of diabetes, but ventured the opinion that the disease is more prevalent than commonly supposed; as in his opinion it occurs with great frequency in children where a diagnosis is seldom made.

In the treatment of diabetes he was strongly

of the opinion that the first essential was to nourish and preserve the strength of the patient.

If this can be accomplished by a strictly diabetic diet, well and good, but if not, then resort to a more palatable and liberal diet.

The medicinal treatment given was symptomatic, and the various so-called specifics, as forms of opium, arsenic, and proprietary articles, were given scanty consideration. The use of Gluten flour was merely mentioned to be condemned. The rigid diet lists as published in our text-books, and considered necessary in our treatment of diabetes, were given a rude shock, both by the author and those participating in the discussion of the paper.

Dr. Rowe, of Grand Rapids, opened the discussion by giving the premonitory and subjective symptoms of his case of diabetes occurring in himself. He also described the manner in which he made an accidental diagnosis, and gave the subsequent course and treatment. He agreed with Dr. Walker, as did nearly all of those participating in the discussion, that a rigid sugar-free diet shortened the duration of the disease by shortening the life of the patient.

Dr. D. G. Cook, of Holland, read a paper on "Diseases of the Gall-Bladder," and presented his subject in three sections. He read extracts from the paper on "Gall-Bladder Diseases and Pancreatitis," by Dr. J. H. Carstens, of Detroit, and followed this by reading an original review of the subject and reporting several cases. The Doctor presented a very interesting case of gall-bladder infection, with a marked jaundice, for inspection and diagnosis. The patient was examined by many of those present. After the patient had retired, he gave a practical demonstration of the Mayo operation for gall stones and gall-bladder drainage, using for this purpose a large beef liver and gall-bladder.

The only treatment offered for diseases of the gall-bladder was operative. Even in cases of infection without stones he earnestly recommended drainage as the only hope of recovery. Dr. Cook presented his subject in a painstaking manner, and at considerable trouble to himself, but his efforts were greatly appreciated by those present. It was the most practical presentation of a subject ever given before the Society.

SCHOOLCRAFT

Dr. Frank Rainie, of Manistique, is spending the winter in California. He proposes doing some special work in the hospitals of Los Angeles.

At the regular meeting of the Schoolcraft County Medical Society, held in Manistique, on Feb. 2d, Dr. G. M. Livingston of Manistique, was elected delegate to the State Society meeting at Bay City and Dr. J. W. Saunders alternate.

Dr. Stephen A. Gates of Cusino, is taking a short vacation in Detroit.

Dr. John M. Lipson has sold his drug store and practice at Germfask and is now located at Gould City, where he succeeds Dr. J. W. Saunders.

This Society at its last meeting adopted resolutions unanimously indorsing Hon. Chase S. Osborn, of Sault Ste. Marie, for next governor.

G. M. LIVINGSTON, *Secretary*.

SHIAWASSEE

The February meeting of the Shiawassee County Medical Society was held on Tuesday, February 8, in the parlors of the Armory, but owing to snowdrifted roads, etc., the attendance was small. However, it was decided to appoint a physician in each district, as a committee of one, to look into the necessity and advisability of establishing a County Fee Bill. On Tuesday, March the 8th, this committee will meet as a whole and take some action on the matter. Later in the afternoon a general session of the Society will be called and resolutions submitted. After this there will be a banquet at the Hotel Wildermuth.

Dr. Geo. B. Goss of Bancroft is spending some weeks in Chicago.

As previously agreed upon the March meeting of the Shiawassee County Medical Society, held at the Armory in Owosso, Mich., March 8th, was given over to the consideration of a fee-bill.

At a previous meeting, one physician in each village and district in the county was selected to ascertain the sentiment in his vicinity, as to the advisability of adopting a uniform fee-bill; this committee met and arranged suggestions which were submitted to the County Society.

The meeting of the Society was well attended, and great interest manifested in the solving of this knotty problem. Naturally, during the discussion of the subject, many interesting phases of the situation were brought out. The consensus of opinion was that the fees in the rural districts were generally too low, and should be raised.

It became clear to all that in order to accomplish results along these lines it was necessary that each physician should not only stand by the fee-bill adopted, but that he must educate his people and patrons in their business relations

to their physician, as well as their professional relations; that in view of the greatly increased cost of preparation of the qualified physician, as well as increased cost of maintenance, the physician is no longer only a day laborer.

While nearly all members of this Society are loyal to the best interests of the profession, the question arose as to the treatment of the occasional one who undervalues his service. Though the question may be still represented by an interrogation point, the sentiment seemed to favor a patient attempt at education of the doctor, instead of coercion.

Several items of the fee-bill were thoroughly considered and tentatively adopted, and at a subsequent meeting the work of completing and adopting as a whole will be taken up, with every prospect of harmonious action thereon.

After adjournment the members of the Society enjoyed a dinner and smoker at the Hotel Wildermuth.

H. A. HUME, *Secretary*.

TUSCOLA

The Tuscola County Medical Society met at Caro, Feb. 14, with an attendance of eighteen.

A case of appendicitis which simulated ruptured kidney, occurring in the practice of Dr. Bishop of Millington, was reported. An appendiceal abscess had formed in the retroperitoneal cellular tissue which opened the ureter and some small blood vessels causing the formation of a large urinous hematoma such as would be formed by a rupture of the kidney. The history of injury from a kick and a fall gave weight to such a diagnosis. The hematoma was first drained by free incision over the kidney and five days later the kidney was removed, but the patient died a few hours later. An autopsy revealed the true nature of the disease.

Dr. Edward W. Mooney of Detroit read a paper, "Simple, Exophthalmic and Congenital Goitre," and Dr. W. M. Donald, also of Detroit, read one, "Hyperchlorhydria with Special Reference to the Differential Diagnosis."

Both papers were favorably discussed.

W. C. GARVIN, *Secretary*.

Dr. F. D. Smith of Coopersville has been confined to the house for several weeks with Sciatic Rheumatism.

NEWS

Dr. O. C. Breitenbach, Director of the Escanaba Municipal Laboratory, has been appointed as the Escanaba representative of the State Board of Health, on the Regulation of the Public Water Supply. This appointment comes to Dr. Breitenbach not only by virtue of his office as Director of the Municipal Laboratory but in recognition of his valuable work in securing purer water and better sanitary conditions in Escanaba.

Dr. R. A. C. Wollenberg, who has been very active in the United States marine hospital service the past five years, has resigned his commission and returned to Detroit to take up practice. He will be associated with Dr. Andrew P. Biddle, at No. 57 Fort St., West, making a specialty of skin diseases, to the study of which both physicians have given much time.

Dr. Wollenberg came to Detroit with his parents when an infant. After receiving an early education in the public schools he attended the University of Michigan, later going to the University of Georgetown from which he received his medical degree. Immediately after graduating he entered the marine hospital service and was stationed in Detroit Marine Hospital for over one year as interne and remained two years longer on special duty, then was transferred to New York to Ellis Island, going from that port to Naples, Italy, as special immigration inspector for the United States government of all immigration leaving the Mediterranean.

While stationed in Naples, Dr. Wollenberg's duties took him all over Italy and he gained an extensive experience in many branches of his profession as well as of the immigration service. Among his most notable achievements in this respect was the study he made of pellagra, his findings on this subject forming an official report to the United States Government. Dr. Wollenberg fulfilled a similar duty for his home government in a special investigation of cholera when that plague raged in Rotterdam a couple of years ago. During the Italian earthquake disaster, Dr. Wollenberg was in charge of one of the several general hospitals placed at the disposal of the earthquake refugees by the government. Dr. Wollenberg left Naples last October and upon his arrival in the United States was sent at once to San Francisco. While in

the California city he decided to give up the service and return to Detroit to make his home. Mrs. Wollenberg is a Detroit girl and they have a family of three children. They will make their home at No. 2334 Woodward Ave.

February 25, 1910, Dr. A. W. Alvord of Battle Creek, gave a four course supper at his residence on Wendell St., to about twenty-five of his brother practitioners. The evening was very enjoyably spent in getting better acquainted with each other. This is the third of these social gatherings of the Battle Creek physicians. The first being given by Dr. M. A. Mortensen at the Sanitarium; the second by Dr. T. E. Sands at his home on Van Buren St.

These gatherings, together with several social gatherings held by the Battle Creek Medical Club at their rooms, have served to engender a strong feeling of fellowship among those attending.

Born February 25th to Dr. and Mrs. R. M. Gubbins of Ceresco, a son, Robert Merrick Gubbins Jr.

Monday March 7, about twenty-five members of the Battle Creek Medical Club met at Luncheon and spent a very enjoyable evening talking over various topics which were not "shop."

Dr. A. Leenhouts of Holland, attended the Auto Show in Chicago. The Doctor is one of our auto-enthusiasts.

A large number of medical friends of Dr. T. G. Huizinga, surprised him at his home in Zeeland, Feb. 7. The occasion being the 50th anniversary of his birth. Dr. Huizinga graduated from the University of Michigan in 1881, and has practiced medicine, in his present location in Zeeland, twenty-nine years.

Dr. B. B. Godfrey of Holland, in a few well chosen words, presented to Dr. Huizinga a gold cane as a token of the esteem and appreciation in which he is held by his medical friends in this county. Mrs. F. J. Schouten presented to Mrs. Huizinga a beautiful hand-painted vase as a memento of the occasion from the ladies present. Dr. and Mrs. Huizinga responded in a fitting manner. At the close of a very pleasant evening, refreshments were served, and the guests departed to their homes with a feeling of satis-

faction at having done honor to a man who has so completely fulfilled the modern injunction, "Be good and make good."

The plans for the New Detroit General Hospital are nearly completed by the architects, Stratton and Baldwin of Detroit. They will be submitted to several hospital authorities in Cincinnati, New York and Boston as well as in Europe. Mr. Stratton, accompanied by Dr. W. F. Metcalf and Dr. H. E. Safford sailed February 16th, with the intention of visiting all of the well known hospitals of England, Ireland and the Continent.

New Registration Report by the Michigan State Board of Registration in Medicine

Martin Samuel Dubpernell, Detroit, Mich. Med. Dept. University of Louisville, Ky., 1909. Reciprocity Qualification I with Kentucky, Date of License, 1-19-'10.

Wm. T. S. Vincent, Grand Rapids. Med. Coll. of Ohio, 1889. Reciprocity Qualification I with Georgia, Date of License, 2-16-'10.

Carl Ridge Meloy, Detroit, Mich. Med. Dept. Johns Hopkins Univ., Md., 1906. Reciprocity Qualification I Virginia, 1-27-'10.

Wm. W. Root, Detroit, Mich. Rush Med. College, Chicago, 1904. Reciprocity Qualification I with Illinois, 3-4-'10.

Lee E. Grant, Detroit, Mich. Kentucky School of Medicine, 1902. Reciprocity Qualification I with Indiana, Date of License, 3-4-'10.

Those of our readers who are interested in the various forms of Physiologic Therapeutics (including Hydrotherapy, Electrotherapy, Massage, Hyperemia, etc.) will be glad to know that it is proposed to shortly inaugurate a new journal devoted solely to the delineation of the progress made in these lines of therapeutic endeavor.

The American Journal of Physiologic Therapeutics will be published bi-monthly and the subscription price will be \$1.00 a year. The names and addresses of all interested physicians should be sent in, and those desirous of subscribing at once may enclose their remittance when writing. It is to be hoped that a wide-spread interest may be aroused in this matter. *The American Journal of Physiologic Therapeutics*, 72 Madison Street, Chicago.

The annual meeting of the Ohio State Medical

Association will be held in Toledo on the days of the 11th, 12th and 13th of May, 1910. The Committee on Arrangements already have the work well under way, and Exhibitors desiring space at the Hotel Secor may address their communications in care of Dr. George Chapman, Toledo, Ohio. Everything is being done to make this meeting the most successful one ever held in the State.

The 60th Annual meeting of the Illinois State Medical Society will be held in Danville, May 17th, 18th and 19th, 1910. This is to be the banner meeting. The entire membership of Vermillion County Medical Society extends to you a personal and very cordial invitation to attend. In this they are joined by the Commercial Club, the Hundred Thousand Club, the Mayor, the financial, industrial and business interests of the city.

Extracts from a report of the Health Officer of Manistee.

In 1907 twenty-eight cases of tuberculosis were reported to the city health officer. In 1908 the number dropped to sixteen. And last year there were only ten cases reported.

The death reports corroborate these figures.

In 1907 there were eighteen deaths from pulmonary tuberculosis, and three from other forms of the disease.

In 1908 there were eighteen deaths from pulmonary tuberculosis, and four from other forms, but in 1909 the deaths fell to nine for tuberculosis of the lungs and one from tuberculosis in other organs.

In three years reported cases fell from twenty-eight to ten, and deaths from twenty-one to ten.

The Society of Medical History of Chicago has been recently organized, with Dr. Isaac N. Danforth as president, Dr. N. S. Davis as vice-president, and Dr. George H. Weaver as secretary. Its council consists of Dr. Ludvig Hektoen, Dr. George H. Weaver, Dr. John Edwin Rhodes, Dr. N. S. Davis, Dr. Henry T. Byford, and Dr. Geo. Henry Cleveland.

The Society has been formed for the purpose of systematically collecting and permanently preserving in an accessible manner any matters which are or will become of interest in connection with the medical history of institutions,

organizations, and individuals, especially of Chicago and the surrounding States.

Everything collected by the Society will, as soon as possible, be so arranged as to be accessible to any person doing research work in medical history. Gifts to the Society will be duly credited to the donors.

All communications should be sent to Dr. Geo. H. Weaver, Secretary, 1743 West Harrison street, Chicago.

COMMUNICATIONS

To the secretary of each State and County Medical Society and other interested members:

At the last meeting of the American Medical Association at Atlantic City, the following report of Committee on Miscellaneous Business was adopted: "The Committee recommends that the President of this Association appoint a committee of five members to inquire into the desirability and practicability of establishing under the auspices of the American Medical Association a fund for the assistance of physicians disabled by sickness, and for a sanatorium for the treatment of such members of the Association as may be afflicted with tuberculosis or similar diseases; such committee to report to the House of Delegates at the next annual meeting of the Association."

As a basis for wise action the Committee urges that the officers of the State and County Medical Societies, and others interested in the subject, should at the earliest possible date, forward to the Secretary of the Committee, Dr. A. C. Magruder, Colorado Springs, Colorado, answers to the following queries, with some account of any special cases that seem to illustrate the need of providing for disabled members of our profession.

1. Is there any provision by your State Medical Society, or local Society, for the care of destitute and disabled physicians and those dependent upon them? If so, how is such care provided?

2. What number of instances of special need for such assistance (or sanatorium treatment) have arisen in your locality within the last five years and what number of your members need such assistance now?

3. About how many members of your County Medical Society are at present afflicted with tuberculosis or similar diseases, or have,

within the last five years died, or withdrawn from professional work on account of such disease?

It is earnestly requested that this matter be brought before each State and County Society at its next regular meeting and that the desired information be furnished our Committee at the earliest possible date.

Fraternally yours,

EDWARD JACKSON, Denver, Colo.

JEFFERSON R. KEAN, Washington, D. C.

A. T. BRISTOW, Brooklyn, N. Y.

H. B. ELLIS, Los Angeles, Cal.

A. C. MAGRUDER, *Secretary*,

305 N. Tejon St., Colorado Springs, Colo.

Washington, D. C., Feb. 10, '10.

To the Medical and Pharmaceutical Press:

At a regular meeting of the Board of Trustees of the United States Pharmacopœial Convention held at Columbus, Ohio, Jan. 28 and 29, 1910, it was resolved, five members of the Board of Trustees assenting thereto, to submit to the next meeting of the United States Pharmacopœial Convention (Incorporated) the following propositions to amend the Constitution of the convention in the following particulars:

(I) To amend Section 2, Article II, relating to membership, by inserting after the title "the Surgeon-General of the United States Marine Hospital Service," the following: "The Secretary of Agriculture, the Secretary of Commerce and Labor, the Association of Official Agricultural Chemists, and Association of State and National Food and Dairy Department, the National Wholesale Druggists' Association and the National Dental Association."

(II) Also to amend said Section 2, Article II, by changing the words "three delegates" in line eleven (page seven of the reprint of the Constitution and By-Laws of 1909) to "one delegate"; the effect of this change being to reduce the representation of each organized body and department to one delegate each.

(III) Also to amend article IV, concerning "Committees and Trustees", by changing the title "Committee of Revision," to that of "General Committee of Revision" (Ibid. last line.)

The Constitution does not require notice to be given of proposed changes in the By-Laws of the Convention, but to make clear the purpose of the change proposed in the present title of the Committee of Revision, it is hereby an-

nounced that the Board of Trustees will submit to the Convention propositions to amend the By-Laws as follows: To increase the number of members on the Committee of Revision, hereafter to be known as the "General Committee of Revision" from twenty-five to fifty, said General Committee of Revision to create from its own membership an Executive Committee of Revision of fifteen members, to have immediate charge of the work of revision, and also giving to said General Committee of Revision certain advisory and supervisory powers over the work of the Executive Committee of Revision.

MURRAY GALT MOTTER, *Secretary*.

BOOK NOTICES

Preparatory and After Treatment in Operative Cases, by Herman A. Haubold, M. D., Clinical Professor in Surgery and Demonstrator of Operative Surgery, New York University and Bellevue Hospital Medical College, New York; Visiting Surgeon Harlem and New York Red Cross Hospitals, New York, etc. With four hundred and twenty-nine illustrations. New York and London, D. Appleton & Co. Cloth, net \$6.00.

We have for a long time looked for a work of this character and certainly the writing of it could not have been entrusted to better hands. From the introduction to the final chapters on skin grafting nothing that makes for the scientific preparation and care of the patient has been omitted. The introduction is a departure from the ordinary and frankly tells the practitioner what the work is, and how it benefits him. Grouped under general consideration is found the surgical bearings of such complications as Syphilis, Tuberculosis, Obesity, Drugs, etc. Minute attention is given to the preparation of all things relating to the operation, from room to bandage, from assistant to instrument, from surgeon to patient, nothing is omitted, everything explained. The after-treatment is equally well handled. To shock and hemorrhage is devoted an entire chapter. Attention is given to post-operative vomiting, thirst, pain, dressing, removal of stitches, and the adjustment of artificial limbs. The all-important art of feeding is considered at length and in a masterful way. Finally the book is written in narrative style, though each subject has a separate caption. It occupies an unique place in the medical library, a place that has previously been empty. Within its six hundred and fifty pages is grouped a fund of practical information not found else-

where. Entire libraries may be searched in vain for what this book contains. As a reference book in an emergency it is a gem. It contains more than four hundred illustrations. The index is perfect. It should be welcomed by all and is indispensable to any that refer operative patients.

Saunders Illustrated Catalogue.

W. B. Saunders Company, the medical publishers of Philadelphia and London, have just issued a new edition—the thirteenth—of their handsome Illustrated Catalogue. It contains some twenty new books and new editions, and besides numerous black-and-white illustrations there are two color cuts of special value. We strongly advise every physician to obtain a copy—sent for the asking. It will prove a ready guide to good medical books—books that we all need in our daily work.

Renal, Ureteral, Perineal and Adrenal Tumors and Actinomycosis and Echinococcus of the Kidney. By Edgar Garceau, M. D., Visiting Gynecologist to St. Elizabeth's Hospital and to the Boston Dispensary. Octavo, 434 pages, 72 illustrations. New York and London, D. Appleton & Co., 1909. Cloth, \$5.00

This is the type of book that is sadly needed in American medical literature, the type which has so greatly enriched that of the Germans. It is essentially a monograph dealing quite exhaustively with the new growths in the kidney region, as described in the literature and exemplified in the pathological museums of the Massachusetts General and Boston City hospitals.

The author adopts a new and somewhat simplified classification, dividing kidney growths into (1) Solid Tumors of the Parenchyma, and subdividing these into malignant and benign; (2) Embryonic Tumors, including dermoids, rhabdomyomata and mixed growths; (3) Tumors of the Renal Pelvis and Ureter; (4) Polycystic Kidney and (5) Simple Serous Cysts. Perineal Tumors and Adrenal Tumors are discussed in separate chapters, as are Actinomycosis and Echinococcus. The final chapter discusses the Determination of Renal Efficiency.

Of the malignant solid tumors of the parenchyma the most important is the hypernephroma, first described by Grawitz in 1883. The author gives a table of 176 cases collected from the literature. He believes that they develop from adrenal "rests" in the kidney and thinks that it is best to put them, for the present, in a class by themselves. The other malignant tumors are less important.

There is a table of 100 cases of embryonic tumor, and one of 41 cases of actinomycosis.

The last chapter deals with diagnosis, the author correctly stating that no renal operation should be undertaken until the condition of the supposedly sound kidney has been carefully ascertained. He believes the Luy's segregator to be the best instrument for separating the urine from the two sides, but gives the technic in the use of cystoscopes of various kinds.

The book will prove a most valuable one of reference and should be in the library of every surgeon.

Spondylotherapy. Spinal Concussion of the Application of Other Methods to the Spine in the Treatment of Disease. By Albert Abrams, A. M., M. D. 420 pages with 100 illustrations. San Francisco, The Philopolis Press, 1910. Cloth, \$3.50, postage prepaid.

The subject of spinal therapy has been given scant attention by physicians, mainly, because it has been largely exploited by certain schools of practice.

The author in an interesting and instructive book, quite new in this field, has endeavored to elevate the whole subject and place spinal therapy upon a scientific basis. The various visceral reflexes of the author play an important part in the scientific explanation of the subject and are the basis of the practical results to be obtained.

The illustrations are an instructive feature of the work. The book is unique, scientific, and well suited for its purpose.

A Text-Book of the Practices of Medicine. By James M. Anders, M. D., Ph. D., Professor of the Theory and Practice of Medicine and of Clinical Medicine, Medico-Chirurgical College, Philadelphia. Ninth revised edition. Octavo of 1326 pages, fully illustrated. Philadelphia and London: W. B. Saunders Company, 1909. Cloth, \$5.50 net; Half Morocco, \$7.00 net.

Dr. Anders has, in this edition, added considerable matter: Flexner's and Wasserman's sera for cerebrospinal meningitis, pneumococcus meningitis, etc. Also Tucker's Magnesium Sulphate Anæsthesia, the hæmolytic tests in gastric carcinoma, and all the recent work by Wright and others.

Diagnosis and treatment are carefully considered, and definite information as to the treatment given when possible. The type and illustrations are clear, the sheen of the paper not hard on the eyes, and we feel that the edition will receive the same cordial support its predecessors enjoyed.

MEDICINE

Conducted by

W. K. WEST, M. D., Painesdale, Michigan

Pancreatic Internal Secretion—Osborne, in an article on the Internal Secretions, has the following to say on the pancreas:

"Besides the pancreatic secretion which passes through the pancreatic duct, the pancreas furnishes an internal secretion necessary to the health and life of the individual. The pancreatic duct may be tied and the animal live, but the pancreas cannot be removed without death supervening.

"It has been asserted that the internal secretion of the pancreas as well as the secretion through the pancreatic duct is necessary for the proper utilization of foodstuffs. This internal secretion of the pancreas has been positively demonstrated to be necessary for the proper metabolism of carbohydrates, and if this function of the pancreas is interfered with glucose will appear in the urine, and if this function is permanently abolished, diabetes mellitus is the consequence. While glycosuria can occur without any apparent disease of the pancreas and while disease of the pancreas can occur without glycosuria, it seems proved that the disturbance of the internal secretion of the pancreas (whether from actual degeneration of the islands of Langerhans, from reflex nervous disturbances, from abnormal liver conditions, or from disturbed suprarenal activity) will surely cause glycosuria. Hence, a consideration of the carbohydrate metabolism from the intake of starch to the normal amount of sugar in the blood, and to the normal function of the muscles from glycogen nutrition, must take into account the internal secretion of the pancreas.

"It must be emphasized that the disturbances of the interrelations between the ductless glands, whether by disturbed secretions of one or more of them, or by disturbances due to nervous irritations, reflex or direct, may sufficiently disturb the pancreatic internal secretion to cause glycosuria and yet no apparent disease of pancreas be found on autopsy. Instances of such glycosuria are those that occur from some irritations of the brain, injuries to the fourth ventricle, etc: the glycosuria that often occurs in acromegaly (disease of the pituitary); the glycosuria that often occurs in thyroid disease; and the glycosuria that has been shown experimentally to occur from too much absorption of suprarenal extracts.

"Thyroid secretion has been shown to exert profound influence on the secretion of the pancreas. If thyroid activity is insufficient, hypersecretion of the pancreas occurs. If there is excessive thyroid secretion, as in exophthalmic goitre, an under-secretion of the pancreas occurs.

"Disease of the islands of Langerhans in the pancreas always causes diabetes mellitus, unless there is sufficient healthy pancreatic tissue or supernumerary pancreatic tissue to prevent an absence of this secretion.

"While the pancreatic juice may be increased by hydrochloric acid and by secretion, and by various drugs such as creosote and salicylic acid, it is not known how the internal secretion of the pancreas may be increased or diminished.

"Unfortunately the feeding of or any extract made from pancreatic tissue, does not prevent or cure diabetes."—*Journal of the American Medical Association*, February 26, 1910, page 673.

The Treatment of Typhoid by Continuous Saline Instillation—In the *Journal of the American Medical Association*, Dr. David Riesman, of Philadelphia, refers briefly to his experience with proctoclysis in the treatment of typhoid fever. He has had the opportunity to use it in too few cases so far to claim any positive results and says, "It is difficult to see whether or not it shortens the course of a disease. It has seemed to me, however,—and this opinion is shared by my hospital internes—that on account of it we have had recoveries in several desperate cases." He began the use of it in the spring of 1908, and describes his methods as follows: "At first I put the patients in the Fowler position, but found they did not bear this well. They were then left in bed in the recumbent posture. The solution used was the ordinary physiological salt solution and did not contain calcium chloride. No difficulty was experienced in keeping the tube in place without any special device. The solution flowed in so gently that hardly any was expelled. Occasionally a patient would object to the irrigation, but the majority bore it without a murmur. I have generally discontinued the instillation during the night and have persisted in it during the day, with brief interruptions in some instances.

SURGERY

Conducted by

DR. R. E. BALCH, M. D., Kalamazoo, Michigan

Cerebellum and Its Affections—J. S. R. Russell in the *British Medical Journal* has a very complete article on the cerebellum and its affections. Speaking of the symptoms of cerebellar tumors, he lays emphasis upon the following points:

1. Headache. This differs from other forms of intracranial tumor by being especially liable to involve the occipital region and extend down the back of the neck. It may be accompanied by local tenderness over the site of the tumor, or in young children by bulging. The patient holds the head fixed, owing to the severity of the pain. The pain may, however, be referred to the frontal region, especially the contra-lateral frontal region.

2. Vomiting. This is a constant symptom, and is usually both frequent and severe.

3. Optic Neuritis. The author regards cerebellar tumors especially liable to cause early and extensive optic neuritis, leading rapidly to loss of sight and atrophy. He believes the eye in which the neuritis begins or is most intense, to correspond to the side upon which the tumor is located.

4. Disturbances of Equilibrium. Vertigo in some degree is a common symptom, but in the majority of cases amounts only to giddiness. In the severe cases there is a sensation of falling to side, or rotation. External objects seem to move from the side of the tumor to the opposite side irrespective of whether the tumor is intra- or extra-cerebellar. The subjective sensation of rotation, however, does differ according to whether the tumor is extra-medullary or intra-medullary. In the former, or extra-cerebellar, the patient experiences a sensation of rotating from the normal to the affected side; whereas in intra-cerebellar tumors, the opposite is the case. Many patients with intra-cerebellar tumors when in bed, will feel compelled to lie on the normal side; whereas in the extra-cerebellar, they will lie on the side of the tumor. A patient asked to stand with his eyes closed and with his feet together, tends to fall toward the affected side.

5. Gait. The author calls attention to the fact that though the patient usually staggers toward the affected side, knowing this tendency, he may, by over-correcting it, fall to the opposite side.

6. Failure of coordination in the upper extremity is not lessened by the aid of sight as it

is in *tabes dorsalis*. The lack of positive control is found in the homolateral limb while the unintentional tremor will be more marked in the contra-lateral limb.

7. Tendon reflexes. The author emphasizes the fact that there is no constancy in the tendon jerks. That in the same patient within a short period of time, the knee jerk may be increased, decreased or abolished.

8. Ocular symptoms. The paralysis of the sixth cranial nerve of the homolateral side causing a deviation of the eye to the contra-lateral side, is present in those cases where the tumor is so situated as to press upon the nerve. Nystagmus is usually present at some time in the course of the case.

9. Paralysis of other cranial nerves is not found in intra-cerebellar growths, but is common in extra-cerebellar growths. The nerves most liable to be involved are the facial and the auditory.

10. Symptoms of tumor of the middle lobe of the cerebellum are the same as those of the lateral lobe except that the incoordination is bilateral instead of unilateral.

Congenital Single Kidney—James M. Anders in the *American Journal of the Medical Sciences* gives some interesting statistics regarding the frequency of congenital single kidney. Two hundred eighty-six cases have been reported in all. The presence or absence of the suprarenal gland was noted in 151 of these. It was present in 109 of these and absent in 42. In 248 cases the sex was mentioned, of which 159 were males and 89 were females. But it must be remembered that autopsies are more common in males than in females. Of 154 cases in which the age at death was given, 34 were under ten years of age; between the tenth and fiftieth year 62 cases occurred, and after the fiftieth year, 58 cases. One of these fifty-eight reached the age of eighty and one reached the age of eighty-eight. There are on record eleven operations of solitary kidney, four nephrotomies and seven nephrectomies. The nephrectomies were fatal in from one to eleven days. It should be remembered that there may be a rudimentary ureter upon the side of absent kidney, which shows that we must obtain urine from this side before operating the other.

NEUROLOGY AND PSYCHIATRY

GEO. M. KLINE, M. D., Ann Arbor, Michigan

Manic Stupor—Added interest for this subject has been aroused since the work of Dreyfus, who, studying Kræpelin's own cases of involution melancholia concluded that they were mixed phases of manic-depressive insanity. To this study Kræpelin has given support.

Kirby does not agree entirely to this conception, believing that it is based too much on recovery from depression and the emphasizing of certain minor features in the symptom complex of involution melancholia and that such a method of analysis permits any functional or non-deteriorating psychosis to be included in the manic-depressive group.

The cardinal symptoms of both the manic and depressive phases are given.

Manic Phase	Depressive Phase
Emotional exaltation	Emotional depression
Psychomotor restlessness	Psychomotor inhibition
Flight of ideas	Retardation of thought

The mixed forms—states in which the elements of one phase replace or combine with certain elements of the other, are classified for purposes of description in two main divisions. 1. States of Emotional Depression with Manic Symptoms. 2. States of Emotional Elevation with Depressive Symptoms.

The first division is separated into two clinical groups: Agitative Depressions and Quiet Depressions with Flight of Ideas.

In the first group, Agitative Depressions, there is a depressed mood with restlessness and agitation, distractibility, flight of ideas or slowness in thinking and restriction in the range of thought.

In the second group, the mood is depressed. There is distractibility of attention and flight of ideas, but no anxiousness as in the preceding group. Patients are sad, some are perplexed. They may speak slowly but are markedly distractible.

The second division—states of Emotional Elevation with Depressive Symptoms—is also divided into two clinical groups: Manic Stupor and Unproductive Mania.

The chief features of Manic Stupor are difficulty of thought, psychomotor inhibition with manic mood of exhilaration. The patients are active, have little or nothing to say, but their facial expression reveals a cheerful mood. These patients may be mistaken for the catatonic form of dementia præcox.

In Unproductive Mania the patients show exhilaration, psychomotor excitement but no speech productivity, sometimes even mutism. They look happy, are restless, busy, mischievous; thinking inhibited.

The writer illustrates each clinical group with cases. He draws attention to a frequent error of diagnosis in young persons where the psychosis is regarded as dementia præcox until later typical manic or depressive symptoms appear ending in recovery.

He believes in keeping separate involution melancholia from the manic-depressive group. Mixed attacks are not often mistaken for dementia præcox, because of the odd clinical picture and reactions that appear inconsistent. —(*Review of Neurology and Psychiatry*, January, 1910.)

Partial Thyroidectomy for Catatonic Præcox—Kanavel and Pollock, as a result of their investigations, give a final report, in the main adverse to the procedure in the treatment of this psychosis. Their findings are at variance to the favorable results obtained in a limited number of cases by Berkley and Follis. The latter, however, now look for improvement and recovery in only a limited number of selected cases, and state that no idea is entertained that thyroidectomy will ever become a panacea for catatonia.

Kanavel and Pollock conclude that thyroidectomy is not justified in any large class of patients, and although improvement may result in a few cases in which the disease is not far progressed and where the thyroid shows changes, nothing definite can be promised for the operation.

They found a complete lack of result in cases that had suffered from the disease over one year. A case operated on and apparently recovered at the time of their preliminary report, has since relapsed and now shows no improvement. They maintain that choice of cases, based on duration of the disease is not scientific because the rapidity of the disease cannot be ascertained. Nor does examination of the blood offer any assistance in the choice of cases.

Because of the frequent occurrence of relapses within five years of cases that apparently recovered, great care must be exercised not to report too early cases cured.—(*American Journal of Insanity*, Jan. 1910.)

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BATTLE CREEK, MICHIGAN, MAY 1910

No 5

ORIGINAL ARTICLES

THE VALUE OF THE ORTHODIAGRAPH *

JAS. G. VAN ZWALUWENBURG, M. D.

Ann Arbor, Michigan

The Orthodiagraph is an instrument devised to determine the outline and area of the heart shadow accurately. It consists, essentially, of an X-ray tube, a fluoroscopic screen, and a writing point so attached to a rigid frame that the anode, the writing point, and a mark upon the screen lie in a straight line, but move together freely in a plane normal to this line. The mark upon the screen serves to pick out one certain ray from the divergent bundle arising from the anode. The pencil of rays so marked upon the screen may be used to trace the outline of the heart and other thoracic viscera, much as a bow-string, and every point on this line, as for example the writing point, will reproduce exactly the outline of the body circumscribed. In different instruments the writing point is variously placed, to write either directly upon the chest of the patient examined or upon a sheet of paper placed behind the patient. The former method has the advantage that slight movements on the part of the patient do not introduce a serious error, the latter provides a permanent record without further manipulations.

Machines of the latter type are equipped with a sliding rod which replaces the screen. By its use any mark on the surface of the

body may be definitely located on the chart. The thoracic outline, the clavicles, the nipples, the apex beat, and the ensiform are generally used as landmarks. Percussion outlines are similarly transferred to the chart.

The writing point is operated by pressure on a bulb and the record consists of a series of dots which are subsequently connected by a pencil mark into a continuous line. The heart record is taken in the diastolic phase and the lung boundaries in quiet expiration. For an accurate record at least 75 points are required, outlining heart, the diaphragm and the pleural boundaries.

The advantage of the orthodiagraph over the ordinary Roentgenogram, or X-ray plate, lies in the use of parallel rays in the deliniation of the thoracic viscera. The Roentgenogram is made with divergent rays. As a result the shadow exceeds the size of the object in the proportion of their relative distances from the source of light.

The magnification of objects on the side of the body towards the source of light may be considerable, while those away from the light and in contact with the plate will be reproduced in their natural sizes. There results a considerable distortion and magnification of the heart shadow. To avoid this it is necessary to work with the subject at some little distance from the tube.

*Read before Michigan State Medical Society, September 15-16, 1909, at Kalamazoo.

With a powerful equipment it is possible to make a Roentgenogram at four feet, at which distance the magnification does not exceed 5 to 8 mm. at the edge of the plate and possibly 3 to 4 mm. at the left border of the heart.

In addition, the outlines of the Roentgenogram are not perfectly distinct. The minimum exposure on a favorable subject is about 3 seconds, and much oftener 7 to 10 seconds. This gives time for several heart beats. The orthodiagraph is free from this error and therefore the tube may be brought nearly into contact with the body, giving a satisfactory illumination with less current, causing less heating of the tube, and therefore allowing a longer observation.

Almost immediately there was a rush to apply the new method to verify and control the findings of ordinary percussion. A great difference of opinion existed as to the normal findings. It is probable that no two clinicians could agree on the right border of the heart, few could agree on the apex, and certainly none would attempt to estimate the actual area. Probably all would agree to the presence or absence of hypertrophy or dilatation. Every examiner had his own mental standard and his results were all relative. Such results could have no value as records because of the lack of uniformity.

Just how confused the matter was is perhaps best illustrated by this reproduction of a figure used by Moritz in one of his articles. (Fig. 1.) It represents the orthodiagram of an adult Austrian soldier, and superimposed are the alleged normal percussion outlines as given in a number of text books on Physical Diagnosis of recent date. The right border of the deep cardiac dullness is placed at 5 different places by eight authorities. The left border is placed fairly uniformly at a point about one finger breadth within the nipple line, which the orthodiagram shows to be

somewhat outside of the true border. This is due to the fact that percussion is practiced in a direction perpendicular to the surface of the chest. In other words, percussion gives us a radial projection of the thoracic viscera, while the orthodiagram is a rectographic projection, i. e., by parallel lines.

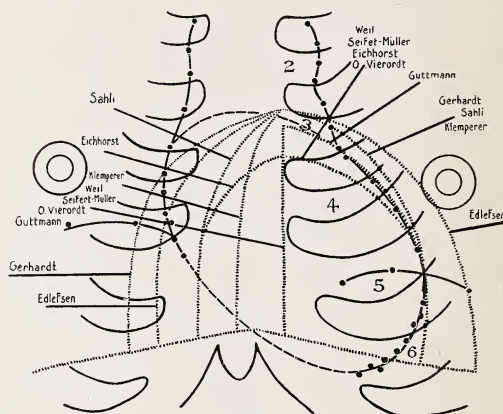


Fig. 1.

During the previous few years, three distinct forms of percussion technique had been developed, viz; "the threshold percussion" of Goldscheider, (2) using the minimum audible percussion stroke; the "tactile percussion" of Ebstein (3), depending altogether on the sense of resistance; and the modification of the ordinarily used method as elaborated by Moritz. Researches were carried out on cadavers to verify both percussion and orthodiagraphy with substantial agreement with all three styles.

Dietlen (4), publishes a remarkable series of results on 120 cases, mostly normal. The deep cardiac dullness was mapped out with the patient already in position on the stretcher of the orthodiagraph and then the orthodiagram was marked directly on the chest. A margin of 5 mm. (1-5 inch) in both directions was allowed, and a greater difference than this was considered a failure. In terms of per cents, the right border was correctly found in 86% of all

cases; the left in 70%; both borders in 50%; and both incorrectly in 12%. A later and larger series (5) gave practically the same results. It is worthy of note that the percentage of failures was greater in pathological than in normal hearts.

Moritz's technique is the one taught in the university as the easiest to acquire and the most certain of results. Its peculiarity lies in the character of the percussion stroke.

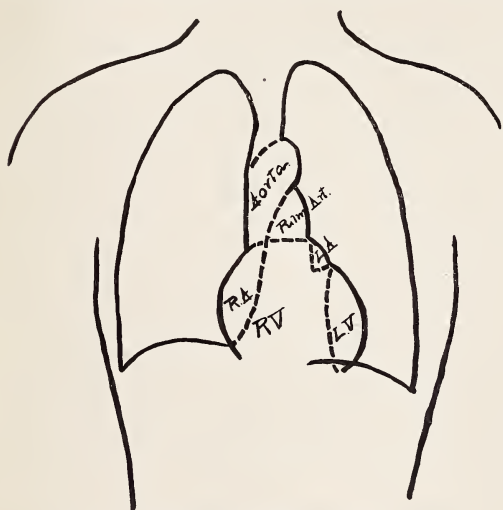


Fig. 2.—Normal Heart Shadow after Groedel.

For the deep structure, e.g., the right border of the heart and the dome of the diaphragm he recommends that the pleximeter finger be firmly applied, and a firm, well sustained stroke be delivered by the plessor. This is also used over the upper border on the left, in the region of the *conus arteriosus*. For the apex region the stroke must be considerably lighter to avoid the error due to the curvature of the chest wall. The lighter percussion is intended to allow for the difference between the radial and the vertical projections. Of course, this involves a mental (conscious or unconscious) correction for a variable quantity, and to just that degree departs from a truly objective method. In our opinion it is a mistake to attempt to make two figures of entirely different significance

agree. It would seem better to obtain the outline and then make a conscious and deliberate correction.

In our hospital work we do not observe this difference in the force of the percussion stroke, since we believe it a distinct advantage that the physical signs should exaggerate the pathological condition. It is even possible to demonstrate a reduction in the area of dullness under treatment before there is any striking change in the orthodiagram.

In how far the judgment is influenced by the tactile, the muscle sense, or the auditory impressions, has been the subject of much speculation and not a few researches. An instrument has been devised to cause so loud a buzzing in the ears as to completely drown out the auditory impressions and the claim has been made that eminently satisfactory results are thus obtained. Moritz (6) however, failed to obtain as

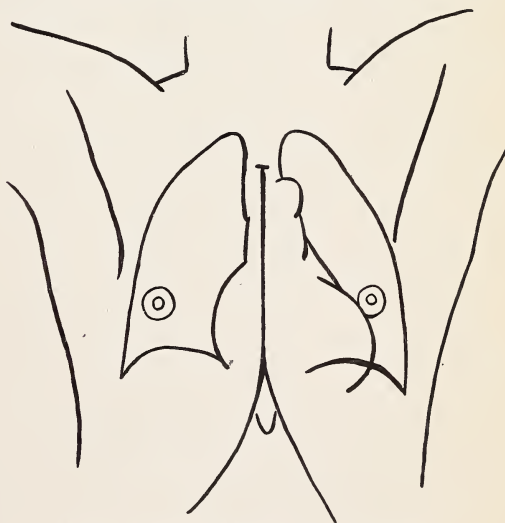


Fig. 3.—Mitral Regurgitation Compensated.

sharp a differentiation in the presence of the noise of a large static spark. It is very probable that there is a large personal factor in the matter.

Dietlen (5), a pupil of Moritz, has compiled the data from a large number of orthodiagrams obtained from normal in-

dividuals from the neighboring barracks. He gives the following averages:

	Males	Females
From the median line to the apex about	8.6	8.4
From the median line to the right border	4.2	3.7
Long diameter.	14.2	13.2
Transverse diameter.	10.2	12.2
Area (by planimeter)	115 sq. cm	1000

The area of the heart silhouette varies directly with the stature, and with the weight, to a less extent it depends upon the occupation of the individual. It increases slightly with age after 50, and at the same time descends lower in the thorax. This change of position, as well as the change of axis accompanying that change, may be sufficient to conceal any enlargement.

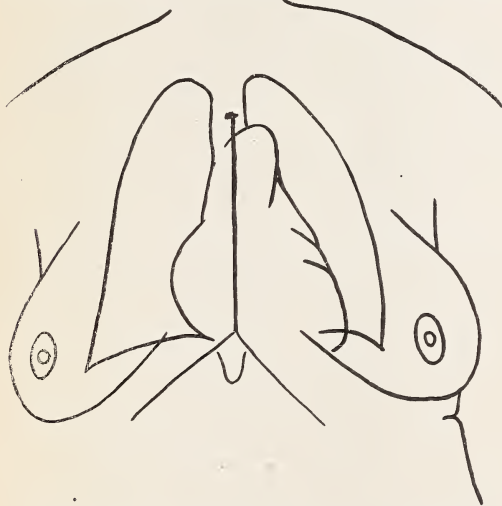


Fig. 4.—Mitral Stenosis. Some loss of Compensation.

There is a large individual variation in the area of the heart silhouette which cannot be explained by any of the above factors. The maximum range in the above series is from 91 to 149 sq. cm. in the adult males.

Schott, of Neuheim, has long maintained that exercise may lead to a dilatation of the heart. In several communications previous to 1896 he reported the results of a series of experiments on wrestlers to determine the effect of strenuous exercise, argu-

ing that an acute dilatation was easily produced. After twenty minutes of continuous wrestling he was able to demonstrate by the usual method of percussion a marked enlargement of the deep cardiac dullness. These results he ascribed to the effects of the resulting dyspnoea. To exaggerate this he confined the lower part of the thorax by a heavy leather belt, and showed to his own satisfaction that the enlargement was thereby increased.

Moritz (4) attempted to verify these

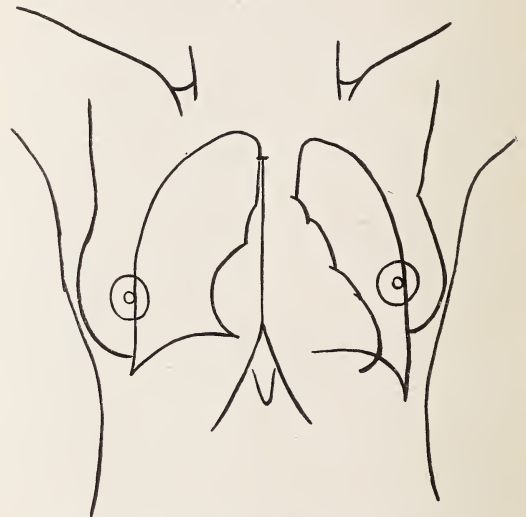


Fig. 5.—Mitral Regurgitation and Stenosis. Well Compensated.

results and found the contrary to be the rule. The effect of such mild exertion as taking 10 deep breaths or raising the feet above the head as a patient lay on the stretcher was immediately shown in a slight but easily demonstrable reduction of the orthodiagram. This reduction was a very fleeting effect.

Later (7) he took advantage of a bicycle race from Leipzig to Strassburg. The contestants were examined immediately before the start by an assistant, and at the conclusion of the race were hurried in carriages to the X-ray room and again orthodiographed. The time since stepping from their wheel did not exceed a few minutes.

In all the pulse and respiration rates were much accelerated, several were extremely dyspnoeic and all were freely perspiring. In no case was a dilatation present, on the contrary, in every case there was a reduction of the cardiac area. This persisted

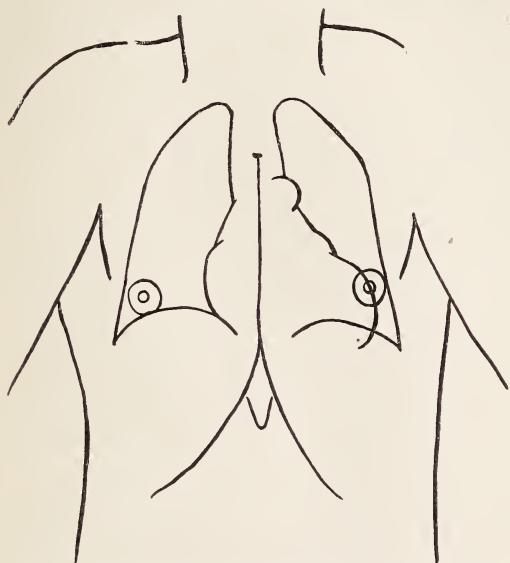


Fig. 6.—Aortic Regurgitation and Mitral Regurgitation. Compensated.

for several days until the contestants were lost sight of, except one case, which was observed for more than two months, during which time his heart never regained its former size. It must not be forgotten that no record was possible in the cases of those who failed to finish the race, and it is not impossible that an acute dilatation was the cause of their disability.

A similar fate awaited the contention of Smith (8) that a hot bath had caused an increase in the relative cardiac dullness to nearly double the original, as determined by auscultatory percussion. Moritz (4) on repeating the experiment failed to find any change after 25 minutes in a hot tub, although the face was flushed and the pulse was full and bounding.

Particular interest attaches to the analysis of the shadow of the left border of the heart. (9) On the fluoroscopic screen,

four broad curves may be seen in favorable cases, corresponding to the four anatomical divisions making up the left margin. These are, in their order from above downward, the arch of the aorta, the conus arteriosus, the left auricle and the left ventricle. In a certain number of cases it is the hypertrophied right ventricle which is seen instead of the left and the normal left auricle does not present on the left border. These divisions can not be made out on the Roentgenogram because of the motion of the heart during the exposure. On the screen the movements of adjacent parts is seen to be in opposite directions, making it comparatively easy (especially with dilatation of the left auricle) to find the node marking the junction of auricle and ventricle or auricle and pulmonary artery. A relative prominence of any part may therefore be interpreted as evidence of hypertrophy or dilatation.

The attempt has been made to utilize these principles in the diagnosis of the

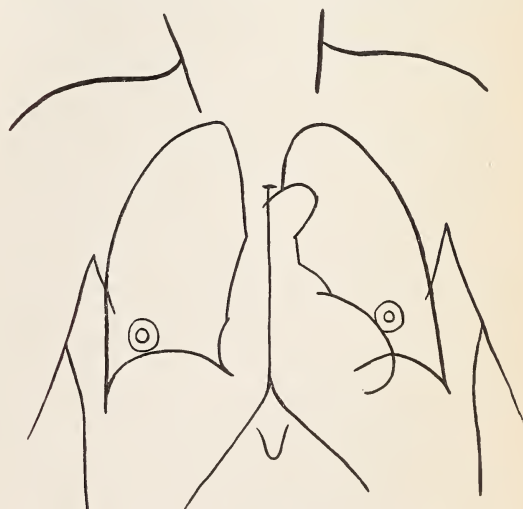


Fig. 7.—Arteriosclerosis. Angina Pectoris.

various valvular lesions, with some degree of success. For instance, in Aortic Insufficiency there is found an increase in the first and fourth of these components, as an indication of the dilation of the arch

of the aorta and the hypertrophy of the left ventricle. This result is what has been termed the "snub-nosed heart, or stumpf-nasiges hertz" which is fairly typical of this lesion when uncomplicated. In Mitral disease, on the other hand, the second and third are found enlarged, representing the dilatation of the left auricle and pulmonary artery. The effect is to change the curve of the left border from a concave to a convex line. In addition the right border is thrown out, thereby increasing still more the transverse diameter, and making the general outline more nearly circular; the so-called

allows the examiner to rotate his patient during the observation, which usually gives a very simple and convincing demonstration of the position of the tumor.

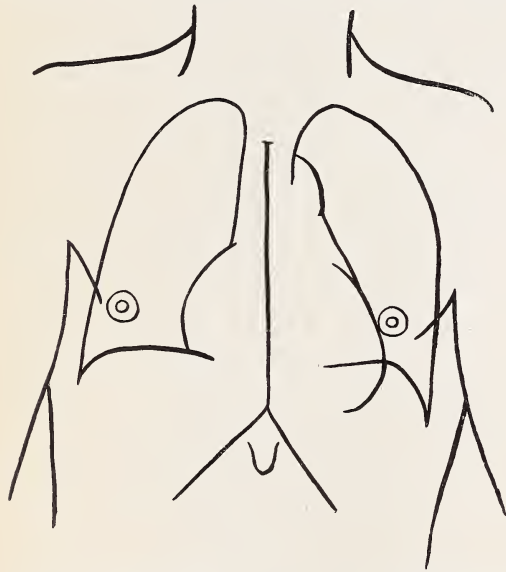


Fig. 8.—Chronic Parenchym. Nephritis. Relative Mitral Regurgitation.

"kugelformiges hertz." Unfortunately, pure and uncomplicated lesions are rare and usually offer little difficulty to diagnosis, and the end stages of all lesions is a general enlargement of all the chambers resulting in the round or "kugelformiges" silhouette.

Aneurism of the arch is also very well shown, and the extent of the dilatation may be very accurately measured. For the diagnosis of this condition we prefer the use of a larger fluoroscopic screen as it

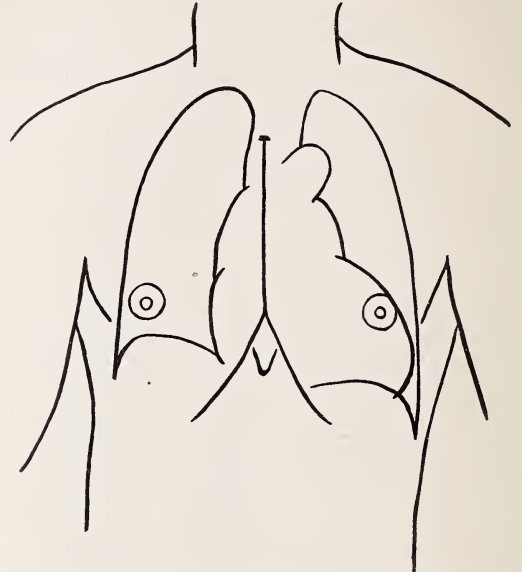


Fig. 9.—Chronic Interstitial Nephritis with signs of Aortic Regurgitation.

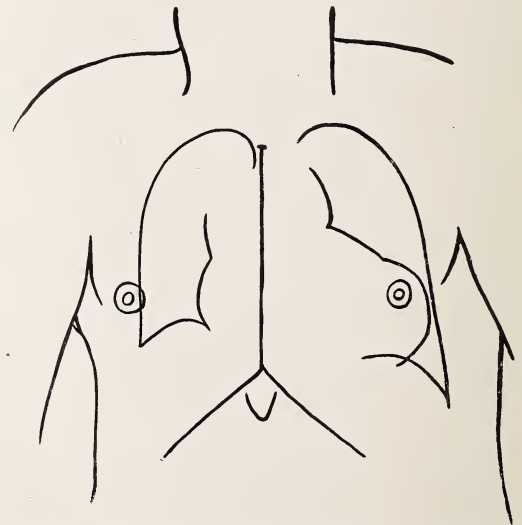


Fig. 10.—Chronic Interstitial Nephritis. Myocardial Insufficiency. No Murmur.

Orthodiagraphy in a transverse direction offers technical difficulties, and is little practiced. If a satisfactory illumina-

tion were possible, it would be invaluable in the location of an aneurism.

The application of the orthodiagraph to determine the location of foreign bodies in the thorax has not received the attention it deserves. The difficulty of illumination in the transverse direction for the short time necessary to locate an opaque body does not seem insurmountable.

In conclusion let me say that the chief value of the Orthodiagraph has been and will be as a check on the percussion technique of teacher and pupil. It has done more than anything else to arouse the profession to the gross errors of deep per-

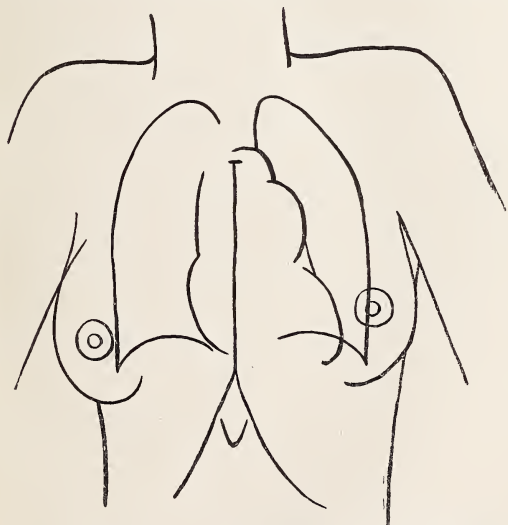


Fig. 11.—Congenital Heart Disease, Pulmonary Stenosis and Patent Ductus Arteriosus.

cussion as ordinarily practiced and the feasibility of accurate percussion. The possibility of an accurate and reliable check on the work of a beginner is an invaluable stimulus. Its value in the diagnosis of the valvular lesions is considerable but has probably been exaggerated. Its use in the scientific investigation of the results of treatment of heart conditions promises

much in the future. The influence of attitude, compression, or other pathology in the thorax has already given us much useful information which can not be enumerated here.

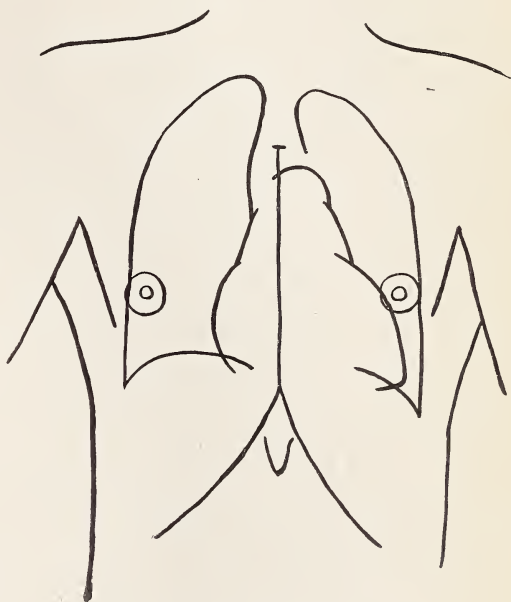


Fig. 12.—Patent Ductus Arteriosus

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PLACENTA PREVIA*

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Dollar Bay, Michigan

Among the many accidents that may befall the pregnant woman, Placenta Previa is by no means the least. It is a condition demanding on the part of the patient courage and fortitude, and at the hands of the obstetrician coolness, judgment and dexterity.

There will always be one of three conditions present in any given case of Placenta Previa which demand our decision before we can proceed intelligently and conscientiously, viz:

1. What shall be done during pregnancy for the bleeding before labor has begun?
2. What shall be done when labor has apparently begun, but the cervix is still too narrow and hard to permit of active interference?
3. What shall be done in a case where labor is unquestionably under way, the cervix dilating or dilatable, and a dangerous hemorrhage sets in?

As to the first: Not every hemorrhage during pregnancy is due to Placenta Previa; therefore, for the purpose under discussion, it is pre-supposed that the diagnosis is unquestioned. Palliative treatment may be tried if the hemorrhage is slight, especially if the child is not viable. Let us never forget, however, that the life of the child in Placenta Previa stands over against and in opposition to that of the mother; and, therefore, any and all measures calculated to increase the chances of the life of the child, in just that proportion decreases that of the mother's.

Palliative treatment consists in keeping

the patient at rest—absolute rest; and to attain this she should be under an opiate. The diet should be carefully regulated and the bowels move only gently and with the least disturbance possible. Hemostatic drugs are worse than useless and should have no place in the thoughts of the obstetrician.

In hospital practice one has a far better chance to tide the patient over than in private practice, for in the former, the patient is constantly under trained observation; while in the latter, she is really under no observation at all. In all such cases, therefore, the patient's friends must be thoroughly impressed that should the bleeding recur the obstetrician must be at once notified. However, personally I am of the opinion that as soon as Placenta Previa is diagnosed the woman is never safe, and that if we take the mother's life into account as being paramount to that of the unborn non-viable child, it becomes our duty to at once interrupt pregnancy and empty the uterus.

As to the second and third conditions named, the objects to be attained will be, 1st. Check the hemorrhage; 2nd. Dilate the cervix; 3rd. Deliver the child.

The second condition, where the cervix is not dilated and hard: This is one of the prime obstetrical indications, if not the only obstetrical indication, for Cesarean section—both vaginal and classical. We are discussing the management of Placenta Previa before general practitioners who are not abdominal surgeons; therefore, for the moment, we confine our-

*Read before the Michigan State Medical Society, at Kalamazoo, Sept. 15 and 16, 1909.

selves to the purely obstetrical treatment.

Plug the cervix as much as may be and the vagina. Use gauze. Do not attempt to place a tampon in this most serious condition with the patient in bed, for it simply cannot be done properly.

The patient should be removed from the bed to a table and an anaesthetic administered if necessary. Only under such conditions can the cervix and vagina be thoroughly and properly tamponed. If the tampon has been applied as indicated, it will control the hemorrhage and will set up uterine pains. I said that if the tampon is properly inserted the bleeding will stop; and yet there are cases where the bleeding continues in a concealed form—separating or lifting off, as it were, the placenta from its attachments. Therefore, the patient must be watched. Do not allow the tampon to remain in more than say six or eight hours. On its removal, in the vast majority of cases, it will be found that two fingers can be easily introduced into the os, and bi-polar version after the Braxton-Hicks method can be performed and a leg brought down, which will act as the very best plug for the hemorrhage and dilator for the cervix. Let the pains expel the breech. Do not be in too great a hurry to deliver the head. Should the cervix grasp the head, which will not be unlikely, do not drag it through, for in so doing you will most likely tear the cervix and lose the mother from uncontrollable hemorrhage. A torn cervix in Placenta Previa is by no means a simple thing. Remove the placenta immediately if it does not come away. Remember that the placenta sinuses are in the lower uterine segment and do not participate in the contraction or retraction of the uterus. Do not hesitate to firmly plug the whole uterine cavity. Always stitch the torn cervix if possible. Plug the cervix and vagina as well as the uterine cavity. The death rate from post-

partum hemorrhage in those cases is very high.

As regards the third condition, viz: When labor is under way and the os is dilated or dilatable. Of course in those cases we should not use the tampon, but proceed with more active measures. In this condition we shall find the very best method that of Braxton-Hicks; and in this condition we shall find the version a much easier procedure than in the former condition. As soon as version is complete rupture the membranes and grasp a foot and deliver it, so that it will effectually plug the os. The case may then be left to nature, observing the preceding cautions. Of course if the placenta be marginal or central it will be necessary to separate the placenta by a sweep of the fingers round between the uterus and the placenta as far as one can reach. In most cases we shall feel the smooth membranes, and through them feel and identify the presenting part; then with the other hand externally bi-polar version may be performed, the membranes ruptured, and a foot brought down as before stated.

After this has been accomplished, do not pull on the foot unless there is hemorrhage—leave the case as much as possible to nature. In most cases the uterine contractions will force down the presenting part sufficiently to arrest all hemorrhage. Should the edge of the placenta not be reached after separating it as much as possible, do not hesitate to perforate the placenta and do a bi-polar version. It will be found by far more difficult to do than under the former conditions; therefore, do not resort to it until former methods have failed.

Always deliver slowly; any attempts at rapid delivery will be followed by a high maternal death rate.

So far as the mother is concerned there can be no question, it seems to me, that

the far greater safety for her lies in bi-polar version. The great debatable feature about version is the very high foetal mortality. It is due to this fact, and this fact alone, that methods other than version have been advocated.

The use of de Ribes bag finds many advocates. For its employment the patient should be anæsthetized and placed in the lithotomy position; rupture the membranes, grasp the bag with a pair of long forceps and carry it through the os into the uterus. Oftentimes carrying it out on the fingers will be found easier. The bag is then filled with water. The patient is replaced in bed. The bag is allowed to be expelled by the natural forces, when we can apply forceps or turn and deliver. It will take all the way from six to twelve hours for the expulsion of the bag. There can be no question, it would seem to me, but that the careful and intelligent use of de Ribes bag will do much to lessen the infant mortality in Placenta Previa. Accouchment Forcé should be abolished in the treatment of Placenta Previa; therefore, I mention the Bossi Dilator only to condemn it. We believe that Accouchment Forcé should be condemned because it is an unnecessary procedure; because it is dangerous on account of hemorrhage; because it may and is exceedingly likely to cause rupture of the cervix that may extend well up into the lower uterine segment. In treating Placenta Previa do not forget that the os cannot be dilated in less than one-half to three-quarters of an hour; therefore, do not hurry. It is a curious fact, and one difficult to explain, that the method most frequently employed in this condition is not de Ribes bag or Braxton-Hicks bi-polar version, but Accouchment Forcé. The former are thought to be difficult of performance, whereas, they are not; yet we grant they must be accompanied by the gentility of obstetrical touch. Always

pack the uterus after emptying it, paying particular attention to the lower uterine segment. A wise precaution is to apply heat to the cerebellum. A danger to be guarded against is pulmonary embolism.

It is about twenty years ago since the brilliant surgeon, Lawson Tait, suggested Cesarean section for Placenta Previa. Tait at that time placed the mortality from this condition at 50%, which was by no means correct. The great strides made during the past few years in abdominal surgery have led many general surgeons to the realm of obstetrics, and in consequence the domain of Cesarean section is continually widening. There is today a respectable company who advocate this method either in carefully selected cases, or indiscriminately in all cases, as the one most calculated to wipe out the large foetal mortality and materially lessen the maternal. However, it would seem to me that in the discussion of this phase of the subject that is now claiming so much of our attention, that the general surgeon has failed utterly to take into account his own personal obstetrical limitations. He is constantly looking out of surgical instead of obstetrical eyes. The maternal mortality treated obstetrically is perhaps not far from three to six per cent; while cases of Cesarean section gives us one not far from twenty per cent for all cases.

Placenta Previa Centralis is recognized as being one of the indications for Cesarean section; yet, when we realize that in this variety we shall nearly always be called upon to interfere before the child is viable, it is not easy to see the advantages gained to the child. There can be no question that given a rigid os or a pelvic deformity, section would be the proper method. Rigidity of the os is by no means frequently met in Placenta Previa. Deaver says it is "A condition not so rare in Placenta Previa as has been generally supposed by some

authors." Yet DeLee has met only four cases; Newell, two; McLean, but one. The following obstetricians quoted by Fry have never met a case of rigid and undilatable os in Placenta Previa, viz: Norris, Williams, Grandin, Peterson, Davis and Reynolds.

In Placenta Previa Centralis we believe the Cesarean section is indicated, as it is generally considered about six times more dangerous to the mother if treated obstetrically than in the other varieties; while the danger should be but slightly increased if treated with Cesarean section. That Cesarean section is a justifiable method of

treatment in Placenta Previa under proper indications, no one can doubt, but that those indications are rare, is equally true. Besides the indications given there must be more for the carrying out of this treatment, viz: The operator must be able to cope with the conditions. He must be an abdominal surgeon; must have capable assistance; the patient, if possible, being in a hospital. If these conditions cannot be had the woman will be safer if left to obstetrical treatment as has already been indicated. We do not see that Vaginal Cesarean section is indicated in this condition, except in very rare instances.

THE ENORMOUS WASTE OF HUMAN LIFE*

MR. GEORGE H. CUNNINGHAM

Field Secretary Provident Savings Life Assurance Society

The matters which I shall present to you tonight possess an unusual interest, not only because of their importance, but because they will come as news to the average man, who has neither the time nor the inclination to dig very far into public records for information.

The purpose of this lecture is to assist in the general campaign of education for Disease Prevention which is being urged by various public men and organizations devoted to the improvement of health.

We will show on the one hand the splendid achievements of science, civilization and preventive medicine in the saving of your lives. On the other hand we will show that not only has our civilization developed along lines which have reduced the vitality of the middle aged and the elderly, but that science, with strange blindness, has failed to grasp the force of

these tendencies and to organize the necessary relief.

Nothing can be of greater importance to the nation than the lives of those who compose it, and life is of course the most valuable possession of the individual.

There are constantly seriously ill in this country over 3,000,000 people. One million and a half of them are sick from preventable disease.

Over 600,000 of these valuable lives are needlessly sacrificed every year in this country—needlessly, because this loss is due to causes that can be prevented by the application of ordinary and reasonable precautions.

These figures are given by Professor Irving Fisher, of Yale University, President of the Committee of One Hundred on National Health, who officially published them after a very careful investigation and after consulting a large number of doctors and eminent students of vital statistics.

*Read before the Detroit Academy of Medicine, March 22, 1910.

At first glance it is impossible to appreciate the magnitude of this enormous annual sacrifice of American life.

This death roll means the wiping out every year of a population larger than that of the city of San Francisco, of St. Louis, or Boston; a number more than twice as large as the city of Detroit; as a matter of fact larger than the combined population of all towns in Illinois, over 6,000 inhabitants, excepting Chicago; than the combined population of Detroit, Saginaw, Jackson, Grand Rapids, Kalamazoo, Ann Arbor, Port Huron, Muskegon, Bay City and West Bay City. It is a population larger than that in the entire States of Montana, Idaho and Wyoming combined; or of Utah, New Mexico and Arizona. It means that a population equal to a town of 1600 people is eliminated every day, and a village of 68 people destroyed every hour.

This enormous waste of human life excites no particular attention for two reasons. These deaths are scattered throughout a year and throughout our vast population, and their loss is charged to "natural causes."

It is not to alarm you, or to frighten you into considering this question of Disease Prevention that I mention these unpleasant things. Constant and needless worry over one's health is not at all in the line of disease prevention. My aim is simply to bring to your minds the importance of the subject; to interest you in the concrete results of the researches of scientific men in these matters, and show how much of the suffering and disease which afflict mankind may be avoided.

All of this it is hoped will impress you with the importance of not only taking better care of your own health, but of assisting in spreading the gospel of disease prevention among your friends, especially among our law makers.

Let us first note the splendid results

that have followed the attempt to protect our people from communicable diseases.

About 500,000 of our people have tuberculosis of the lungs, or consumption, as it is commonly called.

The study of this disease, originally confined to the medical profession, has through the aid of various individuals and organizations, extended to the general public, and the result of the education which we have gained upon this subject is extremely gratifying.

Since 1880 the death rate from consumption has decreased in this country forty-nine per cent. This tremendous decrease affects chiefly the younger lives in the population.

We now know that tuberculosis is entirely curable in the early stages. We all know what strong efforts have been made to fight this disease by improving public sanitary conditions. The special treatment of the patient has been directed towards strengthening his body, placing him in surroundings where sunlight and fresh air can have their best effect, and isolating him from others so that he may not communicate his malady. We have all become educated along these lines and to some extent have modified our methods of living. The decrease of 49% is the net result of what has been done since 1880 to prevent deaths from consumption.

It is difficult, perhaps, to comprehend the full meaning of the statement that the death rate from this cause has fallen 49%. Taking the death rate, per 10,000 of population, of 1880 as a basis, this means that since that time 63,625 lives have been saved from this dreadful scourge, and that number of people represents a city as large as Saginaw and Port Huron combined.

Typhoid Fever, another disease of young adult life, is of like character. It shows a general decrease throughout the country

of 41% in the death rate since 1880.

Since 1890 typhoid has been known to be a germ disease, and one easily communicated. Primarily, typhoid implies filth, and its presence in any community is an indictment of that community. The thorough disinfection and destruction of all sewage would very soon stamp out this disease. The housefly disseminates the malady by infecting water, milk, and food of all kinds. We are just beginning to realize what a prolific source of disease the housefly is, and a vigorous campaign for its destruction is under way. Again it is thought that the disease may be caught by coming in contact with a patient or with some one who has been with a patient. It attacks chiefly young adults, but, as in the case of consumption, a weakened condition of the body favors its development. The decrease in mortality is a splendid testimonial to the activity of the medical profession, state departments, sanitariums, and others who have combatted this disease, and argues well for its ultimate annihilation.

Although the war upon consumption and typhoid has scarcely gotten well started, yet our very gratifying experience in reducing these two maladies show conclusively what can be done in the way of disease prevention when applied to those of the communicable class.

There are other communicable diseases reaching up into early adult life that have shown a decrease during the same period in consequence of the discoveries of medical science, the increased efforts of the health departments, and the general educational process that is constantly gaining ground.

The death rate from yellow fever has been reduced. Note improvement in Havana, Panama. This disease also belongs in the communicable class, although the specific bacterium has not yet been dis-

covered. We do know, however, that it is transmitted by the mosquito, and since the discovery of this fact great advances have been made in the prevention of the disease. Colonel Gorgas, of the United States army, has practically banished yellow fever from Havana, where it was almost endemic, or persistently present. You have all heard of the splendid results that have followed the establishment of a rigid sanitation, and the enforcement of measures against infection from mosquitoes, in the Isthmian Canal Zone. Col. Gorgas estimates that had the former unsanitary conditions in the Canal Zone been allowed to continue, the American forces employed there would have lost 8,057 of their number from yellow fever during their five years of work. The actual loss during that period, under the improved conditions was 19. The estimated loss from all causes, that would have attended the continuance of the old conditions is 23,950. The actual loss under American control was only 3,317 for the five year period. Was this not worth while?

The treatment of diphtheria has undergone a most gratifying development. This disease was for years a veritable scourge. The discovery of the anti-toxin treatment in 1894 promised great results, and since the general application of this treatment in 1895 these promises have been fulfilled. The mortality per 10,000 in the boroughs of Manhattan, the Bronx and Brooklyn, varies from 22 in 1880, to 13 in 1895. From that time it is dropped until in 1908 it was about 3—an actual saving in lives below the 1895 rate of 3,990. No argument is needed to emphasize that point with people who have children.

(CHART No. 6.*—Death rate in the United

*This address was illustrated by fifteen charts, which we could not reproduce, but indicate the subject matter in a few instances.—EDITOR.

States from all causes, compared with other countries.)

Here we have a chart showing the death rate in the United States from all causes, compared with the rate in other countries. Note the fall in the rate in the United States, due chiefly to the lessened mortality from the diseases we have just referred to.

From these charts some idea can be formed of the splendid results attained by health authorities, sanitariums and physicians in their warfare against communicable diseases, or diseases transmitted by germs.

Surely this record shows that campaign of Disease Prevention is worth while. The lives thus prolonged are, however, but a mere fraction of the enormous number that have been permitted needlessly to perish in the past, and which are now perishing every year from both communicable and non-communicable disease.

While we have been saving lives from consumption and other communicable diseases, as already described, we have been permitting the needless sacrifice of an enormous number of our people from preventable diseases of the degenerative class, such as those of the heart, arteries and kidneys

These diseases are commonly known as those of middle life and old age. As a matter of fact they should be confined to old age. But the records show that they are reaching down into the prime of life and cutting off our people in the most useful period of their existence.

(CHART No. 7—Kidney, Heart Disease and Apoplexy, United States Registration Area. Increase in Death Rate since 1880.)

This chart tells the story. Here we have the rise in the mortality from the diseases affecting middle life and old age which is even more remarkable than the drop in mortality among the communicable diseases. We find an enormous increase

in the general death rate from this class of diseases.

Allowing for all possible inaccuracies of registration reports, there can be no denying the trend of the mortality. No matter where we conduct our investigations in this country, the result is the same. Separate cities in the various States give the same testimony as the registration area in general.

Without going into this matter further at present, I shall take up the consideration of the causes that underly these conditions. This is not an academic lecture, for the purpose of presenting curious or interesting statistics. It has a practical object in view,—namely, to call attention to the serious and unnecessary loss of American life, and so far as possible point out what can be done, in an organized and systematic way, to check it.

To make clear the causes of the excessive mortality after middle life, it will be necessary to say a word or two regarding the nature of the diseases that produce this mortality. I am not a physician, and it may seem presumptuous in one who is not a physician to attempt such a task; but, after all, science is merely systematized common knowledge. It is possible for the average layman to fully grasp the fundamental principles that underly the causation of many diseases. The diseases that chiefly affect middle life and old age may be grouped under the term "Degenerative," for the reason that some form of tissue degeneration is present in all of them.

While in some cases the heart is chiefly affected, this condition must to some degree be reflected in the kidneys and in the arteries. On the other hand, if the arteries are chiefly affected, the heart and kidneys must to some degree participate. The heart may be compared to a pump which is constantly forcing the blood through the elastic tubes we call the arteries. The

kidney is intimately connected with the circulation, and any obstruction or inflammation in that organ is in time referred, either by mechanical interference with the blood current, or by the circulation of poisons in the blood, which the kidneys should separate and excrete, to the arteries, and secondarily the heart. Of course the brain, liver, lungs and other organs are likewise apt to be affected, but the most important and serious conditions are found in the heart, kidneys and arteries.

You have seen that the death rate is *decreasing* rapidly among the younger lives. But this is no reason why we should ignore the *increase* in the death rate in middle life and old age.

The increase commences with the ten-year period beginning with the age forty, while during practically the same periods in England and Wales the death rate is decreasing, except about sixty-five, where it begins to show a slight increase.

While apoplexy is often classified under nervous diseases, because its effects are manifested in the brain, it is, as a matter of fact, the bursting of a diseased artery causing hemorrhage in the brain, and should be considered under diseases of the arteries. Sometimes a poisonous element in the blood will irritate the arteries, causing inflammation, thickening, or degeneration of their walls. Sometimes a condition of the circulation is produced which increases blood pressure. In both cases the thickening which was originally protective becomes a cause of degeneration, and under some unusual strain the arteries will burst. If the rupture occurs in the brain, paralysis or apoplexy results.

The causes that produce arterial trouble are the same as those responsible for kidney and heart affections, and show the interdependence of heart, kidneys and arteries, as before mentioned.

Since 1880 the increase in the death rate

from heart disease in Massachusetts was 105 per cent; in the United States Registration Area, 57 per cent.

Disease of the heart may arise from various causes. The heart muscle itself may become degenerated through dissipation, overwork, worry or nerve strain of any kind. The effect may be directly upon the heart, or as the indirect result of impairment of some other organ. The membranes around the heart may become inflamed, or sufficient poisonous matter may be in the blood to irritate the lining of the heart and impair the action of the valves. Like the kidneys, the heart may be well advanced in disease without the patient being aware of it. Nature will do its best to overcome an obstruction, compensate for insufficiency of any kind, and maintain the function. There are some diseases, however, whose after-effect on the heart are so well known as to be constantly looked for, and to some extent a physician would be forewarned and prepared to remedy the difficulty. This may account for the fact that deaths from heart disease have not increased to such a degree as those from kidney trouble.

Since 1880 the increase in the death rate in the registration area of the United States from disease of the kidneys has been 130 per cent.

In Connecticut the increase was 139 per cent.

In Chicago, 167 per cent. Over two people die now where one died then from this cause.

Among the causes of kidney trouble are alcoholism and nervous tension. Alcoholism has a direct and poisonous effect on the tissues, and leads as well to the disturbance of the functions of other organs. Nervous tension, or high pressure existence, usually affects the heart and arteries, and kidney trouble often follows as a direct result.

The death rate from diseases of the

heart, kidneys, circulatory system and apoplexy combined, has increased in the United States 105 per cent since 1880; while during the same period in England and Wales the death rate from diseases of the heart, apoplexy and blood vessels has decreased 7 per cent.

The increase in the United States represents 81,051 lives, almost as much as the entire population of Grand Rapids.

The natural question is, why are these important organs of the human body wearing out so much faster now than they did thirty years ago?

As to this, opinions may differ. It will doubtless be conceded that a large proportion of the increase in deaths from these diseases is due to excesses in eating, drinking, working and playing,—in short, to intemperate living and the "strenuous life."

And now a word on intemperance, using this word in its broadest sense, to cover excesses of all kinds. Undoubtedly alcoholic excess is an important influence, not alone by reason of the chemical effect of alcohol on the tissues, but because steady or free drinking encourages general carelessness of living and leads to excesses in other directions. In the opinion of many physicians a very large proportion of cases of kidney trouble and heart disease begin primarily in the arteries, either from the effect of poisonous elements in the blood, or through high tension, due to an over-worked circulation, the result of dissipation, excitement, nervous strain, etc. It can be authoritatively stated that longevity is very largely a matter of the quality of a man's arteries; or, as an eminent medical authority puts it, his "tubing." In some cases a poor quality of tubing is inherited. In most cases, however, disease arises from the abuse of originally sound tubing. The lesson we draw from this is that the man who is temperate in his habits, takes exercise within proper and reasonable limits, is

simple in his diet and tastes, slow to anger and well poised,—in other words, who is in the greatest possible harmony with his environment, is pretty nearly proof against this class of maladies. To him death comes either as an accident or in extreme old age from a natural decline of the "will to live."

There is a latitude allowed in all of nature's operations in the human body. But latitude does not mean license. Nature will accommodate itself to use, but not to abuse. Every consideration is given to man, and if, after all, disaster happens it is reasonably certain that nature has not proven recreant to its trust, but that its laws have been violated. Nature did what it could, and we must look elsewhere for the cause.

Pasteur told the world much about germs but the healthy body has little to fear from them. The continual warfare in our bodies is not to be dreaded so long as the conditions that make for health are present in sufficient force to overcome those that war against it. A healthy body with a maximum resisting power is the great object. Not necessarily a strong body, in the sense of muscular strength, but a body in complete harmony with itself; an organization that works like a smoothly running machine; no disproportion anywhere; no gain in one place at the expense of another. The cultivation of such a body will be a safeguard, not only to its possessor, but also to his descendants, and the resisting power it possesses will enable them to escape many ills that will overtake those who are not so well provided for.

How many of the 1,500,000 people constantly ill in the United States from preventable diseases have heard this statement from their physician: "If I had known of this disease in time, I could have saved or prolonged your life for many years."

There is a prevalent notion that because

an organ performs its functions it is an evidence that no disease can be present. No greater mistake could be made. Very few people are so thoroughly familiar with their own organism as to be aware of any defect in its operation until there is a failure of function.

But, it may be asked, why take so much trouble to delay a dissolution which must inevitably occur? Assuming the average duration of human life to be forty-five years, what is to be gained by increasing it to fifty or sixty? If the three score years and ten of Biblical allotment should be increased to the one hundred which Prof. Metchnikoff claims is the normal age which all men should attain, would the individual in particular or humanity in general be any the better for it? The answer is: The sum total of human felicity and experience would be immeasurably increased if we could divert to its service the enormous energy now wasted as the result, direct or indirect, of illness. Can such a thing exist and not have an effect on the community in general? Half the "isms" under which the world suffers; half the theories that do so much to retard progress would be avoided by a healthy physical condition. But let us place the argument on the lowest possible basis, and glance for a moment at the actual financial loss incurred by illness.

The loss by chronic invalidism, and in the productive value of lives impaired or lost by preventable disease is estimated to be a billion and a half dollars per annum. This figure means nothing to most of us. It is too big, and the mind cannot grasp it. But let us put the same idea in a different way, and bring it home to each individual. Statistics on this subject are more readily available in England than in this country, for in England the Friendly Societies have long been permanent institutions. These Societies have been very extensive in their

operations, and they have discovered that on the average every man can figure on a certain number of days' illness in each year.

Now here is the argument: Knowing that the average man at a certain age will lose so much time per annum, the loss to him in money can be estimated. If a large share of this illness could be avoided, the saving in money and time would be worth something. Suppose that a man at the age of twenty-five were to be ill on an average fourteen days a year until he was sixty-five, he would lose over a year and a half of actual time. As a matter of fact, a year and a half is very low. It is estimated that every death means from two to two and one quarter years of illness; but we will take the tabular figures. In other words, a man will take a year and a half to die, when he might just as well have enjoyed good health for the most of that time, and when he had reached the time of normal dissolution he could have had all his illness at once. When Oscar Wilde was dying in Paris, the attending physician showed some impatience at being called to attend a patient who evidently could not pay him. Wilde, noticing his manner, said to him: "Doctor, I fully realize that I am dying beyond my means." It certainly seems that any man who takes a year and a half to die when he could do so comfortably in a week, is open to criticism of "dying beyond his means."

The individual expense incidental to illness—loss of wages, medical bills, etc., can be readily estimated by each one of us. Multiply the average amount by the 1,500,000 people who are constantly ill, and the total loss to the community is enormous. Any saving that can be made is certainly desirable. But it is not the money the country loses as a result of this unnecessary sickness and loss of life that should prompt us to adopt vigorous preventive measures, but for humanity's

sake something should be done to prevent the suffering, misery and distress caused by these conditions.

To war against disease is to war against poverty, immorality and crime. The moral phase of this question should appeal to every right thinking person.

We have shown the splendid results that have followed an intelligent effort to reduce the mortality from communicable diseases. We have shown the deplorable condition resulting from a group of maladies which have not yet received official attention. We now come to the remedy for this latter condition.

To deal with any subject we must know the facts about it. If we want other people to deal with it we must tell them the facts. Clearly, then, the first thing to do is to instruct the general public about these diseases and then to tell them how to avoid them, leaving it to their common sense to apply the information.

The remedy then has two phases: First, the instruction of the people by Health Bulletins published at stated intervals and distributed gratis. Second, free medical examination to detect disease, to each individual who desires it, at stated periods. These benefits should be supplied by the state.

The Health Bulletin should also contain the facts about the degenerative diseases, and arouse the general public to the importance of attending to them. I do not advocate coercing the citizen into changing his habits or manner of life, except in so far as it is necessary to do so under present laws, but there are a vast number of people who ignorantly violate nature's laws without, of course, appreciating the dangers they are inviting. To such men, we would say: "You are treading on thin ice. If you wish to avoid danger, step over in this direction." It is then a matter for the individual to decide as to how far he will risk his life.

In connection with the Health Bulletins a series of popular lectures should be given. The agricultural departments of the various States send lecturers all through their territory to instruct farmers how to grow crops. Why shouldn't the Health Departments employ men to tell the people how to grow men and women? The healthy man is worth a good many bushels of potatoes.

As to free medical examinations: We have said enough during this lecture to show you how insidious is the progress of some diseases. It is obvious, therefore, that if a man postpones examinations of his physical condition until he is conscious of illness, it may be too late for the most skilful physician to check the disease, or give more than temporary relief. The lesson from this is that periodical medical examinations of every citizen are just as necessary for the preservation of health of the community as vaccination, disinfection, quarantine, contagious disease inspection, and other measures which are designed solely for the protection of a community from a certain class of disease.

Now we come to the question of who is to apply these remedies.

First, let us consider the existing machinery comprised in our State and local Boards of Health. In some respects the constituted authorities have advantages over private enterprise. For one thing, they can enact and enforce laws. Why shouldn't our Health Boards be as active in combating the degenerative diseases as they have been in dealing with those of the communicable class? The result desired is the same, and they can apply their present organization to attain it. Reference has been made to the methods of the Agricultural Department. Why not conduct an active propaganda on health much in the same way? As the case now stands, any attempt to pollute the source of water supply is

promptly reported and remedied. In the more settled States no place is so remote as to be beyond the quarantine of the health officer. The red placard on the houses warns every one that scarlet fever exists. Isolation of the patient follows the health officers' command. His power is adequate for such cases; why not for others?

In the rural districts practically every resident is more or less known to the health officer. As a member of the community he knows something of the habits of the individuals composing it, and can use his knowledge as a guide in his work. He should be authorized to make medical examinations of those who desire it, or those who do not object to it, without cost to them. A more careful supervision and inspection of health boards would solve the problem. The machinery is there and only needs development.

Attractive publications, popular lectures, personal interest, based on the great altruistic motive involved, are phases of the work which should be attended to. The health board should lose the last trace of perfunctory character, and become an active, vital, co-operative institution possessing the confidence of the people. Let the people know just what they can get by applying at the Health Board, and they will ask more questions than they do now. In the minds of most of us medical information is connected with expense. Teach the people that it costs them nothing to become informed or to be examined, and the Health Board will become a more popular institution.

Those who could afford it would doubtless prefer to go to their own physicians for periodical examinations, and the fact that the State deemed it necessary to conduct such a movement would induce thousands of them to do so.

Until the plan was well understood the

applications for free examinations would not be very large, but they would come from the poor and the very poor,—those who know the least about avoiding disease and who are most exposed to it. Thus the benefits of free examinations would go directly to the very element of our population that is more in need of them.

This would be a work of conservation and not of charity. As a matter of fact it would materially reduce the need of charity.

But governmental action is notoriously slow, and rather than wait for it, employers and unofficial organizations should look into the matter. The issue is too vital to brook delay, and if private enterprise is to undertake to deal directly with the individual, the life insurance companies are the normal associations to do it. To them it is a matter of business, and they alone have a sufficient number of lives under continual observation to permit effective action. They know how to begin such a work, and where to begin it, and they have the organization requisite for the purpose. Through their medical examiners they can grant every policy holder a full medical examination at stated intervals; and the incidental expense will ultimately be covered by the lengthened duration of the policy.

Boards of Health should heartily cooperate with any institution whose practical work is benefiting the whole community. The medical profession should give its sanction and hearty support to any effort which their investigation has shown to be devoid of charlatanism or quackery. Any real attempt to relieve misery should have their full recognition. That the doctors as a whole will help any sound effort of the kind is already assured from the sympathy they have always shown with such departures.

A great field is offered for the activities

of the Y. M. C. A. and the W. C. T. U. all over the country. Here are associations based on high moral considerations, to whom nothing is a matter of indifference that touches the welfare of the public. Within them various clubs have been formed with the intention of drawing the members closer together in the bonds of common interest.

Benefit societies and fraternal orders, lodges and friendly societies; trade organizations and social clubs, have ample opportunity to render their members invaluable service. In trade organizations the immediate financial value of such service is more apparent. It means money to the members to be able to attend to their work and to extend their efficiency as late in life as possible.

Large employers of labor could well afford to maintain a bureau of health presided over by a physician whose duties would include periodical examinations. Here the matter might be made compulsory on the men, and they would have sense enough to see its value and to avail themselves of it. Then increasing age would not necessarily mean discharge or reduction in salary, for an old man is more valuable than a young one, by reason of his experience, if he can hold his own by means of a healthy body.

Charitable societies, whose work lies largely among the poor, have an invaluable opportunity. Their connection with the clergy and with the philanthropists gives them a social prestige, while their association with the police enables them to appeal to recognized authority whenever necessary. The immense service these associations could render the community is so evident that neither argument nor discussion need be entered into.

The message I have brought to you tonight

is not one of alarm, but one of hope. I have warned against a class of diseases which threaten all of us, and which have not yet claimed the attention they deserve. I have told you of the only way to avoid them and of the only plan devised and in actual operation to furnish the necessary information to the individual himself. I have dwelt on these diseases with no intention of creating the sort of alarm that arises upon reading the circulars accompanying patent medicines. There is no occasion to become introspective, and to permit a fearful imagination to render us uncomfortable. If a person starts right, and arranges for frequent "checking up" of his machinery, he will not find it necessary to undergo the penance of diet, or the weird requirements of an "ism" of some kind.

Good health is the result of right living, and ought to be subconscious. What would you think of a man who was afraid to take a step unless he carefully examined the spot where he expected to put his foot? We walk without thought and we ought to enjoy good health in the same way. If we cultivate the habit of right living, we will live right without thinking about it. If we see our physician at stated intervals, and obey his orders—simply using the same good sense about our own machinery that we do about any piece of mechanism we possess, our health will take care of itself. Undue anxiety is the result of ignorance and the cause of real trouble. When the actual facts are known we are prepared to meet them properly, and when we do that we have no cause for fear. Right living, then, is the last thought I want to leave with you, to the end that your health and the health of the entire community may be as much a matter of course as anything else we do subconsciously.

ANIMAL EXPERIMENTATION AND BLOOD VESSEL SURGERY *

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To the physicians reviewing the work of the last ten years, it would be very difficult to pick out that part of the work that holds out greatest promise. But I feel sure that the scientific investigator ten years from now, as he looks back, will unhesitatingly place his finger upon that chapter of surgery dealing with the vascular system, as the most important contribution to the literature of the past decade.

The investigations carried out by Matas, Murphy, Carrel, Crile and others, have opened up a vista of possibilities the termination of which is difficult to perceive, possibilities not only to the surgeon but to every branch of the medical profession. A brief review of the literature might be interesting.

As long ago as 1753 Lembert advised suturing arterial and venous walls injured in their continuity. Upon June 15th of this same year, Hallowell, a colleague of Lembert's, successfully closed a wound in the brachial artery by passing a hair-lip pin through the edges and applying a figure-of-eight ligature. Unfortunately at this time Assman convinced the profession that injury of the vessel wall would invariably produce thrombosis and obliteration of the vessel calibre. And this belief held until the dawn of aseptic surgery so that it was not until 1886, one hundred and twenty-five years after Hallowell's successful case, that Postemsky of Rome successfully sutured a vessel wall. From this time on cases began to be reported with less rarity till in 1897 Murphy pub-

lished his paper upon end-to-end anastomosis of blood vessels.

In his text book of Pathology, Ziegler compares the intima of the blood vessel to the peritoneum of the intestine, and it is this similarity that makes successful suturing of the blood vessels a possibility. Just as the experimenters in abdominal surgery found that success in intestinal anastomosis depended upon accurate approximation of serosa to serosa, so the investigators in vascular surgery learned that failure to approximate intima to intima meant almost certain failure to maintain an open vessel. They learned that an exposed injury to the intima meant a proliferation of the endothelium and this to an obliterative thrombosis. The problem resolved itself therefore into finding of a method to approximate the endothelium of the inner coats so that all injured points would be covered. As in intestinal surgery many ingenious mechanical devices were at first employed, but as the surgical technique improved these gave way to the simple suture. Now all that is required for successful permanent blood vessel anastomosis, is a supply of No. 12 to No. 16 cambric needles and silk thread as large as can be threaded. To prevent thrombosis about the minute portion of the suture that is exposed upon the inner surface of the vessel, the silk is boiled in vaseline and the edges of the vessel smeared with vaseline. For temporary anastomosis as in direct transfusion of blood, mechanical devices are still used, notably the silver cannula of Crile.

The direct transfusion of blood, from

*President's address read before the Kalamazoo Academy of Medicine.

a healthy individual to one suffering from disease has been the dream of physicians and the material for novelists for ages. The procedure, simple as it seems, met with practically universal failure owing to the clotting of blood at the point of union. The necessity of preventing any injured points of the intima presenting themselves to the blood current, combined with perfect asepsis, solved this difficulty at once, so that today it is comparatively a simple operation.

In the mind of the surgeon the first indication for transfusion was to relieve shock from hemorrhage, and to temporarily build up a patient to withstand a necessary operation. This has been successfully accomplished many times. Patients weakened by severe hemorrhage from a fibroid uterus have been transfused before and during an operation of hysterectomy, and have left the table with better pulse and color than before the ordeal.

Dr. Keen in an article on recent surgical progress reports a case as follows:

"A baby, the only child of a young medical man, immediately after birth developed hemorrhages from the mouth, nose, stomach and bowels. The various remedies tried all failed and on the fourth day the baby was dying. In the middle of the night the father called Dr. Carrel of the Rockefeller Institute, laid down beside his baby; an artery in the father's arm was laid bare, and sutured end to end to a vein in his baby's leg, and the blood allowed to flow from father to child. The result was most dramatic. As the blood flowed from the father into the baby's veins, the white transparent skin assumed the ruddy glow of health; the hemorrhage ceased and never returned. As the published account so vividly puts it, there was no period of convalescence. Immediately before the operation the baby was dying, immediately after the operation

it was well and strong and feeding with avidity. Today the baby is a strong, healthy child."

But the field of medicine also demands this agent. Dogs apparently dying from distemper have been transfused from dogs that have recovered, and the disease arrested with almost miraculous suddenness. Human beings suffering with pellagra have received a transfusion from an immune and apparently recovered their health. Knowing as we do that nearly all of the infectious diseases give at least a temporary immunity, the possibilities of this field of therapeutics broadens out into startling dimensions.

But startling as these possibilities and achievements are they pale into insignificance compared to the hopes that spring up within us when we think what the next few years may bring forth as the result of successful permanent end-to-end anastomosis of blood vessels. The difficulties that present themselves in this type of work are two: First, the necessity of absolute, not relative, asepsis; and second, the small size of the parts to be sutured. The necessity for absolute asepsis is imperative, as the slightest degree of infection about the sutures means thrombosis with occlusion of the blood vessel canal. The small calibre of the vessel is partially compensated for by the fact that the endothelial layer being on the inner surface of the vessel, we are able to evert the line of sutures instead of being compelled to invert as in intestinal anastomosis; thus avoiding the danger of obstructing the canal by a valve flap.

Let us review briefly what has been accomplished by the so-called experimental work upon the lower animals. Sections of the blood vessel removed and preserved in cold storage and in formalin for 60 days have been grafted into the circulatory system and becoming viable performed the

function of the vessel into which they were transplanted. This proves that we can always have at our disposal material for replacing sections of vessels unavoidably injured.

The femoral artery and vein have been severed, the proximal end of the artery sutured to the distal end of the vein and the distal end of the artery to the proximal end of the vein; making of the artery a quiet flowing vein and of the vein a pulsating artery. The same procedure has been carried out with the external jugular and the external carotid. The entire thighs of two dogs have been amputated and the thigh of dog "A" grafted to dog "B," dog "B" to dog "A"; muscle sutured to muscle; nerve to nerve; bone to bone; and blood vessel to blood vessel; both animals recovering with perfectly useful extremities.

The kidneys, with the renal arteries and veins with the adjoining sections of the abdominal aorta and vena cava, ureters and a section of the bladder wall into which they empty, have been removed from one cat and grafted into another in which the same parts have been removed. The cat made a perfect recovery and secreted normal urine. The kidney of a dog has been removed, transplanted to the neck; the renal artery sutured to the carotid; the renal vein to the external jugular, and the ureter to an opening in the skin. Not only did the kidneys live, but also secreted normal urine. The heart has been grafted into the circulation of the neck and maintaining its pulsation for a time sufficient to take cardiographic tracings.

What may we hope for clinically as a result of these experiments upon the lower animals? Clinically, end-to-end anastomosis of blood vessels has been resorted to mostly in the treatment of aneurism and in accidental wounds of the vessel. A notable exception to this was a case report-

ed by Braun in which a section of the abdominal aorta was removed during the extirpation of a ganglion neuroma of the sympathetic. The patient, a child six and a half years old, made a perfect recovery with no circulatory disturbance. If sections of the abdominal aorta can be removed and kept indefinitely to be transplanted when needed, why shall we let our patients with aneurism of the abdominal aorta go on to certain death? If kidneys can be transplanted from cat to cat and from dog to dog, then they can also be transplanted from man to man. In the wards of the hospitals of our larger cities, patients are dying daily as the result of accident. In the same hospitals, others are dying of double renal tuberculosis, their bodies otherwise healthy. Transplantation of the kidney from the patient dying from accident to the patient dying from renal tuberculosis may mean a high mortality, but cannot exceed the present mortality of 100%.

But this is sure, all that has been accomplished and all that we hope will be accomplished in the future depends upon one thing, the continued experimental work upon lower animals. If this stops, then surgical progress comes practically to a standstill, and this is what the anti-vivisectionists are striving to accomplish. It was their misguided enthusiasm that drove Lister out of England to complete his work on the Continent, and has made of English surgeons, followers and not leaders, in new work. Following his report of the child saved by transfusion, Keen asks, "Reckoned in rabbits, what is the value of this child?" What the anti-vivisectionists would say I do not know, but the mother's answer would not be hard to guess.

The same authority views the present conditions as follows:

WHAT THE FRIENDS OF EXPERIMENTAL
RESEARCH HAVE DONE

1. They have discovered antiseptic surgery and so made possible the wonderful results of modern surgery.

2. They have made possible practically all modern abdominal surgery, including operations on the stomach, intestines, liver, gall bladder, pancreas and kidneys.

3. They have made possible all the modern surgery of the brain.

4. They have demonstrated how lock jaw spreads from the wound; how sometimes it can be arrested and cured; and, still better, how it can be prevented.

5. They have reduced the death rate in compound fractures from 65% to less than 1%.

6. They have reduced the mortality of ovariectomy from two out of three to three out of one hundred.

7. They have abolished yellow fever.

8. They have made possible the prevention of nearly all cases of hydrophobia.

9. They have cut down the mortality of diphtheria in New York City from 158 deaths per 100,000 in 1894 to 38 deaths per 100,000 in 1895.

10. By the use of the serum recently discovered by Flexner at the Rockefeller Institute, they have changed the mortality in cerebro-spinal meningitis from 75% and even 90% to 30% or less.

11. They have shown the cause of acute

tetany after operation for goitre so that it now can be prevented.

12. They have almost completely abolished the dangers of maternity, reducing death rate from ten or more mothers out of every hundred to less than one in every hundred.

13. They have shown the cause and method of propagation and of prevention of the deadly malaria, which devastates whole regions and armies. Its extinction is only a matter of time.

14. They have reduced the mortality of tuberculosis by from 30% to 50%. For Koch's discovery of the tubercle bacillus is the foundation stone of all modern progress in the treatment of tuberculosis.

15. They have enormously benefitted the lower animals themselves by discovering the causes and dangers of tuberculosis, Texas fever, anthrax, glanders, hog cholera, and other infectious diseases of animals; thus enabling us to combat them more successfully or even to prevent them.

WHAT THE FOES OF RESEARCH HAVE DONE.

1. Nothing but to stand in the way of progress. Not a single human life has been saved by their efforts; not a single household made happy; not a single disease has had its ravages abated or abolished. The victims of their sincere but misguided zeal are men, women and little children. Even the lower animals themselves may well cry, "Save us from our Friends."

THE URGENT NEED OF OPERATING IN ALL CASES OF HERNIA *

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There is urgent need of operating in all cases of hernia, but we will restrict our paper to the more frequent forms—those of the abdominal and pelvic regions. We

will not concern ourselves with the origin of hernias, as the need or operation is not dependent on whether the cause of inguinal hernia is due to the faulty development and attachment of the muscles (Ferguson),

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or whether the defect is one of saccular or congenital origin (Murray). We do know that there is a displacement of the tissues and organs with a negative tendency to repair, which shows an increase in its local and systemic pathological conditions.

It is remarkable the ill-effect the sight of an enlargement upon the abdominal or pelvic wall has upon the minds of some individuals. They will tell you that this enlargement is before them "morning, noon and night."

Not all cases of reducible hernia are free from adhesions or local pathological conditions other than the hernial opening. Adhesions around the ring are numerous. We find this the case at the internal orifice of the femoral canal. The local conditions may vary to a marked degree—may name the variety of hernia, as reducible, irreducible, partially reducible, inflamed, adhered, strangulated, etc. The hernial opening may be small, tight, irritable, predisposing the sack to a partial or a complete strangulation when forced through the opening, or the opening may be large and may be increased by force of the additional abdominal contents pushing their way through. The glands adjacent become hypertrophied and adhered from the continued irritation of hernia.

Conditions in and about the opening are so uncertain that the surgeon takes great chances in delaying operation. Cases are reported where the strangulated gut was reduced but a portion of the omentum remained. In these cases there was neither constipation nor vomiting. (Sir W. H. Bennett.) An unrepaired hernia predisposes to hernia of the opposite side.

The sac plays a most important role in hernia. It is adhered in nearly every case of congenital hernia. Adhesions about the hernial openings keep up a constant tugging upon the abdominal viscera. In all forms of hernia there is at least a presumptive

possibility of its becoming strangulated. Strangulation in children is the exception so there is some excuse for not operating on them. In middle life on account of the activity of the individual, and in old age on account of weakness and lack of muscular tonicity, we have the greatest number of strangulated hernias. Irreducible and obstructed hernias are those which are prone to strangulation.

We must warn the patient that he should be on the lookout for certain symptoms which are pathognomonic of strangulation, yet there is danger of strangulation not being recognized even by the medical attendant, as there may be no sudden onset, no characteristic local pain, no nausea, no vomiting and no tenderness, but there may be expulsion of gas or even fecal evacuation. Look back over your records. Is there not here and there a displaced kidney, an acute congested liver, an irritated gall bladder, a general fermentative congestion of the whole intestinal tract, a general atonic condition which is first manifested upon the large intestine bringing about constipation or sometimes diarrhoea? I have seen a case of intestinal atonicity which became chronic, lit up with an acute attack developing general peritoneo-intestinal sepsis. The lesion affecting the large intestine may extend to small intestine, setting up an enteritis with all the attendant destructive sequelæ, as ulceration and perforation of the walls of the intestines. The lesion may extend up the intestines to the stomach, giving your patient gastritis, which if continued may bring about dilatation of the stomach or even ptosis.

As we watch and study our hernia cases more closely we note that very many of the patients suffer from symptoms simulating those of dyspepsia—nausea, not pronounced, constipation in nearly all cases, gastritis with ptosis, also intestinal

displacement, even urinary reflex troubles are noted—a frequent desire to micturate, an undue straining when emptying the bladder, a feeling that the bladder has not been emptied. Very many patients develop hypertrophy of the prostate. These reflex urinary troubles cause atrophy of the bladder wall and even changes in the kidney tissue itself. Frequently old cases are complicated with albumenuria. All cases produce some reflex irritation. All hernias with adhesions produce reflex stomach troubles which are frequently treated as such, without of course, being benefited. A strangulated hernia may cause tympanitis, or even peritonitis may develop—undesirable complications.

The cause of strangulation is hardly settled. From fecal impaction and mesentery involvement to malposition and condition of sac, we find enough causes to bring about a strangulated hernia. Besides the mechanical causes, we have as a complication sepsis *per se*, *Bacillus coli communis*, and staphylococcus and streptococcus infection. The local complications may be such as to require a resection of portions of the omentum which increases the mortality, and very often we are forced to a resection of the intestine which brings a high mortality. The percentage of recoveries in strangulated cases is about 50%. Very often we have an escape of feces due to the rupture of the intestine, or as a complication in the resection of the intestine. Many of these cases are followed by peritonitis and recovery is not the rule. In uncomplicated cases, where the surgeon and the patient have been prepared, the percentage of recoveries should be from 98% to 100%.

An important factor in the early operation for hernia is the opportunity given both the surgeon and the patient for preparation. To do satisfactory work the surgeon should be prepared both mentally and physically—the mind refreshed and an entire change of clothing made before entering the operating room. This is rarely possible in acute cases or operations for strangulation, nor is a hospital or other suitable place always accessible, especially in rural districts. Many times the country practitioner is called to a case of strangulated hernia with inadequate facilities for operating, as a result of which the patient dies, or at best an unsatisfactory result is obtained. Again the danger from the anæsthesia is manifestly greater when the patient is not previously prepared. Before administering an anæsthetic it is highly essential that the alimentary canal be irrigated thoroughly, the bladder drained and a careful examination of the urine made to detect the presence of albumen; this to aid in the choice of anæsthetic. It is also necessary that the site of operation be as nearly aseptic as possible. This can be done only by thoroughly scrubbing and shaving at least 12 hours before operation and applying a moist compress of some antiseptic solution. When the patient is brought to the operating table the field should again be scrubbed.

Knowing that the hernia increases in size, the complications in number and seriousness, and that a grave if not fatal condition must be the result; knowing the necessity of proper preparation, we ask but one question—why delay a comparatively simple operation for one of greater magnitude?

FURTHER STUDIES OF THE DIAGNOSTIC VALUE OF THE "HEMOLYTIC TEST" IN CANCER AND TUBERCULOSIS*

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The history of the attempts to discover in the blood sera of patients affected with cancer some specific test for new growth is both interesting and instructive. The elaborate researches of Ehrlich and his followers in the endeavor to find characteristic morphological changes in the blood corpuscles of individuals, the victims of malignant disease, are well known. These studies proved only that the blood of cancer patients presented a rather varying type of secondary anæmia, although they were productive of an immense amount of information regarding the differential estimation of white cells, and the behavior of blood cells in general to various dyes. Studies on the chemistry and the physical properties of blood sera of cancerous subjects have not until very recently given promise of disclosing anything typical for this protean class of ailment. The discovery, in 1900, by Grunebaum (1) and Ascoli, (2) of the agglutinating properties of certain cancerous sera, appeared to offer some prospect of being diagnostically valuable. It was soon shown by Donath (3), Gay (4), and others that the agglutination reactions were possible with sera from non-cancerous patients.

The more recent researches have attempted to prove that there exists in the blood sera of patients affected with malignant disease, certain substance or substances, which are capable of causing destruc-

tion of the red blood cells of patients not cancerous, but only to a limited extent of the red cells of the cancerous patient. This phenomenon of "hemolysis" was early commented upon by Kelling (5) who had observed its occurrence when sera from human cancer patients were brought into contact with erythrocytes of sheep, cows and chickens. Kelling showed that the blood sera from these cancer patients destroyed (hemolyzed) the red cells of these animals, whereas the sera from normal individuals appeared to have little or no destructive effect. However, shortly afterwards Fischel (6) demonstrated that while Kelling's observations held, in the main for certain types of cancer, there were other diseases as severe as diabetes, tuberculosis and pernicious anæmia, the sera of which destroyed the red cells of aliens.

About two years ago Weil described a new method of studying the hemolytic reaction in disease. He noted, while working with "infectious lymphosarcomata" in dogs, that the salt solution extract of these tumors had little effect upon the erythrocytes of non-infected dogs, unless the tumors "extracted" by salt solution had become necrosed and broken down. In this event, the salt solution extract of the necrosed tumors caused prompt hemolysis of the sound dogs, erythrocytes. Similar conditions were found to exist where necrosis was brought about experimentally and aseptically (as by ligation of vessels)

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in organs non-cancerous. It was later shown that the blood sera of animals where necrotic infectious lymphosarcomata were present, contained properties which made such sera capable of destroying red cells of sound animals. It was also demonstrated at this time, that, while the sera from the cancerous dogs was capable of destroying the erythrocytes of sound dogs, they had little, if any, destructive effect upon the red cells of the cancerous dogs. In other words, the sera of infected dogs appeared to be unable to hemolyze the more or less "immunized" red cells of these animals.

The precise nature of the cell-destroying property present in the sera of cancerous animals has as yet not been determined. It has certain poisonous and irritative properties as shown by Wade, who demonstrated that materials isolated from necrotic tumors are capable of producing interstitial nephritis when injected into the circulation of test-animals.

It will be readily appreciated that the step from the study of the hemolytic reactions in animals to their investigation in humans was a short one. The work has been eagerly taken up in this country, notably by Weil (8-9), Crile (10), Wittemore (11), Blumgarten (12), Johnston and Canning (13) and others.

Weil's (14-15) work showed that in a series of 82 cases, 56% of sera from patients affected with advanced malignant growths was hemolytic to normal alien corpuscles. Of the cases of benign tumors examined, 33% was productive of a like hemolysis, and in 26% of sera from patients ill, but clinically non-cancerous, similar results were observed. No apparently normal sera produced destruction of alien cells. The investigations of Wittemore showed that of 109 cases tested, clinically well and otherwise, "direct hemolysis" occurred in 36% to the carcinoma cases, in

50% of the tuberculous patients—all stages of the disease—in 18% of patients affected with ailments other than cancer and tuberculosis, and in 17% of clinically well individuals. Blumgarten reports that in his series, 72% of sera from cancer patients produced direct hemolysis, while the sera from but 10% of patients affected with other than malignant disease were hemolytic.

The results obtained by Crile and his assistants have thus far been the most encouraging. These investigators report a series of 541 cases. Of this series 211 individuals were clinically well. In none of these subjects was the hemolytic reaction described by Weil obtained. In about 10% of seventy-one cases of pyogenic infection there was hemolysis of alien corpuscles. Of 55 cases of benign tumors, no sera were reported as hemolytic. Of 153 cases of malignant disease—all stages—the sera from 130, or 85%, produced varying degrees of hemolysis of healthy, human red cells. Of 11 cases of cancer, with clinical recurrence, 100% maintained persistence of the positive reaction. Of 37 cases, postoperative, without clinical recurrence, examined at periods of from three weeks to fifteen years after operation, none exhibited hemolytic power of their sera towards healthy alien cells. Of 52 cases of tuberculosis, 92% showed the reaction which Crile has called "reverse hemolysis," i. e., the destruction of erythrocytes from the tuberculous patients by sera from healthy aliens. Crile and his co-workers noted that the cancer cases showing no hemolysis were late inoperable growths; that cancers of the mucous surfaces showed more uniform hemolysis than did those located in deeper tissues; that in cases which had been operated upon with clinically no recurrence, the hemolytic power of the sera was lost in from twelve days to three weeks; that in cases where the

incomplete operation had been performed, the serum never lost its hemolytic power; that chilling the sera appeared to increase hemolytic power, while heating it above 55 degrees centigrade seemed to destroy the hemolytic property.

In a very recent communication, Johnston and Canning (13) report results similar to those described by Crile. In the main, they claim to have used the technique described by Crile and his assistants. Three hundred one cases are tabulated. In the cases of carcinoma (42 in number) the hemolysis (direct) was positive in 85.7%. In 9 cases of sarcoma, the direct hemolysis was determined in all cases. Two cases of endothelioma were positive. Of 14 benign tumors, the serum reaction was negative uniformly. Of 43 cases of tuberculosis, 16% showed reversed hemolysis, the remaining cases were negative. Johnston and Canning also report positive reactions in septic infections, typhoid fever, lobar pneumonia, normal individuals (error in technique?) and with Coley's fluid.

These reports by the late investigators appeared to warrant more than passing investigation of the hemolytic reaction as a diagnostic agent, for while many cases of cancer and tuberculosis are readily diagnosable by clinical means, yet there are cases where growths are situated in organs not always accessible, where such laboratory test would surely be of great import if found dependable. Either the improved techniques suggested by Crile and his followers had brought about greater accuracy, or the manifestations of the reaction had been misinterpreted. This applies particularly to those cases of so-called "reverse hemolysis," as in tuberculosis, where the serum of the alien is capable of destroying the red cells of the subjected tuberculous. It was for the purpose of satisfying himself upon some of these points that the writer took up the work. His earlier re-

port (16) comprised findings from the investigation of the sera from 85 individuals. Of these there were 12 cancer cases. Seven or 58.3% showed positive reaction. There were two benign tumors. In neither was there a positive reaction. Of 15 cases of tuberculosis, two showed "reverse hemolysis" and one showed the typical "cancer reaction" (direct hemolysis). There were 12 cases of syphilis. The positive reaction was obtained once in these. There were 35 cases of diseases other than those quoted; 5 showed hemolysis similar to that exhibited by the cancer patients and one showed "reverse hemolysis." Of 19 normals, one showed the direct hemolysis as manifested in the cancer cases.

Since the publication of his first, and what must be considered preliminary report, the writer has had opportunity of continuing his investigation, and the final results to date furnish the basis of this communication.

The technique of the reaction has been frequently described. That suggested by Weil and Crile has been followed in the main.

TECHNIQUE

Blood is obtained from the subject, either by direct puncture of the arm veins or from the end of the finger, under aseptic conditions. It is necessary to obtain from each patient, blood corpuscles and blood serum in separate containers. In order to obtain the serum, blood is allowed to run directly into sterile test tubes. From forty to sixty drops are usually sufficient. If much serum is required for the purpose of running many sets of controls, then from five to ten cubic centimeters of blood should be obtained. This large amount can best be secured by direct puncture of a superficial arm vein. After obtaining the blood for serum, the test tube is either slanted and placed at once in the ice box,

or is at once centrifugalized, and after the serum has thus been mechanically separated is then placed at ice box temperature for from twelve to twenty-four hours. It is especially requisite that serum be kept at even temperature. If the temperature fluctuates the hemolytic properties of the sera are greatly affected. The red blood cells for the test are obtained by allowing from ten to twenty drops of fresh blood to run into salt-citrate solution or into a tube or flask containing several small glass beads. In the latter event the tube or flask is gently agitated and defibrination accomplished, with prevention of clotting. It has not appeared best to us to prevent clotting in this way. There seem to be several objections. Cells are readily injured by the sharp edges of the beads, and it seems that hemolysis is more readily brought about in them than under conditions where cells are preserved in salt or salt-citrate solution. Defibrination by beads is cumbersome, the cells are sometimes separated from the fibrin shreds with considerable difficulty, and if the shreds are not separated, it is frequently noted that hemolysis is delayed or interfered with on account of cells being entangled within the fibrin network. Before using the corpuscles it is necessary to wash them several times with normal salt solution. Sometimes it is difficult to free the cells from fibrin when glass beads have been used. The bits may seriously interfere with the reaction as a consequence. After washing, the erythrocytes are placed on ice to be used when serum is available.

In the manner above described, blood serum and red cells are obtained from normal individuals, etc. When the components of the reactions have been thus prepared, the test is ready to set up. As before mentioned, it has not appeared necessary to use the triple controls suggested by Crile. It does not appear that

there is any greater accuracy in such method than when a few well-manipulated controls are followed. The sources of error are certainly greater. We have in all cases tested each suspected serum with at least two normals, and against cells suspended in normal salt, and against cells and sera in sterile water. With Crile and others we have noted that heating sera above 55° Centigrade prevented hemolysis.

Our procedure in carrying out the test is to add to the several test-tubes successively five or ten drops of a 5 per cent suspension of normal red cells in normal salt solution, then respectively three or six drops of blood serum from the cancer patient (or other subject), three or six drops of blood serum from the normals, three or six drops of normal salt solution, and three or six drops of sterile water. To the next group are added, respectively, five or ten drops of a 5 per cent suspension of red cells from the cancer patient (or other subject), and then to the various tubes three or six drops of normal serum, of serum from the suspected individual, of normal salt, and of sterile water. The tubes are then thoroughly agitated. When the smaller portions of each constituent of the reaction are used, the mixing may be best done with capillary pipettes, after the fashion of cell suspension mixing in the working of the opsonic index. After thorough mixing, the tubes are placed in a thermostat at 37° Centigrade for two hours. If the tubes are placed in a vessel containing water in the incubator, it is possible that they may be agitated several times during the period of incubation, without interfering with the progress of the reaction. After incubation, the tubes are removed from the incubator and placed at icebox temperature for twelve hours. They should be shaken once or twice during this period. The tubes are then observed for evidences of hemolysis. This is shown by

the pink coloration of the fluid above the cell debris. It is best to have the observations made by some one who knows nothing of the clinical histories of the cases being tested. If reactions are read after twenty-four hours following removal of the tubes from the thermostat, the infor-

mation derived is dubious, inasmuch as hemolysis may occur in tubes containing no serum. It is rare to secure hemolysis in any tube as complete as that in the control containing sterile water, even though the hemolytic properties of the serum tests are marked.

TABLE I

Clin. Diagnosis	Pathologic Findings	Remarks	Own Corps.	Alien Corps.
1—MALIGNANT DISEASE:				
Palate and Cheek	carcinoma	Late	O	++
Breast —3	"	Necrotic	O	++
Breast —1	"	Mod. adv.	O	+
Breast —2	"	Mod. adv.	+	++
Breast —2	"	Early	O	O
Lip —1	"	Early	O	+ slt.
Prostate —1	"	Early	O	+ slt.
Uterus —4	"	Mod. adv.	O	++
Uterus —1	"	Early	+	+
Uterus —2	"	Mod. adv.	+	O
Stomach —5	"	Early	O	O
Stomach —1	"	Early	O	+ slt.
Bowel —2	"	Mod. adv.	O	+ slt.
Bowel —1	"	Early	O	O
Bowel —1	"	Early	O	+ slt.
Bone —1	osteosarcoma	Mod. adv.	O	O
Lung —1	sarcoma	Late	O	+
Oesophagus—1	carcinoma	Mod. adv.	O	O
Gall tract —1	"	Late	+	+
2—BENIGN TUMORS:				
Prostate	adenoma	Early	O	O
Uterus —2	fibroid	Mod. adv.	O	O
3—TUBERCULOSIS:				
Pulmonary —1		Incipient	O	O
" —2		"	+ slt.	+ slt.
" —5		Mod. adv.	+	O
" —1		" "	O	+
" —3		Late	+ slt.	+
" and pleura—3		Early	O	O
" " " —2		Old	O	O
Glands —6		No suppuration	O	O
Glands —1		Suppuration	+	+
Glands —1		Old healed	O	O
Bones —3		Mod. adv.	O	O
Bones —2		With anæmia	+	+ slt.
Bones —1		Early	O	O
G. U. and General—1		Rapid Progress	O	+ slt.
Bowels —1		Anæmia—lung inv.	+	+ slt.

Clin. Diagnosis	Pathologic Findings	Remarks	Own Corps.	Alien Corps.
4—SYPHILIS				
Primary —1			O	O
Secondary —3			O	O
Secondary —1			+	+
Tertiary —7			O	O
Tertiary —3			+ slt.	+ slt.
Tertiary —4		With anæmia	O	+
5—OTHER DISEASES:				
Pernicious anæmia —1		Mod. adv.	+ slt.	+ slt.
Pernicious anæmia —1		Early	O	O
Hodgkins' Disease —1		Latt	O	O
Chlorosis —2		Mod. severe	O	+
Chlorosis —1		Early	O	O
Secondary anæmias—2		Mod. degree	O	+ slt.
Secondary anæmias—2		Early	O	O
Addison's Disease —1		Early	+ slt.	+ slt.
Graves' Disease —1		Anaemia	+ slt.	+ slt.
Graves' Disease —2		Early	O	O
Aneurism —1		Of aorta	O	O
Aneurism —1		Late of aorta	+ slt.	+ slt.
Cystitis —1		Hemorrhage	O	O
Tonsilitis —1		Suppuration	O	O
Tonsilitis —1		Non-suppurating	O	O
Acne —1		Diffuse lesion	+ slt.	+ slt.
Endocarditis—1		Old rheumatic	+ slt.	+ slt.
Nephritis —1		Chr. parenchym	+ slt.	+ slt.
Nephritis —1		Chr. interstit.	O	O
Nephritis —1		Chr. interstit	+	O
Gall stones —1		Febrile	+ slt.	+ slt.
Enlarged parotid—1		Anæmia	O	O
Brain abscess			O	O
Arteriosclerosis—1		Anæmia	O	+
Neurasthenia—3			O	O
Hysteria			O	O
Achylia gastrica		With Trichomonas intestinalis	O	O
Chorea —1		Anæmia	+ slt.	
Chronic headache		Ophthal. migraine and anæmia	O	O
6—NORMAL INDIVIDUALS ALL AGES—23			O	O
NORMAL INDIVIDUAL—adult—1			O	+

TABLE II—SUMMARY

Clinical Diagnosis	No. of Cases	Positive	Negative	Reverse	Undeterm.
MALIGNANT DISEASE	31	14	10	4	3
BENIGN TUMORS	3	0	3	0	0
TUBERCULOSIS	45	2	27	5	11
SYPHILIS	19	4	11	0	4
OTHER DISEASES	36	5	20	2	9
NORMALS	24	1	23	0	0
Totals	158	26	94	11	27

We have not used extensively the capillary pipette method as suggested by Eppstein. It appears to have possibilities.

The results of our work herewith presented comprise observations upon 158 cases affected with various ailments and clinically well. The scope of the work will be seen by referring to Table I. It is not possible here to go into minute details concerning the history and the clinical findings in each individual case. Some of the cases were exceptionally interesting. Apart from the cancer cases, particular interest was attached to the findings in the cases of tuberculosis, syphilis, the anæmias and those diseases with anæmia.

Table II summarizes the gross results of the work.

It might be of value to say a few words with regard to the manifestations in the cancer cases. By positive reaction we understand that the normal red cells to which serum from the cancer patient has been added are destroyed (hemolyzed) more or less completely, while the cancer patient's cells are not hemolyzed by the addition of its own serum or the serum from the sound patient. The reactions which we have classed as "undetermined" are those where destruction of red cells took place in both combinations. By the reaction of reverse hemolysis, it will be recalled, we mean the cells of the suspected patient are hemolyzed by normal or alien serum. Our work summarizes the reactions in 31 malignant tumors. Fourteen of these (45.1%) gave positive reaction. Four showed reverse hemolysis, three were undetermined and ten were negative. The cases in which positive manifestation was noted were in general late and moderately advanced lesions. This is not the rule, however, as it will be seen by looking at Table I, that reactions were obtained in early cancers and not always in moderately advanced or late processes. The pro-

cesses associated with necrosis seemed to cause more prompt and more distinct hemolysis, in the main, than those where the tumor masses were well preserved. Portions of the body where the circulation is perhaps less marked—as bone and prostate gland—appeared to respond slowly, even though the cancerous process were well advanced. Cancers of the uterus were accompanied in general by distinct and prompt hemolysis. The cases of cancer where the anæmia was more pronounced appeared to give more definite positive reaction than those where the lesion was well confined with slight anæmia. This also applies to cases where the loss of weight had been marked and rapid.

Of the three benign tumors examined none gave positive reaction. In none was the anæmia or the loss of weight prominent.

The consideration of the tuberculous cases is interesting. It will be noted that 45 cases are tabulated. But two of these gave positive reaction, and only 5 showed "reverse hemolysis." All the cases showing "reverse hemolysis" were moderately advanced cases of pulmonary tuberculosis, and were all anæmic, febrile and had lost weight. Eleven cases are classed as undetermined. Perhaps a more experienced observer than myself would have classed some of these as reverses. The distinction did not appear sufficiently evident, however, in my judgment. Twenty-seven cases showed no reaction either way. To these belonged no particular type of the disease. It is interesting to note, however, that 11 were incipient t.b.'s without anæmia and little fever and loss of weight, and 5 were well localized lesions confined to the pleura and lungs, with fair general state. Some of the other cases with anæmia—as for example tuberculosis of the bowels and bones—showed distinct hemolysis both ways.

There were 19 syphilitics examined. Four, or 21%, gave positive reaction, while an equal number were undetermined. Eleven were negative. There were no cases of "reverse hemolysis." All the cases of syphilis showing positive reaction were cases of tertiary with more or less severe anæmia. The cases of visceral syphilis seemed to respond more noticeably than others.

The study of the 36 cases other than cancer, tuberculosis and syphilis is most interesting, and is perhaps the most important feature of the communication. Five of these cases (13.9%) (namely two cases of chlorosis, one case of arteriosclerosis with secondary anæmia, and two secondary anæmias from infectious disease) showed moderately well marked positive reaction. Twenty cases are negative. Two cases showed reverse hemolysis. These were one case of achylia gastrica with trichomoniasis and anæmia and one case of the chronic interstitial nephritis. In the former case the reaction was not well marked, but distinct enough to be called a hemolysis. Eleven cases are classed as undetermined. A rather striking proportion is found in those disease conditions associated with anæmia.

Of the 24 normal individuals (clinically well) but one case showed positive reaction. One might question whether or no there was some slip in the technique in this case, but as far as known there was no error, and the evidence must be accepted for what it is worth, inasmuch as the patient appeared very well at the time his blood was taken. Some old tuberculous focus or some recent infectious disease may have modified the test in a way not understood at present.

The summary shows that of the 158 cases, 26, or 16.4%, revealed positive reaction. Of these 26 cases, more than half, were cases of malignant disease. The majority

of the remainder were syphilitic and tuberculous. The disease conditions generally giving positive reaction were those associated with more or less marked anæmia, and in many instances with loss of weight.

Of the 158 cases tested, 94, or about 60%, were negative, while 27, or about 17% were classed as undetermined. Some of these so classed might have been called positive by a more experienced worker. Eleven cases showed "reverse hemolysis." The greater number of these were tuberculous—moderately advanced cases with anæmia—but a fair proportion of "reverse hemolyses" was obtained in the cases of malignant disease.

It would appear, then, from this brief consideration of the work of others and the results we submit that certain facts are brought forward prominently. It seems that in the blood serum of some cases of malignant disease—those generally associated with anæmia and loss of weight—there exists a hemolytic property for alien red cells. It also appears that while this phase is interesting and may be of value in certain individual cases, similar manifestations are possible from the sera of patients non-cancerous. We have herewith called attention to this manifestation in cases of tuberculosis, syphilis and other disease conditions. It will be noted, however, that the conditions where this direct hemolysis is obtained are those frequently associated with anæmia, loss of weight and cachexia. We have not noted that the reaction of reverse hemolysis mentioned by Crile as occurring in 92% of cases of tuberculosis is characteristic. It occurs occasionally but is by no means characteristic, inasmuch as we have shown that it also occurs in malignant disease, syphilis and other diseases. As Crile suggests, our work also shows that the transfusion of blood from one individual to another in cases of emergency is a dangerous procedure unless previously the

hemolytic reactions of the two sera have been noted. In conclusion, it should be emphasized that while the main mass of data is at present against the hemolytic reactions, being characteristic for any single class of disease; yet the large number of cancer cases showing this reaction should urge us to seek modifications of the method in the hope that study of various sera along other lines will lead to the firm establishment of a specific reaction for cancer and other disease conditions which seem to have specific pathology.

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First National Bank Building.—Fine Arts Building.

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6. Berliner klinische Wochenschrift, 1908, p. 882.
7. Journal of Medical Research, 1907, p. 287.
8. Proceedings of the Society of Experimental Biology and Medicine, 1907, p. 25.
9. Journal of the American Medical Association, Vol. I, 1908, p. 64.
10. Journal of the American Medical Association, 1908, Vol. L, p. 1883, and 1908, Vol. LI, p. 2036.
11. Boston Medical and Surgical Journal, 1909, No. 2.
12. Medical Record, 1909, April.
13. Proceedings of the Pathological Section, June, 1909. Meeting A. M. A. (not yet printed).
14. The Archives of Internal Medicine, 1908, Vol. I, p. 23.
15. The Journal of Medical Research, 1908, Vol. XIX, No. 2, p. 281.
16. Medical Record, N. Y., 1909, Nov. 27.

SERUM TREATMENT OF CANCER

Eugene Hodenpyl of New York reports his experiments in treating cancer with ascitic fluid. The fluid was obtained from a patient with carcinoma of the liver and other organs and marked ascites. The patient had had several operations without results, but later there was marked improvement though the ascites remained. This was used for inoculation in 47 cases for advanced inoperable cancer with very favorable results.—*Medical Record*, February 26, 1910.

SURGICAL SUGGESTIONS.

The Roosevelt clamp simplifies gastroenterostomy and enteroanastomosis.—*American Journal of Surgery*.

There are exceedingly few authentic cases on record of "idiopathic" gastric hemorrhage.—*American Journal of Surgery*

The calcaneus spur is a real condition—especially in people past middle life. It may be associated with flat-foot, but is *not* flat-foot. A properly fitting ring cushion will often relieve the condition.—*American Journal of Surgery*.

At least one good surgeon (Treves) never permits an intra-abdominal pedicle ligature to include undivided peritoneum. He always exposes the vessel itself, except in omental pedicles.—*American Journal of Surgery*.

In suturing a laparotomy wound in the right hypochondrium, remember that the vessel running near the round ligament may be punctured in the peritoneal suture. Its injury usually gives rise to very troublesome hemorrhage.—*American Journal of Surgery*.

The Journal of the Michigan State Medical Society

All communications relative to exchanges, books for review, manuscripts, advertising and subscriptions should be addressed to Wilfrid Haughey, A. M., M. D., Editor, 15 East Main Street, Battle Creek, Michigan. The Society does not hold itself responsible for opinions expressed in original papers, discussions or communications.

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MAY

EDITORIAL

A DEPARTMENT OF PUBLIC HEALTH

Senator Robert L. Owen of Oklahoma, has introduced a bill in the Senate creating a National Department of Public Health, with an officer in the President's Cabinet. In support of this bill Senator Owen delivered a speech before the Senate on March 24th, in which he entered into a lengthy argument showing the necessity for such a department. He discussed the prevalence of Yellow Fever, Hookworm diseases and Bubonic Plague and called attention to the vast amount of work that has been accomplished by organized effort in lessening the spread of them and other diseases. He urged that with a National Department we would be able to do far better work in life conservation. He stated that the annual loss of life from Tuberculosis alone, in the United States—a preventable disease—is 150,000 at the average age of 35 years. Most of this could be avoided and gradually would be under a properly constituted Department of Public Health.

He pointed out that for the present fiscal year the United States has appropriated for sanitary and health purposes the following amount:

Dept. of Commerce and Labor.	\$ 533,000.00
Dept. Navy.....	1,827,428.00
Dept. War.....	6,400,734.00
Dept. Treasury.....	2,512,733.00

Dept. Interior.....	1,748,350.00
Dept. Agriculture.....	1,275,820.00
Dept. State.....	3,405.79
Bureau of Public Printer.....	7,270.00
District of Columbia.....	663,680.00

\$14,972,320.79

This does not include the service in the Philippines, Porto Rico, Cuba, nor one hundred and fourteen physicians and twenty-eight nurses among the Indians, nor the hundred and odd clerks in the medical division of the Pension Office, nor the medical attention to sick prisoners nor the collection of medical statistics by the Census Bureau.

There are over 12,000 persons employed by the Government in public health and sanitary service not including those in Porto Rico, Cuba, Panama, the Philippines or the Agricultural Department. These agencies should all be consolidated into a new Department, the Department of Public Health.

The Senator closed his speech with the following appeal: "In eight years we have increased our expenditures over the average of preceding years by the huge sum of one thousand millions for the army and navy, and are spending 70 per cent of the national income to cover the obligations of past wars and the preparation for possible future war, or about seven hundred millions per annum. But for war on preventable disease now costing us infinite treasure in life, efficiency, and commercial power and prestige we spend nothing and do not even employ the agencies we have in an efficient manner.

"In the name of the people and in the name of the American Medical Association, whose members are the faithful and self-sacrificing guardians of the health of our people, and in the name of the Committee of One Hundred, of the American Federa-

tion of Labor, of the National Grange, and of the various health boards, of the 46 States of the Union and of the great body of learned men desiring improved sanitation and the application of the improved agencies of preventing disease, disability, and death, I pray the Senate to establish a department of public health.

"The principle of the bill meets the general approval of the public-health societies and of the medical associations of the United States, and there should be no difficulty in perfecting this bill and impressing upon the country the importance of organized effort to control the ravages of tuberculosis, typhoid and malarial fevers, bubonic plague, and other preventable diseases, which inflict such enormous injury upon the people of the United States, impose such vast, but needless, human misery and pain, with great financial loss and loss of prestige and power.

"A commercial nation will not be unmindful of the commercial value of the saving of life and efficiency possible, which is worth \$3,000,000,000 per annum.

"A humane nation will not fail to act when it is known that we could save the lives of 600,000 of our people annually, prevent the sickness of 3,000,000 of people per annum, who now suffer from preventable disease, and greatly abate the volume of human pain, misery, and death.

"I trust, Mr. President, that the Senate may not fail to take action in regard to this matter at the present session."

Write your Congressman.

THE ENORMOUS WASTE OF HUMAN LIFE

As another argument for the creation of a Department of Public Health we publish in this issue of the JOURNAL a paper read before the Detroit Academy of Medicine by Mr. George H. Cunningham which shows in a striking manner how the United States is behind some of the European countries

in certain phases of the subject of actual disease prevention.

We have succeeded wonderfully in reducing the death rate from Diphtheria and various other diseases, and can show a material reduction in the last thirty years in the death rate from all causes in persons under 40 years, but over that age there has been a corresponding increase in the death rate so that what we have saved on the one side of forty we have lost between forty and seventy or thereabout; while in Scotland, England and Wales, for instance, the saving is manifest up to sixty years, and the death rate is not greatly increased above that age. Mr. Cunningham shows that beginning about forty years of age we are now suffering enormous loss of life from Apoplexy, Bright's Disease, and in general disease of the Heart, Kidneys and Arteries.

With a Department of Public Health at Washington the matter could be profitably studied and we should obtain as good results as they have in England.

SUBSCRIPTION AND DUES

The United States Postal regulations provide that any periodical enjoying the second class postal rating must not carry names on its mailing list, that are over six months in arrears. This applies to the JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY, and means we must go through our mailing list after the June number and eliminate the names of all those who have not paid their dues and subscriptions for the year 1910. The fiscal year of the JOURNAL and of the Michigan State Medical Society is the calendar year. Those not paid before the 1st day of July would therefore be six months in arrears, and there is only one thing we can do. The editor and the Society have no alternative in this regard.

To those of us who are interested in the Medical Defense plan there is still another and a strong reason why we should pay our dues early. The By-Laws provide that those in arrears after June 1st will not be defended in any suit, the cause of action of which occurred while in arrears. This means that for two years we are liable to have a malpractice suit, against which the machinery of defense is not provided, brought against us for some real or fancied act, which occurred between Jan. 1st and the date we pay our dues in this or any other year. It will mean something more than this after our plan has been in force long enough to establish its reputation. It will mean that lawyers bringing this class of suits will seek out the doctor in arrears to his society. That doctor, he knows, is without the protection furnished by the society and must defend himself—or settle.

For these two reasons we urge our members to remit to their County Secretary. Do not wait for him to come to you, for he is busy and should not be required to personally visit every member. We do not wish to remove any names from the mailing list, and we do not wish anyone to be without the means of defense from civil malpractice suits.

COMMITTEE ON REVISION OF THE CONSTITUTION

The present Constitution and By-Laws of the Michigan State Medical Society were adopted at the time of the reorganization of the State Society in 1902. They have been amended at various times as occasion arose. The JOURNAL was established since the Constitution and By-Laws were adopted, and hence is not covered or governed by them. The plan of Medical Defense has been adopted only recently by making amendments to the By-Laws. It has seemed wise to consider a general

revision of our Constitution and By-Laws at this time in order to get them in a more concise form. There are a few changes contemplated but these have mostly to do with the governing of the JOURNAL. These latter changes must be made to harmonize with the United States Postal Regulations.

To propose a revised Constitution and By-Laws which will be up-to-date and more concise than the present one, the President, Dr. J. H. Carstens, has appointed Drs. B. R. Schenck, of Detroit, Chairman; Wilfrid Haughey, Battle Creek, and W. T. Dodge, Big Rapids.

This Committee is now gathering data and material and hopes to have the work finished before the Bay City meeting. Any one having suggestions is requested to communicate with the Committee.

COUNTY SOCIETY REPORTS

The JOURNAL was established in September, 1902, for the purpose of drawing more closely together the members of the County Medical Societies. It was thought that by publishing and distributing to every member of County Societies, the doings of the other County Societies, the interest and enthusiasm of each member could be better kept up. Each man would then know what was being done in other communities than his own. To better further this aim the department of County Society News was established and County Secretaries were urged to report their meetings in the JOURNAL.

We would be pleased to have every County Society in the State report every meeting in these pages. There will be pages enough because the size of the JOURNAL is limited only by the demands made upon it.

The editor for the past four years in his final report to the Council said it had been his policy to publish every scrap of

County Society News that he could lay his hands on. The present editor has done the same and will so continue. He regrets that he has not more appearing this month.

If your County Secretary does not report your meetings, do so yourself. Every Society is entitled to space in that department of the JOURNAL. At the end of this year we shall present a tabulated report showing which County Societies have availed themselves of the pages of the JOURNAL and how often. It should be a matter of pride to each Society not to have a cipher stand opposite its name in that report.

MEDICAL DEFENSE

The Michigan State Medical Society at the Kalamazoo meeting took a liberal view when in adopting amendments to the By-Laws establishing Medical Defense as an integral part of the work of the Society, it allowed each county the option of not participating.

Fifty-one counties have named their member of the Medico-Legal Committee, or have paid defense dues. Three counties have paid their subscription but not the defense dues. The total membership of these three counties is 71. From four counties we have had no official word—and no dues or subscriptions have been paid. These four counties represent a total of 97 members.

Thus we have seven counties that have not actually begun on this defense work, representing 181 of our members.

At this date (April 20) 1107 members of the State Society have already paid their defense dues, and 1143 have paid their State dues and subscription to the JOURNAL, as reported to this office by county secretaries.

This is not as it should be. Every member should have paid his dues and

subscription before this and every society should take up this defense work. The furnishing of the machinery for defense is not clearly understood by many. It means that our attorneys have briefed the law as it is interpreted by court decisions and as it applies to civil malpractice. This is a work that is very expensive, requires a lot of drudgery, and brings the cost of privately defended suits to a prohibitive figure. Supplying this brief makes the cost reasonable, and also gives the defendant the full protection of the law.

It is hoped that co-operative Medical Defense as adopted by the Michigan State Medical Society will so educate the public, and especially a certain class of legal lights, that such suits will be brought only when there is legitimate cause, and not with the hope of a settlement. This is an educational achievement greatly to be desired, and should have the active support of every member of the Michigan State Medical Society. Most of us do not need the defense, and probably never will, but we should be willing to donate \$1.50 this year and \$1.00 a year hereafter to bring about such a hoped for stage of civilization that malpractice suits will only be brought in the rare cases where there is just ground for such suits.

Doctors, first and last, are teachers—the very title means teacher. We should and we must point the way in this as in other matters for the education of the public, and the contribution asked from each is not great.

NEW MEMBERS

There are in Michigan about 1500 physicians who are not members of the Michigan State Medical Society. On advertising page VI of this issue we publish our regular form for Application for Membership, and we request every member

to constitute himself a committee of one to interview those of his confreres not now enjoying the benefits of membership in our society, and urge them to join.

If each one will do this we can almost double our membership this year, and it will take but very little effort. The arguments for joining are many and convincing.

IN MEMORIAM

Dr. Perry E. Tayer, died in Adrian March 25th, after a week's illness with pneumonia.

Dr. Tayer was born March 1, 1883, near Adrian, and has always made that city his home. In 1902 he graduated from the Adrian High School as class president. He studied for a time in the office of Dr. Treat, going to Ann Arbor for his first two years in the Medical Department. His final years were in the Detroit College of Medicine, where for a time he was externe to St. Mary's Hospital. He graduated in 1907 and settled in Adrian, where he soon built up a successful practice. In College Dr. Tayer was associated with the Phi Beta Pi Fraternity. The following tribute is paid him by a daily paper of his home town:

"In the story of a city's daily life there are many tear-stained pages, most of them in these uneventful days, caused by the loss of loved citizens, but not for many years has a death in Adrian been more universally mourned, or the shock of it more widely felt than this, when so fine a man in the very flower of his young manhood, filled with dreams of a future to be spent in ministering to humanity and helping make the world better, is taken away. He was a boy of genial disposition and winning personality and possessed many qualities that made and held scores,

yes, hundreds of friends. He was known among the poorer class for his kindness; and many a one has he helped with no expectation of receiving pay."

Dr. Clarence G. Vary, of Battle Creek, died April 7, 1910, of acute Bright's disease. Dr. Vary was born in Calhoun County, Michigan, in 1874. Completing his elementary training in the Public Schools of Battle Creek, he spent three years in Olivet College. In 1894 he entered the Medical Department of the University of Michigan, spending three years there, and took his medical degree in Jefferson Medical College, Philadelphia, in 1898, after which he served one year as interne in St. Timothy's Hospital, Philadelphia. Dr. Vary located in Battle Creek in 1899 and has enjoyed a large practice. He served two years as Health Officer, 1905 to 1907. He was a member of the Calhoun County and Michigan State Medical Societies.

Dr. Geo. M. Bell, of Benton Harbor, a graduate of University of Michigan, 1870, Chicago Medical College, 1871, and Bellevue Hospital Medical College, 1875, and for more than forty years a practitioner of Medicine in Benton Harbor, died March 27, aged 61, of cancer of the spleen.

Dr. Geo. W. Matteson, of Middleville, died of senile debility, Feb. 24th. He was a graduate of the University of Buffalo, class of 1855, and was 88 years old.

Dr. Rollin Carolus Olin, University of Michigan, Homeopathic College, 1877, Professor of Theory and Practice of Medicine in Detroit Homeopathic College, died of cerebral hemorrhage, March 8, aged 70 years. He was a veteran of the Civil war.

Dr. Charles T. Freiberg, a member of the Bay County Medical Society, died suddenly of heart disease at the home of his parents in Bay City, April 1st, 1910. Dr. Freiberg

was 29 years old and a graduate of the Saginaw Valley Medical College of Saginaw. In 1906 he was appointed to the Board of Health and served as Health Officer until a few days before his death.

SHOULD A PART OF THE MEDICAL DEPARTMENT OF THE UNIVERSITY BE MOVED TO DETROIT?

The following news item in the February number of *THE JOURNAL* prompted us to request the opinions of the Regents and others prominent in Medicine in Michigan to express their views in the columns of *THE JOURNAL*.

"At the last meeting of the Board of Regents, a committee was appointed to investigate the possibilities of removing the fourth year of the Medical Department of the University to Detroit, where better clinical facilities may be obtained."

To the Editor:

I have your letter of February 28, asking me to express, through the columns of the *JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY*, my opinion regarding the question of the proposed transfer to Detroit of a part of the work of the Medical Department of the University.

Inasmuch as this question is to be ultimately decided by the Board of Regents, I do not think I should engage in a public discussion of the question in advance of the final decision.

Very truly yours,
LOYAL E. KNAPPEN, *Regent*.

To the Editor:

I am in receipt of yours of the 28th ult. relative to transferring to Detroit, part of the medical course.

I do not care at this time to express fully my views on the subject, suffice it to say that the Detroit proposition as submitted, does not meet with my approval.

Yours very truly,
WM. L. CLEMENTS, *Regent*.

To the Editor:

I am in receipt of your favor of the 28th ult. in reference to transferring a part of the medical department to the city of Detroit, and asking my opinion for publication, regarding same. Inasmuch as this matter is one that will have to come to the Board of Regents, of which I am a member, for final action, it seems to me it would be very improper to express any opinion, or to form one, prior to a report of the committee, which should

and will be acted on, on the merits of the proposition.

Respectfully yours,
GEO. P. CODD, *Regent*.

To the Editor:

In reply to your request for a contribution on the subject of transferring the Medical Department to Detroit, I beg to state that our committee has not gotten its data together as yet. Until the report is made to the Board of Regents I would not feel at liberty to discuss the matter. Thanking you, I remain,

Yours truly,
JUNIUS E. BEAL, *Regent*.

To the Editor:

I have before me your favor of February 28th asking me to give you for publication my opinion with reference to transferring the last year of the Medical course from Ann Arbor to Detroit. This matter has been referred to a committee for investigation. I am a member of this committee but as we have not made our investigation as yet I am not in a position to express an opinion.

Very truly yours,
FRANK LELAND, *Regent*.

To the Editor:

I have your letter of February 28th, but by reason of the fact that I will be called upon officially to vote on the proposition concerning the Medical Department of the University, it seems to me it would be highly improper for me to express an opinion concerning it at this time. It would hardly be fair to pass judgment on the merits of the case before the evidence is all in and the report of the committee is made.

Thanking you for the opportunity, however, and trusting I may learn the result of your efforts, I remain,

Yours respectfully,
JOHN H. GRANT, *Regent*.

To the Editor:

Your favor of February 28th, to Mr. Chase S. Osborn is received during his absence from the city. It will be brought to his personal attention at the first opportunity.

However, I regret to advise you that he is away from home a great deal of the time, and I cannot say just when he will be in his office.

Thanking you in his behalf for your letter, I am

Yours respectfully,
M. F. HEDRICH, *Secretary.*

To the Editor:

Under the circumstances I do not think it best for me now to discuss in the columns of the JOURNAL the question of increased clinical facilities for the Dept. of Med. and Surg. at the University. I am so directly interested in the solution of the problem, as Chairman of the Med. Committee of the Board of Regents, that I could not at this time give an opinion, and any statement by me, even though I made an effort to discuss it pro and con without committing myself, would prejudice the case and embarrass the Board.

Trusting that you will appreciate my position and regretting that I can not comply with your request, I am,

Yours very sincerely,
WALTER H. SAWYER, *Regent.*

To the Editor:

Your request for my opinion upon the advisability of giving a portion of the clinical instruction of the Medical Department of the University in Detroit, I accede to with pleasure.

As an alumnus of the Medical Department, I would naturally be pleased to have it occupy first place in the affections of the profession of this State. That this is not the case and has not been for several years is due to the fact that the University Hospital is thrown open to all comers for free medical and surgical attendance, who are able to pay the sum required for hospital care. In this way much free professional service is rendered many well-to-do people and the needy poor who should have such service are unable to obtain it because they do not possess the necessary hospital fee. The medical profession, therefore, loses the income from many of its well-to-do patrons and at the same time gives free attendance to many of the needy poor who

should be cared for by the State. All this is for the purpose of developing a clinic for the instruction of the students, and I believe a fair clinic in chronic affections has been thus built up. No satisfactory clinic in acute diseases ever has been built up in Ann Arbor and it appears never will be. A really first-class Medical College cannot be built up without facilities for abundant clinical instruction in acute diseases. These facilities can be obtained in Detroit. Great Clinical instructors can be built up in such a city and kept—there. In the past many clinical instructors of eminence have been connected with the University and soon passed on to larger fields. It is not likely that the excellent men of the present staff can be kept there indefinitely. No such frequent changes have taken place among the eminent laboratory workers in the University. I am therefore in favor of the change because I believe that it will eventually mean but *one* Medical College in Michigan and *that* the Medical Department of our University, backed up by a united profession, giving laboratory and clinical instruction second to none in the world.

Very truly yours,
W. T. DODGE.

To the Editor:

I have your letter of February 28th requesting me to take part in a symposium upon the move to have the Medical Department of the University of Michigan removed to Detroit. I thank you very much for the invitation, but I hardly think it would be good taste for me, an official of the University, to take any active part in the symposium. This would be as far as my official position is concerned. Personally, I do not see why the question should be raised at all. The only excuse would seem to be that we are lacking in clinical material. The fact of the matter is that far more patients apply at the University Hospital than can be admitted. What is needed just now are more hospital facilities. Two hundred seventy-five beds entirely devoted to clinical teaching hardly seems enough to take care of the many patients who apply.

If you are interested in the opinion of others outside of the State in regard to the question of the removal of any part of the Medical Department, I would refer you to the last report of the Carnegie Foundation.

Very truly yours,
REUBEN PETERSON.

To the Editor:

You certainly deserve a great deal of credit for conceiving and developing the idea of obtaining a consensus of opinion, concerning the removal of a portion of the medical school, from Ann Arbor to Detroit.

It is a subject which I have studied a great deal for several years, and I have reached the firm, unshakable conviction, that the training of the senior medical class during a part of their course, in Detroit, among the hospitals and dispensaries, is a most excellent thing for such students and also a good thing for the profession. Furthermore, it will redound to the benefit of the laity, as well as the University. A purely clinical school for the University, in Detroit, therefore, is a much needed improvement in my opinion.

Very sincerely yours,
E. L. SHURLY.

To the Editor:

Relative to your communication of the 7th inst. concerning the advisability of removing the University of Michigan Medical Department to Detroit, I cannot write specifically on account of lack of thorough acquaintance with local conditions, but only in a general way I realize how great the value of greatly increased clinical facilities would be for men in their final years.

Respectfully,
F. McD. HARKIN.

To the Editor:

In reply to your letter asking for my opinion, I am glad to make plain and emphatic that I am unqualifiedly opposed to removing the Medical Department of the University, or any part of it, from Ann Arbor. I stand for the unity and indivisibility of the University.

Sincerely yours,
A. W. CRANE.

To the Editor:

Your letter asking me for my opinion to be expressed in the symposium in the MEDICAL JOURNAL, as regards the advisability of removing the Medical Department of the University to Detroit, came to hand during my absence in Detroit. In reply would say that inasmuch as I am Chairman of the Committee appointed by the State Medical Society to report at its next meeting on the Relationship of the Medical Department at Ann Arbor to the medical profession at large in the State, it would seem to

me premature for me to express my opinion publicly until after the report of the Committee had been given to the State Medical Society; otherwise, I would be only too glad to comply with your request.

Yours respectfully,
E. T. ABRAMS.

To the Editor:

The Michigan University ranks so high in parts that it is a source of regret that the Medical Department has not been made a more distinguished part of the whole.

The teaching force in the Medical Department is not at fault. It contains men of great ability—men noted as instructors the world over. The handicap lies in clinical material. Sufficient clinical material cannot be secured in a center so limited in population as Ann Arbor. This handicap affects both instructors and instructed.

The student loses time and so loses money. He does not get value received. A student today sees before him many fields to enter, where formerly there were but one or two. He must be given that which will save time and labor in order to enable him to gather in from the greater territory.

We are rapidly approaching a revolution in didactics. The methods of education at their best are too burdensome for this age. In the educational field there is too much of "bricks without straw" work. Our educational methods belong too largely to antiquity. There clings to them the musty odor of the middle ages.

The Sidis incident at Harvard is showing the dawn of the new educational day. It reveals methods—largely objective—which can secure a better working knowledge in one-third to one-half the time now used. An object lesson "gets there" while description lags. Educational work needs more air lines.

We have aimed in our commonwealth to stand for the highest in all educational matters.

Methods which most rapidly and efficiently will interest our students in medicine must be adopted. The good of the student body medical must be paramount.

The objective teaching arising from abundant clinical material is a crying need.

The Harvard Medical School has, in Boston, a yearly clinic, conveniently accessible, of half a million people. The Michigan University School of Medicine, if moved to Detroit, would have similar advantages and would practically

be no more separated from the main university than is the Harvard Medical School in Boston from the Harvard University at Cambridge.

Yours truly,

C. B. STOCKWELL, M. D.

To the Editor:

I am exceedingly sorry that you have decided to publish a symposium of opinions regarding the removal of the last year of the Medical Department of the University of Michigan to Detroit. A committee from the Board of Regents has been appointed to investigate this matter. I do not believe that it would be wise to discuss it, at present at least, in the JOURNAL.

Yours truly,

V. C. VAUGHAN.

To the Editor:

You have been kind enough to ask some expression of my opinion regarding the removal of the last two years of the Medical course now given at the University of Michigan to Detroit. I feel some degree of freedom in complying with your request, now that I shall soon retire from the practice of medicine—freedom I have not heretofore felt from the fact that my opinion, in some quarters, might seem to be prejudiced on account of the peculiar circumstances attending my resignation from the Faculty of our State University some six years ago.

It might fairly be thought that I am acquainted with the conditions at the University, since I served there for 17 years—and with equal fairness it may be taken for granted that I am acquainted with medical conditions in Detroit, since I have been on the Consulting Staff of Harper Hospital following my resignation from the University—my opinion therefore is an unprejudiced one, and I am absolutely independent in its expression.

It must be assumed that only a small minority of the medical men of the State really know all the conditions existing at the University. They will tell you that Ann Arbor is a small city and cannot therefore furnish a clinic sufficient to demonstrate first class Medical Teaching. They do not consider that almost every State in the Union is represented in the clinical attendance at the University, and that all those who come to it give up their individuality, and become patients for the sole purpose of study and experiment by the students—they get free advice and treatment because of this. The Hospitals at the University have the largest attendance of any Hospital in the State, and the largest

number of beds. The students are in residence at the University, and when emergency cases come in the entire class can be, and is, summoned to witness and assist in whatever is done, whereas in a large city like Detroit the students are scattered, and cannot be convened immediately. The Hospitals at Ann Arbor are for the use of the student—the Hospitals in Detroit are all of a private nature, the patients are for the most part private patients, who will not allow themselves to be examined, studied and treated by students, and although I have been in attendance at Harper Hospital almost daily for several years, I have never seen a class of students following a professor from bed to bed, as is a daily custom at Ann Arbor. It is not so much in the number of clinical cases presented, as the manner of such presentation, and the opportunity afforded the student of watching the case through the whole course of its illness.

There is of course a wealth of clinical material in Detroit, but there is no way of properly using this material as conditions now exist, nor is there likely to be for some years to come. When Detroit has a large modern Municipal Hospital and this hospital is placed in the hands of a Board, not of Regents especially, but a non-political Board, who are competent to manage and direct such an institution, who will not destroy the practice of private physicians, by admitting to a free clinical service those who should pay for treatment, and when conditions are arranged so that such an institution shall not be run for the personal aggrandizement and furtherance of relatives of those in charge; when living salaries may be paid to competent teachers, in order to remove them from the necessity of eking out a miserable existence by practicing medicine in a private way; when men totally unfit for such positions will not be allowed to hold professorships of prominence; when the vast amount of clinical material in Detroit will be used without prejudice and harm to the private practice of private physicians, then and not till then it will be of advantage to remove the last two years of medical teaching from Ann Arbor. Excellent work is done at our State University by most of the faculty. It can be bettered by giving freer rein to the teaching force by the Board of Regents, who are without experience, and void of good judgment in the matter of the professional training of students. I am therefore of opinion that the teaching of medical students during their junior and senior years, should be conducted as it is now at the

University, where young men may get not medical instruction only, but where residence will give a broader culture which can only be found at a large seat of learning, such as exists at the University of Michigan. I have refrained from expressing myself on this subject since leaving the University, but at this time when I am so soon to retire from the practice of a profession in which I have been very active for 30 years, surely I may give utterance to an opinion unbiased by prejudice of the feeling that dependence upon this organization, or that clique, or individual, will shape it in any way.

Yours very truly,
FLEMMING CARROW.

To the Editor:

I would not be in favor of having the last year or two of the Medical Department of the University of Michigan moved to Detroit for several reasons.

First. The life of students and instructors in a place like Ann Arbor is much more con-

ducive to scientific work than in a place like Detroit.

Second. The Chief of each clinical department maintains control and is better able to carry out a well conceived plan of education under present conditions than if his authority were more or less divided, as under the proposed plan.

Third. As I understand it, the placing of the Medical Department at a distance from the University is a plan that has been tried in other places and has not been very successful.

Fourth. I believe the idea of more extensive and diverse clinical material has been largely exaggerated. It is not necessary that a student should see *all* the diseases to which human flesh is heir in order to become a good physician. The present clinical material is ample for the demonstration of the principles of diagnosis and therapeutics.

(Signed)

RICHARD R. SMITH.

COUNTY SOCIETY NEWS

CHIPPEWA

At a meeting of the Chippewa Co. Medical Society held at Sault Ste. Marie, Michigan, March 1st, the following paper was read.

MODERN THERAPEUTICS or DRUGLESS THERAPY.

J. N. Rogers, M. D., Sault Ste. Marie.

Mr. President and Gentlemen:

I did not realize until after I had begun this paper what a task I had undertaken. It would require six such papers to cover the ground thoroughly and I fear I shall be accused of Heterodoxy by some of my very exclusive regular confreres, but I am so good an orthodox in medicine that I want the regular to know and master all that is good in the healing art. If I had a patient whom I have failed to cure in the regular orthodox way and I felt convinced that any other will help him, I should not hesitate to try it even to using Peruna or Lydia Pinkham's.

It makes me feel foolish to learn of osteopaths and chiropractors doing what regularly educated physicians have failed to do, but this

has happened right here in this town, and we may as well all stand up and plead guilty, for it touches all of us.

By rational (or regular) therapeutics I make no references to any sect in medicine. In the treatment of disease we must formulate a platform broader and more liberal and on a more exalted plane than is afforded by any sect or school. We must avoid narrowness, egotism and intolerance, and always carry a receptive mind of such breadth and scope that we can recognize and assimilate good from any source.

Our schools still make the mistake of allowing students to absorb the idea that drugs are the sole reliance in the practice of our profession. Men leave our best colleges without the knowledge of Electrotherapy, Hot Air Treatment, Osteopathy, Homeopathy, Hydrotherapy, the various religious movements, as Christian Science, Dowiesism, Emmanuel Movement, etc. There must be some good in all these or they never could have commanded the following we know they have. Would it not be better for us to search out the virtues within these practices and cults and learn to treat a sick person by

the most approved methods known to any branch of medicine, rather than to accustom ourselves to think of a certain drug whenever a certain symptom or disease presents itself to our attention?

Sectarian Medicine has no place in modern Rational Therapeutics. The man who refuses or fails to employ a given agent or drug which he knows to be best for his patient is too narrow in his views to become a successful practitioner of the great science of Medicine. The trouble with so many men is they know so many things that are theory only and they say, "I have proved my theories by my experience," but what if the theory was wrong? What then about the results? Whenever a man gets to the position where he is no longer capable of learning, he has no place in the ministrations to the sick but needs treatment himself for the condition of his mind.

Christian Science being diametrically opposed to everything scientific, and, in practice, idiotic and ridiculous, teaches the great influence of the mind over mental illnesses. It is a practical demonstration of the power and worth of optimism militant. The enthusiasm in "treatment," which impels success because it is blended with and interwoven among falsehood, ignorance and superstition, is no reason why we cannot take the kernel of truth it contains and apply it beneficially to our patients. Dooley says, "If Christian Scientists had a little more science and doctors had a little more religion it would not matter much which we called so long as we had a good nurse."

If regular physicians were as familiar as they should be with Aerotherapy, Electrotherapy, Hydrotherapy, Psychotherapy, Climatotherapy, Massage and such manipulative measures, there would be no field open for such an army of blatant impostors who are taking advantage of the present lax medical practice acts and getting into professional work (not practice). These are not educated, intelligent men, but a horde made up from the barbers, butchers, clerks and bartenders who drop their tools one day and hang out their sign the next as an osteopathist, chiropractic with the degree of D. O. or D. C. or some other high sounding title. These titles are granted without a particle of school training and yet they claim to be able to look over the body as a watch maker would a watch and "fix it." They claim surgery is hand work. As Osteopathy is hand work it is truly Surgery without the knife, and the ever growing number

of malpractice suits due to wrong diagnosis and barbarous manipulations with permanent crippling, chronic disease, and even death, speak louder than words. Yet some States like California legalize and license Osteopathy and allow them to practice obstetrics and surgery, besides manipulative methods. Operative Surgery is supposed to be taught in the Philadelphia College of Osteopathy

And What About Chiropractic?—It out-fakes all the others and yet we must admit with a certain degree of humiliation that cases have been benefited by these methods, crude as they are, that we failed to cure by ordinary methods. Therefore we must admit that there is some virtue in them in selected or suitable cases, but their extravagant claims to be able to cure anything from clap to cholera morbus bring it into disrepute in time.

If we do not show up the absurdity of their claims the people will be a long time in discovering it for themselves. As a matter of fact they are but feeble imitations of Scientific Massage—Swedish Movements as taught for fifty years in the University of Upsala in Sweden, and if we were as familiar with these as we should be there would be no need for Osteopaths or Chiropractors. . . .

The subject of Spinal Therapeutics has received less attention from the medical profession than it deserves. Even the laity know that cold applied to the neck may arrest nose bleed, and that heat applied to the small of the back may hasten menstruation. The profound and far reaching physiological truths which underlie these simple phenomena have either been ignored or only given inconsiderate attention. Others, less scientific but more astute, have determined empirically that manipulation of the spine does sometimes cure conditions that have failed of cure in the hands of experienced physicians. So it has come to pass that schools of practice exploiting spinal manipulations as a cure-all have arisen. Neither the fury of the tongue nor the truculence of the pen can gainsay the confidence which these systems of practice have inspired in the community. You need go no farther than your own city. We have had two of those impostors come in here and do business from the start, take the money that rightfully belongs to us and get the cash from people who owe half the doctors in town.

I was led to give more attention and deeper study to Spinal Therapeutics some three years ago, from a report made by the Board of Health

in New York City in which they claimed that 80% of the school children in New York had spinal curvature and gave defective vision as one of the chief causes. Any physician that passes this subject over lightly as being unworthily simple, will find upon further investigation that the study of Spinal Therapeutics and successful practice of Spondylotherapy requires knowledge, observation and experience of the highest kind and is comparable to the best effort in any other department of scientific medicine. It is our duty and our privilege to lift this whole subject of Spinal Therapeutics out of the low state in which it blunders onward, hitting or missing as the case may be; of rescuing it from the lowly esteem which physicians as a class have felt for it, and if possible, put it in a plane befitting its scientific importance, and recognize its practical helpfulness in disease.

Any method of cure which is more or less new, is inclined to be observed critically and so it should be. "Keep all knowledge open for revision" is a good rule, but abandon fixation and get out of the ruts. There is something good in Osteopathy. Ling demonstrated this one hundred years ago and yet the quackery and villainy with which it has been surrounded has brought it into disrepute with the profession. There is some good in Christian Science and yet how many have condemned that as absolute rot. (Before you misunderstand me I will say the only good in Christian Science is hopefulness, and turning the mind away from imaginary ills, and even more, from real ills.)

Hydrotherapy—Let us pause a moment to emphasize the value of Hydrotherapy not only in Typhoid Fever *per se*, but as a preventative of after vascular damage. Hydrotherapeutics in fever, controls the formation and favors the elimination of toxins; preserves and increases the elasticity of the arteries and is a true preventative of subsequent sclerosis. Typhoid Fever, I consider the most prolific cause of this disease.

The physician of today must have a knowledge of many things besides medicines and drugs, and so, many medical colleges demand from one to four years academic college work as an entrance requirement. As a result of this a marked improvement can be noted on every hand. There are 141 medical schools in this country, some being high grade, some good and some poor, but the law of the survival of the fittest is rapidly eliminating the poorer ones. No man in this country needs a more liberal

education than the man of medicine. His work leads him into the realms of science not bounded by drugs, bacteria, and surgical instruments. While the physician is being perfected educationally, his patient is becoming better grounded in things medical. Some of the knowledge comes from the physician, some from the teacher in the public schools, some from every day reading, and some unfortunately from imbibing the untruths appearing in the patent medicine and quack advertisements, and the distorted quasi-medical stories in the public press. This works positive injury to the patient and a hardship to the doctor who is trying to be honest with his patient as well as himself. It does seem as though the people should be educated by the profession, acting through the Medical Society.

Massage—Is derived from the Greek word *μάσσειν* or the French *masser*, meaning to knead. A male operator is called a masseur and female, masseuse. Massage is a scientific treatment by certain passive systematic manipulations upon the nude skin of the human body. Dr. Mesger, who is largely responsible for this system, says that an un instructed person cannot pick it up,—it is an art not to be self-acquired. All movements are passive and manipulations systematic. He divides the Massage Treatment into four principal manipulations. The Swedish School recognizes definite areas of spinal tenderness identified with the various organs—thus, in affections of the stomach tenderness is observed in the region of the 6th, 7th and 8th Dorsal nerves on the left side and manipulation of this region often evokes eructations of gas.

In the presence of abdominal pain the surgeon who uses his head as well as his knife thinks of appendicitis, but when he uses his knife to the exclusion of his head he thinks of nothing else.

Mental Healing or Psychotherapy—Great confusion and greater diversity of opinion still exist among those so-called Mental Healers. Many still cling to the theory of the old clock maker, Quimby, "Think right and you will be right." Mrs. Eddy, who was a patient and pupil of Quimby, after investigating and theorizing, and testing her own powers as a healer, formulated a theory of her own which as an ultra-idealistic philosophy easily heads the list. While we cannot here undertake to show the many inconsistencies of the new religion or consider its value as a therapeutic agent we

cannot resist a feeling of admiration for the courage, determination and tireless energy displayed by Mrs. Eddy in her labors to gain a hearing, and the success attained in a few years by a woman advanced in years, grey, gaunt, sad, pathetic and hungry looking, practically alone in the world and without means. In 1882 when Mrs. Eddy settled in Boston she had less than 100 followers. In the entire country today they have 100,000, and still growing.

The New Thought Movement has grown side by side with this sister movement and numbers almost as many, although they have never become organized into a religious system. It differs from Christian Science by refusing to deny the reality of the physical universe but looks upon the visible universe as an expression of the power of God. It upholds an idealistic interpretation of life, it affirms the supremacy of mind over matter, and that by the influx of man's spiritual consciousness the mind is renewed and the body strengthened and made whole. So likewise with disease, suffering and sin, the reality of which is conceded by the New Thought (but denied by Christian Science) while claiming they may be overcome by "the introduction of true thought into the mind of man." The introduction of this "true thought" into the minds of patients, thereby curing them of disease, is in reality the old original Quimby idea, "get yourself thinking right and you'll be right." The father of the New Thought Movement was also a patient and pupil of Quimby named Evans, a man of talent and education.

Moreover, its explicit recognition of the material side of life has commended it to a more intelligent class of believers who hold the tenets of Christian Science in contempt. The principal reason for its success is found in the fact that notwithstanding its doctrinal conditions and extravagances, it has proved sufficiently "workable" to justify, in the opinion of its adherents, the extreme claims it puts forth, and while it is true that the New Thought healer has been guilty of much serious malpractice, it is equally certain that he has effected cures in cases pronounced hopeless by orthodox practitioners. In many instances we know the followers of these two sister movements appear to gain greatly in health and happiness, and get a new lease of life. All this of course continues to win new recruits for them, and even the skeptical must admit the fact "that there may be something in

them after all." It is our business to find out what that "something" is.

In order to appreciate just what that something is and to understand why Christian Science and the New Thought on their therapeutic side are so strangely compounded of success and failure, it is necessary to study the progress achieved by an altogether different type of mental healing. Men of scientific temperament and training have directed their efforts according to their understanding, to build up a system of psychotherapy based not on mystical speculation but on exact knowledge. In fact were it not for them psychotherapy, so far as concerns comprehension of its workings, would still be pretty much where it was in the dark ages of Mesmer.

These men have been quietly investigating, and experimenting, and have made remarkable headway in a comparatively short time in fathoming the processes of mental healing and in determining its proper place in the practice of medicine. The labors of these men began about thirty years ago and have continued to the present time. Dr. Charcot of Paris has perhaps done more than any other one man to establish the power of suggestion as a healing agent applied during the hypnotic state, as it was found to be more effectual and more permanent than when applied at other times. It seemed a legitimate inference that there existed a close relationship between the psychical and the physical in man, and in view of the effects of hypnotic suggestion on the physiological processes, it was possible that many maladies apparently physical in character had their origin in some psychical disturbance, and could best be treated by psychical means.

Some very brilliant results were achieved in the treatment of hysteria and other nervous disturbances where ordinary methods had failed. But what is very important here is the fact that the efficacy of suggestion itself often depends on the precision with which a diagnosis is made, and the secret psychical cause of distress brought to light. Nor would suggestion succeed if "dissociation," as it is called, had progressed so far as to involve radical destructive changes in the nerve cells, rendering the malady "organic" instead of "functional," for as the psychopathologist frankly admits, suggestion is powerless in the presence of all organic diseases whatever their origin, or is useful only as an auxiliary to other treatment, chemical, or surgical. Some hysterical affections are easily mistaken for

other troubles and operated upon, as Dr. Pierre Janet pointed out in a course of lectures a year or so ago delivered at the Harvard Medical School. "It is impossible to estimate the number of operations that have been performed to remedy conditions which really called for treatment by Suggestive Therapeutics." While hypnotism is still considered useful as an aid to diagnosis it is used very little now therapeutically as the laws governing suggestion are better understood. We are largely indebted for this advancement to an American Psychopathologist, Dr. Boris Sidis of Brookline, Mass., whose book on "The Psychology of Suggestion" is indispensable to a clear understanding of the subject. But whether they utilize hypnotic or non-hypnotic suggestion, all scientific psychotherapists are agreed in recognizing that suggestion has its limitations, and that within those limitations it is necessary for the suggestionist to be thoroughly grounded in the psychological principles governing the action, in order to be able to apply it with any certainty of success. Herein is the great difference between scientific psychotherapy and that practiced by Christian Scientists and New Thought healers.

Where the latter succeed they owe their success to the influence of suggestion, and where they fail it is because they ignorantly treat disease not susceptible of cure by suggestion; or because in cases where a cure may be wrought they lack the training and the knowledge to make a precise diagnosis, ascertain the true cause of the disorder and apply the proper methods as used by the educated and scientific practitioner. Suggestion even when unguided by scientific knowledge often works wonders by imbuing the patient with a lively faith and hope in the possibility of regaining health, and by appealing to the religious side of man's nature, they gain great power to inspire hope and courage. So long as they can do this, it matters not how erroneous their doctrines may be, the result is the same. There is always the danger that one's trouble may be organic instead of functional, in which event, however strong his faith, "his last state would be worse than his first."

It is to avoid this danger and at the same time to take advantage of the therapeutic potentialities inherent in sincere religious conviction as proved by Christian Science and New Thought experience that a new system of mental healing called the Emmanuel Movement is said to have been formed or developed quite recently. It originated with two Episcopal clergymen of

Boston named Drs. Worcester and McComb, men of scientific and theological training, who felt that in psychotherapeutics there was a field in which the clergyman and the physician might work hand in hand. Enlisting the co-operation of several well known neurologists they opened a clinic in their Church in Boston in the fall of 1906 and still maintain it in constant operation. All patients coming to them for treatment are first required to undergo a medical examination at the hands of competent physicians, and if their malady is one requiring medicine or surgery they are promptly referred to a physician or surgeon as the case may be. This of course is a big advance over all other religious healers, and brings it nearer the realm of the regular practitioner, and opens the way for the physician to step in and occupy the field so long neglected by him, and left for the charlatan and the religious fanatic to fatten upon the credulity of a deluded people. There is no peculiar piety involved in the use of suggestion and it can be used apart from all religious thought or feeling although these are sometimes helpful adjuncts.

This movement has met with bitter opposition within and without the church, and is denounced as a radical, unnecessary, useless and harmful departure from the work of the ministry. "Cranks, Faddists, Quacks" are some of the pleasant epithets bestowed upon the Emmanuel practitioners, while from the medical profession comes a vigorous protest asserting that physicians should be permitted to use suggestion for therapeutic purposes. This is true, but it is because the medical profession has signally failed to profit by the discoveries of the psychopathologists, and through their attitude of contemptuous indifference they are themselves largely responsible for the successful development of non-scientific systems of psychotherapy. The labors of Dr. Morton Prince and Dr. Boris Sidis, of whose contributions to the present day understanding of the possibilities and limitations of suggestive therapeutics America should feel proud, have been studiously ignored despite the fact that in the healing achievements of the Christian Scientists and New Thoughters the Medical Fraternity ought long ago to have found an incentive for studying and utilizing psychotherapy on their own account. It has remained for the Emmanuel Movement to galvanize them into belated action and in the establishment of psychopathological hospitals and clinics, and of chairs of psychopathology, in our medical

schools, we witness the dawning of a new and wiser era in the practice of medicine.

For this much Drs. Worcester and McComb are certainly deserving of the warmest gratitude of the supporters and opponents alike. Yet it must be said that as a therapeutic system the movement they have sponsored is fraught with grave possibilities of danger to the community. It cannot be too firmly kept in mind that no one is really competent to practice psychotherapy unless he is thoroughly acquainted with the laws of suggestion, and dissociation, as revealed by the psychopathologists and has undergone a careful training in the methods of psychical diagnosis. Otherwise he must proceed in a bungling, haphazard way, and with the best intentions in the world is certain to make serious mistakes.

This applies equally to medical men who have neglected to take the training, as many of them are no better qualified to use suggestion scientifically than Christian Scientists or New Thought healers. Now it is not the object of this paper to make converts for any of these cults referred to, but if possible to awaken some little interest in this long neglected field of therapeutics.

GRAND TRAVERSE

The regular meeting of the Grand Traverse County Medical Society was held April 5, 1910, at the Northern Michigan Asylum. Twenty members were present. Dr. Epperson and Dr. Gregory were present as guests. Dr. Rosenthal Thompson was elected to membership in the society. A motion was passed that a committee be appointed to confer with representatives of the mothers' clubs, and the superintendent of schools in regard to school inspection—Drs. Rowley, Lawton and Holliday. A letter was read from the Committee to encourage the systematic examination of the eyes and ears of school children. The chair appointed Dr. J. M. Wilhelm as the county representative on this committee.

A paper entitled "The Etiology of Syphilis" was read by Dr. Wells with microscopical demonstrations of the *Treponema Pallidum*.

Dr. Moon gave an interesting talk on the symptoms and treatment of Syphilis. A general discussion followed. The Wasserman reaction and the various modifications were discussed. Dr. Branch mentioned a case in which he got symptoms of mercurial poisoning as a result of constipation in the patient. Most of the physicians seemed to favor mercurial inunctions in syphilis.

Dr. Johnson read a paper entitled "Parasyphilitic Diseases." After discussion of this paper the meeting adjourned and the members were entertained by the Asylum staff with a luncheon.

R. E. WELLS, *Secretary*.

INGHAM

Ingham County Medical Society held its regular bi-monthly meeting at Lansing, March 10, 1910, at 8:00 p. m.

Dr. David Inglis gave the paper of the evening, Thyroid, and its Relation to General Practice. It was followed by a general discussion.

Fourteen members of Jackson County Medical Society were present, also one from Clinton County Society. A lunch to thirty-six members and visitors was served, following the meeting.

SAMUFL OSBORN, *Secretary*.

MARQUETTE

The regular monthly meeting of the Marquette County Medical Society, was held in Marquette on Wednesday night, March 23. Dr. T. A. Felch of Ishpeming read an interesting paper upon Arterio Sclerosis. He states that after the age of forty-five, whatever disease a person may be suffering from, the symptoms of the disease may be greatly modified and the prognosis made much more unfavorable by the presence of a general diffuse Arterio Sclerosis. In the etiology are mentioned gout, uremia, the food, syphilis, tobacco poisoning, worry and alcohol. Of the foods, meat is especially mentioned as a powerful and frequent cause of the disease. Heavy manual labor is also productive of this disease. To determine the effects of substances or food stuffs on the arterial coats he asks the question: Does it raise the blood pressure? Judged by this, alcohol does not raise the blood pressure, and whatever sins it may have to answer for, it is fairly free on this count. As to coffee and tobacco, they both increase the blood pressure. Their effect is the same as the excess ingestion of nitrogenous food like meat. To sum up: Coffee, tobacco and meat stand convicted on all counts in the production of Arterio Sclerosis.

Under symptomatology: The one symptom which ranks all others is that of Angina Pectoris. The recognition of symptoms of angina lies in the fact that often they are the first symptoms of which the patient complains and occur

at a time of the trouble where wise counsel may avert disaster. Many of the indefinite and fleeting perceptions of discomfort or distress, located not alone about the regions of the heart, but in any part of the body, may be anginal. He has had two cases, both old men, with markedly rigid arteries in whom the pain was located in the right shoulder. The treatment is of most avail in the presclerotic stage. The disease is well along when you can make out the rigid vessels. Tests for renal and hepatic insufficiency should be made to aid in the diagnosis.

In the presclerotic stage correct habits of living are of great importance.

In the stage where the rigid vessels can be palpated, but the metabolic processes are fairly well performed and compensation is still good, drugs are indicated. If headaches and precordial pains are present the iodides are of great value. They act by reducing the blood pressure, by reducing the viscosity of the blood. They must be given in small doses long continued and closely watched. The nitrites reduce the pressure and equalize the circulation.

Morphine is invaluable, never forget it. In the low pressure cases, generally the senile cases, Strychnine, Spartein, Camphor, etc. The patients should exclude meat and meat extracts from their diet or at least use them only sparingly. Coffee and tobacco are especially forbidden.

The author sums up his paper by these words, "The purpose of all these thoughts is not the prolongation of life as measured by years alone, for senility is a wearisome thing, but that we may by conserving the energy of middle age 'renew our youth like the eagles' and have enough to keep all the faculties of mind and body in good condition until a natural death by old age overtakes us."

Dr. L. L. Goodnow reported a case of normal labor with separation of the symphysis pubis and sacroiliac articulation. He says that in the latter part of the labor he noticed a distinct crack which puzzled him. He did not notice the condition until the next day when the patient complained of pain upon moving the leg which led him to examine her. The literature says the condition is uncommon in normal labor. The separation of the symphysis in normal labor has been seen by Vandeventer, Felch and Sheldon.

Upon formal ballot Dr. McCrory was unanimously elected a member of the Society.

H. J. HORNBOGEN, *Secretary*.

MUSKEGON-OCEANA

Regular meeting of the Muskegon-Oceana County Medical Society was held at the residence of Dr. George S. Williams, Friday evening, March 18, 1910, at 8:30 o'clock.

Members present were Drs. W. L. Griffin of Shelby, R. G. Olson, A. A. Smith, Jacob Oosting, W. A. Campbell, F. W. Garber, J. F. Denslow, F. B. Marshall, C. P. Donelson, J. T. Cramer, W. P. Gamber, G. J. Hartman, Geo. S. Williams, I. M. J. Hotvedt, and V. A. Chapman of Muskegon.

Meeting was called to order by the president, Dr. J. F. Denslow. Dr. Garber presented a clinical case, a recovery following Empyema of the Thorax, in which Bismuth Paste was used.

Dr. Williams read a paper upon "Diabetes Mellitus." Discussion was opened by Dr. Jacob Oosting, followed by general discussion.

Meeting adjourned at 10:30 to Luncheon and Smoker.

Regular meeting of the Muskegon-Oceana County Medical Society was held at the office of Dr. J. T. Cramer at Muskegon, Friday evening, April 1st, 1910, at 8.30 o'clock.

Members present:—Doctors J. F. Denslow, G. J. Hartman, Jacob Oosting, I. M. J. Hotvedt, A. A. Smith, George S. Williams, L. N. Eames, L. I. Powers, R. G. Olson, W. A. Campbell, W. P. Gamber, J. T. Cramer and V. A. Chapman.

Minutes of last meeting read and approved as read.

Dr. Cramer read a paper upon "Joint Tuberculosis." The discussion was opened by Dr. Hotvedt, and generally participated in.

Meeting adjourned to meet in two weeks with Dr. I. M. J. Hotvedt at Muskegon.

V. A. CHAPMAN, *Secretary*.

OTTAWA

The April meeting of the Ottawa County Medical Society was held April 12th at the office of Dr. N. H. Kassabian, Coopersville, Mich.

Dr. Wm. DeKleine of Grand Haven, read a paper on "Serum Therapy in the Prevention of Disease." The paper covered the entire field of Serum Therapy and gave an outline of the Bacterial Vaccines. The paper was well received and very freely discussed.

Dr. N. H. Kassabian presented a case of gunshot wound of the shoulder which had been presented at a former meeting of the Society.

Dr. Boyer of Coopersville, reported a case of

Gall-stones occurring in a woman 74 years old, and showed specimens of stones which were taken postmortem.

The May meeting will be held in Holland. Dr. B. R. Corbus of Grand Rapids will read a paper on "Intestinal Toxemias and their relation to Diseases of the Kidneys." Dr. Kassabian will read a paper on "An Undeveloped Field in Medicine."

G. H. THOMAS, *Secretary.*

NEWS

Dr. H. Kremers of Holland, has returned from an extended visit to Washington, D. C., where his son Dr. E. D. Kremers, the former Secretary of the Ottawa County Medical Society, is at present located in the Army Medical School.

Dr. T. A. Boot has returned from Florida, where he spent a part of the winter and has resumed his practice in Holland.

About twenty-five members of the Battle Creek Medical Club met at the Arcade Lunch rooms Tuesday evening, April 12th, at a three course luncheon, followed by a pleasant hour relating interesting travel experiences by several members.

The marriage of Dr. W. S. Walkley of Grand Haven and Miss Louise A. Lillie took place March 30, at the home of the bride's parents, Mr. and Mrs. Warren Lillie Lowell. The bride has been principal of the grammar department at Hastings for three years and formerly was an instructor in the Grand Haven schools. Dr. Walkley has been U. S. Marine Surgeon at Grand Haven and also is Health Officer and City Physician there. Dr. and Mrs. Walkley left at once for their home at 114 South Fourth Street, Grand Haven.

Dr. Gregory has moved from Harrietta, Michigan, and taken up practice in Traverse City.

Dr. Johnson has resigned from the staff of the Northern Michigan Asylum and taken up practice in the city.

Dr. Ada Epperson has been appointed woman physician to the Northern Michigan Asylum.

Born on April 10th to Dr. and Mrs. W. A. DeFoe, of Otisville, a son Paul, weight 7 1-2 pounds.

Dr. Wadsworth Warren of Detroit, has given up his practice of Medicine to enter the Automobile business, assuming a position in the administration office of the General Motor's Company.

Dr. Warren graduated from Olivet College, and the University of Michigan Medical Department in 1889. After graduating he spent several years in Europe, and settled in Detroit in 1896, where he has enjoyed a lucrative practice and a wide acquaintance.

Dr. Walter T. Cree of Detroit, has returned from Florida, where he has been convalescing from an attack of pneumonia, which started the 11th of December. The doctor has fully regained his health and we are glad to announce is in the harness again.

Dr. and Mrs. John D. Hastie of Grand Rapids, lost their only daughter, Elizabeth, who had broncho-pneumonia, followed by empyema and other complications.

Dr. H. A. Powers of Battle Creek, was elected to the Common Council, April 4th.

Dr. Cecil Vaughan, has removed his office to 1206 Woodward Ave., Detroit.

The new eye, ear and throat hospital of the University of Michigan, will soon be opened. It will be one of the finest of its kind in the country. The building in which it is to be housed, located north of the surgical ward of the general hospitals, is now in the hands of the painters and as soon as they complete their work the equipment will be installed.

The building is fire proof and modern in every detail. It is four stories in height, 98 feet long by 48 feet wide.

The first floor will be devoted to out-patient work and to instruction. On the second floor will be the operating rooms, and the wards for female patients. The wards for men and for children will be on the third floor. In all there will be forty beds. On the top floor the internes will be housed. The building will be connected

with the main plant by means of a tunnel or by a one story corridor.

Among the interesting features of the new hospital will be the fine scientific laboratories and the large demonstration rooms. The arrangement of the operating rooms is excellent. A steam-tight room has been provided in which hospital furniture and fixtures can be sterilized by steam under pressure. The equipment will be such as not only to render the best possible treatment to patients, but will afford opportunities for the most advanced scientific research.

Dr. Virgil Tupper of Bay City, Vice-President of the State Society, left with his family Thursday, March 3rd, for a trip abroad. Two weeks will be spent in Italy, resting and sight-seeing, after which the doctor will visit Prof. Bier's clinic in Berlin. From there he will go to Vienna and to Kocher's clinic in Berne, Switzerland. Following this a considerable time will be spent in the hospitals of London. The doctor will be gone about four months.

Dr. John McLurg of Bay City, left on Wednesday, March 30th, with his family for a five months' stay in Europe. The doctor will spend about two months in the hospitals of London after which he will visit Berlin and Vienna. He hopes also to go to Heidelberg and see the work of Erb and Tzerny. More or less sight-seeing will occur between times. Among other things he expects to see the Passion Play. He will return about Sept. 1st.

OPENING OF THE NEW PROVIDENCE HOSPITAL

On Thursday, April 7th, and Saturday, April 9th, the formal opening of the New Providence Hospital in Detroit took place. The first day, April 7th, was for the profession, and many physicians from all parts of the city availed themselves of the opportunity to inspect the new structure. April 9th, the doors were opened to the public and between the hours of 10:00 a. m. and 10:00 p. m. about 2,500 visited the institution.

The new hospital, owned and operated by the Sisters of Charity, is a very spacious structure, occupying the square on the Grand Boulevard between Fourteenth and Wabash Aves. The main entrance is on the Boulevard with two side entrances, one on Fourteenth St. and the other on Wabash Ave. It is a four story brick

structure with three wings extending backward. It is magnificent in every detail. The interior plan is as nearly perfect as modern architectural ingenuity could make it. The corridors are large and roomy, extending from end to end of the building as well as along the length of the three wings.

There are one hundred private rooms and about two hundred ward beds. The private rooms are all elegantly furnished; some with adjoining bath are fitted out in the most luxurious style. These will surely meet the exacting demands of the most fastidious; while others are neat and airy and will more than satisfy those in more moderate circumstances.

The operating rooms are on the fourth floor. These are four in number, two of which, equipped with the most modern appliances, are now ready for use.

The elevators are of the Otis self-regulating and self-operating type. These for safety and general usefulness have no equal.

The laundry, boiler and engine rooms are in a separate building and connected with the main building by a tunnel.

The approximate cost is one half million dollars. With such an addition, hospital facilities in Detroit, so long in great demand, will be increased materially.

To the Board of Health, Manistee:

I herewith present my annual Report as follows:

1. No. of Investigations	{ (a) Positive...	163
	{ (b) Negative ..	489
2. No. of Reports to Lansing.....	{ (a) First	256
	{ (b) Final	255
3. No. of Reports to Washington.....		52
4. No. of Infectious Diseases		312
5. No. of Disinfections		269
6. No. of Houses Placarded		192
7. No. of Sewer Connections.....		21
8. No. of Swine Removals		10
9. No. of Law Suits.....		1

EXPENSES

1. Health Officer.....	\$500.00
2. Sanitary Inspector	148.00
3. Formalin.....	57.15
4. Police Officer.....	13.97
5. Medical Inspection	3.00
6. Miscellaneous.....	2.05
Total.....	\$724.17

Respectfully

DR. S. SZUDRAWSKI,
Health Officer, Manistee, Michigan.

ALUMNI CLINIC WEEK PROGRAM

Headquarters and Bureau of Information at College Building

HOURS	WEDNESDAY MAY 18	THURSDAY MAY 19	FRIDAY MAY 20	SATURDAY MAY 21
9 to 10	St. Mary's Hospital Dr. W. M. Donald Clinic Tobacco Heart	Harper Hospital Dr. L. J. Hirschman Clinic Quinine and Urea Hydrochloride Anæsthesia in Rectal Surgery	St. Mary's Hospital Dr. F. B. Walker Clinic Fractures	Harper Hospital Dr. Guy L. Kiefer Clinic Diagnosis of Infectious Diseases
10 to 11	St. Mary's Hospital Dr. H. O. Walker Clinic Inguinal Hernia	Harper Hospital Dr. Daniel LaFerte Orthopædic Clinic	St. Mary's Hospital Dr. Chas. Douglas Clinic Results of Improper Feeding of Infants	Harper Hospital Dr. E. L. Shurly Dr. B. R. Shurly Clinic Chronic Bronchitis and Asthma
11 to 1	Dr. James Tyson Philadelphia Clinic Cardio-Renal Disease St. Mary's Hospital	Dr. G. T. Jackson New York Clinic Dermatological Diagnosis Harper Hospital	Dr. Hugh H. Young Baltimore Clinic Genito Urinary St. Mary's Hospital	Dr. S. J. Kopetsky New York Clinic Practical Observa- tions for the General Practitioner, upon Othological Surgery Harper Hospital
3 to 4	St. Mary's Hospital Dr. R. W. Gillman Clinic Sympathetic Ophthalmia	Harper Hospital Dr. C. D. Brooks The Appendix— with Specimens — Dr. W. J. Seymour The Gall Bladder— with Specimens —	<i>Special Car</i> leaves Griswold and Congress Sts. at 2:00 p. m. for Pontiac Asylum	Harper Hospital Dr. Delois L. Parker Therapeutics
4 to 5	St. Mary's Hospital Dr. A. W. Ives Clinic Alcohol	Dr. Rolland Parmeter Cancer of the Breast and Cervix—with Specimens	— Dr. E. A. Christian Clinic	Harper Hospital Dr. E. G. Knill Clinic Arterio-Sclerosis
5 to 6	St. Mary's Hospital Dr. L. Breisacher Clinic Problems of Nutrition	Harper Hospital Dr. F. T. F. Stephenson The Ion in Medicine	Some points in the Differential Diagnosis of Insanity Complimentary Luncheon	Harper Hospital Dr. C. W. Hitchcock Clinic Neurology and Psychiatry
8				Stag Party Guests of Dr. L. J. Hirschman

ALUMNI CLINIC WEEK PROGRAM

265

Headquarters and Bureau of Information at College Building

HOURS	MONDAY MAY 23	TUESDAY MAY 24	WEDNESDAY MAY 25	THURSDAY MAY 26
9 to 10	Harper Hospital Dr. C. G. Jennings Clinic The Anemias	Harper Hospital Dr. John Bell Clinic Obstetrics and Gynecology	St. Mary's Hospital Dr. F. W. Robbins Clinic Diseases of the Bladder	St. Mary's Hospital Dr. H. W. Yates Clinic Obstetrics and Gynecology
10 to 11	Harper Hospital Dr. J. H. Carstens Clinic Abdominal Surgery	Harper Hospital Dr. Angus McLean Clinic Surgery of the Thyroid	St. Mary's Hospital Dr. S. G. Miner Clinic Rhino-Laryngology	St. Mary's Hospital Dr. David Inglis Clinic The Thyroid
11 to 1	Dr. J. W. Trask Washington Pellagra, illustrated with the stereopticon Harper Hospital	Dr. C. F. Hoover Cleveland Clinic Hepatic Diseases Harper Hospital	Dr. G. R. Pisek New York Pædiatrics St. Mary's Hospital	Dr. T. A. McGraw Clinic Surgical Diagnosis St. Mary's Hospital
3 to 4	Harper Hospital Dr. Joseph Sill Some Observations on Typhoid and Paratyphoid Infections, illustrated	St. Mary's Hospital Dr. T. F. Heavenrich Traumatic Neurasthenia	2:00 p. m. Recent Advances in Opsonic and Serum Therapy Staff of Biological Laboratory at Parke, Davis & Co.'s	1:30 p. m. Luncheon at Harmonie Hall
4 to 5	Harper Hospital Dr. P. M. Hickey Clinic Bismuth and the Roentgen Ray as Diagnostic Aids in Sinuses and the Gas- tro Intestinal Tract	St. Mary's Hospital Dr. J. E. Davis Clinic Motility of the Stomach	3:30 p. m. Steamer Tashmoo leaves foot of Jos. Campau Ave. for a Lake and River Trip	3:00 p. m. Annual Meeting
5 to 6	Harper Hospital Dr. E. H. Hayward Animal Parasites in the Human—with Specimens	St. Mary's Hospital Dr. J. E. Clark New Methods for the Determination of Ammonia in Urine and its Relation to Toxic Vomiting of Pregnancy		
8	Wayne County Medical Society Dr. J. W. Trask Work of Public Health and Marine Hospital Service Art Museum	Class Reunions Classes of 1870 1890 1875 1895 1880 1900 1885 1905 1910	Dinner on the Boat Guests of Dr. Daniel LaFerte	Commencement Exercises at Light Guard Armory Banquet at Hotel Cadillac

ALUMNI CLINIC WEEK

Detroit College of Medicine

The Annual Clinic Week of the Detroit College of Medicine Alumni Association, will begin Wednesday, May 18th, and will continue until Thursday, May 26th.

The following distinguished men will be present:

May 18—Dr. James Tyson of Philadelphia, will give a clinic on Cardio-Renal disease at St. Mary's Hospital.

May 19—Dr. G. T. Jackson of New York, will give a clinic on Dermatological diagnosis at Harper Hospital.

May 20—Dr. Hugh H. Young of Baltimore, will give a Genito-Urinary clinic at St. Mary's.

May 21—Dr. S. J. Kopetsky of New York, will give some practical observations for the general practitioner on Otological Surgery at Harper.

May 23—Dr. J. W. Trask of the Marine Hospital Service, Washington, will give an illustrated lecture on Pellagra at Harper. In the evening he will address the Wayne Co. Medical Society at the Art Museum, upon the work of the Public Health and Marine Hospital Service.

May 24—Dr. C. F. Hoover, Cleveland, will give a clinic on Hepatic diseases at Harper.

May 25—Dr. G. R. Pisek of New York, will give a clinic on Pediatrics at St. Mary's.

The afternoon of Friday, May 20th, a special car will convey those in attendance upon the

clinics to Pontiac Asylum, where Dr. Christian will give a clinic on Differential Diagnosis of Insanity. A Complimentary Luncheon will be served.

Saturday evening Dr. Hirschman will give a stag party.

Reunion of the classes of 1870, 1875, 1880, 1885, 1890, 1895, 1900, 1905, and 1910 will be held Tuesday evening, May 24th.

Wednesday afternoon the Staff of the Biological Laboratory at Parke, Davis & Company's will demonstrate recent advances in Opsonic Therapy. At 3:30 a boat ride on the lake and river—Steamer Tashmoo. Dinner on the boat, guests of Dr. Daniel La Ferte.

Thursday afternoon May 26, Luncheon at Harmonie Hall, at 1:30. Annual Meeting Alumni Association 3:30. Commencement exercises at Light Guard Armory in the evening, and banquet at Hotel Cadillac.

CORRESPONDENCE

To the Editor:

In the news items of the January number of the JOURNAL, you have announced my location as Jackson, Mich. Will you please correct the error. My address is Lansing, which is my home city. I have been inconvenienced somewhat by mail being sent to wrong address.

Thanking you kindly in advance, I am cordially

J. EARL McINTYRE.

MICHIGAN STATE BOARD OF REGISTRATION IN MEDICINE

Additional Registrations in Michigan.

Name and Address	College and Year	Qual. 1. Recip.	Qual. 2 Recip.	Date of License
Dill, Lawrence L., Ann Arbor, Mich.	Homeo. Coll. Univ. of Mich., 1910	Exam.		1-7-10
McCann, Joseph H. Stockbridge, Mich.	do.	Exam.		2-9-10
Fenstermacher, Clark H., Sargent, Mich.	Univ. of Louisville Kentucky, 1900		No. 2 Nebraska,	3-15-10
Larson, Harry J., Iron River, Mich.	Saginaw Valley Med, Coll., Mich., 1900		No. 2 Wisconsin	3-15-10
Mason, Stephen C., Menominee, Mich.	Rush Med. College, 1905	No. 1, Illinois		3-15-10
Carr, John R., Detroit, Mich.	Med. Dept., Johns Hopkins Univ., 1904	No. 1, No. Carolina		3-31-10
Ely, Joseph D., Hudson, Mich.	Detroit, Med. Coll., 1884		No. 2 Ohio	4-2-10
Pennington, Benjamin S., Vassar, Mich.	Keokuk Med. Coll., 1891		No. 2 Iowa	do.
Klein, Julius J., Detroit, Mich.	Dept. Med. & Surg., Univ. of Mich., 1892		No. 2 Ohio	do.

BOOK NOTICES

An English Handbook of the Paris Medical School with map. A. A. Warden, M. D., second edition. Philadelphia, P. Blakiston's Son & Co., 1910. Price, paper, 50 cents.

This is a little paper-covered volume of 52 pages devoted to a short discussion of Medical study abroad, and then to a guide to the clinics of Paris, with a list of the hospitals, and a short sketch of each, and their staff.

Diseases of the Genito-Urinary Organs. Considered from a medical and surgical standpoint including a description of Gonorrhoea in the female and conditions peculiar to the female urinary organs. By Edward L. Keyes Jr., M. D., Ph. D., Clinical Professor of Genito-Urinary Surgery, New York Polyclinic Medical School; Surgeon to St. Vincent's Hospital; Lecturer on Surgery Cornell University Medical School. With 195 illustrations in the text and seven plates, four of which are colored. New York and London: D. Appleton & Co. Cloth, \$6.00 net.

The above mentioned work is not another edition of the original Keyes' work, but is an entire new work by Dr. Edward L. Keyes, Jr., who has given to his father due recognition for valuable service rendered throughout the work. Other assistants to Dr. Keyes are Dr. Chetwood and Drs. B. S. Barringer and E. D. Barringer, also Dr. T. S. VanRiempest.

The work contains nine hundred and seventy-five pages, is profusely illustrated with several large plates all perfectly witnessed. The frontispiece contains fifteen cystoscopic views of abnormal conditions, which must prove a great help in cystoscopic work. The various subjects throughout the book are handled with skill and clearness. Much attention is given to examinations and useful hints are numerous and frequent throughout the book.

In the chapter by Dr. E. D. Barringer will be found many hints useful in the treatment of Gonorrhoea as appears in the female sex. Her chapter is refreshing, with many new ideas. It presents the subject in a line different from which it has been heretofore handled.

To the practitioner interested more in practical results than in ultra-scientific investigation this book with its numerous illustrations will appeal with especial force while the text, which has the virtue of logic and clearness without being prolix, leaves little to be desired in the reference sought.

The work is complete, giving as marked attention to chronic as to acute conditions, and all phases of the subject covered by the title of the book are systematically and conscientiously handled. Much attention is paid to the medical

side of the cases, although some chapters of the surgical treatment are gathered in the back of the book. Dr. Keyes is to be congratulated on the scope of the work, choice of collaborators and style and arrangement of the subjects. We bespeak of this work a continued recognition by all who are familiar with Keyes' works on the same subject and to those who are unfamiliar we would recommend this book as one of the best.

Nutrition and Dietetics. A manual for students of medicine, or trained nurses, and for dieticians in hospitals and other institutions, by Winfield S. Hall, Ph. D., M. D., Professor of Physiology, Northwestern University Medical School; Lecturer on Physiology and Dietetics in Mercy Hospital and Wesley Hospital, Chicago. New York and London: D. Appleton & Company, 1910. Cloth, \$2.00 net.

Part one of this book is devoted to a discussion of the natural foods, and a comprehensive classification of foods, giving many tables of the composition of various foods, and a chapter on preparation of foods.

Part two deals with the physiology of digestion and assimilation of foods, and the excretory function.

Parts three and four are devoted to diet in health and disease, giving much space to artificial feeding, rectal feeding, and the preparation and selection of proper foods for various disease conditions. Menus are given and thoroughly discussed.

A comprehensive addendum is added. The style of the text is free and easy, very clear and a pleasure to read. Like so many of Appleton's books the paper is of excellent quality, and the print clear and of good size.

The Sexual Life of Woman in its Physiological, Pathological and Hygienic Aspects, by E. Heinrich Kisch, M. D., Professor of the German Medical Faculty of the University of Prague; Physician to the Hospital and Spa of Marienbad; Member of the Board of Health. Only authorized translation into the English language from the German by M. Eden Paul, M. D. With 97 illustrations in the text. New York: Rebman Company, 1123 Broadway. \$5.00 net.

This book was originally written in German. The translation however, is free, and the English reader will not often be reminded of its foreign genesis. The text is largely a compilation of quotations from other authors, interspersed with numerous tables of statistics. The subject is one that will appeal to the morbid sensibilities of many readers, but the practical usefulness of the book must remain in doubt. The reviewer finds less that is new in the work than he does of quotations from writers on Physiology, Gynecology and Obstetrics, or of folk lore and primitive customs and practices.

International Clinics, a quarterly of Illustrated Clinical Lectures and especially prepared Original Articles, Vol 1, Twentieth series, 1910, Philadelphia and London: J. B. Lippincott Co., 1910.

The series for this year will surpass the previous ones. The first volume contains many interesting articles on such subjects as "Serum Diagnosis of Syphilis," "Symptomatology," and "Treatment of Pellagra," "Addition to our knowledge of Purin Metabolism and its Bearing on the Problems of Gout," "Bismuth Paste in Chronic Suppuration," and many others.

Williams of Edinborough, has an article on the Rational Treatment of Tabes Dorsalis, which is really hopeful. He urges the use of mercury and that hypodermically.

Blackburn of Kentucky, discusses the Post Graduate study advised by the American Medical Association.

The last third of the book is given up to miscellaneous progress of Medicine, Surgery and Therapeutics during the year, conducted by such men as Musser, Tuttle, Stevens and Bloodgood.

It is a book of 300 pages with numerous plates and illustrations.

Progressive Medicine. A quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., and H. P. M. Laudi, M. D., Lea & Feibger, Philadelphia, and New York, No. 1, 1910.

This number of *Progressive Medicine* contains six chapters, on "Surgery of the Head, Neck and Thorax," "Infectious Diseases," John Rüräh; "Diseases of Children," Floyd M. Crandall; "Rhinology and Laryngology," D. Braden Kyle; and "Otology," Arthur B. Duel.

About as many fanciful procedures as usual have been proposed during the past year, as witness the following mentioned in the articles on the Thyroid Gland:

Stuart-Low recommends the removal of the thyroid as a palliative measure in cancer. In five cases in which this was done the primary growth ceased enlarging, the nodes became softer, and less painful, and the patients gained in weight.

Kanaral has had two cases of Dementia Præcox in the early stage greatly improved by Thyroidectomy, and as the disease is so hopeless believes further experimentation should be done.

The department of infectious diseases is valuable, collecting and discussing as it does all the advances reported during the year, especial attention being given to Chantemesse's Ophthalmic test for Typhoid and to Anti-typhoid inoculation.

The various methods of digital enucleation of

the tonsil are given, with a concise description of the technique. The claims for this method are: 1, Rapidity of operation; 2, Absolute non-recurrence if removed in capsule; 3, Minimum amount of hemorrhage, and 4, Ease of performance.

The Propaganda for Reform in Proprietary Medicines; Sixth Edition: Containing the various exposes of nostrums and quackery which have appeared in the *Journal of the American Medical Association*. Price, paper, 10 cents; cloth, 35 cents. Pp. 292. Illustrated.

This book presents in convenient form most of the exposures that have appeared in *The Journal of the American Medical Association* showing fraud either in the composition of various proprietary preparations or in the claims made for such preparations. Not all of the products dealt with, however, are such as are—or have been—used by the medical profession. Many preparations of the "patent medicine" type have been subjected to analysis and the results of such examinations appear in this volume. The book will prove of great value to the physician in two ways: 1, It will enlighten him as to the value, or lack of value, of many of the so-called ethical proprietaries on the market; and 2, It will put him in a position to answer intelligently questions that his patients may ask him regarding the virtues (?) of some of the widely advertised "patent medicines" on the market. After reading the reports published in this book physicians will realize the value and efficiency of simple scientific combinations of U. S. P. and N. F. preparations as compared with many of the ready-made, unstable and inefficient proprietary articles.

New and Nonofficial Remedies, 1910: Containing descriptions of articles which have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association, prior to Jan. 1, 1910. Paper. Price, paper 25 cents; cloth 50 cents. Pp. 256.

This is the 1910 edition of the annual New and Nonofficial Remedies, issued by the Council on Pharmacy and Chemistry of the American Medical Association, and contains descriptions of all articles approved by the Council, up to Dec. 31, 1909. There are also descriptions of a number of unofficial non-proprietary articles which the Council deemed of value. The action, dosage, uses and tests of identity, purity and strength of all articles are given. As an illustration of the scope of the book, attention is called to the following: The articles on arsanilic acid and its derivatives, page 35; on phenolphthalein, page 152, and on epinephrine, page 73

indicate the effort which the Council is making to have new remedies known by their correct names. The description of medicinal foods, page 120, should put physicians on their guard as to the small value of such products. Particular attention is called to the description of serums and vaccines, page 169. Since our knowledge of the therapeutic value of new remedies is still largely in the experimental stage, the statements which appear under each proprietary article are based largely on the claims made by those interested. On the other hand, on page 56, under creosote carbonate, is a note on the claims of non-toxicity often made for certain remedies. A similar caution in reference to the claimed harmlessness of intestinal antiseptics appears on page 41 under beta-naphthol benzoate.

Handbook of Therapy. Cloth. Price, \$1.50. Pp. 421. Chicago: American Medical Association, 1910.

The Therapeutic Department in *The Journal of the American Medical Association* has been commented on so often and so favorably that the Association decided to reprint, in book form, the articles which seemed to be of most practical value to the general practitioner. Conditions governing therapeutic requirements are stated as clearly and concisely as possible. Special care has been taken to avoid unusual drugs, and with rare exceptions the formulas given are combinations which can be easily compounded by any pharmacist.

Besides the articles on therapy, the book contains a list of the articles accepted by the Council on Pharmacy and Chemistry for inclusion in New and Nonofficial Remedies, as well as tables and compilations of miscellaneous data.

The book is of convenient size for the pocket or the satchel.

A Treatise on Diseases of the Nose, Throat and Ear. By William Lincoln Ballenger, M. D., Professor of Laryngology, Rhinology and Otology in the College of Physicians and Surgeons, Chicago. New (2d) edition, thoroughly revised. Octavo, 930 pages, with 491 engravings, mostly original, and 17 colored plates. Cloth, \$5.50, net. Lea & Febiger, Philadelphia and New York, 1909.

The rapid acceptance by the profession of the first edition of this work affords a very practical testimonial to its worth. A second edition has been demanded within a year, and so have given the author an opportunity to make such additions as necessary to bring the work up to the present.

The style of the book is very pleasing. The author has not been content with the recital of generalities, but treats his subject with the

most careful attention to detail throughout the book. No written description of operative procedures necessitating such delicate technique as the various operations upon the nose, throat, and ear, can suffice to make such procedures clear. Many excellent and original illustrations have been inserted in many instances, illustrating the operations step by step in such a manner as to make such a presentation of the subject that it at once impresses and delights the reader. The work may be regarded as a combined text book and atlas.

One realizes in reading the book the passing of that type of practice that dealt with the temporary relief of symptoms, and kept the patient in continual attendance on the Specialist to receive his "treatments." The author advocates the radical removal of the difficulties by sound surgical measures, such as would be instituted by a competent surgeon for any other part of the body, and so keeps pace with the great advances made in surgery in other fields.

Chapters dealing with the Vicious Circle in the nose and its surgery, are especially interesting. The one theme that is impressed on the reader, more than any other throughout the book, is the relief of obstruction and the establishment of drainage, the great surgical principle upon which so many conditions depend.

The profession has long since wearied of the Spray Specialist, and demands that a wider view be taken of these cases sent for consultation, than that which condemns them to eternal tinkering, rather than radical surgical measures to make for a cure.

Dr. Ballenger's book is a sermon along these lines; it sounds a note of progress toward the higher ground.

Clinical Examination of the Urine and Urinary Diagnosis. By J. Bergen Ogden, M. D., Medical Chemist of the Massachusetts Life Insurance Company, New York. Cloth, 427 pages, illustrated. Third Edition, revised. Philadelphia: W. B. Saunders Company, 1910. Price \$3.00 net.

As the title indicates this book is much more than a simple manual of urinary analysis. A third of the volume is given up to a discussion of the various conditions in which the urine is of importance, thus supplementing the analytical portion. The book first appeared in 1900, and the second edition in 1902. It has been carefully revised, some of the matter discussed in the earlier editions which experience has proven of little value, has been omitted. New sections, particularly one on life insurance examinations, have been added.

SURGERY

Conducted by

R. E. BALCH, M. D., Kalamazoo, Michigan

Pseudo-Jejunal Ulcer—In order to determine, if possible, if jejunal ulcer is a condition secondary to gastro-jejunostomy, W. J. Mayo, in the March number of *Surgery, Gynecology and Obstetrics*, gives the result of his investigations of all cases of gastro-jejunostomy performed at St. Mary's Hospital. There were in all 1141 cases. Of the entire number, as far as could be ascertained, not one developed a true jejunal ulcer, nor have any cases come to their clinic showing jejunal ulcers following gastro-jejunostomy done by other surgeons. The author quotes Herbert Patterson who has tabulated 52 cases of jejunal ulcer. Dr. Patterson points out that in nearly one-third of the cases of ulcer following gastro-enterostomy, the lesion was at the line of anastomosis between stomach and jejunum. A further study of the reported cases leads the author to the conclusion that ulcer of this type is due to technical errors in operation rather than to unavoidable conditions. Ulcers situated at the line of anastomosis he classes as gastro-jejunal or pseudo-jejunal ulcers. In conclusion Dr. Mayo reports three cases of this type.

CASE 1

In 1899 Dr. Mayo operated upon a patient with pyloric obstruction due to calloused ulcer at the pylorus obstructing the canal. An anterior gastro-jejunostomy was performed. The button was not passed. The patient gained thirty pounds in weight and was much improved in health for three years and nine months. She was then taken with a sudden attack of abdominal distress diagnosed as appendicitis. A tender mass could be palpated just at the right of the umbilicus. A laparotomy revealed a mass of adhesions attached to the abdominal wall and surrounding an ulcer which had perforated the stomach immediately above and to the right of the gastro-jejunostomy opening. The ulceration began at the site of the anastomosis involving mucous membrane of both stomach and jejunum. During the operation, the button which had not been passed, was dislodged by the manipu-

lation and was removed from the stomach. When passed downward into the site of the gastro-jejunostomy, the button was found to fit closely into the site of the ulcer. The ulcer was excised and a large gastro-jejunostomy was done over a Robson bone bobbin.

CASE 2

This patient gives a history of gastro-enterostomy performed seven months previous, which gave temporary relief but later developed pain, tenderness and occasional bile vomiting. A laparotomy revealed dense adhesions about the site of the gastro-jejunostomy uniting a nine inch loop to the posterior wall of the stomach. On the anterior margin of the anastomosis, a thickened spot was found covered by recent adhesions and having the appearance of a perforation. The stomach was opened just above the line of anastomosis exposing an ulcer with a thickened base in the line of union. The floor of the ulcer was hard and smooth but a projection was seen which proved to be a silk suture in communication with the gastro-intestinal cavity. The suture was removed, the ulcer excised and a large plastic gastro-jejunostomy was done at the site of the opening. A suture enterostomy was done between the limbs of the jejunum and the pyloric ring excised. Two years later the patient was in good health.

CASE 3

The history was very similar to the previous case and upon laparotomy an ulcer was found upon the line of gastro-jejunostomy extending into the fatty tissue of the meso-colon. This as at the point of a hematoma formed at the previous operation by pricking a vein in the meso-colon. The whole of the gastro-jejunostomy opening together with the ulcer was excised and the stomach and jejunal opening completely closed. A large Finney gastro-jejunostomy was then done at the site of the original duodenal ulcer which had healed and contracted down. Recovery.

GYNECOLOGY AND OBSTETRICS

Conducted by

B. R. SCHENCK, M. D., Detroit, Michigan

The Treatment of Cancer of the Cervix Uteri—Cuthbert Lockyer of the Samaritan Hospital, London, contributes an important article on the results of the campaign against cancer of the uterus. He believes, and rightly so, that cancer of the womb is the most important subject in the whole realm of gynecology, because of its frequency and because it is often overlooked until too late for radical measures. In Welch's statistics comprising over 31,000 cases of cancer, the uterus was first in the list of organs most frequently affected by primary cancer—one-third of all primary growths originating in that organ. Nearly all practitioners see two or three cases yearly. Roger Williams of Bristol, estimates that the disease is four times as common as it was 50 years ago.

The first serious crusade against this form of cancer was made by Professor George Winter in East Prussia, in 1902. The plan of campaign was as follows: There were issued to each doctor a brochure, to each midwife a circular and to each newspaper a "word of advice to womankind." Each operating gynecologist was requested to register all of his cases. Of the 84 cases collected during the next year, 45 came under observation through the family doctor. In five instances these men had not made an examination and the disease was ultimately discovered by other observers. In 11 per cent of the cases, therefore, the physicians had not followed Winter's advice. There was, however, a far greater response to his appeal to have portions of suspicious cervix and curettings sent to the laboratory for microscopic diagnosis. Twenty-five specimens were received, of which five proved to be carcinoma. Seven midwives had had cases and only one proved negligent. Winter figures out, that as a result of the newspaper campaign the number of operable cases rose from 62 to 74 per cent.

The Council of the British Medical Association took up this work in 1908 and has issued two appeals, one to the physicians and one to the nurses and midwives. Twenty-five thousand of the latter leaflets have been distributed.

There are three classes of individuals concerned in any successful attempt to cope with uterine cancer, the patients, the family doctor and the specialist. As far as the patients are concerned it is not too much to say that not one woman in a thousand appreciates the significance of irregular hemorrhage. The family doctor has been much blamed for not making earlier diagnoses, but Lockyer thinks, from his experience, unjustly so. Yet it is necessary to again and again repeat that irregular bleeding is not a symptom of the menopause; that it means something abnormal and always demands a most careful examination.

Lockyer then takes up the question of the radical Wertheim operation and shows what an improvement in statistics has followed the more general adoption of this method of treatment.—*The Practitioner*, January, 1910.

Pelvic Transplantation Metastasis as a Means of Recognition of Hopeless Abdominal Carcinomata—Palmer points out that it is just as important to have rules for guidance against operation as it is for operation, and calls attention to the necessity of making rectal digital examinations with the patient in the knee-elbow position, and bi-manual rectal examinations in the lithotomy position in all cases of carcinoma of the upper abdomen.

He reviewed the histories of 435 patients with upper abdominal carcinoma at the Mayo Clinic and found six and one-half per cent showing a hard, nodular mass at a point from three to five inches from the anus on the anterior rectal wall. These nodules are usually located above the prostate in the male and above and behind the uterus in the female. They may be single or multiple and vary in size from a small bean to an orange. Sigmoidoscopic examination shows the rectal mucosa uninvolved. Symptoms suggestive of rectal carcinoma do not occur. These implantation growths are often found before free fluid can be made out, and before secondary growths can be felt through the abdominal wall.

The occurrence of these growths in this position is to be accounted for by gravity, the cells lodging upon the rectum as upon a shelf. Their presence is a positive contraindication to operation.—*Surg., Gyn. and Ob.*, February, 1910.

PROCTOLOGY

Conducted by

LOUIS J. HIRSCHMAN, M. D., Detroit, Michigan

A New Method for Attempting to Secure Sphincteric Control After Colostomy—Charles Ryall in the *London Lancet*, July 3rd, 1909, states that the lack of sphincteric control is a great drawback to those who have to submit to a permanent colostomy. Many operations have been devised and carried out in order to get over this difficulty. Some of these have been found faulty and others too complicated. The rectus abdominis is generally a well developed muscle and remains fairly so in the majority of cases, until advanced emaciation is reached. Taking advantage of this fact, Howse performed a colostomy by splitting the rectus vertically and laterally and bringing the bowel through this oblique opening. This was performed with the hope of producing sphincteric control. The Mydl-Rectus operation of inguinal colostomy, where the layers of muscle were split and not divided, was improvement on these as far as sphincteric control was concerned. All these operations were faulty, and this was in a great measure due to the spur operation being carried out and the difficulty of compressing and controlling the bulky spur. Since then Schinzinger, Braun, Weir, and others have dispensed with the spur by dividing the bowel, closing and dropping the lower segment into the abdomen, and trying to gain some sphincteric control over the upper segment by various operations more or less complicated. It is undoubtedly easier to control the upper segment than to attempt to do so with a spur. Recently Arbuthnot Lane has drawn attention to the advantage of drawing the upper segment through the rectus in those cases where the lower segment is either removed or else closed and dropped back into the abdomen. The rectus is a well developed muscle and enables a good deal of control to be kept over a colostomy where the fibres are split vertically, but full advantage has not been taken of the value of this muscle as a means of making an artificial sphincter.

The method which Ryall has resorted to is as follows: The rectus is split vertically and the sigmoid is drawn out and divided at a convenient point. The lower segment is closed and replaced in the abdomen. The upper segment is made less bulky by removing the appendices epiploicæ and freeing it of mesenteric fat, but without in any way interfering with its

blood-supply. The artificial fibres are separated from the posterior aspect of the rectus on either side of the wound. Each loop is then drawn over to the opposite side of the wound, so that one loop overlaps the other. The overlapping loops thus form a ring and through this the bowel segment is drawn. Sutures are then inserted to keep the muscle fibres together above and below where the bowel comes through. Anchoring stitches are inserted through the skin and muscle inside to keep the bowel in position. The wound is then closed above and below the bowel and the cut edges of the latter are sutured to the skin. A double sphincter is thus formed, consisting of longitudinal and circular fibres. The longitudinal fibres are those of the anterior portion of the rectus and the circular fibres are formed by the loops from the posterior part of the rectus. This operation can be modified by making double loops on each side and making them overlap one another alternately. A similar operation can be, and has been, carried out through the external oblique, and likewise can be done wherever the bowel is brought through muscle. A somewhat similar operation can be performed for gastrostomy and appendicostomy.

Some Remarks on the Development and Anatomy of the Lower End of the Rectum, with a View of Supplying Our Conception of Malformation and Disease—J. E. Thompson in the *Texas State Journal*, for October, 1909, states that in the three lectures by Keith on malformations of the hind end of the body the theory (strongly supported by comparative anatomy and embryology) is advanced that in the course of development, the rectum successively changes its position. In the very early embryonic condition it opens into the upper end of the embryonic cloaca, and the urinary and genital ducts open behind and below it. Later on the position changes and it opens above and in front of it. As the development proceeds the opening occupies successive positions lower down the posterior wall of the primitive cloaca until it comes to the neighborhood of the perineum. At this stage the opening into the cloaca is lost and an epiblastic pitting-in occurs from the perineum (proctodeum) into the upper end of which the rectum eventually opens.

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ORIGINAL ARTICLES

THE RELATION OF GALL STONES TO JAUNDICE *

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During the last decade our views of Gall Stones and their relation to Jaundice have changed so materially, that whatever we then believed concerning their etiology in jaundice, we know today to be absolutely untenable. At that time the common opinion prevailed that all gall stones caused jaundice and, vice versa, that almost all cases of jaundice were caused by gall stones. When we realize the large percentage of people in whom gall stones have been demonstrated either on the operating table or in the postmortem room, in whom icterus has never been present, we can readily appreciate the fallacy of the statement. Gall stones in themselves therefore do not cause jaundice or even other symptoms, but it is their location in certain parts of the biliary tract where they obstruct the flow of bile into the duodenum, that gives rise to this symptom, icterus. Here they cause retention of bile in the larger ducts and bile capillaries of the liver itself, where it is absorbed and taken up by the general circulation and the pigment deposited in the skin.

As will be seen from the accompanying illustrations, stones to cause jaundice must

lodge either in the hepatic duct or the common duct, while stones in the gall bladder itself or in the cystic duct will never cause this symptom.

In these latter situations (see figures 1 and 2) they may remain dormant, causing absolutely no symptoms, or they may be the cause of the most excruciating colic, chills, fever and depression. So long as they remain in the gall bladder, their natural habitat, as one writer has expressed it, they will cause no symptoms. If, however, they enter the cystic duct, they by their presence in an unnatural place cause violent contractions and spasms of the muscles of the duct. If they are expelled backward into the gall bladder, these violent pains cease suddenly; if they remain in the cystic duct, the duct will gradually become paralyzed, violent contractions cease and their presence can then only be diagnosed by the constant aching pain and tenderness that remain and by the effect they will have on the gall bladder itself.

The gall bladder, besides being a reservoir for the bile has a secretory function. This secretion normally consists principally of mucus. Stones permanently lodged in

*Read before the Lapeer County Medical Society.

the cystic duct prevent the escape of this secretion.

The gall bladder consequently becomes enlarged and sometimes enormously so, even as far down as the umbilicus, to accommodate itself to the ever increasing contents. Finally the pressure from this retained secretion causes atrophy of the mu-

purulent and the condition known as empyema of the gall bladder will result. So we see how stones in the gall bladder may, by becoming lodged in the cystic duct, cause a disease with a symptom complex, varying from a simple biliary colic to the most virulent and even fatal empyema of the gall bladder, and yet

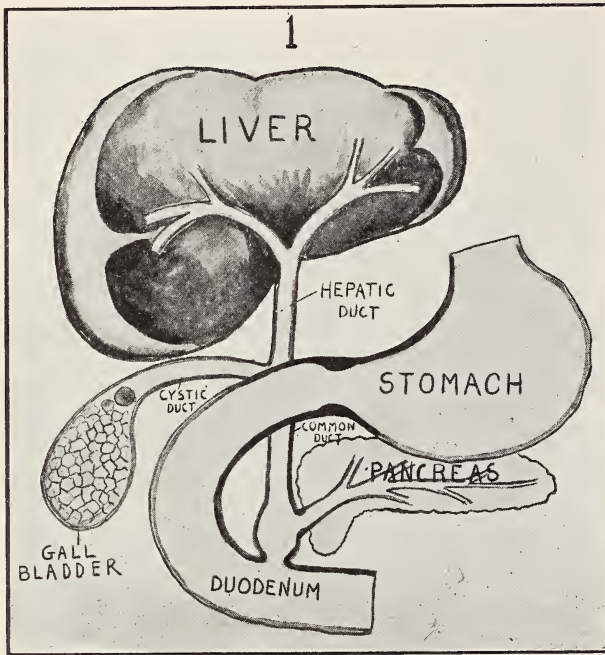


Fig. No. 1.

Shows stones in the gall bladder. Symptoms produced when the latter attempts to expell them:

Sudden pain, very severe
 Vomiting, attack ceasing quickly.
 NO JAUNDICE
 No Fever
 Marked Depression.

cous glands and the gall bladder is, as it were, destroyed by its own secretions and converted into a mere cyst called a "Hydrops." At any time during the formation of this cystic condition, the contents may become infected and, there being absolutely no avenue of escape, no place for drainage, the cystic fluid will become

nowhere in the picture do we find jaundice.

We now come to the location of gall stones that are accompanied by jaundice as regularly as conditions of the cystic duct and gall bladder just described are noteworthy by the absence of this symptom. These locations are the hepatic and common ducts. (See figures 3 and 4).

Since stones are usually formed in the gall bladder they must first pass through the cystic duct before they can lodge in either hepatic or common ducts. This explains the clinical fact we so often encounter, that gall stone colic often precedes for weeks and months the advent of jaundice; for jaundice will not occur until

duct, yet where a stone in the cystic duct causes a severe inflammatory reaction, which extends to the hepatic and common ducts, jaundice will appear; but in this case it is not caused directly by the stone itself, but indirectly by the inflammation it induces by extension to the common and hepatic ducts. Here the swelling of the

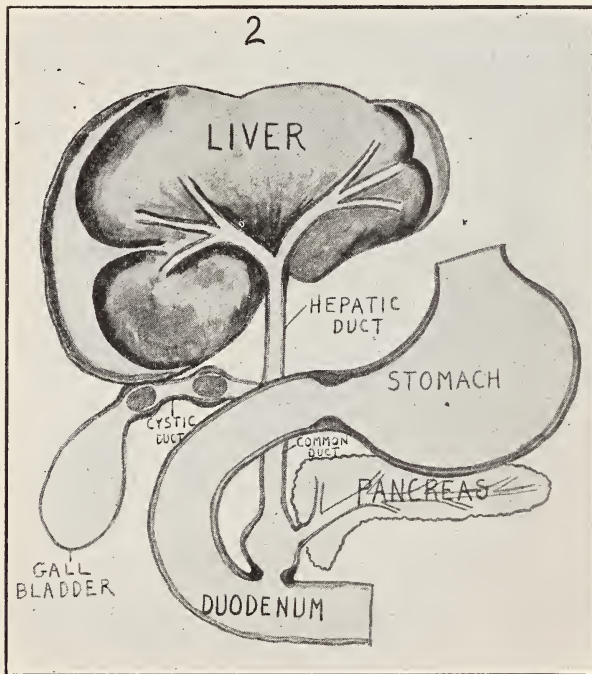


Fig. No. 2.

Gall stones in Cystic duct. Symptoms present during attack of biliary colic:

Pain irregular.
Nausea, attack subsiding slowly, tenderness remaining.
NO JAUNDICE
High fever, rapid pulse
Tumor may be outlined

the stones reach either the hepatic or common ducts. In the hepatic duct they rarely occur because the flow of bile being toward the duodenum naturally forces the stone in that direction, which is the common duct.

We have said that jaundice will not occur before the stone reaches the common

mucous membrane causes the obstruction to the flow of the bile into the duodenum and this is the direct cause of the jaundice.

The position of the stones in the common duct, i. e., either high up or low down at or near the ampulla of Vater (figure 4) will cause a great variation in the pathol-

ogy and symptomatology of the disease. A stone low down not only produces jaundice but also obstructs the flow of the pancreatic juice. At this latter point its presence is therefore far more serious than higher up in the duct, for here two very important secretions are prevented from entering the alimentary canal. These secretions, namely bile and pancreatic juice,

having been diagnosed in the common duct its presence above or below this point can usually be determined, first by the severity of the case, second by the stools; these will not only lack the coloring matter of bile but will be large and soft, containing a great amount of fat and undigested muscle fibre; and third, by the character of the jaundice, which instead of being a

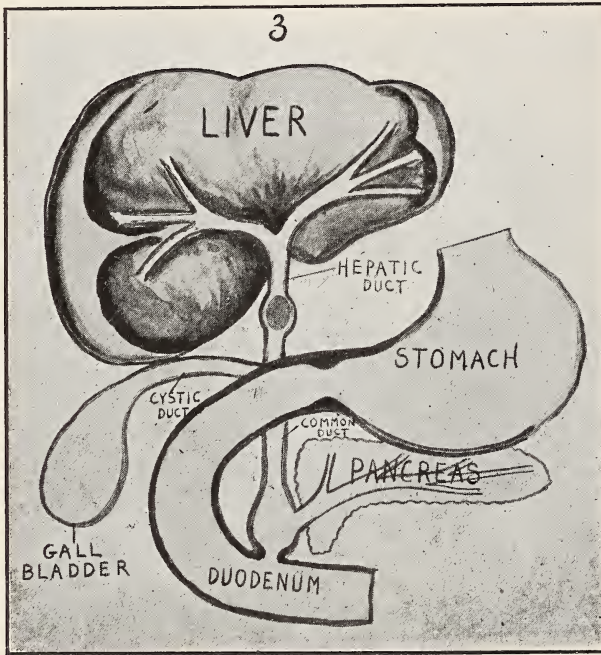


Fig. No. 3.

Diagram shows stone in Hepatic duct. Symptoms accompanying a calculus in that portion of biliary tract:

Soreness high in mid-line
Nausea
Fever, increased pulse
MARKED JAUNDICE
No pancreatitis

are forced to remain dammed back in their respective organs, thus causing acute obstructive changes and upon being re-absorbed into the circulation a general toxic effect on the whole organism. The exact point at which this double obstruction will occur will depend entirely upon point of entrance of the pancreatic ducts into the common bile duct. A stone

lemon yellow is when the pancreatic juice is retained, more of a copper or bronze color.

Such are the conditions under which gall stones cause symptoms and jaundice. Other conditions such as catarrhal cholecystitis, an enlarged pancreas, benign and malignant tumors, local peritonitis, adhesions and plastic exudates such as occur

about chronic perforations, ulcers of the duodenum and stomach; all may by pressure on the common duct in some way cause jaundice, but all are usually independent of gall stones and are therefore merely mentioned. They have no connection with the relation of gall stones to jaundice.

The treatment of gall stones may be said to be entirely surgical.

thus again allow the stone to become dormant for a varying period of time. Later, another attempt to expell the stone will take place. By chance it may after long inflammatory and ulcerative processes burrow its way through the walls of the duodenum or colon and thus find exit from the body.

To wait for such an outcome is in the

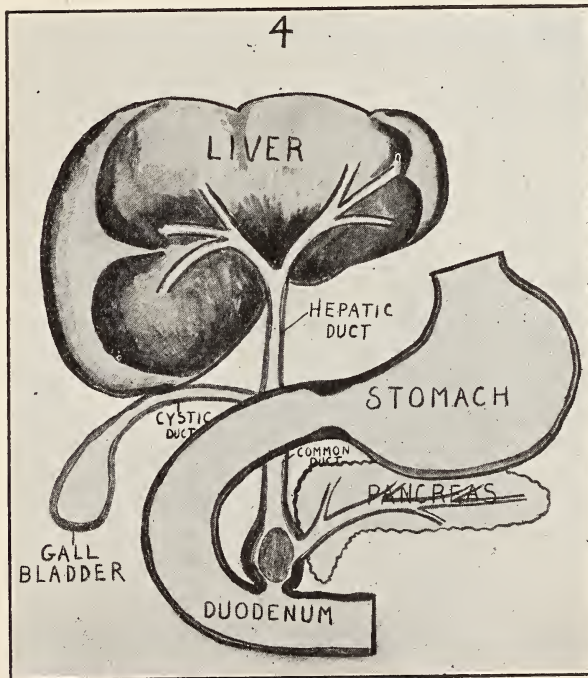


Fig. No. 4.

Diagram shows stones located in Common duct. Symptoms usually present with obstruction at that point:

- Pain, slight attacks
- Nausea, attacks ending irregularly
- JAUNDICE USUALLY**
- Fever
- Enlarged pancreas
- Contracted gall bladder
- Loss of weight

That medical treatment can ever hope to dissolve a biliary calculus is today an accepted impossibility. Stones will not dissolve even if put in media usually given for that purpose. Medical treatment will however relieve the congestion and inflammation caused by their presence and

light of our present day surgical skill and knowledge anything but rational.

The removal of gall stones from the gall bladder or ducts with subsequent drainage is a comparatively safe operation, and in the great majority of cases is followed by excellent results.

57 Fort St. W.

CHRONIC TOXAEMIAS ARISING FROM THE INTESTINAL TRACT*

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It is with a profound appreciation of the importance of the subject that I present to you this paper on the Chronic Toxæmias arising from the Intestinal Tract. To the solving of the great problem of perverted metabolism we must look for the prevention of the major portion of the diseases to which man has ever been heir. Even those diseases demonstrably due to the infective bacteria, must in no small measure give way to a heightened bodily resistance. It is reasonable to expect that in the solving of these problems must come an entire reorganization of our disease nomenclature. Disease entities will in many instances be recognized as merely symptoms. Prophylaxis will take precedence of Cures, and how to live long in the land of our fathers will be solved.

Our conception of the processes involved in this great problem of metabolism is far from clear, and I fully appreciate the danger that lies in the unthinking utilization of a popular nomenclature—a nomenclature made popular by the liberal publicity given to the Metchnikoff theory, which seems to have struck a popular chord in the public mind. Too often has this preconceived idea on the part of the patient tempted the physician to find in the term autointoxication, as in neurasthenia, a magnificent diagnostic dumping ground for his obscure cases.

The role that autointoxication plays in the production of systemic disturbances

is not, however, to be minimized. The clinical evidence is overwhelming, and though the actual determinable accepted laboratory proofs thereof may not in every instance be forthcoming, it is surely not to be wondered at when one considers the involved chemical processes incident to metabolism. I shall have accomplished my purpose if I can bring from the confusion with which the subject is involved some few points more or less provable upon which we can lean until later investigators shall bring order out of chaos; until some Stanley or Peary of medicine shall map and chart this mysterious wilderness.

Let it be clear that in the term autointoxication is involved the production of poisons not only in the intestinal tract, through an altered chemism of digestion, or through abnormal putrefaction of proteids and fermentation of carbohydrates, but also embraces those poisons formed in the interior of cells, incident to a normal metabolism.

We must further recognize that there is such a toxæmia only when there is either,

First, an over production of poisons.

Second, an impaired excretion,

Third, and most important, when the detoxifying power possessed by various organs, chiefly the liver, is insufficient.

That more than one factor, usually all three are commonly involved, is exceedingly probable.

*Read before the Grand Rapids Academy of Medicine, March 23, 1910, and Ottawa Co. Medical Society, May 10.

Albu classifies autointoxication under four groups:

First. Autointoxication caused by loss of function of an organ—as Addison's Disease.

Second. Autointoxication due to general abnormalities of metabolism—as gout.

Third. Autointoxication from retention of physiological and pathological products of the organism, e. g., toxic phenomena after burns of skin.

Fourth. Autointoxication caused by over production of physiological and pathological products of the organism, e. g., acetonuria.

Thomas Oliver in Bouchard's Autointoxication in Disease, says: "However numerous may be the causes of autointoxication, there is not the least doubt that it is from the gastro-intestinal tract that these poisons are principally absorbed."

In this connection it is interesting to note that students of comparative anatomy have called our attention to the fact that longevity in animals is in inverse proportion to the length of their colon. Carried further, this being a part of, or an application of, the Metchnikoff theory that the span of life in man is determined by the toxicity of his colon content. It is to this toxic intestinal content that I particularly call your attention; the most important and the most frequent source of the general toxæmias.

THE ACCUMULATION OF THE TOXIC ELEMENT

First. In the course of even a normal digestion there are formed substances incompletely oxidized, intermediate products in the degradation of carbohydrates, fats and proteids that are extremely toxic in character. With an abnormal digestion these products are enormously increased.

Second. In addition to these products of purely chemical change we have the far more important products of bacterial invasion. (I exclude specific bacterial in-

fection as in typhoid, and have special reference to the products of proteid putrefaction.)

Herter, in "Bacterial Infection of the Digestive Tract," classifies these in three groups:

First. The indolic type of intestinal putrefaction. Those of this group are due to the colon bacilli group acting in conjunction with digestive secretions or putrefactive bacteria in the breaking up of native proteids. This type is often associated with obstruction of the bile ducts, and pancreatic disease, and is especially frequent in marantic children.

Second. The Saccharo-butyric type of chronic intestinal putrefaction in which the infective organisms are of the anærobic type. This occurs in cases of gastro-intestinal irritation following the use of an excess of carbohydrate foods.

Third. A combined type. This, the most frequent type, is associated with high grade indicanuria. Nervous symptoms and later severe anæmias are apt to be a striking feature.

THE CHARACTER OF THE TOXINS

I shall not attempt to discuss at all in detail the various substances virulently poisonous which are found in the intestinal tract, and I wish to say here that it is not necessary that there shall be a specific substance which shall produce specific toxic symptoms by direct action on the organism. Indeed, it is quite probable that their action is to be explained through their effect upon the metabolism of other organs, by interference with the internal secretion of that organ, or by their influence on nerve centers.

I desire to call your attention, first, to the products of proteid putrefaction, these being by far the most important, and of these products of special interest to us

are the purins, since in their intermediate metabolism, substances of great virulency are formed. Of these substances, uric acid and xanthin, hypoxanthin, guanin, caffeine and theobromine are types; these are sometimes spoken of as the alloxuric bases.

In regard to the specific action of these substances it should be mentioned that Crofton and Gaucher, and others, have produced in animals degenerative changes in the excreting cells of the parenchyma of the kidney, by repeated injections of xanthin and hypoxanthin.

These purin bodies occur, in part, as a result of cell destruction and nuclein disintegration; but in larger amounts, and of far more importance pathologically, they are derived from the ingestion of proteid food, of which liver, sweetbreads, butcher's meat of all kinds, contain the largest percentage. Of other foods which are rich in purins, I would mention asparagus and coffee and tea. I want to emphasize the fact that all the products of purin metabolism from the beginning until the liver has oxidized them to the innocuous urea are virulent poisons.

Second. The Acidosis—By the term Acidosis is meant a condition characterized by an increase of normal, or abnormal, acids in the body-media.

These may act:

First. By withdrawing the alkalies from the blood and tissues. It is well recognized that any interference with the normal alkalinity of the body-media will produce serious results.

Second. By combining with poisonous bases. Rachford and Crane* have suggested that the symptoms of acidosis may be due to a combination of the acid with ammonium. Certain it is, that in this condition, the kidney excretes enormous quantities of these ammonium

salts. This ammonium being diverted from the liver, which normally utilizes it in the production of urea, it is quite probable that the symptoms are the result of interference with some step in purin metabolism.

Though many acids may be involved in this autointoxication, of special interest to us are those acids which taken together, are known as "The Acetone Group"—the closely related Beta-oxybutyric acid, Diacetic acid and Acetone. The acids of this group are found in the blood and urine in all cases of Diabetic Coma, in the later stages of Carcinoma, in Gastro-intestinal diseases, Migraine, certain forms of Epilepsy and some other diseases. In largest quantity they are found in Diabetes, and this fact has led to the use of the alkaline treatment in Diabetic Coma.

Von Noorden believes that the autointoxication produced by the presence of the acids of this group in the tissues has its origin in either insufficient carbohydrate intake or some fault in carbohydrate metabolism. This leads to interference in the oxidation of fats and proteids—the carbohydrates being high oxygen carriers. That the liver may be involved in the formation of these acids, he considers possible, for Magnus-Levi has determined that Beta-oxybutyric acid is a product of autolysis of liver cells.

Feeding carbohydrates and cutting down the fats and albumins will always diminish, and sometimes overcome, this form of acid-autointoxication.

THE DISPOSAL OF THE TOXINS

First, by bowel excretion.

Second, by detoxification.

And we come now to that great sentinel of systemic integrity, the liver; though it is highly probable that other organs possessing an internal secretion, play a lesser role.

*"The Comparative Toxicity of Ammonium Compounds," Transactions Asso. American Physicians, 1902.

"In the narrow space of the liver cell," says Webster,* "we find localized the formation of glycogen from sugar; the conversion of the amino-acids, and ammonium compounds into urea; the neutralization of extrinsic and intrinsic toxins; the conjugation of aromatic bodies with sulphuric, and glycuronic acids, as well as a storing up of fatty acids and soaps. Any disturbance of these functions is promptly felt by the system as a whole." Of these functions, first of all in importance must be placed its detoxifying function. This function of the liver has, as you know, long been recognized, and I recall to your mind the fact that if in a dog the portal blood be conducted directly to the vena cava, a severe intoxication occurs, usually resulting in death.

It is manifestly impossible for me to consider at length this detoxifying process, much evidence of which has been produced, much of which remains to be produced. I want, however, to call your attention to the fact again, that from the purin bases of the proteid to the innocuous urea is a long step; that the conversion occurs in the liver, and that any deviation, any interruption in the process, results in a virulent poison being thrown into the general circulation. And this is but a part of the detoxifying duties of the liver; it is well to remember that the liver cell itself may be injured or destroyed by being over-whelmed with these poisons, and that in consequence of the perversion of normal function, further abnormal poisonous products may be formed. It seems to me that we are forced to consider Hepatic Insufficiency as the foundation for the greater number of our chronic little understood diseases.

The effect upon the general system of these toxins thrown into the blood stream

unchanged, is dependent in large part upon the eliminating organs, particularly the integrity of the kidney; the result will vary as the degree of intoxication and the resistance of the individual, but it is reasonable to expect that the kidney and arteries must be peculiarly liable. I believe that we must reconsider our nomenclature and consider chronic Bright's Disease as a symptom and not a disease *per se*; that we must realize that albumin and casts are but late symptoms of an underlying chronic toxæmia, the determinable feature of which is high-arterial tension, with resulting cardio-vascular changes, and consequent nutritional changes in organs supplied by terminal arteries, as the brain, retina and kidney.

Charles Quimby, in an article on "The Relation of Intestinal Toxæmias to Arterio-renal Disease,"* states that the ptomaines developed by the resident intestinal bacteria from the substances found in animal foods are the toxins that cause cardio-renal disease. In all chronic toxæmias the dominant factor of evil is prolonged functional over-strain of the organs of excretion under the handicap of toxic nutritive supply. All the causes of chronic renal and arterial disease make their presence manifest by a persistently increased functional activity of the kidney and circulation for a long time before such increased function, even under toxic influence, results in degeneration—this degeneration will at first be cellular without exudation; will progress for a time, and may continue for years, without any deficiency of organic function, and hence without the presence of casts or albumin in the urine or of any subjective symptoms. Albumin and casts are late symptoms of an underlying toxæmia that caused Bright's Disease.

Though long recognizing the fact that

*Toxæmias from the standpoint of Perverted Metabolism," *American Jour. Med. Sciences*, May, 1908.

**N. Y. State Med. Jour.*, April, 19

acute yellow atrophy of the liver may follow chloroform narcosis, the surgeon has been slow to recognize the part that liver inadequacy plays in the production of post-operative systemic disturbances. As a danger factor the deficient heart is not more, indeed not so much, to be considered as the deficient liver.

William Hunter in *The Lancet*,* says: "The vomiting which occurs after administration of anæsthetics is not of nervous origin; but is, I consider, essentially toxæmic, due to the profound depression of liver function with consequent diminution in its antitoxic function during the period of the administration."

Crofton† in an article on "Uræmia" concludes: "The manifold factors that may precipitate an acute attack of uræmia in an individual suffering from hepatic insufficiency (pre-uræmia) need not be enumerated in detail; the determining insult may be severe as, for instance, some virulent infection or intoxication (chloroform anæsthesia) suddenly throwing a mass of work on the liver or causing degeneration of its cells, or it may be apparently insignificant, and consist of nothing more than an attack of gastric or enteric indigestion or merely some psychic or emotional shock that acutely deranges the liver function.

"How important it is, therefore, to be able to recognize early even mild degrees of hepatic insufficiency (particularly in renal cases and in pregnant women), and to safeguard the patient against all the agencies that might suddenly throw a strain on the fatigued liver."

**The Lancet*, April 4, 1908.

†Crofton—"An Analytic Study of Uraemia," *J. A. M. A.*, Jan. 6, 1906.

IN REGARD TO THE CAUSATION OF PERNICIOUS ANAEMIA*

The reports of Sandoz were apparently the first to strengthen the impression that some of the most typical cases of pernicious anæmia are of intestinal autotoxic origin, this observer finding that apparently genuine cases were sometimes cured by vigorous gastric lavage, enteroclysis, and the administration of intestinal antiseptics and laxatives. This observation has since been verified and the opinion has steadily grown that the most frequent, if not the essential, cause of progressive pernicious anæmia is found in a peculiar toxæmia of intestinal origin, with or without organic lesions of the mucosa. The evidence supporting this opinion has accumulated from many sides. The results of intestinal antiseptic treatment have steadily pointed in this direction. Signs of increased intestinal putrefaction have been noted in the excessive indicanuria of the disease, and in the presence of cadaverin and putrescin in the urine of certain cases.

Hunter's studies (1901) in this field were undoubtedly the most important experimental contribution to the etiology of the disease made up to that time. His conclusions were, briefly, that pernicious anæmia was a specific clinical condition resulting from excessive hemolysis, occurring chiefly in the portal system and brought about by intestinal intoxication in which the products of growth of specific bacteria are probably concerned.

An acceptance of the view that hepatic insufficiency is the underlying factor in these diseases of metabolism and an early recognition of such a chronic toxæmia will lead, I firmly believe, to the prevention of the greater number of such diseases as Chronic Interstitial Nephritis, Arthritis

*Hollis and Ditman—"The Theory of the Toxic Origin of Pernicious Anaemia," *N. Y. Medical Record*, Feb. 2, 1907.

Deformans, Arterio-Sclerosis and Pernicious Anæmia—and a cure as well as the prevention of many cases of toxic epilepsy, migraine and various skin and nervous diseases.

I plead for the recognition and treatment of the casual condition in those cases that come to you mentally depressed, with a sallow complexion, pyorrhœa, more or less intestinal disturbance, constipation (though this is not a necessary concomitant), headache or vertigo, with perhaps a heightened blood pressure, a sulphurous stool and the characteristic urine phenomena—insufficiency, high acidity and indicanuria—not that these may be the limit of symptoms or that all may be present in the individual case, but that they must be considered as suggestive.

From the standpoint of laboratory diagnosis information of the greatest value may be obtained.

The examination of the stomach contents after an Ewald test meal, I consider of much importance, for many cases of protein toxæmia have their origin in a gastric insufficiency.

The examination of the urine I have already suggested. The presence of indican or indolacetic acid always means excessive putrefaction of proteids.

The examination of the feces is of the greatest aid not only in confirming the diagnosis through the characteristic findings, but also in the determination of pancreatic activity.

The limits of this paper do not permit me to go into the treatment, which is indeed obvious, except in the merest out-line.

First. Free elimination.

Second. The supplying of ferments where the normal digestive ferment is absent.

Third. The reduction of animal proteid to the point of individual tolerance, which varies widely in different individuals.

Fourth. The administration of intestinal antiseptics. The sulpho-carbolates and the salicylates, particularly Bismuth Salicylate, I consider the best. For some time I have, following Crofton's suggestion, used bismuth as an indicator when using intestinal antiseptics. We may consider excessive intestinal putrefaction to have ceased, when the fecal sulphids no longer give rise to the characteristic black bismuth sulphid stool.

Laterly, the administration of lactic acid bacilli either direct or by the giving of butter-milk or sour milk has become very popular. Unquestionable results are obtained. The efficiency of this treatment depends on the use of the pabulum by the faster growing lactic acid bacilli, innocent in character and the consequent crowding out of the injurious bacilli groups.

In the administration of these bacteria, it is said that the bacilli of the so-called Bulgarian type are most efficient, and it is well to add a definite amount of carbohydrate to the food in order that there may be sufficient pabulum present to cause a rapid growth.

INJURIES AND REPAIRS OF THE PELVIC FLOOR *

H. B. GARNER, M. D.

Traverse City, Michigan

I am a firm believer in the necessity of a thorough anatomical knowledge of the different structures that enter into the formation of the pelvic floor, in order that

into their normal positions, thus allowing nature to do the rest.

When a physician is called to reduce a fractured bone, his attention is first di-

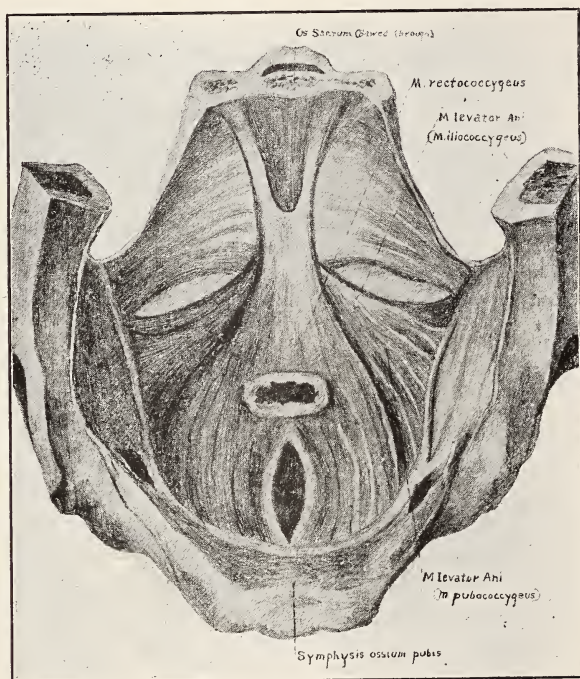


Fig. I

the operator may make a success of this kind of plastic surgery. There have been many operations, the main feature of which was simply to resect and narrow the outlet, instead of suturing the injured parts

rected to the relation that the fractured ends bear to each other—in other words, he makes a careful study of the bones and the relation that the fragments bear to each other, in order that he may be better able to replace them as they were before the accident,—why should not the same rule

*Read at the Forty-fourth Annual Meeting of the Michigan State Medical Society at Kalamazoo, Sept. 15-16, 1909.

hold good in injuries to the pelvic floor? Should not the injured perineal structures be carefully studied prior to operation, that the surgeon may have a clear and concise idea of just what structures are involved, and the necessary steps to restore the same to their former condition? So far as is possible, the injured muscles should be united separately instead of bunching a lot of tissues together, thus

viscera and surrounds the various structures which pass through it. This muscle supports the lower end of the rectum and vagina, and also the bladder. During the efforts of expulsion it elevates and inverts the lower end of the rectum after it has been protruded and everted; during the expulsion of the feces, it also acts as a muscle of forced expiration.

Among the tears which eventually be-

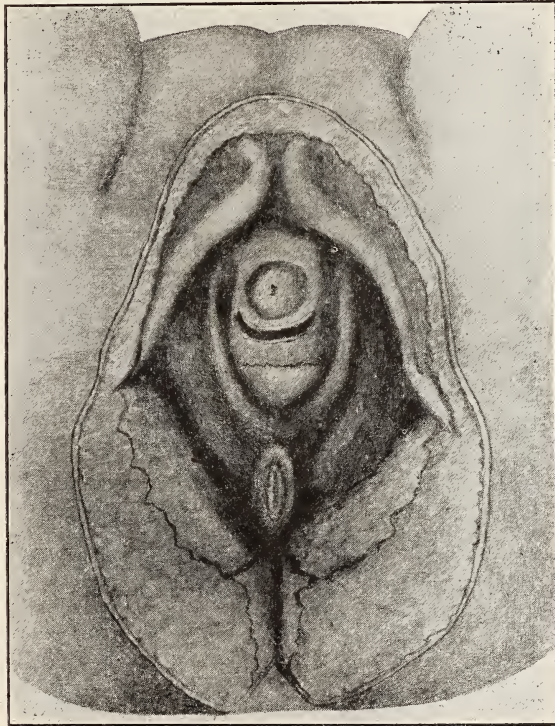


Fig. II.—Showing relaxed muscles.

depriving certain muscles from performing certain duties which nature has destined for them.

A brief study of the anatomy of the levator-ani will prove to you beyond a doubt, that nature has placed upon this muscle many important duties to perform. It is a broad, thin, paired muscle, situated on each side of the pelvis; it supports the

come serious in their consequences but are often not perceptible at the time they are made, is the injury received from the separation of the attachments of the levator-ani muscle from the rectum. This injury, associated as it is with the tear of the perineum, results in an entire loss of support to the lower part of the bowel, with the formation of a rectocele, or the eversion

of the lower vaginal wall; the outlet thus presents an appearance described as relaxed. The relaxed outlet is recognized by the vertical direction of the lacerated fibres, just behind the pubic arch, replacing the strong band felt when the posterior vaginal wall is lifted up in the unbroken ring.

Pursuing the technique of Dr. H. Hill,

a pair of blunt pointed scissors are carried under the lateral vaginal wall in a direction upward and inward for perhaps an inch,—the blades are separated, thus raising the vaginal wall from its bed and throwing into view the pubo-rectalis (anterior fibres of the levator-ani), which can be seen between the blades of the scissors; this process is repeated on the opposite

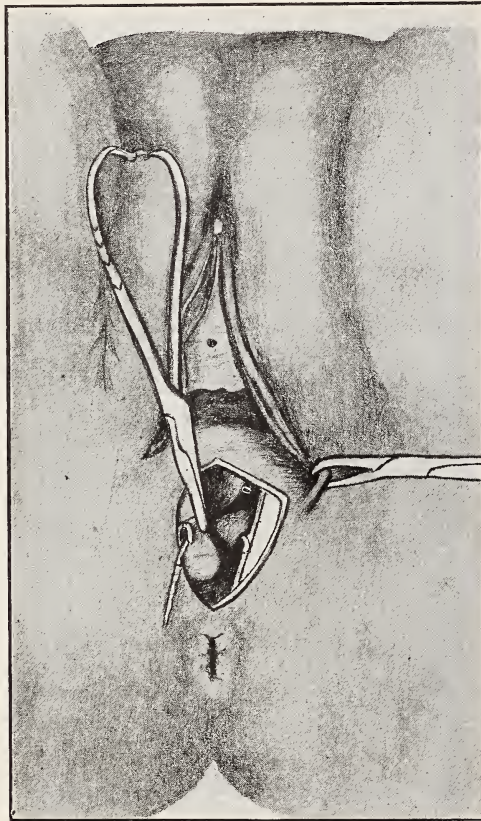


Fig. III.—“The pubo-rectalis is picked up on the left side.”

of Kansas City, which is as follows: Bullet forceps are placed on each side of the vaginal outlet and at the level of the caruncule, lateral traction being made develops a prominent fold which is incised in the medium line from top downward until the fibres of the external sphincter are reached,

side. With any full curved needle, the pubo-rectalis is picked up on the left side from within outward and the suture pulled through and its end clamped with a hæmostat. The needle is now transferred to the other end of the suture and the right pubo-rectalis is picked up from within;

this suture is placed two-thirds of an inch in front of the anus, the first suture in place is not tied but used as a traction suture, thus aiding in passing the lower suture which can easily be passed from without inward. When this suture has emerged from the pubo-rectalis on the right side it is carried under the sphincter on the right side, and caused to penetrate

and pulls the sphincter towards the symphysis up into the pelvis, a variable distance, depending upon the amount of displacement. The first suture is now tied. The urogenital trigone is next sutured from below upward with a continuous suture of chromitized cat gut; after approximating to the proper extent the suture is reversed and brought back

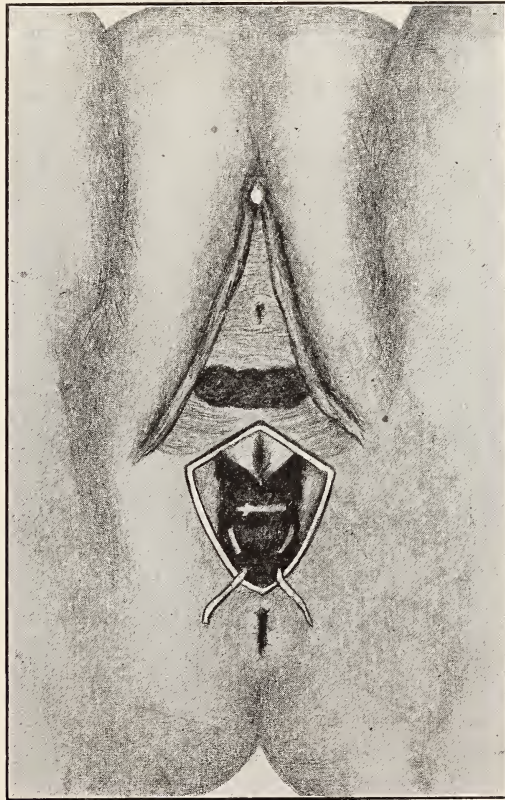


Fig. IV.—“The knot is tied on the outer surface of the sphincter.”

it from within outward; the needle is now transferred to the other end of the suture and carried through the sphincter in the same manner as the opposite side, this suture is now pulled up and tied (the knot being on the outer surface of the sphincter); this suture approximates the lower end of the pubo-rectalis together

from above downward, closing mucous membrane and afterward the skin.

Simplicity associated with thorough, complete work will prove a saving of much valuable time and will render results not only satisfactory to the patient but pleasing to the operator.

ANEURISM OF THE DESCENDING THORACIC AORTA*

JOHANN FLINTERMAN, M. D.

Detroit, Michigan

Mr. R. G., forty-three years old, came under my observation two years ago; a man of medium height and weight, editor of a German daily newspaper and proofreader since fifteen years; married, no children. His wife had left side Hemiplegia with bladder symptoms and was surprisingly benefitted by Iodide of Potassium. Patient complained of pain at the back, on the shoulder blade and around its region, radiating into the 3rd, 4th and 5th intercostal space. Examination at first did not reveal anything as to what might be the nature of the case. Patient had a good appetite, worked every day, digestion excellent, only the sleep was disturbed by the pain in the region of the left shoulder blade. At repeated examinations, never any fever was observed, respiration was somewhat impaired, due to the pain which occasionally would become so intense that the patient would suddenly bend over to the left side. The left side of thorax did not expand as fully as the right side. Examination of the lungs and heart failed to show anything abnormal. There was no frequent respiration, no cyanosis. Administration of Iodide of Potassium, Galvanic Current, Aspirin for the night and rest, gave relief for only a short time. In the spring of 1908, his condition became a great deal worse, pain increased, respiration became more impaired, sleep disturbed by pain, attending his work was mostly a

fight against the pain. The pain was boring, continuous, not intermittent as before. The seat of the pain was in and around the left shoulder blade, irradiating into several intercostal spaces (3rd, 4th and 5th). There were not any special points which showed any increased tenderness on pressure, typical of intercostal neuralgia or neuritis. I examined his chest very carefully. No symptoms of pleurisy, no indication of any pulmonary affection, no cough, no enlargement of cardiac dullness, apex beat at the normal point, not distributed over an abnormally large area. Cardiac sounds normal. Heart's action not agitated. P. 68-72, R. 16-18. Never any pain in the arms, irradiating from the seat of the pain in the shoulder, never any group of symptoms as seen in angina pectoris. There was no enlargement of the cervical, supraclavicular or axillary glands. Patient had no cachectic appearance, looked only a little pale. The attempt to improve the condition by Iodide of Potassium, Aspirin, and the application of the Galvanic Current was apparently this time more effective. A vacation of six weeks helped in bringing about a condition in which patient was free from pain from July, 1908, to November, 1908, when he commenced to complain again of pain in the left side, the pain becoming now more severe than ever, also difficulty in breathing. At the same time an irritating cough appeared, also a slight hoarseness and an occasional expectoration

*Read at the Forty-fourth Annual Meeting of the Michigan State Medical Society, Kalamazoo, Sept. 15-16, 1909.

of bloody sputum. The cough was brassy. The inspiration was accompanied by a stridor, percussion of the left side of the chest gave a lower percussion note at the infra-clavicular fossa, where by auscultation a less distinct and clear respiratory murmur could be distinguished. Auscultation and percussion at the dorsal surface of the left side of the chest gave the same result. Examination of the heart did not reveal much difference from the former examination. Radial pulse of equal strength on both sides, also synchronic. Occasional expectoration of bloody sputum, never profuse, arterial in character. Microscopical examination: Pure arterial blood, no elastic fibre, no tubercle bacilli, no elements pointing to a pulmonary neoplasm. There never was any rise of temperature. Breathing was slow, laborious and increased the pain. No enlargement of cervical, supra-clavicular or axillary glands.

In the course of the disease, it became every day more noticeable that the respiration was not alike on both sides of the chest. Auscultation revealed that into the left lung air did not enter as readily as into the right lung, a distinct stridor with every respiration could be heard over the left side. During the month of January, 1909, the patient was obliged to give up his work. The hoarseness, the cough and pain increased. The pain prevented him from sleeping. Respiration became more and more difficult.

When I examined the patient again in the latter part of January, 1909, a pleuric effusion had developed in the left side. Percussion note flat, respiratory murmur and vocal fremitus were absent. Never any eye symptoms noticed. Pupils in both sides were of equal size and responded promptly to light. No signs of pressure on sympathetic nerve. Urine was ex-

amined several times and always found to be normal. As to the nature of the affection, I thought I had to deal with a primary pulmonary neoplasm. I had the patient examined with the laryngoscope which showed a paresis of the left vocal chord. An X-ray picture taken by Dr. Hickey seemed to point to a Mediastinal Tumor. (Demonstration of the picture.)

Although the probability of an aortic aneurism sometimes came to my mind, I always failed to detect any symptoms pointing to such an affection, or to interpret the symptoms present as cardiac. Never any abnormal murmur was heard either in the anterior or the posterior surface of the chest. There was no tumor or pulsation anywhere. No enlargement of the cardiac dullness, no abnormal apex impulse as to the localization or intensity. No difference of radial pulse of right or left side either in its strength or time of appearance. There was never any difficulty of deglutition. The intensity of pain was great, and the area over which it extended were perhaps more typical of pain caused by neoplasm.

The skin of the left side of the chest was not much different in appearance from the skin on the right side. There was no remarkable dilatation of the superficial vein of the left side of the chest, but the anterior chest wall had the vein more dilated than the right side. There never was during the whole course of the disease, a pronounced cyanosis. The patient lost in strength, no remedy gave him any relief. The pale color of the skin became more intense. The more frequent attacks of cough and respiration all the time accompanied by pain, gave him no sleep. Was it due to the pressure of the aneurism on the thoracic duct? A few days before he died the sputum became bloody again. On the 1st of March in the afternoon, he

suddenly had a coughing spell followed by a profuse hemorrhage. He fell to the floor and died immediately. Postmortem was made the second of March at 11 a. m.

Before describing the finding at the postmortem, let me try to give the reason for the diagnosis, Primary Pulmonary Tumor, probably Sarcoma.

Case was under my observation for two years. The main symptom which induced the patient to consult the physician was pain. Pain in the left side of the shoulder blade and in the 2nd, 3rd and 4th intercostal space—pain continuous, increasing after his day's work. The pain interfered with respiration. For nearly a year nothing else was complained of. In the spring of 1908, after patient had been fairly comfortable for some time, matters became worse, pain more severe than ever and with it the dyspnea. Physical examination failed to find what was the real cause of the pain and the dyspnea. Treatment apparently succeeded in bringing so much relief that the patient up to November was comfortable. When pain returned more severe than ever, dyspnea increased. Patient commenced to cough and to expectorate. From this time, the symptoms which led to the diagnosis became more pronounced. Cough, bloody expectoration, dullness in supra and infra-clavicular space of the left side, impaired entrance of the air in the left upper lobe, respiratory murmur at this point indistinct and not clear, also the vocal fremitus weakened, the inspiration accompanied by stridor indicating that the air could not readily enter the left bronchus, a hoarseness due to paresis of the vocal chord, a brassy cough, and from time to time expectorating, sometimes only mucus, at other times pure arterial blood, not containing any element of a growth or any bacilli. Sometimes weak bronchial breathing could be heard in front, at the upper part of the chest,

and posterior. Pleuric effusion developed dullness of percussion, absence of respiratory murmur and vocal fremitus.

There was no glandular enlargement above the clavicle or on the axilla. There never was any fever, no dysphagia or impairment of deglutition.

Professor D. Albert Franket speaking of the physical examination in cases of Pulmonary Tumor says:

"Typical are especially those rather frequent cases in which the area which does not contain air is the upper lobe, also in other cases the lower one too, in such a way that commencing from the supra-clavicular fossa either on the right side to the hepatic area of dullness, or on the left to the upper border of the cardiac dullness the percussion note is duller, while the change of percussion note is a great deal less pronounced in the back, and here more limited to the fossa supraspinatus. If at the same time within the area of dullness in the front no bronchial breathing nor essential murmur are heard, and if you notice quite contrary to the fact so usually to be seen in percussion of pulmonary infiltration a surprisingly low respiratory murmur, you might then feel sure that you have to deal with a pulmonary tumor."

"The vocal fremitus, under such circumstances, is also less distinct, sometimes absolutely abolished.

"The symptoms are more indistinct and vague when we have a pleuritic effusion."

These remarks fit very much my case. Dr. Hickey, who made an X-ray picture, was inclined to look upon the case as a mediastinal tumor, but the fact that mediastinal tumor is oftener observed in the anterior mediastinum and other reasons spoke against it.

For the diagnosis of pulmonary tumor are a few leading points. It is practical

to bring the cases which have been found into three divisions.

In the first division, all such cases which with proper consideration of all important factors it is possible to diagnose not only the nature of the tumor, but also its seat.

In the second division, such cases where the diagnosis only depends on the supposition of an affection which causes a pressure on the intra-thoracic organ, the nature of which, whether of tumor in a third sense, or an aneurism, cannot with absolute certainty be decided.

Into the third division, the cases which run a latent course.

Cases of the first class are such where particles of the tumor have been found in the expectoration with the pleuritic effusion complicating such cases.

Cases of the second division are those where the differential diagnosis is between tumor and aneurism. Every experienced physician will admit that even after a most careful examination with scrupulous consideration of all symptoms, the question which of the two affections is present, remains undecided.

In cases of pulmonary tumor and also in aneurism, stridor accompanied by dyspnea may exist, percussion also reveals dull flatness in and lateral of the sternum, auscultation, unilateral weakening of the respiratory murmur. There may be a diffuse heaving on one side of the chest and the neighboring sternum. Difference in the volume of the radial pulse, paresis of the vocal chord, dilatation of the vein, repeated hemoptysis are not deciding. Aneurism might be diagnosed with some certainty when a pulsating center, over which the percussion note is dull, is found next to the heart, especially when a thrill is felt and a blowing sound is heard over it.

Tracheal tugging, although not absolute proof, will in doubtful cases speak for aneurism. But when glandular swellings

in the supra-clavicular fossa and in the neck appear, and primary or secondary tumor formation can be demonstrated, then the diagnosis inclines to pulmonary tumor.

Differential diagnosis between pulmonary tumor and Echinococcus, I would like to allude to.

Between the second and third divisions are cases in which the pleura is also involved or perhaps principally affected. If in a case of Pleural Effusion complicating a pulmonary tumor the aspirating needle has to penetrate several inches of a dense firm tissue before the exudation is drawn, then we might expect a primary tumor of the costal pleura. If the tumor-like thickening of the pleura is not very considerable, and the effusion more pronounced then the true nature might not be found out. In such cases the fact that after the aspiration, the dullness is hardly influenced, the respiratory murmur does not become fully matured, the respiratory only in a slight degree reappears, and the patient does not feel relieved, leads to the fact that behind the pleura, a severe pulmonary affection lies hidden.

Hemorrhagic pleuric effusion is seen in malignant pulmonary tumor and also in pleurisy. When pulmonary tumors are not diagnosed, even in cases without complicating pleurisy, then it is dependent on the small sign of the neoplasm or on its central seat. This happens in the majority of cases of secondary, but it also happens in primary cases. A case of pulmonary tumor might be and is often taken for tuberculosis, principally in such cases where hemoptysis is the most pronounced of its symptoms. In cases occurring at an advanced age where tuberculosis can be excluded and which commenced with cough and bloody sputum, pulmonary tumor might be suspected.

From the facts observed in the case and

for the different reasons mentioned, I diagnosed Primary Pulmonary Tumor, seated in the upper lobe near the left bronchus. Pain in the shoulder, vocal paresis, brassy cough, bloody expectoration, dyspnea, absence of radiating pain in the arm, also absence of pulsating tumor, no cardiac symptoms of any kind, pleuric effusion as result of pressure, and, for other points mentioned.

Postmortem findings do not confirm the diagnosis.

After opening the thorax, found right lung congested, few adhesions at the apex, no fluid in the right pleuric cavity (normal amount).

Pericardium normal, heart size of patient's fist, muscle pale; much fat covering the right ventricle; small amount of fluid in the pericardium; left pleuric cavity contained a pint of fluid, blood stained; left lung collapsed; few adhesions at the apex. Bulging into the left pleuric cavity at the level of the first rib is felt a mass the size of a hen's egg, soft, smooth, fluctuating, pressing back against the thorax, does not go to the right of the median line. It is adherent (left lung is collapsed) to the apex of the left lung, it occupies in part the space usually taken by the left apex of the lung. The left lung is airless. Cannot get any crepitation. To detach the apex causes loss of substance. Left lung dark purple, blue. In removing left lung and cutting left bronchus, blood wells out of the lung—blood partially clotted. Posterior part of mass is adherent and has partially eroded the first, second and third ribs and second dorsal vertebra. (Right lung surface has mottled appearance). Bronchial glands are not enlarged, deep red, few are calcified.

Off the distant part of the arch and the proximal part of the descending aorta is a large aneurismal dilatation. The dilata-

tion is composed of two parts; a smaller one to the left and anterior, is about the size of a big plum. The posterior one is about the size of a hen's egg and in removal the thin walls ruptured, remained adherent to vertebra and ribs. It contained a large organized clot and also some recent clots. Below this dilatation in the descending aorta is a third dilatation the walls of which are lined with organized clots. At the inner and anterior aspect of this aneurism, where it passes over the left bronchus, there is an opening admitting the point of a lead pencil through which rupture has taken into the left bronchus.

Mitral valves all right, the aortic ring dilated, tricuspid normal, admits three fingers; pulmonary valves all right.

Aneurism of the descending aorta is very rare. (Vierrond.)

In aneurism of the descending aorta, which often escapes detection, the earliest symptom is pain, and the patient complains of it before there is a single other physical sign or indication of the presence of a tumor. The patient whose history I present to you, suffered for a long time only a severe pain, to which after about a year and a half, came cough, dyspnea, then stridor and expectoration of blood, paresis of the left recurrent nerve. A pulsation, a thrill, or a loud blowing murmur never became manifest. This one fact and the point I did not know that a non-aneurismal tumor in the thorax is very rare, were the causes of not making a sure diagnosis of aneurism. Duloch remarks: "Practically speaking, when the signs of an intrathoracic tumor are met with, we shall be generally correct in thinking that it is an aneurism we have to deal with, even should the pulsation not be very obvious." And I want to add, even when pulsation is absent.

When an aneurism produces much dys-

pnea, it is apt to be seated in the descending part of the arch.

Pleuric effusion in the left side might be found in pulmonary tumor as well as in aneurism of the descending arch.

As to the etiology of the reported case I suspect two; syphilis and lead-poisoning. Concerning the latter I have some proof. The fact that the patient worked for fifteen years as proofreader, is for me convincing. Lead-poisoning and syphilis play a great role in the etiology of aneurism, but a great many authors also attribute to "lead intoxication" a causative effect.

Patient's wife had an attack of left sided Hemiplegia. Had bladder symptoms for a long time. Her case was much benefited by specific treatment.

Diagnosis of aneurism is in a great many cases easy, but on the other hand in some cases extremely difficult, even impossible. Where the direct physical symptoms are pronounced, as for instance principally abnormal pulsation, no danger of an error is present. Diagnosis becomes a problem in cases in which the aneurism is not, or at least only with great difficulty, accessible to a direct examination, when only vague symptoms, as for instance, pain in the chest, transient sensations of oppression, symptoms of intra-thoracic pressure, whereby in a great many cases persistent intraneuralgias, not yielding to any treatment and not properly explained, as to their true nature, are for a long time the only symptoms of an occult aneurism. The affection very often escapes detection because in such and similar cases the thought of the possibility of an aneurism does not come up, and then careful examination of the heart is neglected, no search is made for symptoms of pressure (vocal chord paresis, etc.) and especially the most important measures of X-rays are omitted. Differential diagnosis be-

tween aneurism and intra-thoracic and extra-thoracic tumor is a difficult matter. Mediastinal tumor, as for instance Mediastinal Sarcoma, also Mediastinal Abscess, circumscribed Empyema, tumor, which start from the sternum, pulmonary neoplasm and bronchial glands; each of these is liable to lead to a wrong diagnosis. It is not possible to have a general rule of diagnosis. Conditions are never the same in the different cases. The presence of pulsation in the tumor, the fact that the tumor shows pulsation, is a symptom which speaks for an aneurism. But it has to be ascertained whether the pulsation is not only propagated but a pulsation really within the sac.

Auscultation, a condition of the heart and arteries, symptoms due to intra-thoracic pressure and most of all Roentgen rays are the means to help in the diagnosis.

DISCUSSION

Dr. A. S. Warthin, Ann Arbor: Syphilis plays the chief, if not the entire part of the etiology of aortic aneurism. The Wassermann reaction, and more recent studies of the lesions, confirm the old pathologic view that these aneurisms are syphilitic in origin.

Dr. Hugo A. Freund, Detroit: It was my good fortune to witness the postmortem examination on the case reported by Dr. Flinterman. It was an unusual aneurism, in that its dilatations were saccular from the main fusiform dilatation. There were three separate ones which went out in different directions, one going upward and backward, adherent to the lung, and posterior surface of the ribs, as well as posterior part of the chest. The other dilatation went distinctly outward and to the left. The one from which rupture took place was over the surface of the left bronchus. The left lung was filled with blood, and was absolutely airless. There was considerable fluid in the left pleural cavity. The effusion was old and had been brought about by some process of irritation. There was nothing else in the lung. Even with the X-ray it was impossible to make a

diagnosis of this aneurism, yet the postmortem revealed an unusual specimen.

Dr. Collins Johnston, Grand Rapids; I wish to report a case illustrating the value of the X-ray in the diagnosis of aneurism. Several years ago a man came to me who had great pain in the side of the neck, which had continued for two years. For three months he had a slight swelling at the junction of the sternum, and left clavicle and soreness on pressure. This swelling was of the hardness of stone, and was circumscribed. Percussion did not show any dullness to the right of the sternum, and for about an inch to the left, extending down to the second interspace, here is a point of interest in connection with what the X-ray picture showed. There were no physical signs of aneurism other than that. At my first examination I thought it might be syphilitic, tuberculous, or some osteomyelitic disease, due to some other cause. There was no difference in the radials, no signs of pressure on the bronchus or oesophagus. The heart was normal and in its location. The sounds at the apex and base were normal. There was no accentuation of the second sound. I sent the patient to an X-ray man and he got a beautiful picture of aneurism of the ascending aorta. The picture showed that the aneurism extended a good deal farther to the left of the sternum than to the right. The tumor was a little larger than a dollar and only a small part of the aneurism presented to the front. The man is now taking large doses of iodide of potassium.

Dr. A. R. Edwards, Chicago: believe that practically all aneurisms are syphilitic, and this is borne out positively both pathologically and clinically.

Since the paper was written a very interesting article "Symptoms of Descending Thoracic Aneurism," has been published by A. W. Hewlett, M. D., professor of internal medicine in the University of Michigan, and W. R. P.

Clark, M. D., instructor in medicine in the Cooper Medical College, San Francisco, in the *American Journal of Medical Sciences*.

These authors report six cases. In the first five cases the main symptom was pain; in one case no symptoms whatever, accidentally diagnosed by a Roentgen examiner for the purpose of determining the heart condition. In the five cases Roentgen examinations enabled the author to make the diagnosis.

"From our experience pain is the most frequent symptom of descending thoracic aneurism. Milanoff who collected the histories of 120 patients with this disease, found pain mentioned in 72 of them, whereas dysphagia occurred in 20, hematemesis in 13, hemoptysis in 2, left pleural effusion in still fewer. Andreef could collect but eight cases of paraplegia from this cause. When one remembers that most of these symptoms with one exception of pain, occur late in the disease, the great importance of pain as an early symptom of descending thoracic aneurism becomes apparent. In some instances it has lasted ten or even twenty years.

The article of Hewlett and Clark concludes with the words of Huchard, when he speaks of Aneurismal Neuralgia:

"When one is dealing with symptoms of pain characterized by their persistency, their long duration, their intensity, when they remain unexplained, when they resist all ordinary medication, finally, when they present certain special characteristics, such as a fixed location or a diminished severity in certain attitudes of the patient, then we are not dealing with true neuralgia, as is too frequently assumed. In such cases one should consider aneurism as a probable diagnosis, and if no tumor is perceptible as yet, one should turn to the X-Rays in order to obtain certain proof."

In all cases reported no herpes zoster was obvious or mentioned.

SURGICAL SUGGESTIONS

An apparently superficial tumor of the chest wall may be an intrathoracic growth that has reached the surface; an x-ray picture is indicated in any such tumor before its attempted removal.—*American Journal of Surgery*.

By constipating the patient, a high-seated rectal carcinoma may be pushed down within reach of the examining finger in the rectum. A small enema may balloon such a tumor within reach of abdominal palpation.—*American Journal of Surgery*.

TONSILLECTOMY *

J. F. BYINGTON, A. B., M. D.

Battle Creek, Michigan

It is not the author's purpose to discuss the present status of the tonsil operation in all its phases, but merely to draw a few conclusions from his own experience in dealing with this class of cases, and describe his technique for the complete enucleation of the tonsil by finger dissection.

Whenever the operation on the tonsil is discussed, questions regarding the function of this organ and the role it plays in the etiology of other diseases naturally arise. I shall merely preface my remarks on the operation itself by giving a few conclusions regarding the physiology and the pathologic importance of this organ which have come to be quite generally accepted by nose and throat specialists at least in this country.

While some authors, Bosworth for instance, have for many years contended that the tonsil is not a physiologic organ but only a diseased process, a morbid growth, which should be removed as any other tumor, it is quite generally recognized that the organ in its normal state constitutes one of the body's defenses against the entrance of microbic infection. It is the distal organ of the chain of lymphatics in the neck, having similar functions to these glands. But when diseased, the tonsil no doubt loses its defensive powers; it is then no longer a sentinel guarding against the entrance of infectious organisms,

but becomes a source of infection itself, constituting an open channel to the chain of lymphatics in the neck, through which micro-organisms and their products may enter. The size of the tonsil is not necessarily an indication of how much it may be diseased. Clinical experience goes to show that it is more often the contracted, submerged tonsil lying hidden behind the anterior pillar of the fauces that is a source of infection. The mere fact that the tonsil is large is not necessarily an indication that it should be removed. While large tonsils are usually pathogenic, these large glands may sometimes persist for years without giving any evidence of inciting inflammatory conditions in the throat or elsewhere. A contracted tonsil often contains relatively more connective tissue and less defensive glandular elements, while the crypts may be dilated and filled with infectious matter, which may even become calcified. It is easy to understand how such a tonsil may become a fruitful source not only of local inflammation in the throat, but, also, through absorption of infectious material, the cause of various general diseases. The relation of the tonsil to enlarged cervical glands, to rheumatism and to tuberculosis, is now so generally understood and recognized that it is sufficient merely to mention these diseases.

Tonsillectomy, or the operation for the complete removal of the tonsil with its capsule, has been called an American opera-

*Read before the Calhoun County Medical Society at Battle Creek, March 3, 1910.

tion. During my visit in Vienna last winter, I was impressed with the almost complete disregard in the nose and throat clinics of submerged, infected tonsils in adults. Prof. Chairi would limit removal of tonsils to persons under forty years of age, and when removal is really necessary under that age the only operation performed in his clinic, I believe, is tonsillotomy with the tonsillotome. I did not see a single operation for the complete removal of the tonsil.

What are the indications for the tonsil operation? The author's rule is to remove tonsils which give trouble irrespective of their size. The troubles most often arising from tonsillar disease, and which afford an indication for the removal of the tonsils, are repeated attacks of tonsillitis or peritonsillar abscess, chronic inflammation in and about the throat, persistent tenderness of the glands and adjacent muscles of the neck and enlargement of the former, obstruction to respiration and Eustachian tube stenosis due to pressure upward of the enlarged tonsils, and the presence of those general diseases heretofore mentioned as related to tonsillar infection, especially if the tonsil crypts habitually contain caseous plugs of desquamated epithelium and other putrefactive products.

A suspicion of hemophilia always constitutes a contra-indication to the operation. The difficulty of controlling persistent bleeding from the tonsil in a person with hemophilia is so great that the remedy is likely to be worse than the disease. The author does not remove tonsils in the later stages of tuberculosis, and he would advise caution regarding operation among professional singers who are known to be sometimes ungrateful. He invariably refuses to assume any responsibility whatever as to any resultant change in the quality of the voice, although in his experience, and in the experience of prac-

tically every operator, the voice is generally benefitted and never injured, provided the whole tonsil with its capsule is removed and the pillars of the fauces are left intact. Where injury to the voice might possibly occur is in partial removal with a ragged stump remaining to which the pillars may afterwards become attached by adhesion. The few surgeons who have noted a change in the pitch of the voice following removal of very large tonsils, have found the pitch higher rather than lower.

As the partial operation, tonsillotomy with the tonsillotome, has long been performed and the technique little improved upon, I shall confine myself to a description of the technique I have used for the complete enucleation of the tonsil in its capsule, namely, tonsillectomy. My method is not original, but is an appropriation of all that seemed best to me in the technique employed by others. Although the tonsil operation is performed by nearly every physician who attempts any surgery at all, the satisfactory removal of this organ presents some difficulties. There is no operation, I presume, for which I have a greater number of obsolete instruments, and no operation in which I have varied my technique more than in the tonsil operation, which of course is a confession that the methods formerly employed were unsatisfactory. The trouble with the older attempts at complete removal was that we tried to remove all the tonsil except its fibrous capsule which constitutes, as it were, the floor of the deeper crypts. It is impossible to remove the whole tonsil apart from its fibrous capsule. More or less ragged tonsillar tissue will still remain attached to the capsule, and these remnants contain the bottoms of the most troublesome crypts. It is true that in some cases the partial removal affords drainage to the remaining crypts and relieves the attacks of tonsillitis, but too often the

ragged remnants cicatrize, drawing the pillars of the fauces into the scar, and sometimes the foci of infection remain even more confined than before the operation. Again in many cases which have had repeated attacks of quinsy, fibrous pockets are present outside the capsule and the patient may be as subject to attacks of quinsy after the operation as before.

I have employed cocaine for local anæsthesia in the majority of cases, in all cases where the patient, or his parent, was willing. It is a mistake to infiltrate extensively with cocaine the tissues surrounding the tonsil, and a greater mistake to employ adrenalin with cocaine. The former is apt at times to incite unpleasant post-operative inflammations by carrying infections from the mouth or tonsils deeply into the tissues. The use of adrenalin, while it may afford a bloodless operation, greatly increases the possibilities of delayed hemorrhage. I prefer the hemorrhage at the time of the operation.

I introduce the needle into the tonsil itself, carrying it just deep enough so that the fluid does not flow out of the crypts. The point of the needle will then rest in the fibrous capsule. The patient experiences some gagging sensations during the operation, but does not complain much of the pain.

The tonsil is grasped firmly with the vulsellum forceps, grasping deeply enough to include the capsule if the tonsil is friable. The organ is then drawn well into the lumen of the throat and the head of the tonsil dissected away from its bed with an ordinary bistoury, taking care not to leave a part of the head hidden behind the velum of the soft palate. Having made this opening through the mucous membrane connection of the tonsil to the velum of the soft palate down to the fibrous capsule of the tonsil which lies upon the superior constrictor of the pharynx, the finger is

introduced into the opening and, while traction is made upon the tonsil, the finger peels the capsule off from the muscle, to which it is attached by loose connective tissue. Sometimes a few muscle fibres may penetrate the capsule and will be removed with it. The finger dissection is continued downward, then forward and backward toward the pillars. It is sometimes impossible to separate with the finger a tonsil from the pillars, especially the anterior pillar to which it is generally attached by a fold of mucous membrane, the plicæ. This must be divided by a knife or scissors, taking care not to injure the pillar from which troublesome hemorrhage might occur. In the finger dissection sometimes fibrous bands may be encountered, the result of previous attacks of quinsy. These may first be grasped by the artery forceps to avoid hemorrhage, and then divided with the scissors or knife. In this way the tonsil is separated together with its capsule in all its parts except at the extreme base near the root of the tongue. The organ is then drawn forward and removed at its base with the snare or tonsillotome. Sometimes a remarkably large cavity remains between the pillars even after the removal of an apparently small tonsil embedded between the pillars. Some considerable soreness of this area will persist for several days which, however, is much less if the cavity is frequently cleansed with antiseptic solutions, such as Dobel's, or swabbed with 20% argyrol. Contractions and scar tissue involving the pillars are much less likely to result from this clean cavity than when ragged remnants of tonsil are left in the cavity, as in the partial operation.

I present for your inspection a number of tonsils all of which I have removed under local anæsthesia by the method herein outlined. Some of these were large protruding tonsils, others were of the

submerged type which could not possibly have been removed with the tonsillotome, while others were remnants of tonsils which had previously been removed in part. You will observe that the capsules are quite intact in most of them, while a few muscular fibres are present in some. It is impossible to always avoid some of these muscle fibres which may penetrate the capsule.

The advantages of tonsillectomy over tonsillotomy are as follows:

1. There is less hemorrhage. For if the capsule is left behind, the tonsillar artery as it pierces the fibrous capsule is much less likely to collapse than when it is severed behind the capsule. Moreover, the finger dissection, which is possible when the capsule is removed, tends much less to produce hemorrhage than sharper instruments. I have thus far not encountered troublesome hemorrhage, although extensive injury to the muscle wall, or the pillars, may induce very troublesome hemorrhage. This is best controlled by a gauze tampon held in place by the finger or tonsil clamp, or by grasping the bleeding artery with the hemostat. In severe cases it may be

necessary to suture the pillars together over a gauze tampon.

2. Tonsillectomy does away with the repeated attacks of quinsy or tonsilitis and insures against the necessity of a further operation.

3. After the complete operation there is less danger of fibrous bands of scar tissue forming in the field of operation, and possibly binding down and confining the action of the pillars of the fauces, if not actually closing up and interfering with the proper drainage of infectious foci, which the operation was intended to relieve.

I would not be understood as advocating the complete operation in all cases. In many cases of protruding tonsils which are not attached to the pillars, or but slightly so, especially in children where the tonsils are more often removed to relieve the obstruction to respiration rather than to do away with the diseased crypts, a simple operation with the tonsillotome, after first having divided any connections between the tonsil and the pillars, may be sufficient, and on account of its greater simplicity may be chosen.

NECESSITY OF A SCIENTIFIC MEDICAL NOMENCLATURE

A. Rose of New York feels that the physician who does not understand Greek and Latin will not understand half of the terms used in medicine. It is not a good thing for the tyro in medicine to coin new names for new operations and diseases. The words will be hybrid and incorrect. The best manner of getting such terms is for them to come from the Greek philologist and be correct. During the last year a committee has been formed to prepare a historical lexicon of the Greek language from the times of Homer to the present

day. This will be done by the greatest Greek philologists, with great care, and at great expenditure of time and money. A knowledge of modern spoken Greek is of value in order to apply technical terms correctly. Medical scholarship will be immensely benefitted by this great work. The author suggests that the Academy of Medicine appoint a committee to communicate and cooperate with the Greek committee and to aid them in their work. —*Medical Record*, April 30, 1910.

TWO CASES OF ACCIDENTAL SECONDARY INFECTION OF THE FREE PERITONEAL CAVITY*

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These cases are taken from the writer's records of his last service at St. Mary's Hospital, Detroit. They are thought worthy of report from the standpoints especially of etiology, prophylaxis and treatment; for this reason only a brief outline of the previous history, symptoms, etc., are given.

Case I. A. A.—Private case, seen first in consultation with Dr. Wm. E. Keane. Age 19. Married 11 months. Soon after marriage contracted gonorrhea from husband. She was admitted to hospital suffering from a very acute attack of right salpingitis; had been acutely ill 48 hours but had been ailing some weeks. Temperature on admission 102°, pulse 118. Extreme tenderness over whole lower abdomen, slightly more marked on right. Severe pain in right iliac region. Bimanual examination was impossible without anæsthetic; profuse vaginal discharge. Her general condition however was good. The patient was put to bed and given saline cathartics, ice bag to abdomen, hot vaginal douches and very limited fluid nourishment. Under this regimen she showed immediate improvement. The afternoon of the day after admission temperature was 99.4°, pulse 88. The next morning temperature and pulse were both normal and the patient was entirely free from pain. The general abdominal tenderness and rigidity had disappeared. There was still tenderness

and a feeling of soreness over the right ovarian region. On the morning of the third day she felt so well that she begged to get up and it was evident that all the acute symptoms had subsided. That evening the patient's husband came to visit her and brought with him a heavy bundle containing books and clothing. This he let fall upon her abdomen. She at once complained of severe cutting pain, began to shake and perspire and seemed to be suffering from shock. Temperature rose to 102.4° pulse to 112. She reacted well, but during the night the abdominal pain was great. I did not see the patient until early next morning; then I found a greatly distended abdomen, rigid and tender, a dry tongue and septic facies. Temperature 101°, a rising pulse 124, small and hard. She had been vomiting dark greenish fluid.

Laparotomy was done as soon as possible. The whole lower portion of the peritoneal cavity was filled with sero-purulent fluid; some fresh adhesions of the omentum and intestines showed an attempted walling-off of the fluid and in fact the upper portions of the peritoneal cavity were apparently free from exudate. After protecting the uncontaminated areas with pads wrung out in saline, a portion of the exudate in proximity to the wound was mopped up with moistened sponges. No irrigation or flushing was used. The adnexa and appendix were examined. The source of infection was found to be the right tube;

*Read before the Tuscola County Medical Society, December 13, 1909.

it was acutely inflamed and partially adherent to the bowel, with thickened walls and enlarged lumen. The ostium was open and pus could still be expressed from it. It was apparent that it had been distended with septic fluid and that the heavy weight suddenly placed upon the abdomen had forced the sealed fimbriated extremity (as there was no perforation of the tube) and scattered the contents around the free peritoneal cavity. The tube was removed. A small double tube of soft rubber containing a gauze wick was placed in the lower angle of the wound reaching to the pelvis. A second drainage tube was placed into the cul-de-sac through the vagina.

Vigorous after-treatment was instituted and the improvement was rapid. On the fourth day temperature and pulse had reached normal. The abdominal drain was soon removed and good union obtained. Three weeks later a sub-acute inflammation of the left tube developed which under local treatment subsided into a chronic condition. Further treatment, however, was refused and patient was discharged.

The next case records a similar condition resulting from a different accident.

Case II. E. H.—City patient. Age 22. Single. Admitted to hospital with large pelvic abscess. Curettage and posterior colpotomy. About 14 oz. of pus evacuated. Cavity drained with a T tube of soft rubber. There was a profuse discharge for several days and it was not until the sixth day that the tube was withdrawn and a small strip of gauze inserted to prevent too early closing of the sinus. Three days later this came away and, as the patient's condition was satisfactory, it was not replaced. Two days afterwards she complained of feeling badly. Loss of appetite and general malaise. She had about one degree of fever. Suspecting that there had been a re-accumulation of pus due to closing up the sinus, the patient was placed on an examining

table and the sinus easily re-opened. A small amount of very thick foul-smelling pus showed. In order to thoroughly cleanse cavity preparatory to renewing drainage, it was washed out with $\frac{1}{2}\%$ Lysol solution. The opening was so small that the only douche-tip at hand that could be used was a small curved one of silver. This was used with all reasonable precautions: the stream was tested as to temperature and force; the tip was inserted very gently and without meeting any obstruction for about $\frac{3}{4}$ of an inch and there was an immediate return flow. In about a minute the patient shook violently and complained of "feeling very nervous." She turned very pale and began to perspire. Treatment was at once discontinued and she was taken back to bed and placed in the Fowler position. Here she exhibited symptoms of extreme shock: profuse perspiration, cold extremities, pinched features, repeated chills and irregular pulse of about 122. Stimulants by mouth and hypodermic were given and external heat applied. An hour later she had reacted well but complained bitterly of knife-like pain throughout the whole abdomen. Nausea, but no vomiting. Examination revealed board-like rigidity of the abdomen with moderate tenderness to pressure. Temperature 100.2° , pulse 112. Four hours later, no improvement having taken place, and the whole picture so surely one of beginning diffuse peritonitis, expectant treatment was abandoned and laparotomy performed.

The peritoneal cavity was found filled with fluid which seemed diffusely spread in all directions; there were no fresh adhesions and the omentum could not be brought into view. Some of the exudate was mopped up; the characteristic odor of lysol could not be detected. Further examination showed the pelvis choked with inflammatory masses on either side of a uterus "frozen" in between.

The patient's condition not being such as to warrant a prolonged operation, the treatment of the latter condition was left to subsequent operation.

Because of the wide distribution of the fluid multiple drainage was used in the form of four strips of hygroscopic gauze extending in as many directions, together with a soft rubber tube containing a wick of gauze and reaching into the pelvis; all drains had exit at the lower angle of the wound, care being taken not to place them between loops of intestine in order to minimize chances of post-operative ileus. In addition a T tube of soft rubber was inserted through the vaginal opening into the cul-de-sac.

Patient made good recovery; on her fourth day also temperature and pulse reached normal and all peritoneal symptoms had subsided. With careful building up her condition steadily improved and three weeks later double salpingo-oophorectomy was done, the adnexa on both sides being so diseased that it was impossible to save any part of them. Uneventful convalescence.

A fairly extensive examination of the literature of the last decade confirms my belief that the accident recorded in Case I is a very rare one. Leakage of pus from an imperfectly sealed ostium is of course not uncommon, but it is usually a slow process which gives rise to a peritonitis limited by adhesions to the immediate vicinity of the tube. Also there are cases¹ reported where such leakage has resulted instead in a diffuse peritonitis, presumably by reason of either an especially virulent organism or a lowered peritoneal resistance or the combination of the two. Either of these two occurrences must be distinguished from that obtaining in this case: namely, the sudden forcible evacuation of the contents of the tube as a result of external

trauma. Cases most nearly approximating the one reported are those of diffuse peritonitis resulting from pressure on a pus tube and the expression of its contents either during labor² or in manipulation during examination or operation.³ Rupture of a pus tube (perforation of the wall) is a parallel accident although I believe not quite as rare. Bonney⁴ in a recent article reports such a case of his own and also forty-four others.

Rupture of an appendicular abscess through external violence is of course not uncommon; how many such are ruptured either during the surgeon's examination or during preparation of the abdomen for operation one can not say, but I think such cases are more numerous than is generally believed. In suppurative lesions of the adnexa the same sort of traumatism may of course give rise to the same result, though the occurrence is far less common both because generally the adhesions are firmer and the pus either sterile or less virulent. This brings us to a matter perhaps somewhat irrelevant to the subject under discussion, but one I believe of such importance as to excuse the digression.

There can be no doubt that in any suppurative condition in the abdominal cavity such traumatism is a real and ever-present danger and one that is too generally overlooked. When you consider to what the patient and the patient's walled-off abscess has to submit before the incision is made; is it not a miracle that diffuse peritonitis is not more common than it is? First of all the family physician makes an examination, percussing and palpating, using "deep pressure" or perhaps in bimanual examination attempting to squeeze the offending organ between his hands! Should the abscess or pus tube still resist it must undergo a second and not less strenuous ordeal at the hands of the surgeon, who in turn is followed, when the patient arrives

at the hospital by the house surgeon. Next the nurse, zealous for skin asepsis, scrubs and rubs and then rubs and scrubs again. Finally the assistant has a chance and vigorously scrubs the abdomen under the watchful eye of the surgeon. How can it profit to scatter pyogenic bacteria throughout uncontaminated portions of the peritoneal cavity for diagnostic purposes or in the vain attempt to render the skin aseptic? Both the student and the nurse should be taught that an efficient examination can be made and the skin can be rendered reasonably aseptic without danger to the patient, and that roughness is as unnecessary as it is inefficient.

Comment on Case II brings up the question of the use of irrigation in the post-operative treatment of pelvic abscess. Irrigation of the cavity during the operation of posterior colpotomy is a procedure that few operators would not condemn on account of the danger of washing into the free peritoneal cavity. Washing out of the sinus several days after the operation for conditions as they existed in Case II, is, on the other hand, a very usual step in the treatment. Kelly,⁵ Mallett,⁶ Garrigues⁷ and others give it sanction. The writer has done it many times with no untoward effects. Yet the experience reported above shows that it can be a danger and it is always, I believe, an unnecessary risk. Simple reopening of the sinus with renewal of drainage or at the most careful wiping out of the cavity will serve every purpose and minimize the danger; for even if the free peritoneal cavity is entered, the chance of complication, with good dependent drainage, is slight. Should this accident occur during irrigation the reverse is true: after an abscess is opened through the vagina, the pus, which is often previously sterile, becomes contaminated with bacteria from without; so consequently great quantities of bacteria in suspension in the irrigation

fluids are spread diffusely over the peritoneum. It is true that in the vast majority of cases the adhesions surrounding the abscess cavity are strong enough (using reasonable precautions) to prevent such an accident, but the value of the procedure does not seem great enough to counterbalance the risk.

It is an interesting fact that although a solution of lysol was used and that some of it (I believe the amount was small for, as has been mentioned, the return flow was immediate) entered the free peritoneal cavity where it would naturally be absorbed, the symptoms which followed were not those of lysol poisoning. They were rather those same symptoms of shock that developed in Case I and which are common to perforation cases and in fact to any case in which the peritoneal cavity is suddenly invaded. There have been many cases of lysol poisoning reported,⁸⁻⁹ especially from Germany, where the antiseptic is frequently taken with suicidal intent. Hammer¹⁰ and Birnbaum,¹¹ however, each report a fatal case following irrigation of the postpartum uterus, using a 1% and a ½% solution respectively. The symptoms were those of extreme depression of the cardiac and respiratory centers with slowing pulse and respiration and death from asphyxia. The fact that none of these symptoms were present in any degree and that the exudate did not smell of lysol brings me to the conclusion that the profuse serous exudate found on opening the peritoneum was mainly increased peritoneal fluid due to the peritonitis mixed with only a very small amount of the irrigating fluid which has served as a medium for the dissemination of the bacteria.

Indeed, had any large amount of lysol solution come in contact with the peritoneum, should we not have expected in addition to the poisoning, a chemical peritonitis and, from the action of the antiseptic

tic on the bacteria, a sterile exudate? It is much regretted that the absence of a bacteriological report forbids exact knowledge on this point, but clinically the case gave every evidence of being one of severe bacterial infection.

In regard to treatment it is my opinion that early operation, when possible, is the only one that should be considered in cases such as have been reported here; it forestalls further extension of the infection and relieves the condition before toxæmia has further lowered the patient's vitality and resistance.

It should be the aim of the surgeon primarily to accomplish three things: to remove or close the source of infection; to provide for drainage; to get into and out of the abdomen with as much speed and as little traumatism as possible. I do not use irrigation because it is impossible to wash out the whole cavity and it is possible to spread the infection to an as yet uncontaminated part of the peritoneum, and, perhaps, wash out defending phagocytes. All gauze that comes in contact with the peritoneum is first wrung out in hot saline; this lessens the danger of trauma (by friction to the peritoneum) and the consequent opening up of fresh avenues to the infection. In operating upon future cases of diffuse peritonitis one step, I think, may well be omitted: that of mopping up fluid exudate. Murphy¹² has proved by the wonderful success of his technique that this is unnecessary; any unnecessary step is unwarranted because it both prolongs the operation and traumatizes the peritoneum. Exudates of fibrin on the intestines should be let alone for the same reason; they also prevent absorption of toxins and the egress of bacteria from the intestines.

Experience has taught us that drainage is invariably indicated in these cases; Murphy has taught us the reason. "The

relief of pus tension is the first surgical step toward retarding absorption in all acute infections." Drainage relieves that tension. Where the source of infection has been the female generative organs, it is my custom to carry one drain through the vagina into the cul-de-sac; then if an abdominal drain is also required, it may be removed early with little danger of post-operative hernia. One silkworm gut through and through suture is placed at the site of the drain at the lower angle of the wound and left untied. As soon as the drain is removed, the stitch is tied and usually an immediate firm union results. If union fails we are no worse off than if the attempt had not been made. I prefer a fenestrated rubber tube (not too stiff or ulceration of the gut may occur) in which runs a gauze wick; the abdominal end of the wick cut flush with the end of the tube, the external end left long and in contact with a copious gauze dressing; this favors capillary drainage.

The post-operative treatment I consider of as much importance as the operative and I believe contributed greatly to the recovery of these two cases. Before the patient comes out of the anæsthetic, the stomach is thoroughly washed with normal saline; by thoroughly I mean until the washings return clear. This is a routine measure in *all* cases of ether anæsthesia. Ridding the stomach of the mixture of mucus, saliva, and ether, which has been swallowed, reduces materially the post-operative nausea and vomiting and adds greatly to the comfort and well-being of the patient. In peritonitis cases it is invaluable; it cleanses the stomach of the products of intestinal regurgitation and, as pointed out by Ochsner,¹³ inhibits peristalsis.

From the time the patient leaves her bed until her return to it, especial care is taken that the body be as little exposed

as possible; loss of heat adds greatly to the shock and favors pulmonary complications.

Finally, and perhaps most important of all, Fowler's position and Murphy's proctoclysis are routine measures. The value of which procedures are now so universally recognized as to make further comment upon them superfluous.

In conclusion, it will be seen that the treatment of these cases corresponded in all essential details to that laid down by Murphy and the writer wishes to add them to the record, daily growing longer, of recoveries due to this essentially sane and scientific method.

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SURGICAL SUGGESTIONS

Do not advise amputation for every case of bone sarcoma—the results of resection are about as good and not nearly so mutilating.—*American Journal of Surgery*.

The administration of thyroid extract in a case of delayed union after fracture will do no harm and may do good.—*American Journal of Surgery*.

The exhibition of the x-rays or the Finsen light seems to be the best treatment for post operative keloids.—*American Journal of Surgery*.

Cicatricial stenosis of the uterus has been the result of too vigorous curettage and of the intrauterine application of caustics.—*American Journal of Surgery*.

To avoid troublesome hemorrhage in operations for tuberculous glands of the neck first expose the internal jugular vein.—*American Journal of Surgery*.

ELECTRIC ANÆSTHESIA

Marcus M. Johnson of Hartford, Conn., gives a summary of the production of anæsthesia by means of electricity as it was shown by Dr. Louise Rabinovitch in a case operated on for amputation of four toes. The patient felt absolutely no pain even when healthy tissue was cut into. The anæsthesia was obtained by the use of storage batteries sending a current through electrodes placed over the nerves supplying the tissues to be anæsthetized. The negative electrode was applied over the sacrum, and three positive ones over the anterior crural, anterior tibial, and posterior tibial nerves. The capacity of the storage batteries was 100 amperes, and the current was interrupted 6,000 to 7,000 times per minute. Anæsthesia began as soon as the electrodes were applied, and there were no bad effects, the patient sitting up in bed two hours after the operation.—*Medical Record*, April 23, 1910.

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JUNE

EDITORIAL

ENFORCING MEDICAL PRACTICE LAW

In the JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY for May, 1906, is an article by Dr. H. A. Powers, detailing the history of the enforcement of the Medical Practice Law. At that time charge was made against Allan Raymond of the Raymond Spinal Treatment Co. for practicing medicine without a license. The full text of Judge Walter H. North's charge to the jury is published.

In this charge Judge North defined the Practice of Medicine, as contemplated by the Medical Practice Law of the State of Michigan as follows:

"The Practice of Medicine, as that term is used in the statute under which this action is brought, means the exercise or performance of any act by or through the use of any thing or matter as by things given or applied whether with or without the use of drugs or medicine by a person holding himself or herself out as able to cure diseases, or the causes of disease, with a view to relieve, heal, cure, or having for its object the prevention, healing, curing or alleviation of disease."

So far as we know this was the first legal definition of the practice of Medicine given in Michigan, and this definition has been repeated in the Recorder's Court in Detroit. It has never been interpreted by the Supreme Court, and until the

higher court establishes a different definition, this one must stand, as the accepted law of Michigan.

In the case of the People vs. Allan Raymond it was admitted by both sides that said Raymond had a sign before his place of business reading in large letters, "The Raymond Spinal Treatment Company. Successfully Treat the Causes of All Acute and Chronic Diseases." It was also admitted that Raymond was not a physician, and had not received a certificate of registration from the Board of Registration in Medicine of the State of Michigan.

The question of conviction hinged wholly upon the definition of "Practice of Medicine," but even with the definition above given the jury disagreed, standing eleven for conviction and one for acquittal.

ANOTHER DEFEAT

May 9th, the case of Dr. T. H. Oliver charged with employing a capper, drummer or solicitor came up for trial, also before Judge Walter H. North in the Circuit Court of Calhoun County.

In this trial it was shown by the defense that the "capper employed the doctor." The whole case hinged again upon the interpretation of the law,—upon what is contemplated by the word "employ" as used in the statute.

The defense admitted, in fact their witnesses swore, that the doctor was connected with the capper, Vurpillat, but that he was an employee, acting upon a salary.

Again in his charge to the jury, Judge North defined and expounded the meaning of a hitherto untested medical practice law.

The law reads:

"Any physician or surgeon engaged in the practice of medicine in this state, who shall employ any solicitor, capper, or drummer for the purpose of procuring patients, etc."

The charge to the jury was as follows:

"You should not give to the word 'employ' the narrow meaning of one person employing another in his service for hire, the one being the employer, and the other the employee; for if the offense is otherwise established, it would not be a defense that Dr. Oliver was employed by Mr. Vurpillat, instead of Mr. Vurpillat being employed by Dr. Oliver. The particular business arrangements between these two men cannot render the law ineffective provided that in the practice of medicine, the defendant knowingly uses or reaps the results of the soliciting or drumming of another in securing patients; *it would not matter whether the benefits thus derived by the Defendant came to him by the way of weekly salary paid him for such practice of medicine, or by way of such fees as are regularly paid to a physician.*"

This is as clear cut a charge and definition as one could well ask, and according to this charge, the defense proved their own criminality by their own witnesses, yet the jury rendered a verdict of *not guilty*.

WHY?

Here are two cases which have been tried by the Circuit Court of Calhoun County, involving the Medical Practice Law. In both cases the question has hinged upon the interpretation of the law by the Circuit Judge. In both cases he has given a clear cut definition of the law. The jury in the first case disagreed—a virtual acquittal, for we have never been able to get the case retried; and in the second case the verdict was unequivocally—not guilty.

Is the trouble the fact that the average American jury cannot understand the law as it stands upon our statute books, and as it is expounded by the presiding judge? In other words, is the language of law, and

of professional men, unintelligible to the average layman who sits on juries?

Or, is the trouble ambiguity of the law? Judge North has suggested a modification of the law involved in the present case by inserting the words, "incident to which practice there shall be employed or used" for the words "who shall employ." This change would so modify the law in question that it would more palpably mean what Judge North interpreted it to mean in his charge,—but, would that remedy the matter? The Judge told the jury they must take the law as he gave it to them, whether they endorsed it or not,—and they acquitted the defendant.

Or, is the real trouble the fact that the people do not wish the protection the medical profession are straining every effort to give them? We have trouble enough to get our proposed legislation enacted—because the people seem not to want it;—and then we have more trouble getting it enforced, because the jury (the people) will not render their verdict in accordance with the law as given them by the presiding judge.

POLITICS

Whatever we do, let us make sure that all the candidates at the coming primaries are pledged to enact no vicious medical laws, but to be governed by the organized medical profession in all such questions which may come up before the legislature.

Remember that the Profession of Kentucky woke up to this question and this year have been represented in their Kentucky Legislature by twelve physicians. These physicians, with the aid of other members who are not hostile to the interest of the medical profession, have succeeded in carrying through the whole legislative program of the Kentucky State Medical Association.

Michigan will select a new legislature this fall, and the men composing it will be getting their petitions signed soon. Remember, again, that the Michigan State Medical Society, and the Medical Profession in general, may have a legislative program. It can be carried out *in toto* if we exercise the proper precautions during the next few months, and see that the candidates are correctly instructed, or furnish the candidates ourselves.

MEDICAL DEFENSE IN OHIO

The House of Delegates of the Ohio State Medical Association, in session May 11, 12, and 13, at Toledo, unanimously adopted an efficient plan of medical defense, to go into effect Jan. 1, 1911, if accepted by two thirds of the County Societies. In the main, the details of the Ohio plan are similar to those of the Michigan plan, except that Ohio's per capita tax is \$1 per year while Michigan's is \$1.50 for the first year and \$1 each subsequent year, and Ohio does not have the retroactive feature.

As in Michigan, the state wide organization is a development of the work of one society, Lucas Co. (Toledo), where a successful plan has been in operation for several years.

COUNTY SECRETARIES, ATTENTION!

The chairman of the Medico-Legal Committee requests that the County Secretaries in every instance, when sending in defense dues after June 1st, should send in the date when each member paid his dues, because the By-Laws require that no case shall be defended the cause of action of which occurred while the defendant was in arrears, if he was in arrears after June 1st. This provision was inserted for obvious reasons—the date was placed late enough in the

year, and this By-Law will be strictly followed by the Committee, that justice may be rendered to those who are prompt in payment.

County Secretaries are cautioned that in all reports after June 1st the date of payment to the County Secretary must accompany the name and remittance, else the name will be entered as in arrears to the date when the remittance was received in the office of the State Secretary.

ANNUAL MEETING AMERICAN MEDICAL ASSOCIATION

The American Medical Association will meet in St. Louis, Mo., June 7-10, as was announced in these columns two months ago. St. Louis is centrally located, easy of access from Michigan, and not so far away but we should have a good attendance. Headquarters will be at the Southern Hotel and the meeting places for House of Delegates and Sections along Grand Avenue as follows:

Registration, Scientific and Commercial Exhibits, Post Office, Coliseum.

President's Reception, First Regiment Armory.

General Session, Odeon Theatre.

House of Delegates, St. Louis Medical Society.

Ophthalmology, Aschenbroedel Hall.

Practice of Medicine, Third Baptist Church.

Obstetrics and Diseases of Women, Y. M. C. A. Building.

Pathology, Y. M. C. A. (Lecture Hall).

Laryngology and Otology, Sodality Hall.

Diseases of Children, Grand Avenue Presbyterian Church.

Pharmacology and Therapeutics, Delmar Avenue Congregational Church.

Nervous and Mental Diseases, St. Louis University Library.

Surgery, Odeon Theatre.

Dermatology, Odeon Theatre (Recital Hall).

Preventive Medicine, Knights of Columbus Building.

Stomatology, Y. M. C. A. Building (Small Hall).

The Central Passenger Association has made the uniform rate of one and one-half fare for the round trip to this meeting, on the certificate plan. This will apply to all points in Southern Michigan. The Michigan Central and Illinois Central Railroads will run a special train of sleepers from Detroit and intermediate points to St. Louis, leaving Detroit at 1:40 P. M., June 6, and arriving at St. Louis at 7:24 A. M., the 7th, in ample time for registration and the first session of the meeting, with no change at Chicago. Passengers in Southern Michigan can take this train at Junction Points. Reservations should be made through Mr. R. N. R. Wheeler, T. A., Battle Creek, Mich., or Mr. J. S. Hall, A. G. T. A., Detroit, Mich. If there are a sufficient number going from Grand Rapids or vicinity to pay, a special sleeping car will run from there and attach to the official train at Kalamazoo.

For the Northern Peninsula the following lines have made a rate of one and one-half fare.

C. M. & St. P. all points.

C. & N. W. all points.

Copper Range R. R. all points.

Soo Line from points in competition with other lines that have authorized reduced rates.

Tickets will be on sale June 4th to 8th inclusive and good returning up to June 20, or upon deposit of ticket and \$1.00 an extension until July 20 may be secured.

As many as possible from Michigan should attend this meeting.

BAY CITY MEETING

Arrangements are being made for the Bay City meeting of the Michigan State Medical Society and definite announcement will be made in an early number of the JOURNAL. The Headquarters will be Wenonah Hotel, capacity 155; rates, American plan \$2.50 to \$4.00, European \$1.00 to \$2.50. Other hotels are: Republic 55 rooms, \$2.00 to \$2.50; Imperial, 32 rooms, European, single room 75c to \$1.50, double \$1.25 to \$2.50—a 50c dinner; Rouech House, European, 50c to 75c.

* The committee is making plans to entertain 500, therefore you need not stay away for fear of accommodations.

NATIONAL LEGISLATION

Senator Smith and Congressmen Townsend, Dodds and McLaughlin of Michigan have expressed themselves in favor of the Owen bill on Public Health. Let us urge the others to do likewise.

IN MEMORIAM

Dr. O. P. Barker of Saginaw died April 26, from Bright's disease. He was a graduate of Bellevue Hospital Medical College, 1870, was division surgeon of the Michigan Central and Surgeon in Chief of the Pere Marquette. During the Spanish War he was Surgeon-major of the 35th Michigan Volunteers, and Division Surgeon of the Third Army Corps. Formerly he was a member of the Saginaw County Medical Society and the Michigan State Medical Society.

Dr. Harry R. Morris of Sebawaing died April, 1910, of pernicious anæmia, aged thirty-seven. He graduated from the Saginaw Valley Medical College of Saginaw in 1897, and was formerly a member of the Huron County and Michigan State Medical Societies.

ENFORCING MEDICAL PRACTICE LAW
 STATE OF MICHIGAN
 THE CIRCUIT COURT FOR CALHOUN
 COUNTY

THE PEOPLE

vs.

DR. T. H. OLIVER

Present, Honorable Walter H. North, Circuit
 Judge and a Jury.

APPEARANCES:

For the People appeared Howard W. Cavanaugh, *Pros. Att'y.*

For the Defendant appeared Joseph L. Hooper.

The above entitled cause having come on to be heard in open court at the Court House in the City of Marshall, Calhoun County, Michigan, in the Circuit Court for said County, and a jury having been duly empanelled, the following proceedings were had:

OPENING STATEMENT BY Mr Cavanaugh.

If the Court pleases and the Gentlemen of the Jury:

The people in this case claim that Dr. T. H. Oliver, the respondent in this case, is a practicing physician and surgeon duly registered in the State of Michigan and the County of Calhoun to practice medicine, has been for the purpose of obtaining business as such physician and surgeon employing another person, a man named Vurpillat for the purpose of obtaining patients and the people expect to prove that in this way:

That between the 25th of March and the 11th of April in the city of Battle Creek that Dr. Oliver, who came there from outside the city rented an office in what is known as the Niles Bryant School of Piano Tuning Building on the corner of North Division and Marshall Streets; that he through his agent, as we claim, a person employed by him for that purposes a Mr. Vurpillat, inserted advertisements in all the Battle Creek newspapers announcing the fact that they had a new discovery; that they erected there on the corner of North Division and Marshall streets a stand covered or partially covered by canvas, and held nightly meetings there with music and bands, etc; that on the start they had carriages and horses and on the blankets they had in big letters the word "Vurpillat" and I think some other words—I am not certain what they were; that this was done for the purpose of advertising Dr. Oliver as a physician and surgeon. That each paper in Battle

Creek had a double column advertisement announcing the new discovery by Mr. Vurpillat and the ad. was changed each day in some respects until finally it wound up by stating that the office was in charge of Dr. Oliver and that the consultation hours were between such and such times; I think the consultation was free—etc. In other words, referring every person who read the ad. to Dr. Oliver as consulting physician. We also expect to show that each night at these nightly meetings that Mr. Vurpillat would announce certain things there and what had been done and what could be done, and finally would wind up his harangue by stating that Dr. Oliver was in charge of the office, the same as the ad, and that any person desiring consultations, etc., could go there; whether it was free or not I do not know. But that in brief is the claim of the People here, that Dr. Oliver a regular practicing physician and surgeon in the State of Michigan, employed here means of getting patients to his office, in violation of the statute which prohibits that sort of thing.

Mr. Hooper: I think I will make our statement of the defense in this case now so that you may better understand the case as it goes along.

The Prosecution have charged this man with having Mr. Vurpillat in his employ as a solicitor, capper or drummer in getting business: We will show that Mr. Vurpillat has been in this business for a long time. That something like three weeks ago he employed Dr. Oliver, who had previously been a practicing physician, to come with him and go with him to places where he went and act as a consulting physician for the people. We expect to show that Vurpillat is not in Dr. Oliver's employ, but that Dr. Oliver is in Mr. Vurpillat's employ and he has been for three or four weeks past, and we expect to argue to you that this is no violation of the law and that the situation is reversed from what the prosecution have stated to you. That Dr. Oliver is a regular physician both in the old school and the homeopathic school; that he has been practicing for twenty-one years in this state and elsewhere as a lawful practitioner; that he has a lawful license to practice in this state and county, and that he is an employee, at a salary, of Mr. Vurpillat; and that Mr. Vurpillat is not a doctor and refers to him people who wish medical advise. Mr. Vurpillat sells proprietary medicines, and if the people wish special treatment, Mr. Vurpillat not being a doctor, and not having the right to prescribe

for them, refers them to this doctor whom he keeps in his employ as a paid employee. That, Gentlemen, is our defense in this case.

Mr. Cavanaugh: Will you admit on the record that Dr. Oliver is a regular practicing physician?

Mr. Hooper: We will admit that Dr. Oliver is a regular practicing physician and surgeon of 21 years standing in the Homeopathic school of medicine and in the Old School of Medicine.

Mr. Cavanaugh: And registered in Calhoun County?

Mr. Hooper: And registered in Calhoun County.

Briefly: The testimony for the prosecution is as follows:

A medicine show was being conducted on the corner of N. Division and Marshall streets, Battle Creek; that one Vurpillat harangues the people from the bench and extolls the wonders of his "New Discovery;" that he announces that "the office" is in charge of Dr. Oliver, whose hours are given, and where consultation is free.

Newspaper advertisement was also introduced in evidence showing that Vurpillat advertises in the papers, and that the ad. closes by stating that the office is in charge of Dr. Oliver, is open daily, and those desiring may consult him there between certain hours.

It was testified that once Dr. Oliver's picture was published in the paper in connection with the Vurpillat advertising.

None of the witnesses heard the lecturer, Vurpillat, make any reference in his public talk to his employing, or being employed by, Dr. Oliver.

For the defense, Mr. Wm. Vurpillat testified that he had been conducting this business for nine years; that he had known Dr. Oliver for three weeks; that he employed the Doctor and paid him \$50.00 a week; that he secured the Doctor through an advertisement in the *Detroit Free Press*.

Dr. Thomas H. Oliver, testified that he had practiced in Detroit eight years, where he was on the staff of Grace Hospital five years; that he practiced six years in Plymouth; that he was for a time an army surgeon on the Island of Luzon, P. I., and that for three years he has practiced in Saginaw, which practice he gave up to enter Mr. Vurpillat's employ; and that he receives \$50.00 a week and no other consideration from Mr. Vurpillat. He testified that he knew Mr. Vurpillat's "lectures" and advertising brought him patients; that he did not know there was a law making the employment of

cappers and solicitors, by physicians, a crime; and that he did not know the meaning of the word capper. He further testified that he treats his patients the same as any physician would, not being bound to prescribe Vurpillat's remedies.

At the close of the people's case the Attorney for the Defense moved that the Court direct a verdict of not guilty on the ground that no evidence had been presented to show that Dr. Oliver employed a capper, drummer, or solicitor as contemplated by this law. Motion denied by the Court.

The motion was repeated at the close of the testimony and again denied.

CHARGE

The Defendant in this case, Gentlemen of the Jury, is charged under the information with employing a solicitor, capper or drummer for the purpose of procuring patients in violation of Act No. 157 of the Public Acts of the State of Michigan of 1907, which so far as it is applicable to this case is as follows: "Any physician or surgeon engaged in the practice of medicine in this state who shall employ any solicitor, capper, or drummer for the purpose of procuring patients shall be punished" as provided in the statute.

This is as you are already aware a criminal case, and the rules governing criminal cases prevail here. In order that the prosecution shall be entitled to a conviction in this case they must prove beyond reasonable doubt that the Respondent is guilty of the offense with which he is charged; unless you are so convinced by the proof offered it is your duty to render a verdict of not guilty in this case. The Defendant is presumed to be innocent of the charge made against him and this presumption should follow him through the entire course of the case and during your deliberations in the jury room until you are satisfied beyond a reasonable doubt of his guilt. Until such presumption of innocence is removed and until you are satisfied of his guilt beyond reasonable doubt he is entitled to the benefit of the presumption of innocence.

In this case, I may say to you that the issue involved here, is somewhat narrowed by the fact that there is no controversy, or dispute, on the part of the Defendant that the Doctor is a regularly licensed physician engaged in the practice of medicine in the County of Calhoun or was at that time when this suit was brought against him: so really the only issue to be deter-

mined here is whether or not, within the terms of the statute, a capper, drummer or solicitor is employed incident to such practice and in such a way as to constitute a violation of the statute.

Now to pass intelligently upon this case you ought to consider, and must consider, the sense in which this word "employ" is used in this statute. You will recall that the wording of the statute is that any physician or surgeon engaged in the practice of medicine in this state who shall employ a solicitor, capper or drummer, and so forth, shall be guilty of the offense herein defined. This word "employ" comes from the Latin word "*implicare*" which has among other meanings the following: to implicate or to use. It is evident that the Legislature which enacted this law, intended to prevent the use of a solicitor, capper or drummer incident to the practice of medicine by a regularly licensed physician, and therefore you must give to the word used in the statute such meaning as will carry out the purpose of the legislature and will prohibit the practice of medicine, or the solicitation of patients by a regularly licensed physician, in such a way as to involve, or to implicate, or to use the services of a solicitor, capper, or drummer.

You should not give to the word "employ" the narrow meaning of one person employing another in his service for hire, the one being the employer and the other the employee; for if the offense is otherwise established, it would not be a defense that Dr. Oliver was employed by Mr. Vurpillat instead of Mr. Vurpillat being employed by Dr. Oliver. The particular business arrangements between these two men cannot render the law ineffective, provided that in the practice of medicine that Defendant knowingly uses or reaps the results of the soliciting or drumming of another in securing patients; it would not matter whether the benefits thus derived by the Defendant came to him by way of weekly salary paid him for such practice of medicine or by way of such fees as are regularly paid to a physician.

In considering the case you should bear in mind that it is claimed by the Defendant that the drumming, capping and soliciting done was incident to the sale of proprietary remedies by Mr. Vurpillat and not for the purpose of procuring patients or business for the Defendant, who sees and consults with his patients at a place separate and apart from the place where such proprietary medicines are sold by Mr. Vurpillat. If you find that this is true, or if

from the evidence you have a reasonable doubt as to its being true, and therefore a reasonable doubt as to the guilt of the accused, you should render a verdict of not guilty. In considering this phase of the case you should bear in mind that Mr. Vurpillat, who claims to be engaged in the sale of proprietary or patent medicines, has a perfect right to use such people as by the statute have been termed solicitors, cappers, or drummers, in the sale of his proprietary medicines that is not a violation of the law, and if you find that this soliciting, which is admitted to have been done, and the drumming, capping and so forth, was solely incident to the sale of the proprietary remedies and not used in connection with the prescribing done by the Defendant, or the business which he carries on, or for the purpose of securing patients, you should render a verdict of not guilty. If the defense raised in your mind a reasonable doubt as to that, he is entitled to the benefit of the doubt. If, however, you find beyond reasonable doubt that the Defendant, Dr. Oliver, is carrying on a practice of medicine and incident thereto and for the purpose of promoting such business is using a solicitor, capper or drummer, you should render a verdict of guilty regardless of whether the doctor is an employee of the solicitor or whether the solicitor is in the employ of the doctor.

As I have told you in so many other cases you, as jurors, are the sole judges of the facts involved here, and those facts are to be determined from the evidence given upon the witness stand, and in passing upon the issues of facts you have to determine the measure of credibility you will give to each part of the testimony. Along that line I say to you that the fact has been shown to you that the witness Vurpillat is a vendor of proprietary and patent medicines, that fact should not of itself, standing alone, affect his credibility, and such a business is not of itself illegal. You should accordingly weigh the evidence of this witness, Mr. Vurpillat, in the same way and in the light of the same rules that you would that of any other witness, considering of course any interest that he may have in the outcome of the case.

The Defendant, Dr. Oliver, has taken the witness stand as a witness in his own behalf and his testimony should be considered by you and weighed by you in the light of the same rules that you would weigh that of any other witness, considering of course his interest in the outcome of this case. You have a right and it is your duty to weigh the testimony given by

each witness upon the stand and to consider any possible interest that such witnesses may have in the outcome of the case as affecting his credibility. The question as to whether the employment and contractual relation of Dr. Oliver with the witness, Mr. Vurpillat, is ethical or professional is not for you to decide in this case and should not have any weight in your deliberations. Unless you are satisfied of his guilt of the offense charged, regardless of his professional conduct in accepting the employment he claims with the witness, Mr. Vurpillat, your verdict should be in favor of Dr. Oliver and one of not guilty.

Something has been said to you during the course of the arguments about the disastrous results which would follow the verdict of guilty as affecting the Defendant in this case: I may say to you that those are matters which, severe as they may seem to you, you should wholly disregard in the course of your deliberations. Each man must take the consequences of his own acts in this world, and violations of the criminal law are invariably followed with severe results, but that is not a reason that the jury should entertain, as affecting your verdict one way or another.

Your verdict must rest solely upon the evidence in the case. Further the fact, that, as appears in the testimony given here the doctor was ignorant of the fact that we had such a

law on our Statute Books is not a matter that should be construed in his favor in determining his guilt or innocence in the light of the other evidence in the case. That may be a proper matter for the Court to take into consideration in determining what punishment should be meted out in the event of his being found guilty, but it should not influence you on arriving at your verdict as to his guilt or innocence in the light of the evidence given you in open court.

The law you will take as announced to you by the Court, whether you approve of it or not, because if I am in error in any position that I take in this matter, counsel for Defendant and his client have an abundant remedy in a higher tribunal, and it is your duty to accept it unhesitatingly as announced from this Bench, and apply it to the issues of fact as you find them established by the evidence.

I ask you to take the case to your jury room, consider it carefully in the light of all the evidence, and the law, and upon returning, if you are able to arrive at a verdict, which I sincerely hope you will be able to do, upon being asked for your verdict your foreman should announce it is as one of guilty, or not guilty, as you find under the law and evidence in the case.

Jury was out one hour and returned with a verdict of not guilty.

COUNTY SOCIETY NEWS

EATON

The Eaton County Medical Society met in the Court House, Charlotte, Thursday afternoon, April 28th. Besides about fifteen of our members there were in attendance Dr. E. B. Smith of Detroit, the Councilor for the Third District and the State Secretary.

Dr. Smith gave an interesting address on fractures, the message being to in all cases use one's common sense in reducing the fracture. In most instances we have the corresponding member of the body to use for comparison. For shoulder, elbow, knee, hip, there are lines or triangles outlined by bony prominences which are a reliable guide in reducing fractures or dislocations. We should not promise too much as far as results are concerned, because we may not be able to live up to our promises, and it is

this class of work that furnishes ground for the majority of malpractice suits. The address was well discussed.

Dr. W. H. Haughey, Councilor for this district addressed the Society on the question of Medical Defense, pointing out the advantages of it, what it will do, the small cost, and strongly urged our members to take up the work.

Dr. Wilfrid Haughey, State Secretary, also spoke about defense, pointing out that almost every county has now actively taken up the work; also that there are practically as many members who have paid defense dues as have paid subscription to the JOURNAL and State dues. He also urged County Societies to avail themselves more often of space in the department of County Society News of the JOURNAL, as one of the chief reasons for the establishment and

maintenance of the JOURNAL is to disseminate to all the members of the State Society the doings of the various branches.

Dr. A. W. Adams of Bellevue, was selected as our member of the Medico-Legal Committee.
A. H. BURLISON, *Secretary*.

GRAND TRAVERSE

The regular meeting of the Grand Traverse County Medical Society was held in Dr. Wilhelm's office May 3. Eleven members were present.

Minutes of last meeting were read and approved. Treasurer's report was read and ordered placed on file.

Dr. M. S. Gregory's transfer card from Tri-County Medical Society was accepted.

Dr. W. D. Mueller who has just returned from post-graduate work in Ann Arbor, gave a talk on perineorrhaphy and the analytic method of treating hysteria. Dr. J. M. Wilhelm gave a talk on the new treatment of cancer by the use of embryonic serum. After a general discussion the meeting was adjourned.

R. E. WELLS, *Secretary*.

KALAMAZOO ACADEMY OF MEDICINE

The Kalamazoo Academy of Medicine met in the Academy rooms at 1:30 P. M., Tuesday, May 10th. About 25 members, Dr. F. G. Novy of Ann Arbor and Dr. Wilfrid Haughey, State Secretary, being present.

The Medical Milk Commission reported that they have done a great amount of work, but have been so far unable to interest the dairymen in producing certified milk. They asked the members of the Academy to help interest the dairymen in this work.

Dr. Clark introduced a resolution favoring the Owen bill on Public Health, and providing that a copy of the resolution be sent to our Senators and the Representative of this district, also to Senator Owen and Representative Mann who has charge of the bill in the House.

Dr. Novy gave an address upon Leishman-Donovan bodies, profusely illustrated with the lantern.

Abstract: About 1875 the British Government noticed that the tax income from the East Indies had materially decreased. A Commission was appointed to investigate. They went to India and the East Indies and found that in certain provinces the natives were dying off by the hundreds from a disease then unknown to the British physicians, locally called Kala-azar or Black Fever. This commission thought

the disease was typhoid and so called it. Later another Commission was appointed who studied the disease and reported that it was "Typhoid-malaria." A third Commission investigated the affair, studied the stools, and finding characteristic hooks, called it Ankylostomiasis because they found the parasite present in seventy-five per cent of the patients. This was accepted until the later nineties when Ronald Ross after an exhaustive study of malaria, and of these patients, pronounced the disease malaria, he having found the plasmodium in seventy-five per cent of the patients. The disease was then considered Malarial Cachexia until about 1903.

The same disease broke out in various places and was given a different name by the natives so that it was known by a number of different names. In some localities it broke out among the soldiers where it was called Dumdum fever. Other names are Piroplasmosis, febrile tropical Splenomogaly.

In 1903 Trypanosomes were first studied. It was found in studying their life history that they belong to the flagellate group and in some stages of their life cycle take on the form of a round or oval body with a large and a small nucleus.

Major Leishman, of London, in 1903 had the good fortune to perform an autopsy on a patient returned from the East Indies who had been suffering from Kala-azar. In the spleen of this man he discovered certain bodies with a large and small nucleus. These bodies seemed to be intracellular. From this fact and from their close resemblance to a certain state of the Trypanosomes, Leishman suggested that they were degenerated Trypanosomes which had been taken up by the phagocyte and were being destroyed. The Indian workers took up the suggestion, developed and studied the Trypanosomes, worked upon the spleens of these patients and established that these bodies discovered by Leishman are the causative germ of the disease, but they showed their distinction from the Trypanosomes.

About this same time Wright of Boston had a case of Oriental Sore or, as it is sometimes called, Damascus boil. He developed bodies practically identical with the Leishman bodies from this case. They were later shown to be identical. About two years ago Dr. Nicol, chief of the Pasteur Institute of Northern Tunis in examining a child supposed to have malaria made a splenic puncture and found no plasmodium but he did find bodies exactly similar

to the bodies discovered by Leishman. After making this discovery he found seventeen other cases in Tunis showing the same germ, and all in children from one to four years of age, who seemed to be suffering from a sort of splenic anemia. Soon the same disease was discovered in Southern Italy and in Sicily and was recognized microscopically.

This class of diseases, where these Leishman bodies are found, has been called Leishmaniasis. There are three distinct diseases, Kala-azar, always found in the adult, always a general infection and always fatal; Oriental Boil, always a disease of the skin, always a local infection, and never fatal, and infantile splenic anemia or Mediterranean Splenomegally, always a disease of children, always a general infection and always fatal. This same class of diseases has been found in Brazil, in Panama, in South Africa and so far as is known the parasite is identical. These Leishman bodies have a large and small nucleus and round or oval body and are always intracellular. In smears they are frequently found apparently free, but this is undoubtedly due to the fact that the cell in which they are parasites has been crushed.

Rogers in 1904 first cultivated the Indian variety of these Leishman bodies artificially, and found that when so growing they take on a flagellate form with a whip, resembling very closely the Trypanosomes. He believed that they were a form of Trypanosomes. Since 1908 Nicol of Northern Africa has cultivated the Leishman bodies from his cases and observed them take on the flagellate form. Wright of Boston cultivated his Leishman bodies. The parasite in Kala-azar has never been developed beyond the flagellate stage. In the Mediterranean affection of children, it is very easy to keep the germ growing, when it produces a bunch of flagellates with whips clumped making a rosette. These flagellates are actively motile. When in the cell of the human body, they are non-motile. The flagellate forms are very frequently seen in the process of reproduction, one dividing into two and thus they multiply in geometric ratio to enormous numbers.

Being able to grow the germ upon blood-agar, Nicol attempted to inoculate them into dogs and monkeys but was unable to get the inoculation to "take." He was able to reproduce the disease when inoculating with splenic suspensions but failed with cultures.

Novy in his laboratory has succeeded in inoculating young dogs with the culture and

secured an amazingly heavy infection in these dogs. He has recovered the round Leishman bodies from the spleen, liver, lymph-glands, bone marrow, etc., but he has never seen the flagellate forms in these dogs. The flagellate bodies are immediately taken up by the phagocytes which cannot kill them, but transform them into the Leishman bodies. The germ thus becomes a parasite of the phagocyte. This was the first instance known where a germ became a parasite of the phagocyte. It was before supposed that the phagocyte was the graveyard of parasites or germs. The dogs in which this disease have been inoculated have shown so far no material signs of the disease. Some of them appearing to be in the best of condition, but upon autopsy the Leishman bodies are recovered in enormous numbers from the spleen and lymph-glands. Workers have until recently been unable to find the whip or its rudiments in the Leishman bodies, but morphologists claimed it must be there for the Leishman body is simply a part of the life cycle of these germs.

Novy has been able recently by special staining methods to demonstrate the root of the whip, starting out from the small micro-nucleus of the bodies recovered from the dog. He has thus completed the life cycle of the organism, working with the germ of the Mediterranean infantile disease. Since demonstrating the root of the whip he has retained his original specimens of the Leishman bodies secured from India, Africa and Boston and has demonstrated the whip in them.

These parasites must be considered as living in nature as a flagellate, actively motile, and the form shown in the Leishman bodies must be considered as a special stage of the life cycle, influenced to a certain extent by its presence in the phagocytes or defensive cells of the body. Where this germ is found in nature is a question. It has been claimed that these bodies are transferred from one individual to another by bed bugs or other blood sucking insects. It probably is not carried by the bed bug, but we believe it is transmitted by some blood sucking organism the same as the germs of yellow fever, malaria, etc., and that in these intermediate hosts it lives as a flagellate in a motile condition.

There are other examples of leucocytozoon or more properly phagocytozoon. These are found in the white blood cells of the dog, cat, rat, jackal, bird, etc. These other types have a sexual differentiation into male and female

parasites; the female staining a deep dark blue, and the male staining a robin's egg blue with the same staining material. This sexual differentiation has never been noted in the Leishman bodies of Kala-azar or the other types found in man where reproduction is by simple division, and where there seems to be no limit to this division.

TREATMENT

In the second affection the disease is localized and the germ is not found elsewhere in the body. The cause for this is a mystery to us, but the condition responds to treatment. In the other two forms of the disease, the infection undoubtedly starts by inoculation from the leech, bed bug, or some of the blood sucking insects, and the infection is general. We have present an infection by an animal organism which does not stay in the blood current, but invades the very cells of the body. In order to destroy this germ we must find a substance which will poison the germ and will not fatally poison the individual. In the case of malaria man stumbled upon an exceedingly fortunate discovery in the way of quinine, which is a poison for the plasmodium in quantities not sufficient to be a poison to the human system. In Leishmaniasis quinine is no good.

Attempts have been made for several years to cure trypanosomiasis and various preparations have been suggested; as oxide of arsenic and various atoxyl preparations, also quite a number of anilin dyes have been prepared by Ehrlich who has been a leader in this work. Trypanosome and Spirochæte infections can be cured by these remedies, but there is danger. The poisonous substance has to be used in quantities sufficient to kill the parasites and these quantities are almost if not quite enough to kill the host. This is a limit to which we dare not go in the human.

Novy has succeeded in killing many of his dogs but has not succeeded as yet in curing them with these preparations.

Dr. Rudolph Light of Kalamazoo gave a paper on "Phenolphthalein, A Synthetic Laxative," in which he entered quite lengthily into the theory of organic laxatives, the production of synthetic ones and especially phenolphthalein and its laxative group, thalein. He mentioned the history of Synthetic Laxative preparations and pointed out the many advantages of Phenolphthalein over the large number which have been proposed. He claims that Phenolphthalein secures its effect not by stimulating the liver or

flow of bile, or by increasing Peristalsis directly, but by stimulating the secretion of the cells of the lower bowel, producing a moist condition of its contents and thus reflexly increasing the peristalsis and securing the stool in from four to six hours with the patient about, and from eight to ten hours with the patient in bed. Small doses seem to act better than large ones and it is an unexplained fact that very often the addition of a little acid as that of pickles or lemons, will bring about the action of Phenolphthalein when otherwise it seems inert.

The State Secretary addressed the Academy for a few moments upon the questions of medical defense, the JOURNAL and legislation pending in the National Congress.

C. E. BOYS, *Secretary.*

MUSKEGON-OCEANA

The regular meeting of the Muskegon-Oceana County Medical Society was held at the home of Dr. I. M. J. Hotvedt at Muskegon, Thursday evening, April 14, 1910, at 9:00 o'clock.

Members present were Drs. J. F. Denslow, W. A. Campbell, W. P. Gamber, Geo. S. Williams, Jacob Oosting, L. I. Powers, L. N. Eames, F. B. Marshall, R. G. Olson, G. J. Hartman, J. T. Cramer, I. M. J. Hotvedt and C. P. Donelson.

The minutes of the last meeting were read and approved as read.

Dr. Hotvedt read a paper upon "Gastric Ulcer." The discussion was opened by Dr. W. A. Campbell, and generally participated in.

The name of Dr. Charles Eckerman was presented for membership and was favorably reported upon by the Board of Directors. It was moved by Dr. Olson, seconded by Dr. Marshall that the Secretary cast the ballot for Dr. Eckerman for membership. This was carried and the Secretary cast the ballot making Dr. Charles Eckerman a member of the Society.

The meeting adjourned at 11:00 o'clock.

J. T. CRAMER,
Sec'y Pro Tem.

The regular meeting of the Muskegon-Oceana County Medical Society was held at the residence of Dr. G. J. Hartman, at Muskegon, Friday evening, April 29, 1910.

Members present were Doctors Geo. S. Williams, F. W. Garber, J. T. Cramer, Jacob Oosting, J. F. Denslow, I. M. J. Hotvedt, W. A. Campbell, A. A. Smith, F. B. Marshall, G. J. Hartman, V. A. Chapman, and Dr. Ayling as visitor.

The minutes of the last meeting were read and approved as read.

In the matter of the paper and toast to be given at the District Meeting at Greenville by two members from this Society, Dr. Marshall volunteered to read a paper upon "Treatment of Gonorrhoeal Epididimitis by Vasectomy." Dr. Gamber volunteered to give a toast, the subject of which is "Peculiarities of Vision." These members were requested to do so.

Doctor Hartman read a paper upon "The Practical Value of Differential Leucocyte Count." The discussion was opened by Dr. Garber, followed by Dr. Hotvedt and Dr. Williams.

V. A. CHAPMAN,
Secretary.

O. M. C. O. R. O.

At a regular meeting of the O. M. C. O. R. O. County Medical Society held April 23 at Lewiston, Dr. Channing W. Barrett was present and read a paper on Heebosteotomy. The attendance was small owing to inclement weather.

ARCHIE C. MACKINNON,
Secretary.

OTTAWA COUNTY

The May meeting of the Ottawa County Medical Society was held May 10th at the Council rooms, Holland, Mich. A resolution was passed endorsing the Owen Bill, now before Congress and instructing the Secretary to communicate this to our representatives in Congress. It was also decided to hold the annual picnic in June—Grand Rapids being the place selected.

Dr. Burton R. Corbus of Grand Rapids read a paper on "Intestinal Toxemias and their Relation to Diseases of the Kidneys."

The paper appears in this issue, page 278. Dr. H. J. Poppen opened the discussion and said in part:

"Liver insufficiency is the most common condition we, who are in general practice, have to contend with. I find this is true more especially in young children. It has become my practice, of late, to examine the urine in all of my cases wherever possible. In the adult I find that in those cases showing symptoms of auto-intoxication, aside from elimination and antiseptics, a change of occupation is most beneficial."

Dr. J. F. Peppler: "By far the most troublesome cases in my practice are the functional heart troubles which, in my opinion, are caused by auto-intoxication. In these cases I always

treat the gastro-intestinal tract. Elimination and antiseptics are useful, but the average person eats too heartily, especially of proteids. I always reduce the proteids."

Dr. H. Kremers: "I cannot agree with Dr. Corbus that a nephritis of the chronic interstitial variety is of necessity the result of intestinal toxemia. It seems to me that the changes which are produced in the kidney in these cases are no more pathological than the wrinkles of old age. We all have these conditions in a varying degree in old age. With the organs of the body subnormal as a result of old age, it is, of course, possible that overeating may aggravate this condition. Patients with nephritis may live for a long time by living on a restricted diet and avoiding overeating."

Dr. D. B. Lanting: "Overeating is the cause of most cases of auto-intoxication. I always recommend to my patients the drinking of large quantities of water. I find this flushing to be very beneficial. Calomel and a saline will work wonders in most cases and may be all that is required."

Dr. B. B. Godfrey: "My experience has been that we do not get patients early enough, and see them long enough, to follow up Dr. Corbus' ideas, in regard to auto-intoxication. In large cities and hospitals this work can be carried out to much greater advantage."

Dr. D. G. Cook: "I wish to report a case and ask Dr. Corbus a question. A young man, who has been treated in Holland, Grand Rapids, and Ann Arbor unsuccessfully, went to Chicago where an operation was performed, by bringing up the appendix and attaching to the abdominal wall. This is now used as a means of flushing the bowels. The case has been diagnosed as a colon infection. Can the colon bacilli produce an infection of this severity? What can be done by way of medication to relieve this condition?"

Dr. Corbus: "I agree with Dr. Kremers in so far as all acute forms of nephritis are concerned, and feel that text book evidence is with him. The nephritis following infectious and contagious diseases may not be due to intestinal toxemia, but is due to the specific toxin as in scarlet fever. Chronic interstitial nephritis is not a specific disease *per se*, and I believe it to be due, in nearly all cases, to some of the various forms of auto-intoxication. It is true—"A man is as old as his arteries," and the insurance companies, realizing this fact, are demanding the taking of blood pressure. The findings,

of course, must be modified by the quality of the pulse. In reply to Dr. Cook:

"The colon bacillus is normally in the bowel at all times, excepting, of course, in the first days of infancy. I do not believe this case to be one of colon infection. The lavage through the appendix has been used for some time with good results. Intestinal antiseptics, by mouth, will diminish the virulence of the bacteria and colonic injection of Lactic acid bacilli also aids by using up the pabulum required by the colon bacillus."

Dr. N. H. Kassabian of Coopersville read a paper on "A Neglected Field in Medicine."

The Doctor's paper was, as he termed it, "A Peep into Medical Antiquity," and was descriptive of the early period of medicine dating back to 5,000 B. C. with especial emphasis on its Asiatic origin. He said in part:

"Greece copied most of her arts from the Egyptians, Chaldeans and Assyrians. It has been very appropriately said that, 'If you wish to look for the origin or birth place of Art, you need not sojourn around the Athenian Acropolis, but you will have to go to the valley of the Nile and Euphrates.' The Greeks had a wonderful faculty of developing, so they copied art from the Egyptians and from the people of Mesopotamia. "Plato and Aristotle resided for some years in Egypt in the hope of gaining an insight into the mysteries of Oriental Philosophy. Among South Western Asiatic races the Hebrews have occupied a conspicuous position. Their strong belief was that diseases, and especially epidemics, were sent as a punishment by the Deities on account of their sins."

The doctor then reviewed the history of the practice of medicine up to the time of the Greek supremacy. His paper was all the more interesting as this was his native land, and many, if not all, of the places mentioned were familiar to him. He closed the paper with

"We cannot realize all of the Asiatic influences upon the European civilization, progress, and enlightenment, until we imagine this work taken away and view the vacuum that would be left. Science would become bald and ragged; history would lose its charm and fascination; medicine would be barren and uninteresting. Some of the brightest jewels would drop from the crown of literature, and the fairest garments would be shed from the shoulders of art; some of these South Asiatic races, namely, the Babylonians, Assyrians, Chaldeans, and Phoenicians, and the much abused Hebrew race, had an

organized civilization long before Socrates taught philosophy or Herodotus wrote history. These ancient races had literature before most nations had letters and art, while other nations knew only war and savagery. The influence of Hellenic civilization, of which I am an ardent admirer, upon European culture at large, has been overestimated, while in the meantime the influence exerted upon Greek arts and sciences by Egypto-Asiatic civilization has a tendency in certain quarters of either being underestimated or I am compelled to say even being overlooked entirely.

"My aim is, Gentlemen, to make an effort to replace the honor and credit of the forces which contributed to the development of European Culture—medicine being only a branch of this—where it appropriately belongs."

G. H. THOMAS, *Secretary.*

ST. JOSEPH

The St. Joseph County Medical Society met in White Pigeon, April 20, with about fifteen in attendance. The State Secretary was present. There were two new members admitted to the Society, two reinstated and one transferred from Washtenaw County Medical Society. A lively discussion on Fractures and dislocations developed, lead by Dr. Fred Robinson of Sturgis, in the absence of the essayist. It was decided to hold the next meeting in July at Colon Lake on the 75th anniversary of the first establishment of a St. Joseph County Medical Society.

S. R. ROBINSON, *Secretary.*

WAYNE

The regular meeting of the Wayne County Medical Society held Monday evening, April 18, 1910, was given over to the discussion of a Medical home. An unusually large attendance was present. The need of a home for physicians has long been felt. Only recently, however, has it received earnest consideration. The President, Dr. Holmes, in a few preliminary remarks said: "The idea of building a medical home is an old one. It again came to the front in November, 1909, at which time prospects seemed rather hopeless. In December at a gathering of 18 members the idea was again discussed with a more encouraging outlook. Here \$5,000 were subscribed. At the same time plans were formulated to raise at least ten times that amount. From December until the present day steady progress has been made. \$29,000 are now subscribed and only one hundred and forty of the

four hundred and seventy-five members have thus far been approached for subscriptions. There is no doubt that the near future will find the sum more than doubled as every member seems enthusiastic about the proposition. A medical home therefore is practically an assured fact. It is a question whether we should buy a lot and build or purchase an old building and if necessary remodel it to suit our needs. The New Thought Church and Century buildings have been suggested for our consideration."

Dr. Guy L. Connor moved that a committee of three be elected and given full power to act and decide for the whole society. This was supported by Dr. Schenk. A hearty discussion followed which more than anything else showed that interest was not lacking. Among those who took part in the discussion were: Drs. Carstens, Connor, Tibbals, Robbins, Obez, H. O. Walker, Manton, B. R. Shurly, Schenck, McClintock, McClure, Gunsolus, J. E. Clark, Henderson, Bell, F. B. Walker, Delos Parker, E. B. Smith, and Hirschman. It was finally decided that a committee of five be elected by ballot to formulate several definite propositions, which shall be submitted to the society in the near future.

For this committee Drs. Holmes, Shurly, Tibbals, E. B. Smith and McClintock were elected.

Dr. Wm. Stapleton called attention to the present prospects for a national department of health; in other words the Owen bill.

On the motion of Dr. Hitchcock resolutions fully indorsing this bill were adopted. The meeting then adjourned.

The surgical section of the Wayne County Medical Society met April 25, 1910. The meeting was a surgical clinic.

Dr. H. O. Walker read a paper on inguinal hernia. He first considered the etiology of inguinal hernia and then gave a detailed description of the Ferguson operation, an operation which he has been doing for the past seven years. The key to cure, he said, is, "Suture the internal oblique and transversalis muscles to the inner shelf of Poupart's ligament along its outer two-thirds, and be sure to have the internal ring well covered. Do not manipulate the cord any more than is absolutely necessary and leave it in its natural position; remove the superfluous fat, as this fat is often the cause of a post-operative recurrence of the hernia. Plain cat-gut is all that is necessary."

To substantiate his claim of the efficacy of

this operation he mentioned two hundred and thirty cases of inguinal hernia operated upon in the past seven years without a recurrence. He presented a case of double inguinal hernia which he had operated upon some time before with ideal results.

Dr. F. B. Walker presented a fracture of the tibia and fibula of both legs in a boy of five years. The condition of the patient immediately after the accident was critical, and the bones were approximated as well as possible under the circumstances. Result: Slight outward curving of the lower end of both tibia causing a little impairment of motion at the ankle. The X-ray shows the ankle normal. Dr. Walker explained that nature will correct the mal-approximation and that no further surgical procedure will be attempted.

Dr. William Appelbe reported two cases of exophthalmic goitre operated upon for him by Dr. Angus McLean. In the first case the patient's principal symptoms were epistaxis, nervousness and a tendency to drop articles she might be handling. When first seen January 6, 1908, no goitre or eye symptoms were present.

Fifteen months later (March 1909), a small hard tumor about the size of a hickory nut was noticed by the patient just above the sternoclavicular articulation. This, on cessation of treatment, enlarged slightly, became more cystic and gave symptoms of pressure. It was removed April 4, 1910, and a marked improvement has followed. The second case was a girl of nineteen years extremely emaciated and nervous with swollen joints in hands, feet, wrists and ankles. She had a uniform enlargement of the thyroid gland which had been present for five years. She complained of epistaxis, sweating, diarrhea and nervousness. Treatment: eliminative, with administration of potassium iodide from June 6, 1908, to April 18, 1910, at which time on account of her extreme weakness instead of performing the radical operation the superior thyroid arteries were tied. The gland and symptoms have all been reduced. Dr. Applebe remarked that epistaxis does not often accompany goitre, but was prominent in these cases.

Dr. C. D. Brooks spoke of the advisability of performing this ligation operation in preference to the partial removal of the gland in many cases. It is a comparatively safe operation even in extremely weak and nervous patients and, according to C. H. Mayo, a large percentage of these patients need no secondary operation.

If they do, their condition will be better at that time.

At the general meeting May 2, Dr. C. E. Simpson read a paper on, "Myelogenous Leukemia." He mentioned that a diminution in the number of red blood cells with an increase in the number of leucocytes, a low percentage of lymphocytes and polymorphonuclear leucocytes, and a high percentage of the myelocytes and eosinophiles constitute the blood picture upon which is based the diagnosis of this form of leukemia. The bone marrow is attacked first and in all respects the process is similar to a malignancy. Treatment is varied, but lately the X-ray with arsenic in increasing doses has been quite in vogue. Bi-weekly exposures and Fowler's solution in increasing doses were given from January 28 to June 16 in his patient. With a reduction of the leucocytes from 273,000 to 23,000 per cu. mm. and the myelocytes from twenty-six per cent to seven per cent. This was accompanied by marked improvement in the general symptoms. Patient then left the city for several months. Before his return the spleen had enlarged to below the umbilicus. In spite of treatment as before carried out the leucocytes kept on increasing and shortly before death reached 640,000. The myelocytes, however, maintained a low percentage. Death occurred about 19 months after treatment was begun.

A severe form of colitis which resisted all treatment hastened the end.

Dr. P. M. Hickey discussed the technique of X-ray treatment in these cases. If treatment is directed to the spleen itself death is hastened. Tinfoil should be placed over the splenic area as well as over the rest of the body and only parts of the long bone, all treated separately, should be exposed at one time.

Dr. Joseph Sill spoke on the pathology of the disease. The name leukemia is a misnomer as the disease is not primarily one of the blood. It is a malignant tumor formation of the blood forming organs, in the nature of a sarcoma. The fact that the percentage of myelocytes remained low in spite of the rapid increase in the number of leucocytes toward the end of the disease, in the case reported, was probably due to the enormous rapidity with which these cells were formed. The majority are primitive forms of leucocytes from which myelocytes are formed and the rate of production is out of all proportion to the rate of complete transformation.

Dr. J. H. Carstens compared myelogenous leukemia with the opposite condition splenic anemia. Removal of the spleen in the latter condition is followed by good results and since the spleen is at fault in myelogenous leukemia why not remove it? Since the disease is fatal in any case this procedure might at least be tried.

Dr. Maguire presented a case of fracture of the forearm in a boy eight years old. The accident occurred in July, 1909. Twenty minutes after the injury the forearm and hand turned black. Normal color again returned, then a gradual paralysis of the muscles of the forearm and hand set in, which at the present time is complete.

Dr. Blodgett spoke of this case as one of Volkman's Ischæmic paralysis.

Seven doctors were admitted into the Society as new members.

The medical section met May ninth.

Dr. Johann Flinterman presented a case of spastic spinal paresis in a man of forty. Early symptoms were twitching in hands and forearms, and pain in right thigh especially after walking. Later a spastic gait developed, and arms and hands became more jerky. Reflexes were exaggerated, and sensation diminished. There were no eye symptoms and no impairment of speech. The man had been subjected to exposure to all kinds of weather, but gave no specific history.

Dr. C. W. Hitchcock reported a case of wilful malingering with an element of hysteria. The patient, a woman apparently in good health, had continuous spasms of all the voluntary muscles for three days. After about a week patient again had "spells" of most fantastic nature. Through all, however, she fitted her time to her own needs, ate and slept well. Another case, a machinist who couldn't keep his position because he would suddenly stop working and stare about the room, then after a while he would again resume his work. His speech became retarded. He wouldn't speak to his mother at all, and finally had all sorts of delusions—a case of dementia precox, prognosis bad.

Dr. Ohlmacher presented a case of gonorrheal infection of the finger. The patient, a doctor, punctured his finger with a fish bone. Three days later he removed sutures from a perineum. Sixteen hours later signs of infection appeared. Constitutional disturbances were slight; there was a peculiar rather deep seated lymphangitis

extending up the radial sides of the forearm then up the arm to the axilla. There was no puss at the site of the puncture. A smear of the exuding serum showed leucocytes with intracellular diplococci, negative to Gram's stain. No growth on blood serum agar. Shortly after beginning vaccine treatment a mucoid pus appeared at the wound. The extreme rarity of gonorrhoeal wound infection was discussed.

Dr. Hugo Freund presented a case of Hodgkin's disease. The leucocytes numbered between 18,000 and 24,000 per cu. mm. There was no alteration in the differential count. The patient showed large symmetrical swellings of the superficial cervical glands. The temperature curve was similar to that of a tubercular patient. There was some improvement with increasing doses of Fowler's solution.

Dr. George McKean was elected chairman and Dr. F. G. Buesser secretary of the medical section.

RAY ANDRIES,
Correspondent.

DETROIT OPHTHALMOLOGIC AND OTOLGIC CLUB

Meeting April 5, 1910. The following paper was read:

SYNOPSIS OF EXPERIENCES IN THREE HUNDRED EYE, EAR, NOSE AND THROAT SURGICAL CASES

By Don. M. Campbell, M. D., L. R. C. S., (Edin). Detroit, Mich.

(ABSTRACT)

In this paper three hundred operative cases in the eye, ear, nose and throat, occurring principally during the year 1909, are reviewed.

The subject matter of the paper is divided, for purposes of study, into: 1, Cataracts; 2, Iridectomies; 3, Strabismus; 4, Obstruction and infection of the tear duct; 5, Injuries to the eye; 6, Diseases of cornea, sclera and uvea; 7, Mastoiditis; 8, Hypertrophied and diseased tonsils and adenoids; 9, Nasal operations; 10, Malignancy; 11, Miscellaneous.

Cataracts are extracted almost entirely by the combined operation. Two cases of infection of the corneal wound are reported in which recovery took place, the chief method of cure being the use of streptolytic serum.

In the division of strabismus the advisability is urged of depending chiefly upon advancement rather than tenotomy in bringing about a cure.

In the cases of glaucoma in which operative procedures proved inefficient, pneumatic massage and subconjunctival injections of citrate of soda are recommended. The enucleation of the tear sac in infections and obstructions of the duct is strongly urged.

The injuries to the eye are treated from the standpoint of the necessity for exact diagnosis, the localization of the retained foreign body and its early removal by means of incision and the magnet.

Diseases of the cornea, sclera and uvea receive attention chiefly from the diagnostic side of the question.

Mastoiditis is treated surgically by complete exenteration of all the cells of the mastoid.

Hypertrophied and diseased tonsils are removed under a general anæsthetic, for adults as well as children, and the complete enucleation of the glands is urged in all cases.

In the division under nasal operations the sub-mucus and frontal sinus operations are referred to. Six cases of malignancy of the ear and nose are reported.

In the division of miscellaneous will be found a report of three cases of closed orbits.

DISCUSSION

In opening the discussion, Dr. Livingston called attention to the goodly number of infections of the ear seen recently which had yielded to a properly performed paracentesis and suitable after treatment without the necessity of opening the mastoid.

Dr. Connor spoke of an old man of 90 years who became almost insane under a cataract operation. The lens fell back into the vitreous and had to be removed with a wire scoop. Nearly one-third of the vitreous was lost. The man escaped from the hospital at the end of a few days but got a good result and lived for a number of years with useful vision. The lacrimal cases if seen early do very well with probing, especially if Theobald's probes are used. The canaliculus is slit only enough to get as large a probe in as necessary. These large probes do not do the damage one would anticipate. If the lower canaliculus cannot be used, the upper one can be utilized. As regards injuries to the eye, the case of an engineer was reported in whom a water gauge blew up and the glass cut through the conjunctiva, sclera and ciliary body. The other eye was blind and under treatment the injured eye became well and has had perfect vision now for a number of years.

Dr. Beattie reported three cases in one family

of suppuration of the middle ear following scarlet fever. The boy had a swelling behind the ear. The drum was opened but a few days later fluctuation developed over the mastoid. An incision was made over the swelling and about a half an ounce of pus was evacuated. Nothing more was done at this time as the patient was suffering from nephritis. The wound healed up and the discharge from the ear ceased in a few weeks.

Dr. Smith preferred the simple extraction for cataracts. With the use of his capsule forceps in removing the anterior capsule of the lens he has had to do discission in only about three per cent of the cases. This is a nearly perfect operation. The Indian operation is a much more dangerous one. As regards injuries to the eye, if the ciliary body is injured, the eye will sooner or later have to come out. It may be years later. The extraction of foreign bodies is much better done through a new wound made in the sclera than through the anterior chamber. As regards lacrimal strictures, if they are bony the sac had better be removed. Where the stricture is soft, it should be nicked and then probes passed.

Dr. Parker said that the best form of cataract extraction was one with a large corneal incision and a conjunctival flap. If the pupil dilates freely, a simple extraction is done. The use of atropine has become a routine in these cases. The Indian operation in his experience has not shown as good results as the orthodox method and has been abandoned. Six cases of acute mania have occurred in his series. Worth's method of advancement has proved the most satisfactory treatment of strabismus in his hands. A case of choked disc of six diopters due to brain tumor was reported. A decompression was done and the tumor exposed but not removed. The swelling of the discs subsided in one week and the vision was perfect at the end of six weeks.

Dr. Wilson said that the Asch operation made a subsequent sub-mucous resection of the septum a very difficult operation. The performance of a tonsilectomy is a major operation. This can however be done under a local anæsthetic. In children the finger promises the most satisfactory result. The success of the cataract operation is best measured by the visual result.

Dr. R. Connor expressed the belief that too few rather than too many mastoid operations were being performed. That when more of these operations are done in the acute stages

of the disease there will be fewer chronic cases to deal with. Two cases of lateral sinus thrombosis were reported in children. The sinus was opened in both cases and the internal jugular veins tied low down in the neck. One of these cases went on to recovery after a radical mastoid was done in addition to the first operation on the sinus. The other terminated fatally.

Dr. Begle has found that his cases of infected ears have cleared up upon opening the drum. He reported operating on a number of adenoids under cocaine in his office but feels that it can be done better under a general anæsthetic.

Dr. Maier advocated the freer use of anti-streptococcal serum. The lacrimal sac should be excised in cataract cases before the eyeball is opened. In removing foreign bodies from the posterior part of the eye a triangular incision is often to be preferred to a straight one.

Dr. Campbell said in closing the discussion that he looked upon a case of sympathetic ophthalmia as a sick man suffering from a general infection. The success of the use of mercury and salicylates bear out this view. This treatment causes a leucocytosis and thus fortifies the organism against the invading parasites.

Dr. Smith showed an eye enucleated from a twenty-three months baby for glioma. The tumor filled the posterior part of the eye and had infiltrated the nerve so that the prognosis was bad.

A CONFERENCE OF OPHTHALMOLOGISTS WITH ORGANIZATION OFFICIALS ON FAMILY PHYSICIAN REFRACTING

The promotion of family physician refracting calls for the co-operation of all physicians. It is believed that if these understood its value, all would seek its possession. To promote this understanding, the Detroit Ophthalmological Club invited to its meeting of May 3rd the leading officials of Michigan medical societies and educational institutions. The following guests were present, took part in the discussions and endorsed the resolutions adopted, viz: Dr. J. H. Carstens, President Michigan State Medical Society; Dr. Wilfrid Haughey, Secretary-Editor Michigan State Medical Society; Dr. Frank B. Tibbals, Chairman Medico-Legal Committee, Michigan State Medical Society; Dr. Charles T. McClintock, Member of Com. Organization, Michigan State Medical Society; Dr. Guy L. Kiefer, Health Officer of Detroit; Dr. W. C.

Martindale, Superintendent Detroit Public Schools; Dr. Gerald Edmonds, of Honor, Mich., and Dr. W. C. Garvin, of Millington, Mich., family doctors doing simple refracting. The Chairman of the Council Michigan State Medical Society, Dr. W. T. Dodge, sent a letter supporting the movement. Though unable to be present, like support was given by the following gentlemen, viz: Dr. Victor C. Vaughan, Dean Medical Dep't Michigan University; Dr. H. O. Walker, Secretary Detroit College of Medicine; Dr. Arthur D. Holmes, President of the Wayne County (Detroit) Medical Society.

The Chairman of the meeting, Dr. Leartus Connor, opened the discussion by a paper on "The Economic Value of Family Physician Refracting." He called attention to the fact that in the United States were about 180,000,000 human eyes; 135,000 doctors; 3,000 ophthalmologists. This averages 60,000 eyes for each ophthalmologist. As every eye over forty years needs refracting, the most of them several times, as very many eyes under forty need refracting, we have an explanation of the fact that the ophthalmologists never have been able to meet the refractive needs of all the people in the United States. Because the family physicians never have been trained to supply these needs, salesmen of spectacles entered the field, and gave such satisfaction as to secure large and increasing support. Further, without realizing the nature of their action, a large number of educated physicians support and patronize the opticians. In the hope of encouraging family physician refracting, the paper pointed out the vast values inherent in its universal adoption; values to ophthalmology and ophthalmologists, to general medicine and family doctor; to the profession as a whole, in strengthening its organization; in solving the optician problem and in providing such co-operation of ophthalmologist with family doctor that the 180,000,000 of human eyes in the United States may be cared for by educated physicians, so obviating the existing necessity for layman ophthalmologists.

It was urged that if these values were accepted by this conference the members could use their positions to stimulate others to comprehend the facts, and master family physician refracting till its enormous values be harvested for both profession and people.

Simple refracting was shown to be an art quite within the reach of every medical student, without neglecting any other of his studies, and

of practice by any doctor, not already overburdened with work.

It was pointed out that while ophthalmology has many officers (specialists) it has few soldiers (family physicians) in its army and so is impotent against the invasion of opticians with their horde of laymen. But an equipment of the entire profession with simple refracting would transfer all doctors to the ophthalmological army who, in turn, would capture the people before opticians could reach them.

Every member of the club and its guests took part in the discussion. Some detailed the step by which they had cast aside the dominant practice and adopted the one presented. Many virile reasons were adduced for the change, and suggestions made for promoting the new doctrine.

Though lasting several hours, the conference never lagged but grew in interest from start to finish. Each saw in a new light a solution to present difficulties, vast benefits to the nation, and increased honor to the profession.

Without neglecting aught of present good work, members of the Detroit Ophthalmological Club and its guests of May 3rd, 1910, adopted as their watchword "Family Physician Refracting," until every physician in the United States is equipped therefor.

Finally the following resolutions, on motion of Dr. Don M. Campbell, Prof. Ophthalmology, Detroit College of Medicine, were unanimously adopted by the Club:

WHEREAS, Family Physician Refracting promotes the co-operation of family physician and ophthalmologist; provides physicians adequate for the people's refractive needs; enriches ophthalmology and ophthalmologists; general medicine and family doctor; strengthens medical organization and solves the optician problem;

RESOLVED, That the Detroit Ophthalmological Club endorses the action of the Ophthalmic Section American Medical Association, in promoting "Family Physician Refracting;" the action of the Michigan State Medical Society in seeking to qualify its members to meet the people's refractive needs; the action of the Kentucky State Medical Society endorsing the Michigan idea of family physician refracting; the action of the medical colleges in substituting "Family Physician Ophthalmology" for "Specialist Ophthalmology," and the action of the State Registration Boards in Michigan, Vermont, Nebraska and Utah in requiring a "Working Knowledge of Simple Refracting."

RESOLVED, that the Detroit Ophthalmic

Club urge other State Boards of Registration to REQUIRE (1) for license, "Family Physician Refracting" and (2) for the right to practice ophthalmology, "A Comprehensive Laboratory and Clinical Study," after securing a license.

RESOLVED, That the Detroit Ophthalmic Club encourage family physicians to qualify for intelligent co-operation with ophthalmologists by equipping themselves with simple refracting.

It is suggested that much profit would result from other ophthalmic societies arranging similar conferences with officials of general or county medical societies, or even with groups of family doctors. Indeed, individual ophthalmologists might confer with little bands of family doctors and encourage them to master simple refraction, with the assurance of helpful results.

Finally, family physicians doing simple refracting might so confer with neighbors and local societies, that all become more competent for the refractive needs of their families.

NEWS

Dr. H. B. Garner, formerly of Traverse City, Michigan, has opened an office in the Gas Office Building, Detroit.

Dr. Rosenthal Thompson has removed from Traverse City to Grand Rapids.

Dr. A. S. Warthin of Ann Arbor was elected president of the International Association of Medicine, to serve for three years; Dr. Victor C. Vaughan was elected first vice-president of the National Association for the Prevention of Tuberculosis; and Dr. Reuben Peterson was elected president of the American Gynecological Association at the meeting of the Congress of Physicians held in Washington the 1st week of May.

The New Memorial Hall at the University of Michigan was dedicated May 11. Dr. W. H. Sawyer, of Hillsdale, accepted the structure from the alumni for the Regents.

Dr. Mortimer E. Danforth has removed from Entrican to Stanton, Michigan, where he will start a small general Sanitarium.

Among our exchanges we have received the

American Journal of Physiologic Therapeutics for May, Vol. 1, No. 1. This is a very neat Journal, about the size of the JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY. The editor, Dr. Harrower, is to be congratulated upon the appearance and value of his first number. The subject matter is limited to drugless treatment of disease and the original articles of the first number deal with electrical and radiant energy. There are many good articles promised.

The Medical Department of Washington University of St. Louis, Mo., has received endowments and gifts of about \$6,000,000 and proposes to make that the best medical school in the United States. Dr. George Dock, formerly of the University of Michigan, and a councilor of the Michigan State Medical Society, has been offered the chair of Practice of Medicine and has accepted. He will travel and study in Europe this coming year, preparatory to going to St. Louis.

Dr. J. L. Polozker has announced the removal of his office to Suite 608 and 609 Gas Office Building, Detroit.

The *New England Medical Monthly*, edited by Dr. William C. Wile of Danbury, Conn., for the past 29 years has been combined with the *Annals of Medical Practice* and will in the future be published as the *New England Medical Monthly*, under the editorship of Dr. Francis D. Donoghue.

The 12th Annual Meeting of the American Proctologic Society will be held in St. Louis, Mo., June 6 and 7, 1910. Among the papers to be presented are the following:

"The use of Quinine and Urea Hydrochloride as a local Anæsthetic in Ano-rectal Surgery," Louis J. Hirschman, Detroit, Mich. "Notes on a case of Polypoid Fibrosis of the Rectum, with Exhibition of Pathological Specimens," James A. MacMillan, Detroit, Mich. "Some of the Complications Associated with Rectal Diseases," William L. Dickinson, Saginaw, Mich.

The National Confederation of State Medical Examining and Licensing Boards will hold its Twentieth Annual Meeting at St. Louis, Mo., on Monday, June 6th, 1910, in the Southern Hotel.

The subject to be taken up at this meeting will be a consideration of practical clinical instruction in medical colleges, a report on medi-

cal education in the United States by a representative of the Carnegie Foundation, and a report on a proposed materia medica list by a special committee. These topics are all practical and of vital interest to examining boards, medical schools and the profession. The contributors of papers to the symposium on clinical instruction are men of the highest standing in the medical profession, many of them teachers in some of the foremost institutions in this country, and their productions will be worthy of the most careful consideration. The chief object of this symposium is to determine, as far as possible, whether clinical instruction in medical schools can be made sufficiently practical and thorough so as to warrant the medical boards in demanding practical examinations in the principal branches of the medical course.

An earnest and cordial invitation to this meeting is extended to all members of the state boards, professors and teachers in medical schools, and all others interested in securing the best results in medical education.

The officers of the Confederation are: President, A. Ravogli, M. D., 5 Garfield Place, Cincinnati, Ohio; Secretary, Murray Galt Motter, M. D., 1841 Summit Place, N. W., Washington, D. C.

HEALTH OF STUDENTS

The University of Michigan Senate has joined the sanitation crusade and laid down stringent rules for all students, officers and employees of the University.

Any one found spitting on the campus walks or in the building is liable to discipline.

Persons with a chronic cough must be examined and if found infected must live under certain restrictions. The Senate urges that all students be examined once each semester.

Thorough physical examinations will be made of every student entering the gymnasiums, and every time a locker is transferred from one student to another it must be thoroughly disinfected.

Any student suspected of having any infectious disease must have an examination and take to the dean of his department a statement of his condition.

No common drinking cups can be used any place on the campus, and once a week a bacteriological examination of the Ann Arbor water supply shall be made and a report filed with the secretary of the University. If this supply is at any time dangerously contaminated, notices to that effect will be posted.

In December, a commission was sent by the Detroit General Hospital Board of Trustees, on an extended tour of investigation of new construction in American hospitals. With the architect, Mr. Wm. B. Stratton, they visited over twenty-five institutions in ten cities of the United States and Canada. Afterward tentative plans were drawn up, taking account of the experience thus gained.

On February 16th, a similar commission left New York in company with Mr. Stratton, with the purpose of making a study of institutions which had recently been established and of older ones where there had been extensive reconstruction. Dr. Wm. F. Metcalf and Dr. Homer E. Safford made up the medical part of this commission, and the following cities made up the itinerary: Ponta Delgrada (Azores), Funchal (Madeira), Gibraltar, Naples, Rome, Venice, Budapest, Vienna and its suburbs, Nuremburg, Leipzig, Halle, Berlin and its suburbs, Hamburg, Dusseldorf, Cologne, London, Oxford, and Portsmouth. In all, this covered fifty hospitals, and the effort was constantly made to find the latest solutions of the practical problems in hospital construction and administration.

Every country visited had much of interest, but especially was this true of the clinics recently built in Budapest, those in construction in Vienna, and the many new and wonderful institutions in the suburbs of Berlin and in the smaller German cities.

The pavilion hospital, as evolved in Germany in the last twenty-five or thirty years, and as now brought to a relative perfection in such institutions as Schoeneberg, Dusseldorf, Cologne, Lindenburg, and Nuremburg, is held to meet the needs of our larger cities, even at some extra expense for land, better than the many-story type that has so largely dominated the construction of hospitals in England and America in later years. It is interesting that in a number of cities on this side of the water, now developing plans for such institutions, this fact has been recognized; and, furthermore, this evolution is strikingly in line with the results of the careful study and choice decided upon when the Johns Hopkins Hospital was built thirty years ago. The fact that, contrary to the general feeling in America until recently, the Germans have placed their hospitals away from the crowded centers, where the price of land were not prohibitive, has made it possible not only to build

much lower ward buildings but also to render the out-of-door features of hospital life and treatment vastly more prominent.

The commission returned to Detroit on Tuesday the 26th of April. On Wednesday evening Dr. Metcalf was given a dinner by 65 of the prominent men in the profession of Detroit, in recognition of the work that he has done toward improving the hospital conditions of the city.

MEDICAL ECONOMICS

The following excerpts are taken from County Society programs recently issued:

OTTAWA CO. Meeting May 10.

Payment of dues.

All dues must be paid on or before July 1, as the Postal Laws require the dropping of all names from the mailing list of those six months in arrears.

Failure to pay all dues before July 1, results in:

1. Loss of State Journal.
2. Loss of Medico-Legal Defense.
3. Inability to register at Bay City meeting.

LENAWEE CO. Meeting May 10.

This will be the last opportunity to pay yearly dues. On the 1st day of June all who have not paid for 1910 will be dropped from the Medical Defense League, and their JOURNAL stopped. If your dues are paid this is for the other fellow.

KALAMAZOO ACADEMY, Meeting May 10

The dues for the Kalamazoo Academy of Medicine are divided as follows:

State Journal Subscription.....	\$2.00
Medical Defense Fund	1.50
Balance of dues to go to local needs.	

The dues of residents of Kalamazoo are \$5.00; for those living outside the city, \$4.00

The defense funds must be in, if protection is wanted. This small fee is out of all proportion to the protection which is given. Many consider this protection sufficient for all needs.

The postal laws require that all subscriptions to the JOURNAL be paid before July 1, or the names must be dropped from the mailing list.

According to the Secretary's books, you are in arrears for the year....., total being \$.....

Please make an effort to send in amount due as soon as possible, that both the medical defense and JOURNAL subscription may be cared for before the above date.

KENT CO. Meeting, May 11th.

Our State Secretary is calling for reports of members delinquent in their dues. The report from Kent County must be furnished before long. Our Society has accounts to be met. The U. S. Postoffice authorities require all magazines to show an authentic paid subscription list, in order to receive the privileges of the second class rating in mailing their goods. They have been investigating our STATE JOURNAL.

Unless we can show our subscriptions as paid up, it will cost our State Society about an additional \$900 to distribute the JOURNAL. According to the Legal Defense plan, members in arrears after June 1st are not protected until such arrears are paid in full. Any action for malpractice alleged to have occurred while a member was in arrears, will not be defended. The reason is obvious. If you are in arrears kindly mail a check for \$5.50 to your local Secretary without further delay.

(We hope that all who have not paid their subscription and dues for 1910 will do so at once and thus save their Secretary the trouble of dunning them, and lumbering up his programs with this call for dues.—Editor.)

Law Suit for alleged Malpractice, Henry J. Kretzmann, M. D., San Francisco.

(In the April and May Issues of the *California State Journal of Medicine* appeared a paper with the above title, which is abstracted below for the information of our members.)

"March 1897, Mrs. Hanna Bailey, presented herself at my office; she reported that she had lost a good deal in weight—very nervous—suffering from pain in her abdomen, in right ovarian region. Menses regular but rather free. Had been treated by a Mrs. Dr. Edson with poultices and electricity without getting better.

"Owing to the great nervousness of the patient and her utter inability to relax, I could make out neither origin nor relation of the condition present and therefore suggested examination under chloroform. This was accepted and the next morning at her residence chloroform was given by the late Dr. Wm. Friedhofer. When she was fully relaxed I made a careful, thorough examination, bimanually, vaginal and per rectum, and I arrived at the diagnosis: cystic tumor of the right ovary, probably of inflammatory origin. Having finished my examination I asked Dr. Friedhofer to examine her without giving him my diagnosis; he pronounced the case a cystic tumor of the ovary. I saw the

patient the next day again; I explained everything to her and everything was talked over. . . .

"Patient was satisfied to have operation performed, but stated that she did not have at present the necessary money and would see me when she had the money. In September of the same year she came to my office announcing that she now had the money and accordingly she entered the French Hospital.

"The time for operation was set over the phone with the then resident physician, Dr. Putnam. In the afternoon of the day before operation I went to the hospital and examined Mrs. Bailey again; this examination was made not for the purpose of differential diagnosis, it was done in order to reassure myself of the presence of the tumor, having in mind my opinion of an inflammatory origin. At this examination everything appeared as at the examination under chloroform with the exception of an enlargement of the mass. When next day the abdominal incision was made I found no cystic tumor of the right ovary, but a uniformly enlarged uterus, the size of a three to four month pregnant uterus, of doughy consistency, looking just like a uterus changed through pregnancy, with large blood vessels on the sides, nowhere any protuberances or nodules in the wall. I could not get rid of the reasonable doubt that this was not a pregnant uterus; the assisting gentlemen were singly asked by me, "Can you positively tell me that this is not a pregnant uterus?" Dr. Putnam, Dr. Allen and Dr. Bell (who were looking on) all answered that they could not positively say that this was not a pregnant uterus. I did not feel justified to remove the uterus for two reasons, first, because I was not sure that this was not a pregnant uterus; and secondly, because I felt bound by the agreement not to remove the uterus as made to the patient. The ovaries were found enlarged with cystic degeneration of graffian follicles, some of which were opened and excised. The abdomen was closed. The recovery uninterrupted. I had no further occasion to examine the woman, but Dr. Carl Von Hoffman gave evidence at the trial that he had examined her about one-half year after operation; her menses were then normal, not free any more; the mass was of the size of an orange; diagnosis, fibromyomatous uterus. . . .

"No fair person can say that I did not employ ordinary care and skill. If anything was wrong with me, it was too great care in handling this case. I have learned from this experience! I

have never since tied myself to any absolute diagnosis or any definite operation. I tell the people now that there is a condition present, may be a fibroid of the uterus, may be a cystic ovary, which necessitates an operation in my opinion, it has to be left entirely to my judgment, what I am going to do at the time of operation. . . .

"Suit was brought on the ground that there was always a fibroid of the uterus present and no ovarian cyst, at the time of the first examination and at the time of operation; this allegation was based on the testimony of Mrs. Dr. Edson; it is said that a physician employing ordinary care and skill of his profession should have discovered that there was a fibroid of the uterus present and that a physician who did not discover this fibroid of the uterus did not employ ordinary care and skill of his profession; this was the kind, sworn statement of Mrs. Dr. Edson. Damages were claimed 'for mental worry and anguish before an operation, and for pain and suffering after operation, the patient being sick and sore in bed for three weeks.' This claim was made conjointly by Mrs. Bailey and her husband, balm in the modest sum of \$40,000 was asked from the defendant. In the summer of 1899 this suit was acted upon before Judge John Hunt. It took a whole week; the result was a disagreement of the jury, eight being in favor of the defendant, four kind jurors were inclined "to give the poor woman a few dollars" (statement made to me after the trial by jurors.) . . .

"The second trial, a few weeks later, consumed another week and ended after very short deliberation of the jury, in an unanimous verdict for the defense.

"Motion was made by plaintiff for appeal to the Supreme Court, based on the statement that "the evidence did not justify the verdict," besides a number of alleged errors of ruling of the presiding judge were added. After the usual delay, a decision was handed down by the Supreme Court of California, January 5, 1904, reversing the judgment of the lower court. . . .

"It will not be uninteresting for my confreres to know what such a lawsuit may cost. I had engaged Dr. Dutsch as counsel, who acted very successfully and judiciously in several threatened suits against the German Hospital; upon the urgent advise of medical friends, who were concerned very much about this lawsuit, for the medical profession at large, I engaged

the late Judge Garber as consulting counsel. I had kept an accurate account of every cent that I had to pay in this matter, but "the fire" has destroyed these records and I have to give a summary from memory as best I can:

Fee for the consulting lawyer.....	\$1250.00
Fee for the acting lawyer.....	1400.00
Fee for subsequent lawyer, Mr. Peixotto, whom I engaged in lieu of Dr. Dutsch.....	250.00
Expenses coincident with the taking of the deposition of Mrs. Dr. Edson in Sonora.....	150.00
Transcript of Testimony.....	350.00
Fees to jurors and court stenographers	204.00
Printing of Briefs.....	60.00
Printing of transcript of testimony for Supreme Court.....	360.00
Incidentals.....	40.00
	\$4064.00

"The decision of the Supreme Court is final, we have to submit to it; but that does not mean that a decision of the Supreme Court must be correct, free of error. A fair criticism is necessary for the development of medical jurisprudence. The gentlemen of the Supreme Court are not infallible. There are instances on record where the Supreme Court of California reversed itself. Courts of last resort are instituted not because we believe in their infallibility, but in order to exclude as much as possible error in the execution of the laws. It may justly be asked that a decision of the highest tribunal in the country, destined to go down to posterity as "Authority," be strictly in conformity with the evidence furnished at the trial; that the language of it be clear; that the argumentation be logic.

"I have written up this case to arouse interest in the ranks of our profession for legal medicine. We are altogether too much absorbed in ultra-scientific work, and too busy in reporting cases or series of cases of difficult operations, of latest treatments, etc. But we are acting like the proverbial ostrich in vital questions of medical jurisprudence; these questions do not seem to exist for us. I hope I have contributed a mite to arouse some interest in the matter."

By frequent feeding every two hours, an obstinate biliary fistula may spontaneously close.

BOOK NOTICES

The Prevention and Treatment of Abortion. By Frederick J. Taussig, A. B., M. D., Lecturer in Gynecology in the Medical Department of Washington University, St. Louis. Octavo, 180 pages, 59 illustrations. St. Louis, C. V. Mosby Company, 1910. Price \$2.00.

Taussig has written a very practical book on a subject which every general practitioner has frequent occasion to consider. It is safe to say that the prevention of abortion, i. e., the threatened miscarriage, does not receive the attention which it deserves. It is also true that the more scientific questions involved are not very thoroughly known or appreciated.

The author has divided his subject into three parts as follows: Part I. Covering the general considerations, such as the frequency, anatomy, pathology, symptoms and diagnosis. Part II. Deals with the prevention. Part III. Contains a very thorough discussion of the various phases of treatment. The author is explicit in his directions and never leaves the reader to guess at the details. His style is excellent and the illustrations are distinctly good.

It is a pleasure to note the improvement shown by the successive works which have come from the press of the Mosby Company. This book is practically free from typographical errors.

The book is distinctly worth while and will repay purchase and careful study.

Surgery. Its Principles and Practice. Volume V. Edited by W. W. Keen, M. D., LL. D., Hon. F. C. R. S., Edin., etc. Per volume, \$7.00 net. Philadelphia and London: W. B. Saunders Company, 1909.

The fifth volume of Keen's Surgery, which has just appeared, completes one of the greatest medical publications of all time. The prospectus contained the names of seventy contributors, nine tenths of whom were authorities known to every medical man. All have fulfilled their obligations in a manner which leaves little to be desired. The publishers promised five volumes of 800 pages each, 4,000 in all, but the completed work covers 5,500 pages, an increase of over 25 per cent, without any increase in price. The work is really a series of monographs on the various subjects of surgery, each written by a master in the field allotted to him. While there are naturally differences in the comparative excellence of the various chapters, there is none the less a high standard throughout, not a few of the articles being masterpieces.

The present volume covers a diversity of topics too numerous to cite in detail. The

various sections give evidence of most careful preparation and all are well illustrated.

We believe that "this system" will remain the standard for many years to come.

Modern Surgery: General and Operative, by John Chalmers Da Costa, M. D. Professor of Surgery and Clinical Surgery in Jefferson Medical College, Philadelphia; surgeon to the Philadelphia General Hospital; consulting surgeon to St. Joseph's Hospital, Philadelphia; fellow of the American Surgical Association; member of the American Philosophical Society; Member De La Societe Internationale De Chirurgie; member of the Medical Reserve Corps, U. S. A.

Sixth edition, thoroughly revised and enlarged with 966 illustrations, some of them in colors. Philadelphia and London: W. B. Saunders Company, 1910.

The fact that the sixth edition of DaCosta's Surgery has made its appearance coincident with the advent of 1910 is in itself sufficient proof of the confidence and trust placed by the profession in the standard works of this well known and thoroughly reliable author. Those who supply themselves with this volume will not be disappointed in their purchase. The book is full of meat. All who know DaCosta are aware that he is not given to argument and prolixity in his writing. In this sixth edition he fires straight at the mark with either hand and hits the bull's eye every time.

In short, concise, plain and easily comprehended statements he explains everything pertaining to modern general surgery, from the extirpation of a carcinomatus stomach to the removal of a wart from milady's finger. No subject is too great to be either avoided or lighted by this author, nor yet too small or insignificant to be ignored by him. In the sixth edition he has again shown himself the master, not only of surgery, but of language by interestingly treating the entire field of general surgery between the covers of one volume of 1502 pages.

The work contains 966 illustrations so interspersed as to cover the entire field and so arranged as to show, as well as illustrations can show, the difficulties to be overcome and the technique necessary to overcome them.

The book is printed by W. B. Saunders Co., on unglazed machine finished book paper of a weight to comport with a 1500 page volume. The type is clear and easily readable. The engravings are on specially prepared heavy enameled paper, showing plainly and clearly the most minute lines and tracings.

Throughout the work DaCosta has handled every department with vigor and skill, all is up-to-date to the smallest minutiae. It is a monument to the author, surpassed by few in the field of scientific medical literature. It will prove a

gem of great worth to every surgeon who possesses himself of it and carefully peruses its pages in reference to the cases he has in hand. As a text book it is invaluable. As a reference book it is complete. It will no doubt meet the favor that has been accorded its predecessors.

Anatomy and Physiology for Nurses. By LeRoy Lewis, M. D., Surgeon to and Lecturer on Anatomy and Physiology for Nurses at the Lewis Hospital, Bay City, Michigan. Second Revised Edition. 12mo. of 344 pages, with 161 illustrations. Philadelphia and London: W. B. Saunders Company, 1910. Cloth, \$1.75 net.

As we would expect this is an elementary treatise on anatomy, but is very simply handled, in clear and plain language, which should be easily understood by nurses or those studying the profession. Enough of histology is included to give the reader the idea that there is a minute structure of the various tissues, and to give him a general idea of what it is. There is a final chapter on physiology. The book is a handy size, well illustrated and the reviewer feels would be a valuable one for the place it attempts to fill where not the minutiae but the salient points are necessary.

Pocket Therapeutics and Dose-Book. By Morse Stewart, Jr., B. A., M. D., Fourth Edition, re-written. Small 32mo. of 263 pages. Philadelphia and London: W. B. Saunders Company, 1910. Cloth, \$1.00 net.

This little book gives a ready reference to many facts that enter into the every day life of the physician. As its title indicates it gives the doses and indication for use of all drugs not obsolete. Tables of metric measures and other measures used in dispensing drugs are given, besides a short treatise on prescription writing. Classification of medicines, table of solubility, laws of incompatibility, etc. The book should be a handy and ready reference.

Essentials of Histology, with questions following each chapter. By Louis Leroy, M. D., Professor of Theory and Practice of Medicine, College of Physicians and Surgeons, Memphis, Tenn. Fourth Revised Edition. 12mo. of 281 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1909. Cloth, \$1.00 net.

The first edition of this compend was issued in 1900, and this is the fourth, which shows the popularity of the work.

The essential points of Histology are very clearly and concisely stated, making it a valuable book for review work. A series of questions follow each chapter and an especially valuable chapter on technique is added which gives the formulas and methods of using the various tissue stains.

The volume is profusely illustrated, with clear cuts, thus helping to more strongly impress the subject matter upon the mind.

SURGERY

Conducted by

R. E. BALCH, M. D., Kalamazoo, Michigan

Pharyngeal-Esophageal Pressure Diverticula—DeWitt Stetten in March *Annals of Surgery*, reviews the operative treatment of sixty cases of esophageal diverticulae. Of the sixty cases, fifty recovered, ten died. There were 41 cases of direct excision with nine deaths. Five underwent a preliminary gastrostomy with one death. In four cases the sack was invaginated with no deaths. In three the sack was excised in two stages with no death. In one the mucous membrane of the sack was destroyed with no death. His own method of treatment was as follows:

PRELIMINARY

The nutrition of the patient is brought to the highest plane possible by tube feeding, nutritive enemata or gastrostomy. The esophagus is rendered as near aseptic as possible by strict oral hygiene. The teeth should be put in a healthy condition and kept rigidly clean. The tongue should be scraped and an antiseptic mouth wash used frequently. If there is fermenting material in the sack, it should be washed out. The author is in favor of a preliminary gastrostomy.

OPERATIVE TECHNIQUE

The sack is exposed by a free incision along the anterior border of the sterno-mastoid, from the hyoid bone to the jugulum. As these pouches usually lie a little to the left of the median line, the incision should be made on that side. A preliminary skiagram with bismuth paste will be a great aid in determining the position of the sack. After dividing the Platysma the Omo-hyoid and Sterno-hyoid are separated by blunt dissection down to the carotid sheath. The vessels and Pneumogastric are retracted laterally with the sterno-mastoid muscles.

The larynx, thyroid gland, Sterno-hyoid and Sterno-thyroid muscles are retracted medianly. The recurrent laryngeal is usually not seen. This brings into view the sack which is liberated by blunt dissection.

The author excised the sack and treated the stump similar to the stump of the appendix.

AFTER-TREATMENT

Unless a preliminary gastrostomy is present, the after-treatment is complicated by the feeding question. No food should be given per os for at least five days. At the end of a week, the patient may have all liquids and given general diet in from ten to fourteen days. The mouth should be kept as nearly aseptic as possible, and the patient instructed to breath deeply.

In from ten days to two weeks one may attempt careful passage of an esophageal bougie. A large size from No. 36 to No. 40 Fr. should be used. This should be repeated at first every few days and then at gradually increasing intervals until it is done only every few months.

Combined Transvesicle and Extra-Peritoneal Method for Removal of Stones from the Lower End of the Ureter—Realizing the difficulty at times, in reaching and removing a stone from the vesical portion of the ureter, Max Ballin reports a case operated upon by himself by what he calls the "Combined Transvesical and Extra-peritoneal method."

The case reported gave a typical history of renal colic and a radiograph by Dr. Hickey showed a stone near the right ureteral opening. The bladder was opened supra-pubically and an attempt to dislodge the stone either upward into the ureter or downward into the bladder. Failing in this, the operator made a second incision parallel to and one inch above the middle of Poupart's Ligament through skin, facia and muscle and down to the peritoneum. By blunt dissection by gauze sponge the peritoneum was pushed down and in until the stone imbedded in the ureter could be raised into the wound by an assistant's finger in the bladder through the supra-pubic opening. The removal of the stone through the opening in the ureter became then an easy matter and the operation was finished with drainage of both ureter and bladder.—*Surgery, Gynecology and Obstetrics.*

NEUROLOGY AND PSYCHIATRY

Conducted by

GEO. M. KLINE, M. D., Ann Arbor, Michigan

Syphilis and Insanity—A study of the Blood and Cerebro-Spinal Fluid. A. J. Rosanoff, M. D., and John I. Wiseman, M. D., *Amer. Journ. of Insanity*, Jan. 1910—The Wassermann reaction, Noguchi's butyric acid reaction for syphilis, and the findings controlled by a cytological examination of the cerebro-spinal fluid, were carried out in a series of 409 cases.

The technique of Noguchi's butyric acid reaction for syphilis—applied to the cerebro-spinal fluid, is quite simple. To 0.2cc. of cerebro-spinal fluid, 0.5cc. of a 10% solution of butyric acid in normal salt solution, is added. The mixture is then heated until it boils. While hot, 0.1cc. of a normal solution of sodium hydroxide is added and the mixture again boiled. The appearance of a finely granular or flocculent precipitate, which settles in a short time, indicates a positive reaction. If no precipitate forms or a diffuse opalescence develops which does not subside on standing, the reaction is negative. A slight contamination of the cerebro-spinal fluid with blood does not interfere with the test.

Noguchi's modification of the Wassermann reaction was employed. The reactions are fully described. Of much value are the author's conclusions, which are as follows:

1. The regular absence of lymphocytosis, of the Wassermann reaction, and the butyric acid reaction in psychosis with a basis of arterio-sclerotic disease known to be the result of old syphilitic infection, indicates that these conditions are to be regarded as sequelæ of syphilis, and that the syphilitic process itself is in cases of these conditions already extinct.
2. In general paresis either the Wassermann reaction or Noguchi's butyric acid reaction is invariably found—and most frequently together; no doubt of the essential dependence of general paresis upon syphilitic infection can any longer be entertained.
3. Inasmuch as the Wassermann reaction and the butyric acid reaction seem to indicate

syphilis only when it exists in an active or potentially active form, their regular occurrence in general paresis would tend to prove that that disease is a manifestation of active syphilis, of activity of the spirochæta pallida; while the evidence for this view is not yet complete, it is sufficient to justify its being used as a basis of therapeutic essay.

4. In no other common psychosis does either the Wassermann reaction or the butyric acid reaction occur with any regularity or even with special frequency; the relation of syphilis to these psychoses is that of a complication by accidental coincidence.

5. From the standpoint of diagnosis cytological examination of the cerebro-spinal fluid is an indispensable aid in the practice of psychiatry; with the further aid of the Wassermann reaction and Noguchi's butyric acid reaction the diagnosis of general paresis can be either established or excluded with practical certainty.

A Case of Pure Word-Deafness with Autopsy.

Albert M. Barrett M. D., *Journ. of Nervous and Mental Diseases*, Feb. 10—Too often in speech disturbances a satisfactory clinical examination has been neglected much to the detriment of any later study of the brain. In the writer's case of sub-cortical auditory aphasia, a thorough clinical study had been made.

Patient showed clinically a total deafness for words spoken, but gave attention to sounds. There was an inability to recognize meaning of sounds heard and to repeat words. Spontaneous speech was retained; objects seen were correctly named, and reaction of things felt was good. He was able to read printing and writing and spontaneous writing and drawing ability was retained.

The brain was studied by the method of serial sections, the lesion being exactly determined by reconstruction. In this way was shown the distinction of a considerable area of cortex in the left first and second convolutions, with preservation of the transverse convolution on the dorsal surface—the receiving station for the auditory radiations. The writer concludes that pure word deafness is the result of the isolation of the receiving station in the transverse convolutions of the left hemisphere by an anatomical lesion affecting its fiber relations with the internal geniculate body.

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ORIGINAL ARTICLES

AN INTERESTING CASE OF RETENTION OF FOREIGN BODY BELOW THE ORBIT*

V. A. CHAPMAN, M. D., Muskegon, Michigan

Mr. A. L. M. was brought to my office July 10, 1908, by Dr. R. G. Olson of Muskegon Heights, for consultation in the matter of diagnosis and treatment. The patient gave a history as follows: On the 31st of December, 1898, the patient, a blacksmith by trade, was adjusting the sight of a Remington rifle. In testing the rifle he used an enormous charge, about 90 grains, of smokeless powder. When the rifle was discharged, it burst open at the breech. The patient received an injury of the face just below the left eye. There was a large gaping wound. He immediately sought medical aid. The wound was cleansed and probed by a competent surgeon who decided that there was no foreign body present. The wound was closed and dressed and went on to uneventful recovery.

Soon after this, the patient began to have what he calls a bad catarrhal discharge from the nose. This discharge also would drop into his throat from the nasopharynx. At times it would have a bad odor. Six weeks ago the old wound under the left eye broke open and has been discharging foul pus freely ever since.

For years the patient has had double

vision. The double vision used to be vertical; now it is horizontal and is worse lately.

Present condition: The patient, a well nourished man about forty years of age, has a large scar on the left side of the face. This scar is angular in shape, extending horizontally across the face, below the left eye to the nose and down alongside of the nose something over one-half its length. At the site of this old scar, below the left eye, there is a small sinus from which foul pus is issuing. His vision in the right eye is 20-20. Vision in the left eye is 20-70. Tension normal. Ophthalmoscopic examination reveals a congested condition of retinal veins. The appearance of the nerve head simulates optic neuritis. The general appearance is that of pressure upon the optic nerve.

A probe inserted into the opening in the face passes readily downward apparently into antrum of Highmore.

On close questioning, the patient states that he has not noticed any of the discharge into the nose and throat since the discharge began coming from the opening in the face below the left eye. Questioned closely, the patient states that no foreign body was removed from the wound in the face at the time of the injury. He also states that

*Read at Eleventh Councilor District Meeting held at Big Rapids, May 4, 1909.

every part of the exploded rifle was found, excepting the ejector pin.

Patient was advised that operative measures were indicated and that in all probability the ejector pin was lodged at some point beneath this old scar.

The patient, under general anæsthesia, was operated upon at Hackley Hospital, July 14th, Dr. Olson assisting. I entered the left maxillary antrum from within the mouth through the canine fossa. The anterior wall of the antrum was freely removed. Far back in the antrum, high up, and embedded in the posterior wall was found a foreign body. The tissues around about this were black. Upon cleaning away the debris the foreign body was found to be a piece of metal. I at once remarked to Dr. Olson, "There is the ejector pin." Seizing this piece of metal by strong forceps I began gentle traction. The steel was movable, but I was unable to remove it. Knowing the size of the ejector pin, I was astonished at this. I knew that I had sufficient opening to enable me to remove a much larger object than an ejector pin.

I enlarged the opening, removed more bone and soft tissue from about the foreign body and even then was unable to extract it. I noticed that when exerting traction upon the foreign body, the eye ball would protrude to the same extent as I was able to bring the foreign body forward. Suspecting that I had something more than an ejector pin to deal with, I made an incision through the old wound, beneath the eye and down the side of the nose. This flap was turned back from the bone and considerable necrosed bone was removed. Deep down in this opening I found a large metallic mass surrounded by blackened tissues. Some of the bone and connective tissue was black as ink. There was some odor to this, but not very much. Again seizing the foreign body, I was unable to

extract it. I continued to remove the structures about the foreign body until, finally, traction brought away the foreign body, which proved to be a large piece of the steel frame which confines the lock and mechanism of the rifle.

The end of this piece of steel which was deepest embedded was ragged and corroded with rust. The upper edge of the distal end was curved upward and was behind the eye ball. It was necessary, in extracting the steel, to raise the proximal end and depress the distal end in order that it could be extracted without injuring the eye ball.

The floor of the orbit was gone and the soft tissues of the orbit rested upon the steel. This steel had penetrated so deep that the distal end was lodged in the sphenoid bone and had almost entered the cranial cavity. The piece of steel weighed exactly one ounce. The accompanying photographs are a little less than its actual size.

An opening was made into the nose to permit drainage of the cavity from which the foreign body had been removed. The antrum and cavity were packed with sterile gauze, saturated with compound tincture of benzoin, a piece of which was brought out at the external opening beneath the eye and at the opening through the canine fossa. The gauze was changed daily; plain sterile gauze being used after the first dressing, and the wound and cavity irrigated, for nine days. After that the wound was allowed to close; which it did very rapidly. Two weeks following the operation the wounds had entirely closed and the patient was practically well.

Nasal douches were continued for some time and brought away small quantities of discharge. At this date, nearly four months following the operation, there is no discharge into the nose or throat whatever. The wounds are all entirely closed. The patient's vision is better. He has

no double vision whatever, except when looking downward as far as he can without throwing the head forward.

It would hardly seem possible that a foreign body of this size could be overlooked at the first dressing and that it could remain within the wound during all subsequent dressings until the wound healed

gun; or of any broken object which might cause foreign body in the eye or in any of the tissues of the body.

FOREIGN BODY OF THE EAR

(Removed by Giant Magnet)

As a further report of the removal of a metallic foreign body, I beg leave to report



Foreign Body Removed from Orbit

and not be discovered. It seems scarcely possible that such a large foreign body could be carried in such a place for such a long time (10 years) without causing more trouble than was caused in this instance. This case also shows that the statement of a patient cannot always be relied upon regarding missing pieces of an exploding

a case of a rather unusual foreign body in the ear.

Foreign bodies in the ear are usually removed without very much trouble and without very serious consequences. Ordinary foreign bodies, if small, may be floated out of the cavity by syringing with warm water. Or may be removed by the ring

curette, the foreign body ear hook or the foreign body ear forceps, preferably of alligator design.

It occasionally happens, however, that the foreign body may be of some smooth, hard substance and of such a size as to entirely fill the external auditory canal. In such an instance the attempt to grasp the foreign body by means of the forceps usually tends to push the foreign body further into the canal and if in so doing the foreign body passes beyond the isthmus of the canal it becomes practically impossible to remove it without separating the cartilage of the auditory canal from the mastoid bone and enlarging the bony canal sufficiently to permit of the withdrawal of the foreign body through this opening.

The case which I wish to report was one something on this order. The patient, Jerome S——, ten years of age, was playing in the school room with a number of boys. One of the boys threw a bicycle steel bearing ball across the room and it entered the right ear of the patient. This ball was about the size of a pea, very smooth and nicely filled the lumen of the canal. The child was put under chloroform and the ball resisted all efforts to remove it. The smooth surface would simply slide from the grasp of any instrument with which attempts were made to seize it.

The patient was referred to me. Six hours after the entrance of the foreign body, I found the external auditory canal bleeding and swollen to such an extent as to half close its lumen. At the end of the external auditory canal, crowded firmly against the drum membrane, was seen a round, shining, smooth, metallic object entirely filling the lumen of the canal.

I at once decided that no instrument could be used to grasp this foreign body to withdraw it. There was no room to place any instrument between the foreign body and the external auditory canal wall.

The only hope of removing without operation lay in the giant magnet; and this, evidently, would have to be employed very soon as the wall of the external auditory canal was swelling at a rapid rate and the canal would soon be closed.

Several trials were made with the large tips of the giant magnet. When these were approached up into the canal towards the foreign body the magnet would immediately exert the pulling force upon the foreign body. This caused considerable pain and the boy would jerk away from the magnet.

I felt very certain that if the magnet tip could once come in actual contact with the steel body it would cling to it strongly enough to draw the foreign body through the narrowed outer canal. Accordingly the long, slender, partially curved tip of the magnet was used. This was attached to the magnet and placed well up in the external auditory canal without the energizing current being turned on to the magnet, this being controlled by the foot rheostat.

When I had placed the magnet tip well up into the canal and the boy was again showing signs of jerking away from it, I threw on the whole force of the energizing current by means of the foot rheostat. The steel ball immediately became attached to the tip of the magnet and the boy by his effort to get away withdrew the foreign body attached to the tip of the magnet. This caused him considerable pain for the few seconds while he was pulling his head away from the magnet.

This is the first instance I have known of the giant magnet being used for the removal of a foreign body from the ear and I have considered it worth reporting at this meeting. It is well to have the use of a giant magnet in mind as a method of removal before resorting to operation in cases where a steel foreign body has entered the external auditory canal.

THE TREATMENT OF ACUTE NEPHRITIS *

By EUGENE BOISE, M. D.

Grand Rapids, Michigan

Acute nephritis terminates in one of three ways—recovery, death or chronicity. If in recovery, it is by the combined action of three agencies. First, checking the supply of toxins. Second, destroying them or lessening their virulence, and third, elimination. If it terminates in death, it is by reason of uræmia, anuria or "heart failure." If it becomes chronic, it is because the toxins have become less virulent, but have still continued their attacks till the kidney tissue has become permanently injured.

The indications therefore are, *first*, to prevent death, and *second*, to prevent subsidence into chronicity.

Before this, however, comes the question of prophylaxis. A question which is somewhat vague and uncertain because of the vagueness and uncertainty as to the etiology of acute nephritis. But this question becomes imperative under conditions that we have grown to recognize as especially liable to be followed or accompanied by nephritis. Therefore, how and when shall we institute measures looking toward the prevention of acute nephritis? Let us take the two conditions which are so frequently followed by nephritis as to cause us to be always apprehensive—scarlet fever and pregnancy. Scarlet fever is, of all the infectious diseases, the one most prone to be followed by nephritis, and we have reason to believe that this nephritis is not due to the direct action of the scarlet fever poisons on the kidneys, because the nephritis almost

invariably comes comparatively late in the disease—not when the disease is at its height and most intense, but often when all acute symptoms have passed away. Neither does it follow the most severe types of the disease much more frequently than the milder. The nephritis of scarlet fever is caused by poisons formed within the body by the action of the toxins of scarlet fever. What those poisons are, we do not know, nor do we know their nature, but we know that by some means, during their elimination through the kidneys, they cause injury to those organs.

So also during pregnancy we often see evidence of a nephritis which may be comparatively manageable or may cause speedy death. These toxins are also endogenous, and cause the inflammation of the kidneys during the process of their elimination through that organ.

How then shall we prevent this injury to the kidneys?

We know that the blood is always loaded with products of metabolism which are irritant to the kidneys, but which are so changed and neutralized by the liver and other protective agencies, as to be entirely innocuous. We also know that there are special toxins produced in some manner by the action of the scarlet fever poisons, which probably have a special affinity for, or malignancy toward, the kidneys. All these irritant, poisonous substances must be eliminated. The blood is loaded to repletion with them and the kidneys are taxed to their utmost. What, then, are the indications? What are our duties?

*Read at the Annual Meeting of the Eleventh District Medical Society at Greenville, Mich., May 17, 1910.

Let me give you the outlines of a recent case. A child four years old had a moderately severe attack of scarlet fever, with an intense rash. The urine was rather scanty and high colored. In accordance with my almost invariable custom, she was given, every three hours, eight or ten drops of sweet spirits of nitre, as being the mildest diuretic obtainable. Explicit directions were given to keep the bowels quite free and to give water freely but not excessively. The parents were early cautioned to call me at once if fever or nausea should occur. Everything progressed nicely for more than two weeks. One night, about 3 a. m., I was called to the telephone and told that the child was vomiting and had a fever. I was told that she had been quite constipated for two or three days and that the urine was scanty. I immediately took measures to secure free catharsis, stopped *all* food and increased the dose of nitre slightly. The next day the child was a little better. The kidneys secreted only about two ounces of high colored urine in twenty hours, but it was not albuminous. No other treatment was given (except absolute rest in bed) and the kidneys soon began secreting urine, at first moderately, then quite normally.

Now what happened in this case?

The blood, already loaded with various toxins, was overburdened with additional deleterious substances by reason of the constipation. This additional irritation was enough to stop the secretion of urine, possibly by causing spasm of the smaller arterioles of the kidneys. Free catharsis, with total abstention from food, eliminated the toxins sufficiently to allow relaxation of the arterioles and resumption of function by the glomeruli, before damage had been done to the epithelium of the tubules.

The indications then are, in all cases of threatened nephritis,

1st. To avoid additional burdens to the already overburdened circulation, and
2nd. To encourage and promote as free elimination as possible, but with extreme care.

For instance, every case of scarlet fever, however mild, must from the first be restricted to almost liquid diet (with possibly fruit juices and some vegetables) to avoid additional noxious substances in the blood. Inasmuch as the elimination power of the skin is greatly impaired by reason of the dermatitis, more than ordinary attention must be paid to the bowels. They must be kept more than ordinarily free, but without excessive catharsis. Carry off all the deleterious substances possible through the bowels, and encourage the patient to drink freely of water, to more than supply the waste. And finally the kidneys may be stimulated in the most delicate and least irritant manner possible, yet in such a way as to increase the quantity of water excreted, flushing the tubules and washing away the solids excreted by them, thus preventing injury to the kidneys.

In no disease, perhaps, is prophylaxis more important or more valuable, if carried out with a clear idea of the functions of the different parts of the kidneys and the specific action of remedies.

I have said that the poisons which cause the nephritis of scarlet fever, are probably not the poisons of scarlet fever, but are manufactured within the body by these poisons and have a specific tendency to or predilection for the kidneys. This view is growing in favor and would seem plausible when you remember that the nephritis of scarlet fever is almost always glomerular in character, while the nephritis caused by the subcutaneous injection of uranium nitrate, for instance, is almost invariably interstitial.

Also diuretic drugs have their affinities

for different parts of the secretory tissues of the kidneys, some increasing the watery portion of the urine, others the solids. Therefore, it is not only possible but may be probable, that further research will enable us to differentiate the character of the pathological processes by the known causes, and this more definite knowledge may lead to more definite therapy.

But if our efforts at prophylaxis have failed, we are brought face to face with an acute nephritis. How shall we treat it?

The conditions that at once attract our attention are vascular hypertension, edema, scanty urine, albumen and casts.

At once the question arises, What causes the hypertension, the edema, the albuminuria, etc.? They are all pathological processes, but are, after all, only symptoms, and if treated at all must be treated as such, and, generally, only when they cause danger or discomfort. The rational treatment is the treatment of the pathological processes or conditions which cause these symptoms.

The cause of vascular hypertension we do not know. Various theories have been advanced and rejected, but, in my opinion, it will ultimately be accepted that it is due to an increased amount of adrenalin in the blood, and that this increased secretion of adrenalin is due to reflex irritation of the secretory nerves of the glands, by the inflammatory processes in the kidneys. Shall we treat it? Generally speaking *no*, because the danger of induced arterio-sclerosis, which is so vital in chronic interstitial nephritis, is slight in acute nephritis. Janeway says that "the height of blood pressure gives no indication for treatment except along preventive lines;" that, "hypertension is no more to be treated than a cardiac murmur"; and that "the treatment should be directed according to the presence of symptoms pointing to the

inadequate maintenance of the circulation, or to the sudden occurring of dangerous complications."

Attention should be paid to the blood pressure, not as being in itself a condition to be treated, but as possibly giving information as to the underlying pathological conditions.

Edema is a symptom generally constant in acute nephritis, and is generally the one symptom on which the patient places the greatest emphasis as being the index of the success or failure of treatment. And yet it merits no attention except as it causes discomfort by over-distension or danger by encroaching on the abdominal cavity or the lung tissue. It ordinarily calls for no attention, yet it is of interest as being another index pointing to the theory that nephritis is caused by toxins having a special predilection for the kidneys.

There are two conditions necessary to the occurrence of nephritic edema, hydræmia and injury to the epithelium of the capillaries. This injury to the capillary epithelium is caused by the toxins that cause the nephritis—at least that is the generally accepted theory. And though we have infinite toxæmias, it is only the toxæmia of nephritis that will cause these certain conditions leading to edema. Thus, while it has not been demonstrated, it may be said to be plausible that through the scarlatinal toxins other poisons are elaborated that have a special predilection for the epithelium of the kidneys, both glomeruli and tubules, and for the capillary epithelium. What the cause of the hydræmia is, has not been determined. Various theories have been advanced and rejected, but it has become pretty generally accepted that it is due to the retention of salt in the blood and tissues, and that it is best treated by withholding salt. As Vaughan says: "Any excess of salt over that needed in metabolism, is irritant to

the kidneys, therefore when the kidneys are diseased withholding salt helps them."

What then are the indications for treatment in an established acute nephritis?

- 1st. To prevent uræmia.
- 2nd. To prevent anuria; and
- 3rd. To prevent heart failure.

First then, what is uræmia? Nobody seems to know.

Wells defines it as "An autointoxication which affects mainly the nervous system and occurs in connection with renal insufficiency. It is due to retention in the blood, tissue, lymph and cells of the body of certain indeterminate but specific products of perverted or normal tissue metabolism, which are not excreted by the inadequate kidneys, or are not taken up by the lymphatic radicles, or are not neutralized or destroyed by the lymphatic glands or other protective organs."

Vaughan says: "In uræmia the poison results from a radical change in metabolism, and the active agent produced is not one of the normal constituents of the urine."

Crofton argues that we must look to the liver rather than the kidneys for the cause of uræmia. He says: "The clinical evidence, and what may be called the pathogenetic evidence in favor of the hepatic origin of many cases of uræmia, is, in my judgment, very strong and convincing."

Krehl, in a rather full discussion of the nature of uræmia, says: "Not infrequently during the course of renal disease, a group of symptoms develops which seems to be caused by some sort of intoxication. This is called uræmia, and it presents the most varied clinical picture. The patient may become stupid or comatose, or, on the other hand, extremely irritable. He may have local or general convulsions, or he may suffer from paralysis of various parts of his body. Sometimes he becomes blind

without there being present any objective lesion in the eyes. The heart's action is at first slow and irregular but later becomes very rapid. The respirations become deeper or assume the Cheyne-Stokes type.

Again, "Beyond doubt the symptoms of uræmia are caused by some sort of intoxication, and our first supposition would naturally be that this intoxication is due to the retention of substances in the body that should normally be excreted by the kidneys. Yet a number of facts speak against this view. In the first place, an absolute anuria may persist for days without producing uræmic symptoms, and furthermore, even though death results from suppression of urine, the associated symptoms do not precisely coincide with those of uræmia. Patients with anuria seem to pass gradually into a coma without any irritative cerebral symptoms, and the uræmic rise in the blood pressure, the slow pulse and the characteristic convulsions are all absent. We may say, therefore, that no well defined substance is known which will produce uræmia by its retention in the body."

He also says: "It is quite possible that in nephritis toxic substances are formed in abnormally large quantities, and that they are not eliminated properly by the kidney.

"Finally," he says, "there exists the possibility that uræmia is due, not merely to a failure on the part of the kidneys to eliminate poisonous substances from the body, but to pathological alteration in some of its (the kidney's) metabolic functions."

What bearing does all this have on treatment?

During nephritis (and only during nephritis) certain noxious substances are formed in the body. They are not due to failure on the part of the kidneys to remove from the body substances normal to the urine,

but they are due (probably) to faulty tissue metabolism, and possibly to faulty metabolism of the kidney tissue itself.

Therefore there are two indications:

First. To eliminate through channels other than the kidney all of these noxious substances possible, and

Second. To restore the kidneys to the normal, if possible, so that thereby the faulty kidney metabolism (if such exists) may be corrected.

Elimination must be sought through the skin and bowels. Through the skin by diaphoresis obtained by external stimulation. The use of pilocarpine in uræmia has been generally discarded because of the excessive bronchial secretion thereby induced, which may lead to pulmonary embarrassment. Elimination through the bowels must be sought by agencies that will cause copious watery stools, such as the salines, elaterium, etc. Elaterium is to be preferred because the salines might act as irritants to the kidneys. But in proper cases the agent to be relied on above all others as an eliminant, is venesection followed by transfusion or the infusion of normal salt solution.

The normal tendency of diseased tissue is toward recovery; therefore give the kidneys as much rest as possible, using only those diuretics that stimulate the secretion of the watery part of the urine, remembering that the careless use of diuretic agents may be more injurious than helpful.

In anuria the conditions are different. There may be absolute suppression of urine for days without causing uræmic symptoms. Inasmuch as the results of anuria are due to retention in the body of substances normal to the urine, the indication is to restore the kidney functions as early and fully as possible. How this shall be done is the great problem in anuria.

The amount of urine secreted normally depends on the amount of blood flowing through the kidneys, and upon the rapidity of the flow. The toxins that cause the nephritis cause the suppression of urine. They do this by impairing the secretory power of the epithelium of the glomeruli and tubules, and by causing contraction of the arterioles. By this the amount of blood is lessened and also the rapidity of its flow. If the suppression persists the epithelium of the glomeruli and tubules is irreparably injured, the blood becomes increasingly loaded with substances which should be eliminated through and by the kidneys; coma supervenes and death speedily follows.

But early in the disease, when the urine is becoming scanty, high colored and heavy, treatment may be of benefit. The functions of the kidney may be restored and death may be averted.

But how? Not by giving large amounts of water, because, as Van Noorden says, "The kidney of anuria is as unable to secrete water as anything else and to such a kidney water is as irritant as urea."

But since the condition of the kidneys is caused (presumably) by toxins, it is imperative that they shall be eliminated as rapidly and completely as possible, and this elimination must, of course, be sought through the skin and bowels. In anuria, where there is such intense congestion of the kidneys, the use of pilocarpine may be advisable, inasmuch as over and above its diaphoretic action we hope for a relaxation of the contracted arterioles of the kidneys, a relief of venous stasis, and a resumption of function by the kidneys. Following the efforts at elimination the very mildest watery diuretics may be given. Stimulant or irritant diuretics are to be avoided. Hot fomentations to the kidneys, persistently applied, may do good.

I am of the opinion that when the anuria is obstinate, and the patient is sinking into a condition of coma in spite of all our efforts, we should resort to rather extensive decapsulation of one or both kidneys, hoping or expecting by this procedure to relieve the local tension, to remove the pressure on the arterioles and veins and to reestablish the circulation of the blood, thus enabling the glomeruli and the tubules to resume their functions.

Venesection is not to be forgotten, because it may be of value not only as a measure of elimination but as an equalizer of the circulation.

A number of investigators have been using "renal extracts" in nephritis, on the assumption that there is an "internal secretion" that may be of benefit in these conditions. A number of very favorable reports have been made. Some claim that freshly macerated kidney substance, administered by the mouth, will very favorably influence nephritis—that new glomeruli and new tubules are formed and the kidney tissue becomes regenerated.

It may be that along this line of investigation valuable therapeutic measures may be evolved.

ACUTE, SUBACUTE, AND CHRONIC INFECTION OF THE KIDNEYS AND OF OTHER ORGANS BY THE COLON BACILLUS.

W. Hanna Thompson of New York says that the sudden onset of kidney symptoms with early cerebral phenomena, soon passing into coma, with rapid rise of temperature, and uncontrollable vomiting, are almost pathognomonic of the infection of the kidneys with the colon bacillus. Ordinary examination of the urine shows albumin and casts, and would indicate nephritis, but a special examination for the colon bacillus will show the urine to be loaded down with the germs. It is not uncommon in typhoid fever. It occurs by way of the blood in any lesion of the intestines in which there is ulceration, allowing the bacillus to pass out of the bowel into the circulation. The author gives interesting examples of this disease infection. The kidney troubles of scarlatina and diphtheria may be due to this infection rather than

to the toxemia of the disease. No visible lesion of the intestinal walls is absolutely necessary to its transmission to other internal organs.—*Medical Record*, May 28, 1910.

SURGICAL SUGGESTIONS

If there is reason to believe that one is dealing with a subacromial bursitis, the presence of great tenderness on pressure over the humerus in the axilla should not be interpreted to gainsay the diagnosis—although such tenderness has not been described.—*American Journal of Surgery*.

If one fails to quiet a frightened, crying child sufficiently to determine the presence of a tender area, necessary to diagnosis, the administration of chloroform to the point of *primary* anæsthesia will make the examination easy and, at this stage of narcosis, pressure on a tender spot will be answered by reflex movements.—*American Journal of Surgery*.

A PLEA FOR BETTER ATTENTION TO THE NEW BORN BABY *

I. L. POLOZKER, M. D.

Detroit, Michigan

There is a wave passing over the world against tuberculosis. There is a great deal of discussion through the country about our schools. The school curriculum, the school building, the school-hygiene and sanitation and the kindergarten are coming in for criticism, even the pupil himself has been attacked. His physical ailments are looked over, his mental condition is ascertained and a good many school boards and communities have already come to the sane division of school children according to their mentality. Separate buildings are being maintained for teaching backward children. We are doing all we can to raise healthier children so that they will grow up to be better men and women both physically and mentally. But what is being done about giving them a good start at birth? Of saving a good many newborns that die from pure neglect on the part of the physician, nurse or parents? A building is not sound without a good foundation.

What does the average doctor in a case of obstetrics do for the baby? Nothing. As soon as the baby is born, he cuts the cord as quickly as he can and turns it over to the nurse or anybody in the house with very little or no instructions. He stays by the mother who in a normal case does not require his attention and would often be better off if the doctor got away from her to give the placenta a chance to be delivered. But no, he stays at her bed-

side and makes frequent examinations, while the ignorant nurse puts the youngster into boiling water, rubs it with dirty oil, or covers the baby up so closely as to asphyxiate it completely or partially so that it gets a poor start in life or remains crippled. At a recent meeting of the American Pediatric Society, Dr. A. W. Saunders of St. Louis, and Dr. Samuel S. Adams of Washington, both called attention to the danger to the newborn, of the ordinary gas-heaters used in rooms, and reported several cases of illness in children due to this cause. I will not here enumerate the numerous diseases of the newborn, with which you are all familiar, but I want to remind you of the necessity of their early diagnosis. With the advance made recently in all departments of medicine, with the new aids for diagnosis, as for instance the Wassermann reaction in syphilis which is being so simplified that it will be available for use to any practitioner in medicine,—just think how that applies to the pregnant mother. It will make possible an early diagnosis and we will know what to expect in the coming offspring accordingly. What we are now doing for the prevention of ophthalmia neonatorum, will be done for other diseases. With the advances made in surgery, how much can be done for cases of cerebral hemorrhage, and other congenital cerebral injuries, if a diagnosis is made early. Enough to call your attention to what Cushing, the father of cerebral surgery, has done already.

*Read at the Forty-fourth Annual Meeting of the Michigan State Medical Society, at Kalamazoo, Sept. 15-16, 1909.

One word about the hundreds of babies that die during delivery just by pure negligence on the part of the men who know little about modern obstetrics. Prompt delivery in complicated cases, as you all know, has more than once saved the baby's life, but it requires a skillful obstetrician to do it.

I have recently been told by a prominent neurologist of our city, whose wife has lost two children at birth, that he followed up the work of this obstetrician, who to his knowledge has lost two other babies at delivery among his friends, where it appeared to him that all these children could probably have been saved by prompt interference at the time of delivery. I have myself witnessed cases of protracted parturition where the child was born asphyxiated, and still the obstetrician stuck to the mother, where he was not needed, and did not go near the baby where he really was needed.

We are all glad to notice the crusade against ophthalmia neonatorum, and a great deal has been accomplished in this direction in saving babies' eyes. I would call it criminal if in a suspicious vaginal discharge of the mother, the attending physician did not pay attention to the babies' eyes at birth. Why eyes only? Why does this not apply to other things?

While writing this paper I put this question to a well-known obstetrician in Detroit, who said, "Well, Doctor, it is because the average man does not get enough pay for an obstetrical case to give it the proper time." He, however, agreed with me that this was a poor excuse. The doctor, and the doctor alone, is responsible for the low fee in obstetrics. No matter how low the fee is, do the work right or leave it alone.

Of course gentlemen, I know that none of these facts can apply to such a body of men in this section, but we all know

the work done in obstetrics by the ordinary untrained man—get through with the case, never mind mother or baby. It is simply to remind you gentlemen and teachers in obstetrics to teach and impress the necessity of better attention for the baby, since the foundation of a good physique is laid in infancy, and in childhood, which if neglected cannot be rebuilt. The nation demands better work in the future. Save the babies and raise healthier men and women.

The greatest of all evils I have yet to mention is the laxity with which the obstetrician advises as to the nursing of the baby. In my own limited experience I can enumerate case after case where the weaning of the baby was due to the obstetrician. In some cases when called in early enough, where the secretions of the breasts were not entirely dried up, and by insisting upon the mother nursing her child, we have shown her that she had plenty of nurse. The cases where the mother cannot nurse her baby are very few, and it is needless to state that it is almost always better than artificial food. The causes of death from artificial feeding during the first year are very numerous. It is true, as Southworth says, "The most abused and neglected baby is the Nursing Baby." It is true that baby and mother have to be looked after and carefully instructed as to hygiene, diet and mode of life. There is a steady decrease in maternal nursing, and a larger number of infants are exposed to the dangers of artificial feeding. The medical profession has been partially aroused of late to the fact that women should be urged to nurse their infants, but every assistance must be extended to those women to make the continuation of lactation possible. In Vienna, many societies have been formed to aid mothers nurse their babies. The majority of mothers who have been unable

to nurse or have prematurely weaned their infants have been led to make this decision through ignorance or neglect of their trusted advisers.

Now what is the remedy? First teach the physician that a case of labor does not end with the delivery of the child; that the child as well as the mother needs attention; that it is absolutely necessary to make early diagnosis of the diseases of the newborn; that treatment only applied early can do good in these cases; that it is absolutely essential to the child's future that it should be nursed. A physician that will attend to all these conditions

should get better compensation for obstetrical work. I believe that Southworth in his address to the Pediatric Section A. M. A., at its last session, hit the nail on the head when he said, "In Chicago in 1904, 80% of all births were reported by midwives; in Buffalo, N. Y., 50% by midwives; in New York City, 42% of all births by midwives; in Detroit, in 1908, 21% by midwives.

Eradicate the midwife and it will help some. But if we must have them, have them better trained and under control of proper laws.

Gas Office Bldg.

VASOSTOMY AND VASECTOMY IN ACUTE AND CHRONIC GONORRHEAL VESICULITIS AND EPIDIDYMITIS*

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The treatment of acute gonorrhoeal vesiculitis and epididymitis by means of heat or ice, and guaiacol, nitrate of silver, belladonna Ung., support and complete rest in bed (with many variations) constitute the palliative treatment usually employed.

The end results in cases treated palliatively are usually good as regards the life of the patient and integrity of the testicle, but, for the epididymis it is far otherwise.

We are as yet in no position to estimate the frequency with which permanent occlusion of the vas occurs. Benzler, as a result of examinations of soldiers of the German army, found 23% of sterility in unilateral epididymitis and 41% in bilateral. Many observers believe this percentage much below the mark. The subject has been distinctly a neglected one.

During the last few years attention has been attracted to the operative treatment of acute epididymitis, particularly by the

*Read at the Eleventh Councilor District Meeting, Greenville, Mich., May 17, 1910.

contributions of Belfield, Bazy and Hagner.

W. T. Belfield of Chicago, called attention to surgical treatment of pus tubes in the male, in the *Jour. A. M. A.*, April 22nd, 1905, and again in the same journal Dec. 25th, 1909.

These gentlemen have clearly shown that early incision and drainage of the inflamed epididymis and tunica vaginalis, promptly relieves pain, prevents the tendency to relapse, and leaves the epididymis functioning and apparently normal.

The technique is quite simple and in my experience a general anæsthetic has never been necessary. The local anæsthetic is inserted in skin and cord. The scrotum is prepared as for any surgical operation.

The operator grasps the scrotum with thumb and finger of left hand in such a way that the cord at its junction with the testicle is pushed against the side of the scrotum and the skin is stretched. With sharp pointed scissors in right hand a vertical incision $1\frac{1}{2}$ inches or more in length is made through skin and fascia, and tunica vaginalis. Serous or sero-purulent fluid will escape, the red and swollen epididymis will project into the wound. A sharp pointed artery forceps may be pushed behind the vas and either end projected outside the skin, thus bringing the vas outside the scrotum.

The left hand is now released and the vas incised longitudinally, and a silk-worm gut passed into the seminal vesicle, through incision in vas, to determine whether there is a stricture of the vas. The silk-worm is withdrawn and pushed into the epididymis. The needle of a hypodermic syringe, charged with 20 drops of a 10% solution of potargol is introduced into the vas through the incision and directed upward until the shoulder of the needle meets the end of the incision.

A catgut ligature is tied lightly about

the vas containing the needle and the medication forced into vas and vesicle, the greater part of which will remain in the vesicle. The upper portion of the epididymis is punctured in several places with a narrow bladed knife (as recommended by Hagner). Then the most dependent portion of the epididymis is incised. If no pus is found the wound is lightly packed with gauze and a support applied. Should pus be found in lower part of epididymis, drainage is best made through an additional skin incision directly below this point. Pain is relieved promptly; the swelling rapidly subsides; the wound heals rapidly; and the patient is not confined to the bed longer than two or three days, in some cases not at all.

In cases of chronic vesiculitis and epididymitis one or more strictures of the vas may be found. A stricture through which the silk-worm gut cannot be passed must be resected and the ends of the vas approximated by the method of Chas. Mayo (a silk worm thread is passed into the lumen and out through the wall of each cut end and the thread tied above the skin, the thread serving as an axis splint which secures exact position of the cut ends of the vas).

The very intricate anatomical relation between vas, vesicle, ureter and bladder accounts for many bladder and ureteral symptoms directly traceable to *vesiculitis*.

Seminal retention without infection may produce irritable bladder. Of nine chronic and twelve acute cases operated by the author *all* made prompt and uneventful recoveries.

This method of treatment insures against recurrence and sterility, shortens the convalescence by more than one-half the time; and, in my judgment, should be employed in acute cases that do not yield to palliative treatment in eighteen hours, and in all chronic cases.

SERO DIAGNOSIS OF SYPHILIS AND ITS CLINICAL VALUE*

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The recent demonstration of substances in blood sera in certain diseases leads us to accept the presence of such substances as positive indicators of disease due to a specific cause. Positive reactions to the Widal test, Tuberculin, or the Wassermann test are in their specific application very important links of diagnostic evidence in the chain of manifestations of their respective diseases. These tests and others of a laboratory nature today comprise the source of the best scientific evidence to obtain a correct diagnosis, especially in doubtful cases.

Among these confirmatory diagnostic agents, the Wassermann test, when applied to cases of suspected or doubtful syphilitic origin, is without question one of the most important. This test gives a positive reaction in from 90% to 95% of untreated secondary syphilis, about 50% in tertiary syphilis, and a very much smaller percentage in latent syphilis. The reaction therefore, when most needed as a diagnostic means is shown in about 50% of positive syphilitics. With the thousands of cases that have been carefully subjected to this test, no reaction has been obtained in the non-syphilitic, with but few exceptions, such as sleeping-sickness, yaws, leprosy and scarlet fever. These exceptions do not decrease the value of the test, because of the ability to easily exclude clinically the diseases mentioned.

The time has come when we, as physicians, must become familiar with the substances in the blood, that enter into different reactions which are being commonly

employed in this and other reactions, for they are essential in the great field of modern medicine dealing with the process of immunization.

The Wassermann test, which we will briefly outline, depends upon two systems, a bacteriolytic and a hemolytic. These two systems are necessary to measure and observe the phenomena,—fixation and deviation of complement. The (a) or bacteriolytic system consists of three factors, namely: (1) Antibody (patient's serum); (2) Antigen (syph. ext.); (3) complement (G. pig serum). The (b) Hemolytic system in turn consists of three factors, namely: (5) Antibody (hemolytic anti-sheep rabbit serum); (4) Antigen (sheep's corpuscles), and (3) complement (G. pig serum) which is common to both.

1st. The patient's blood is drawn, the serum separated and heated at 56° C. $\frac{1}{2}$ hr. The second factor or antigen is an alcoholic extract of liver from stillborn syphilitic infant. 3rd, or complement is the fresh, clear serum from a normal guinea pig and is common to both systems. 4th, hemolytic antigen or sheep's blood corpuscles are obtained by drawing a quantity of sheep's blood into 1% sodium citrate in salt solution, centrifuging, decanting, taking up the salt solution, centrifuging, and again taking up in salt solution and centrifuging. The thoroughly washed corpuscles are then diluted in salt solution 1:100. 5th factor, or hemolytic antibody, is secured from the blood of rabbit which has been immunized to sheep's red blood corpuscles by five injections at intervals of four to six days, and then inactivated by heating at 56° C. $\frac{1}{2}$ hr.

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The factors of the Hemolytic system are first standardized by determining the amount of complement (3) necessary to reactivate one unit of antibody (5) *sufficiently* to liberate the hemoglobin from one unit of antigen (4) in ten minutes at room temperature.

The antigen in the Bacteriolytic system is in turn standardized to the units used in the hemolytic system by using sera from a known positive syphilitic and a known normal.

Having now the material for making the test, we are ready to put the five reagents together. One drop of the suspected serum of the patient, one unit of complement and one unit of antigen are placed in one tube. Another tube containing one drop of positive syphilitic serum, and also one containing one drop of a known non-syphilitic serum with units of the other two reagents in each, are placed together. By so doing, the patient's serum is controlled by a positive, and a negative control serum. No reaction that is not so controlled can be trusted for accuracy. These sets are placed in an incubator for 20 minutes, after which time, one unit of each of sheep's corpuscles and hemolytic serum are added to all of the tubes, which are then allowed to stand at room temperature 10 minutes. If an antibody be present, the complement will be fixed, so that when the red blood corpuscles and the hemolytic serum are added, there is no complement to unite with the corpuscles and the serum, therefore, no hemolysis takes place. If no antibody is present, the complement is not fixed, and is therefore free to react with the hemolytic serum of the rabbit and the corpuscles of the sheep,—and hemolysis takes place, a checkoff on the test being observed in the positive and negative controls.

After considering the substances which enter into the Wassermann reaction, the manner in which they are obtained, the standardization of each and the constant

deterioration of many of these reagents, one is readily convinced that the test is most difficult. It requires a skilled technician, who is versed in blood work, and a well equipped laboratory. Months are required to become skilled in each step of the test. The guinea pig serum containing the complement must be fresh, which means every twenty-four hours; the hemolytic serum obtained from the immunized rabbit can be depended upon for an indefinite period only if kept in an ice chest. The red blood corpuscles of the sheep begin to disintegrate and are useless in three days. It is therefore a most extraordinarily complicated procedure—and expensive, due to the as yet unavoidably unstable ingredients.

The original Wassermann reaction, with a number of recommended modifications, while laborious and complicated, is reliable as a general diagnostic measure, but unfortunately its application is at present limited to the larger medical centers.

Many investigators have sought to simplify Wassermann's method, so that it can be generally applied, and while we have as yet none that will stand the test for accuracy, we have reason to believe that practical simplifications will be perfected in the near future.

The serum of the syphilitic contains, according to experiments of many investigators, an excess of globulins as compared with normal sera, and those of most other diseases. This fact has led many to attempt to precipitate these globulins by various chemical means so as to be of diagnostic value, either in quality or quantity of the precipitants formed. Those who have exhaustively compared the precipitation reaction, with the fixation of complement reaction are of the opinion that while one may become skilled through the extensive use of the precipitation test it is impracticable for general use in the hands of the physician who seldom needs to employ it.

The precipitation reaction while simple is very delicate, and cannot be considered as reliable in the doubtful case, where an accurate test is most needed.

The author has tested more than 400 bloods with several reagents recommended by various workers in the precipitation test, and with a soluble bile salt previously reported by him; this reagent, Taurine, is proved to be the most accurate. It is a white, crystalline, soluble bile salt and when used in different dilutions precipitates the globulins in larger quantities, in shorter time, and results in a precipitate of a different character from any other substance as yet employed. The sera examined by this test were numbered, with no knowledge of whether the blood was or was not syphilitic, and the reaction verified by the history of infection, or most often by actual, objective clinical symptoms of syphilis.

The author's experience with Taurine leads him to think that it is a simple means of strengthening the diagnostic evidence in doubtful, clinically manifested cases. In summing up the reports of 150 skilled laboratory workers on the Taurine reaction, the evidence is that the casual worker's interpretation of the precipitate is not accurate or definite enough to be relied upon.

The precipitation reaction in syphilitic blood has been demonstrated by Noguchi, Neubauer, Solman, Porges, Elias, and others. Noguchi precipitates the globulins in the spinal fluid of the syphilitic with butyric acid. If the serum, so tested, is normal, there is slight, if any, opalescence; but if syphilitic, a prompt cloudiness appears, and it soon becomes flocculent. The results reported by Noguchi have compared well in accuracy with those of the original Wassermann, and his reports have been confirmed by Fox, De Santos-Saxe, and others. This test, while far more simple than the Wassermann, presents some objections, viz., that of

obtaining the serum from the spinal canal, and also, the very disagreeable odor of butyric, making it impracticable for office work.

Still another type of reaction dependent upon the increase in globulin content is a color test reported by Schurman. We were unable to confirm his findings, but feel that such a test has promising possibilities. The author has done some preliminary work with several color reagents singly and in combinations, but as yet without success.

At present, the serum diagnosis of syphilis cannot be considered perfected; yet much disputed diagnostic evidence is now considered reliable. Its assistance is of inestimable value in differential diagnosis of the obscure, latent syphilis, especially of the nervous system, where no history of positive clinical symptoms of the infection is known.

Early diagnosis means weeks of early treatment, and with vigorous early treatment the duration of the disease is materially shortened and the percentage of cures is accordingly larger. If the Wassermann reaction can be obtained at an early period of general, systemic infection, coupled with the finding of the specific organism, we have not only made great advancement in the early diagnosis of this disease but also in its control. This evidence can be considered only clinical and yet without definite proof. The most important value of the Wassermann reaction may not be that of diagnosis. If we can prove after continued negative reactions of a patient's serum, that the patient who has been afflicted with the disease is entirely free, the test will become of still greater value to patient and physician.

Only by carefully testing many sera for a long period of time can this be accomplished. Many investigators are now maintaining that a patient's serum giving a positive Wassermann reaction may become negative, after vigorous treatment with

mercury. They also maintain that a positive reaction means positive syphilis and further treatment. Much time must be spent on further study of syphilitic sera before the governing of our treatment by reaction can be accepted as absolute. Just how much power of resistance the average normal individual possesses against this infection at a certain age, and just what the effect of our specific treatment is upon the infection, or upon Nature's means of combating the infection, is yet a vast unknown field. Why some patients run such an apparently mild course, while with others the infection is most severe and destructive under the same conditions and treatment, can only be known when we are able to determine the value and cause of individual resistance to this specific infection.

If again we can be guided by the reaction, in our management and treatment of this disease, society and the coming generations will be inestimably benefitted. We can then advise our patient not only regarding the safety of marriage, but will be able to state whether he can have healthy children if we have a definite, practical means of knowing when he is cured. The only absolute proof we now possess of the surety of our patient being syphilis free, is that he may become re-infected. If all patients that show the reaction still have active syphilis, we are curing only a small percentage of our syphilitics. Yet, on the other hand, if our patient can be reinfected, we can consider syphilis curable.

In the latent stages of syphilis, the patient shows some proof of immunity. Lesser estimated the presence or absence of the reaction, tabulating them by years, since the patient became infected. The reaction was present in about this ratio: The first two years, it was found in over 70%; from the third to the thirteenth year about 50%; from the thirteenth to

thirty-fifth year, 11%; and only rarely after the thirty-fifth year of infection. He also reports that in 86% of those giving a positive reaction, marked decrease in the number and extent of the positive reactions is so rendered by treatment. He maintains that the longer the infection has existed the more likely are relapses, and the more constant is the reaction positive. The earlier the treatment, the longer continued, the larger is the percentage of negative reaction that continue negative.

Citron concludes from work on a large series of cases as follows: First, the constant finding of the reaction indicates positive active syphilis; second, that poorly treated or untreated syphilitics show the reaction after many years; third, if the reaction is present, there is active syphilitic infection, and treatment should be continued.

Blaschko has also reported much in the systematic examination of the serum, before, and during various methods of treatment in the different stages of the disease. He believes, and maintains, that the treatment should be continued as long as a positive reaction is obtained, and that repeated testing of the serum after it has become negative is necessary. If the reaction reappears treatment should be given even in the absence of all other symptoms of the disease. In conclusion:

First. The Wassermann reaction when positive is now considered a specific diagnostic agent in syphilis.

Second. A single negative reaction does not always mean no syphilitic infection.

Third. With our present knowledge it is impossible to make any definite statements, in regard to the effect of various treatments on the reaction.

I wish to express my thanks to L. T. Clark, B. S., of the Research Laboratory of Parke, Davis & Co., for laboratory assistance. Washington Arcade.

HYDATIDIFORM MOLE *

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Hydatidiform mole is a disease of the chorion. It is essentially a hydropic degeneration of the chorionic villi. The name *Myxoma Chorii*, by which it was known until fourteen years ago, shows the mistaken idea then held concerning its pathology, it being supposed that the condition was one of myxomatous degeneration of the chorionic villi.

The disease is known by various names: vesicular mole, hydatid cyst, uterine hydatids, cystic degeneration of the chorion, cystic mole, etc., all of these names being suggested by its gross appearance.

As early as the sixth century *Ætius*¹ gave a good description of hydatidiform mole, although its nature was not understood. The earlier observers considered the cysts to be similar to the hydatid cysts found in the other parts of the body. Some have considered the cysts to be mature ova, each vesicle representing an early pregnancy. This probably explains the unusual cases of multiple pregnancy mentioned by early writers; for example, in the case of the countess who gave birth to three hundred sixty-five embryos at a single labor, the condition probably was hydatidiform mole.

Velpeau in 1827 first recognized the seat of the disease to be in the chorion, and in 1858 Virchow advanced the idea that the condition was a myxomatous degeneration of the connective tissue of the villi. Marchand² in 1895 proved the seat of the trouble to be in the epithelial

covering of the chorionic villi, rather than in the stroma. As no reaction for mucin could be obtained, he judged the condition to be edema. This view of Marchand is now the generally accepted view.

CASE REPORT

Patient.—She was a woman aged twenty-two years. Her history revealed that she had had scarlet fever at the age of eleven years, and that one year prior to the present trouble she had been treated for enlarged glands of the neck (probably tubercular). Aside from this her personal history was negative. Her menses began at the age of fourteen, were of 28-day type, and regular and normal in amount and duration. She had a slight leucorrhœa before and after each menstrual period. The patient is a primipara, and has been married eight months. Family history negative. Husband in good health.

Present Pregnancy.—Her last regular menstruation began January 10, 1909, and was normal in all respects. Up to this time she had menstruated regularly. She skipped her February period, and about March she began to notice a slight show of blood, which was not constant, and only enough to stain her clothing at times. From April 1st she flowed almost continuously until April 20. Then for two weeks she hardly noticed any show of blood. From then on she had an intermittent and irregular show of blood at various intervals up to the time she entered the hospital the last week in May. During these hemorrhages she noticed that there

*Read before Michigan State Medical Society, September 15-16, 1909, at Kalamazoo.

was a black stringy substance in the discharge.

Almost from the beginning of her pregnancy she suffered from nausea. After about two weeks she began to vomit. This was almost continuous and at times she vomited everything she ate. She became very weak and lost some weight. It was finally necessary for her to go to bed because of the vomiting and the flow. The vomitus was very acid. It continued irregularly and more or less severe for fully a month.

Her bowels were regular. She complained of frequent urination at times.

Examination on April 10, just three months after her last menstruation, showed the uterus well up out of the pelvis, and the fundus reaching to a point about midway between the pubes and umbilicus. The uterus on a whole was rather hard than elastic, and was not of the same consistency throughout. On the right side it was harder than on the left. Examination of the urine was negative. The patient improved some and soon after left town.

At about 3 P. M., May 24, the writer was hastily summoned to the home of the patient. She had been doing fairly well up to that stage and was quite comfortable. While lying on the couch that afternoon she suddenly felt a trickle of blood from the vagina, and on walking from the couch to the bed a clot of blood about the size of an orange fell from the vagina. On lying down the flow ceased. As the patient was very nervous and shook all over, morphine gr. $\frac{1}{4}$ was given hypodermically, after which she was soon quiet. About two hours later a second hemorrhage started. The flow was fresh, no clots, and it was reported to be considerable in amount. The vagina was then packed with gauze and the patient brought to the University of Michigan Maternity Hospital. On arriving there the patient was in fairly good

condition, and the pulse did not indicate that she had lost much blood, although the skin looked rather pale.

Examination.—The skin had a pale waxy color. The abdomen was distended by a symmetrical swelling reaching from the pubes to the costal borders, being about the size of an eight months pregnancy. The abdomen was rather hard and tense although it relaxed at intervals, when it felt soft and doughy. No fetus or fetal parts could be palpated, and no fetal heart could be detected. There was a uterine souffle in each flank. Vaginal examination showed the os to be practically undilated. No fetal head or presenting part could be palpated through the vagina. Because of the bleeding and also to dilate the os, the cervix was packed with a gauze tampon. In a short time pains began, and the os was soon dilated to about the size of a half-dollar. Vaginal examination now failed to reveal a fetus, and during the examination the characteristic grape-like masses were obtained from the os, confirming the suspicion that the condition was one of hydatidiform mole.

Operation.—By the use of a large dull curette, parts of the mole were curetted away. But it was found that by manipulating the uterus after the fashion of Crede's method of placental expression, most of the mole could be expelled. After expelling the mass, the interior of the uterus was thoroughly scraped with a dull curette.

Specimen.—This consists of a mass of bladder-like cysts measuring 2500 cc. and weighing 2675 grams. The separate cysts measure from $\frac{1}{2}$ cm. to 1 cm. in diameter and are pale and translucent. Portions of the cysts showing adherent and necrotic tissue and blood clots were selected for microscopical examination.

Pathological Diagnosis.—Hydatidiform mole.

Subsequent History.—The day following

the delivery the patient's face became puffy and there was considerable edema of the ankles. Examination of the urine showed a small amount of albumen and the sediment contained an enormous number of casts—hyaline, granular, and cellular. In two days, however the urine cleared up entirely.

On the third day there was an abrupt rise in temperature, the temperature ranging from 102 to 104 degrees, with a pulse from 120 to 148. As there was hardly any lochia and retention was suspected the uterine cavity was irrigated with warm normal salt solution, and after a few days the temperature dropped and remained normal, the rest of the convalescence being uneventful.

Final Examination.—Twelve days after the delivery the fundus was about three finger-breadths above the pubes. The fundus was forward, movable, but rather excessively tender. On the left side was a mass about the size of a lemon which seemed independent of the uterus, slightly tender, so that it could not be outlined distinctly but could be moved without moving the uterus. The patient is to report later for examination.

Subsequent History and Examination. 9-14-'09.—The patient had considerable abdominal and pelvic tenderness and soreness for about six weeks after leaving the hospital. This was treated by hot vaginal douches twice a day. For the last two months she has been feeling well, and at present is a picture of health, and has gained a great deal of weight. She menstruated first six weeks after the removal of the mole, and has had three menstrual periods in all. These were fairly normal.

Palpation shows no abdominal tenderness. The uterus is far back in the pelvis, is normal in size, freely movable, and not tender. Left appendages are negative. Right ovary is cystic and enlarged to about

three or four times normal size. There is as yet no evidence of malignancy. The patient is to be closely observed, and will report any abnormality.

Hydatidiform mole is a rather rare disease. Statistics show that it occurs probably about once in 15,000 pregnancies. Its rarity as well as its gravity make it extremely interesting. Each case brings up many questions that are well worth considering.

ETIOLOGY

The condition may occur at and between the extremes of child bearing life. The extreme ages of reported cases are thirteen and fifty-eight years. The greatest number occur between twenty and thirty years of age, and the average age is twenty-seven years. It is about three times as common in multipara as in primipara.

Several views have been expressed concerning its etiology. The question as to whether the cause is maternal or fetal has supporters on each side, and each side has some evidence to support its views. The report of repeated moles in one woman with different husbands would tend to show some maternal influence. The reported cases of partial cystic degeneration of the chorion with a healthy fetus would seem to show that the fetus was not the cause. The fact that in so many cases of hydatidiform mole there is cystic disease of the ovaries⁷ has led some to infer that this maternal condition has some causative bearing; while others look on this same coincidence as an argument in favor of the fetal source of the disease, a cystic ovary being supposed to produce diseased ova.

Virchow and Veit consider that a diseased endometrium is the cause of the cystic degeneration of the villi. The findings in the endometrium are very inconstant, and no definite pathological

lesion has been demonstrated. Endometritis is so very common and hydatidiform mole is so rare that it hardly is plausible that there can be any causative relation between the two. It is more likely that the changes found in the endometrium are secondary to the chorionic changes. Hydatidiform mole has also been found in a case of tubal pregnancy, the mole being in the tube. If we consider the endometrium as the cause we can hardly explain those cases of twin pregnancy where one ovum has been converted into a mole, while the other has developed into a healthy fetus. Any deleterious influence of the endometrium would have very likely a similar effect on the other ovum.

In many reported cases it is stated that the hydatidiform mole is accompanied by cystic disease of the ovaries. It is generally stated that cystic ovaries are associated very frequently with this disease. Yet Findley in a careful study of 210 cases could find only eight cases where the presence of cystic ovaries was proved beyond doubt. Cystic ovaries are also so very common that it would seem that if this lesion was the cause of hydatidiform mole, these moles would be much more common. Williams had a case where a hydatid mole was accompanied by cystic ovaries, and yet this same patient had had a previous pregnancy and the cystic tumors were then so large that they caused serious dystocia. If the cystic tumors were the cause of the mole, why was not there a mole during the first pregnancy? No doubt in most of these cases the cystic ovaries are a mere coincidence. Marchand has found that these cysts sometimes contain lutein cells, and certain writers hold that these stand in causative relation to the mole.

Death of the fetus has also been considered as a factor in etiology. The nourishment which normally goes to the

fetus is supposed to cause an overgrowth of other parts. However, in cases of missed abortion and resulting death of the fetus we do not in many cases get a hydatidiform mole.

Moles may occur prior to the formation of the placenta, at a time when there would not be a close anatomical relation between the mole and the uterine wall. This is considered to be evidence against the theory of maternal origin. Marchand considers that such moles are the result of primary disease of the ovum, but also admits that malnutrition may have much to do with the development of such moles.

Aichel³ claims to have produced hydatidiform mole experimentally in dogs by destroying the nutrient vessels going to the chorion. His experiments have been criticized, and the proof of his claims has by no means as yet been accepted. At present we are not as yet in possession of the necessary knowledge to state as to what is the positive cause of these moles. There is yet room for much study and observation. Local disease of the uterus does not seem to have much bearing, and cystic ovaries seem a coincidence.

PATHOLOGY

Macroscopically a hydatidiform mole is a mass of small bladder-like cysts. These cysts vary in size from a pin-head to a hickory nut. They are usually found in clusters which give the mole a grape-like appearance. The cysts are of a pale color, and contain a viscid fluid which gives no reaction for mucin. The disease is essentially a hydropic degeneration of the epithelium of the chorionic villi, each villus being distended and forming one of the grape-like masses. The degeneration of the stroma is secondary, and is in direct proportion to the size of the villus, there being very little change in the smaller villi. In the larger villi degeneration of

the stroma may be so complete that it fails utterly to take a stain.

An important feature in these moles is their liability to become malignant. Almost half of the cases of syncytioma malignum have followed the expulsion of a hydatid mole. The exact per cent of moles that become malignant is hard to estimate. The percentages are usually given too high, as it is especially those that become malignant that are reported. Of Findley's⁴ 210 cases, 16 per cent became malignant. He considers this figure too high. Others have estimated 10 per cent of malignancy. The diagnosis between the benign and the malignant type is practically impossible. Cases diagnosed as malignant have recovered without recurrence, and supposed benign cases have later caused the death of the patient. The microscope does not help us much here. The fact that there is some infiltration of the uterine walls does not always mean malignancy. In most cases time alone will tell, and close observation of the patient is necessary. The fact that a given mole may be malignant without any macroscopical or microscopical evidence should make us look with suspicion on every mole. In fact, Van der Hoeven⁵ considers all these moles to be malignant, and that all moles have a tendency to infiltrate the uterine muscle, but that some are expelled before the infiltration has begun and thus there is no recurrence; but if any part is left behind it will give rise to a syncytioma malignum. Hence, according to his view, recurrence would mean incomplete removal of the original mole.

SYMPTOMS AND DIAGNOSIS

The most important symptoms concern the size of the uterus and the bleeding. There is in all cases a rapid increase in

the size of the uterus, all out of proportion to the stage of pregnancy. Even early the uterus is large, but the diagnosis is not easy then, as one can not always be positive as to the stage of gestation. The rate of growth is not uniform, the increase being usually much faster towards the end.

In many cases the tumor is not symmetrical. In the case reported in this paper the uterus reached a point midway between the pubes and the umbilicus at the end of three months' development. The growth then for a month was nothing unusual, but during the last two weeks it almost trebled in size, and at the end of 4½ months of pregnancy the abdomen was about the size of an eight months' pregnancy.

Hemorrhage is an early symptom and is what usually attracts the patient's attention. The hemorrhage follows a period of amenorrhea. In the case under discussion the hemorrhage began at about two months, and gradually became worse for a month, but then diminished again for a while. Shortly before the mole is expelled there is liable to be a severe hemorrhage, as in the case reported. In some cases the small cysts can be found in the discharge, but this is not very frequent. In this case the discharge was watched but none were observed.

The diagnosis depends on these symptoms and signs. The rapid increase of the size of the abdomen, with the enlargement being out of proportion for that stage of pregnancy, should excite our suspicion at once. Abdominal examination fails to reveal a fetus or fetal movements, and no fetal heart sounds can be heard. The abdomen is soft and boggy, and does not as a rule feel as elastic as in a normal pregnancy. Vaginal examination gives the same negative findings, there being no presenting part to palpate. If the os is partly dilated the vesicles can often be

obtained while making the examination, and the diagnosis thus established.

Because of the size of the uterus, the condition must be differentiated from hydramnios. Here the uterus is very elastic and cystic, and a ballotable fetus can usually be felt through the abdomen and per vaginum. There is usually absent the hemorrhage which is so characteristic of hydatidiform mole.

Because of the hemorrhage the condition must be differentiated from other diseases in which bleeding is a symptom. For instance, in a very early case, the hemorrhage following a period of amenorrhea may lead the attendant to suspect that the patient was being threatened with abortion. Or he might suspect an ectopic gestation, and if on vaginal examination he finds an enlarged uterus with a soft mass on one side of the uterus, it might be difficult to tell whether the soft mass was an enlarged and pregnant tube or a small ovarian cyst. After considering all the signs the patient presented, it might still be necessary for him to keep the patient under observation for a short time and make repeated examinations before an absolute diagnosis could be made.

The condition must be differentiated from placenta previa. The hemorrhage may be very suggestive, and as the placenta could hardly be palpated if it were there, the diagnosis could only be made by finding all the signs of a mole, and thus ruling out placenta previa.

Frankenthal⁶ has called attention to the shape of the uterus as a diagnostic point. There is very often a disproportion between the longitudinal and the transverse dimensions of the uterus. With the fundus at the umbilicus the tumor may extend out laterally to the anterior superior spines. This is not present in all cases but is quite frequent. It is not found in the case reported in this paper.

Poten has called attention to the fact that there are often local contractions of the uterine muscle, which may give one the impression that there are interstitial fibroids present. In the case reported the right side of the uterus was considerably harder, and the question of tumor was considered.

The absolute diagnosis is often impossible. The characteristic vesicles are very rarely found except just before the moment of expulsion of the mole. In most cases the diagnosis is suspected, and confirmed by the finding of hydatid cysts.

TREATMENT

The treatment is to empty the uterus as soon as the diagnosis is made. As the uterus is unusually soft, great care must be taken not to perforate it. A cervical tampon is usually efficient in dilating the cervix, after which in many cases the mole will be expelled spontaneously. In the case reported, after dilating the os, the mole could be expressed by manipulating the uterus after the manner of Crede's method of placental expression. After the mole is expelled the interior of the uterus should be carefully but thoroughly curetted with a large dull curette. Some writers have advised packing the uterus with gauze soaked in some corrosive substance. The value of this is doubtful, as it is a question whether a malignant mole would be destroyed by it.

Sapremia is very liable to follow, for even with the curette the whole of the tissue infiltrating the wall can not be reached. This often causes a sapremia later. Usually the patient has little resistance to fight an infection.

After recovery the patient should be carefully watched for recurrences. The subsequent clinical history is really the only guide as to whether or not there is any malignancy. Any persistent show

of blood should be an indication for a curettage, the tissue removed being examined with the microscope. One should regard with suspicion any nodular growths appearing in the vagina. The average time of appearance of syncytioma malignum is eight weeks after the mole has been expelled. But it may show up later, and the patient should be under observation for a long time. Some obstetricians make it a rule to curette all cases a few weeks after recovery. However, the diagnosis by the microscope even then is unsatisfactory, and in most cases the clinical picture must be relied on after all.

PROGNOSIS

The prognosis should always be guarded. There are many complications which may arise; rupture of the uterus, fatal hemorrhage, sapremia and sepsis, these have given the disease a high mortality of 25 per cent. These patients have not the resistance of a normal patient, and our immediate prognosis should be guarded.

It is generally supposed that the condition is liable to recur in later pregnancies.

Findley⁴ has shown that this is not the rule. True, such cases do occur, but they seem to be the exception and not the rule.

The ultimate results are uncertain also. One must remember that we have no means of deciding as to whether a mole will become malignant or not. We should regard all cases as suspicious. Careful observation of each case may help us to discover a malignant case in time to save the patient.

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A NEW GATEWAY—TO CERTAIN OPERATIVE PROCEDURES WITHIN THE ABDOMINAL CAVITY *

SCHUYLER COLFAX GRAVES, M. D.

Grand Rapids, Michigan

The natural location of any operative incision is directly over the site of the part to be operated; but notwithstanding the simplicity and sensibleness of this proposition as a principle, a variation may sometimes prove advantageous. For instance, in order to prevent peritoneal contamination and probable infection in at-

tacking abdominally an appendiceal or pelvic abscess unattached anteriorly, it is better to approach this abscess from the side, pushing forward the peritoneum and evacuating the pus retroperitoneally. Again, indirect or flanking movements are very much to be desired if by their employment we can diminish or practically eliminate the risk of post-operative hernia.

*Read before the Kent County Medical Society at Grand Rapids, Mich., March 23, 1910.

The chief operative sites in abdominal attack, and noted in the order of their frequency, are four in number, viz:

1. The umbilico-hypogastric,
2. The right inguinal,
3. The right hypochondriac and
4. The umbilico-epigastric.

The first of these regions commands the organs of the female pelvis and the bladder and rectum of the male. The second, the appendix vermiformis. The third, the gall-bladder and bile ducts. The fourth, the stomach, the duodenum and the pancreas.

Some of these incisions are vertical; some, oblique; some, transverse. Some are simple, going directly through the abdominal parietes; while some are complicated, passing through the different tissue planes along lines at variance with the line of tegumentary severance. Some are of surpassing value in their capacity for achievement; some, of no particular moment.

The names of certain operators are associated with various abdominal incisions. The desirability of this nomenclature has been called into question; but on the whole it seems to me simple and expressive.

No incision except in the teeth of a coercing contingency should ever be made across muscle fibres. Muscle bundles should be separated by blunt dissection in a line of course parallel with their longitudinal axes. Again, no incision should ever divide nerve trunks when it is possible to avoid doing this, for by so proceeding damage usually of an irreparable character as manifested by a more or less complete state of paralysis will eventuate.

The facts rehearsed in the foregoing show the difference between good and bad incisions and so, while it is impossible to remain utterly negative and inflict no damage whatever upon the various struct-

ures in our operative proceedings, it nevertheless behooves us to espouse that plan which, other things being equal, carries with it the least damage and which will permit so far as is possible a *restitutio ad integrum*.

Acting upon this idea I have drawn up a schematic arrangement of abdominal incisions as follows:

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| 4. Latero-vertical
(Indirect) | <table style="border: none;"> <tr> <td style="vertical-align: middle;">a.</td> <td style="vertical-align: middle;">Battle-Jalaguier-Kammerer</td> </tr> <tr> <td style="vertical-align: middle;">b.</td> <td style="vertical-align: middle;">Graves</td> </tr> </table> | a. | Battle-Jalaguier-Kammerer | b. | Graves | | | | |
| a. | Battle-Jalaguier-Kammerer | | | | | | | | |
| b. | Graves | | | | | | | | |

Coming directly to the topic of the evening, viz.—“A New Gateway, etc.,” I desire to call your attention briefly to the rectus abdominalis muscle, its character, its environment and its blood and nerve supply.

The rectus is a flat, ribbonary band of striated muscle extending from the pubic crest to the cartilages of the fifth, sixth and seventh ribs. It is thicker and narrower below, becoming thinner and broader as it proceeds on its pubo-costal way. Its sheath is formed by a splitting of the aponeurosis of the internal oblique muscle, reinforced anteriorly by that of the external oblique and posteriorly by that of the transversalis. This arrangement fails of

perfection throughout the first or lower quarter of the muscle's course in which region all these aponeurotic sheets, fused, pass in front of the muscle and form the sheath anteriorly. Posterior to the muscle in this locality the only semblance of a sheath is the transversalis fascia. Across the muscle, completely or incompletely and directly or in a more or less irregular fashion, pass the connective tissue bands known technically as the *lineæ transversæ*. These bands attach sheath to muscle, rendering the rectus a segmental organ and adding materially to its strength. There are usually three of these bands, the lowest located opposite the umbilicus and the other two at varying sites between that point and the insertion of the muscle. Authorities state that occasionally another one is found below the umbilicus and this declaration has been verified by my own observation. Should this additional band exist it will be found not far below the level of the umbilicus.

The blood supply of the rectus is from the superior epigastric branch of the internal mammary and the deep epigastric branch of the external iliac, these vessels finally merging the one into the other. The former enters the body of the muscle at its costal extremity or insertion and the latter after forming the outer boundary of Hesselbach's triangle, traversing the space between the transversalis fascia and the peritoneum, reaches the muscle near the junction of the first and second quarters and pierces its substance after a short vertical run behind its center.

The latter statement is a point to be taken into consideration in discussing the merits of the new incision. The important part in this description, however, lies in discussing the course of the nerves which supply the rectus. They are derived from the lower thoracic and the ilio-hypo-

gastric branch of the lumbar plexus. These nerves approach the rectus from their bed in the transversalis fascia, pass beneath its outer edge and penetrate its substance posteriorly but not far from the external border. In this arrangement lies the second item of importance bearing upon the new line of preliminary procedure.

Concretely as to technique, an incision is made along the center of the rectus through integument, fascia and the anterior layer of the sheath; then the muscle is displaced outwardly and the incision deepened behind the normal center of the muscle through the remaining structures of the wall, viz.—the posterior layer of the sheath, the transversalis fascia, the preperitoneal fat and the peritoneum, or the three latter in the absence of the first. Closure axiomatically is the reverse of the preceding.

It will be noted (according to the schematic description earlier in the paper) that the Battle-Jalaguier-Kammerer plan is very much the same as that of the writer; but with this vital distinction, that in the B-J-K plan the muscle is reflected *inwardly*, thus condemning to death a certain number of nerves according to the length of the incision and hence leaving zones of paralyzed muscle as an unescapable inheritance. The deep epigastric artery may also be sacrificed and while arterial anastomoses are so free as to render such contingency by no means a catastrophe still no one can honestly say that the normal blood supply and arrangement of an organ are not better left undisturbed. This point, as well as others mentioned, rests upon the irrefutable theory that that operation is the best one which in the accomplishment of its object least disturbs the normal relations and functions of the tissues or the viscera. However, the item of greatest importance in the proposal recommended is the preservation of the muscle's nerve

supply, thus permitting the placing of a live, healthy, tonic, innervated, normal muscle as a buttress between two lines of incision. Such an act aseptically done cannot fail to furnish an additional safeguard against the annoyance and danger associated with a ventral hernia.

A desideratum in connection with any incision is its capability of easy and natural extension. It is scarcely necessary to present for your consideration the possibilities of the new suggestion as bearing upon this point.

Then again there arises the question of drain-location in cases where drainage seems advisable, after the writer's incision has been made. This is best accomplished by placing a split rubber tube or a cigarette drain through a stab wound directly over the suspicious spot, leaving the incision for complete closure, a point in itself not inconsiderable.

While the incision was devised specifically for the operation of appendectomy in the interval it has been used by the writer for the purpose of approaching all forms of appendiceal disturbance except that associated with the development of a local, circumscribed abscess; with pelvic work and with work involving the exposure of the gall bladder and the bile ducts.

Lack of a ready extensibility is the fault to be found with the McBurney incision and although by the suggestion of Robert Weir it can be amplified to a certain degree, it nevertheless exhibits in this limitation a deficiency which mars its otherwise splendid qualities. However, the McBurney and also the Pfannenstiel incisions are certainly beautiful ones, based upon sound principles and are admirably adapted in certain cases to a successful entrance and, what is often lost sight of, to an equally successful exit.

In the retreat from Moscow, Bonaparte selected as the commander of the rear guard the superb Marshall Ney, "the bravest of the brave," as Napoleon himself termed him. This shows the consideration which the great warrior felt for the protection of his line of retreat and it would be better were many surgeons to emulate him in this respect, as "Generals" McBurney and Pfannenstiel have done, retreating in good order and keeping the van of the enemy well in check.

For the operation of appendectomy as well as for surgical procedures in the territory contiguous to the line of the right (or left) rectus muscle I recommend the new incision and I bespeak for it at the hands of the profession kindly consideration.

SURGICAL SUGGESTIONS

Much information concerning the nature of an injury to the elbow can be derived by comparison of the joints on both sides posteriorly, the patient facing away from the examiner.—*American Journal of Surgery*.

Subacute osteomyelitis at the mid-shaft of the tibia is often post-typhoidal.—*American Journal of Surgery*.

Passing a catheter often cures post-operative abdominal pain not relieved by other means.—*American Journal of Surgery*.

In most exploratory laparotomies the seat of disease may be discovered by tracing the attachment of an adherent portion of omentum.—*American Journal of Surgery*.

APPENDICITIS *

W. J. HERRINGTON M. D.

Bad Axe, Michigan

I thought it might be interesting if I gave a short summary of the cases operated on in the Hubbard Hospital and of a few complicated cases in private houses during the same time.

We have operated on 79 cases in the hospital with two deaths, one occurring in the hospital and one at the patient's home after leaving that institution. Perhaps I have operated on one-third as many patients outside with no mortality due to the operation. Three in the hospital had gangrenous and perforated appendicitis with pus in the abdomen; two outside patients were in the same conditions. All recovered. Three or four had circumscribed abscess; the rest were either acute or chronic cases. Two were complicated with pregnancy, as also were two outside ones. Only one went to term, but all recovered from the operation itself. Two patients in the hospital and one outside had obstruction of the bowels following an old appendicitis; in two the appendix was involved in the obstructing bands and was removed. One was almost intricably involved in a pyosalpinx and was removed in the course of an operation for the latter. As a rule the convalescence has been smooth, pain being much less than in an ordinary attack of appendicitis.

Only the gangrenous and suppurative cases were drained. I should say that one case of abscess was followed by a fecal fistula, which has since closed. A similar case in a child in the country also

recovered, although the child was desperately sick previous to the operation.

In reporting these cases, I wish to give the conclusions I have formed as a result of their study and of a fairly extensive acquaintance with the literature as it appears in some one-half dozen medical journals and books published in the last few years, together with a few remarks on symptoms, diagnosis, prognosis, and treatment. I will omit etiology and pathology.

Symptoms: There is (1) generally a severe and sudden abdominal pain, diffuse, most marked in the umbilical or epigastric region; (2) nausea or vomiting; (3) tenderness over McBurney's point; (4) fever, and (5) as peritoneal irritation comes on, rigidity of the muscles. Dr. Murphy states that the above symptoms coming in a certain definite order are characteristic of appendicitis; namely, first pain, then nausea or vomiting; afterwards tenderness, and finally fever, appearing in from 6 to 24 hours. If nausea or vomiting or fever should appear before the pain he would question the diagnosis. I have found this useful in acute cases. In chronic cases, there is tenderness in the appendiceal region, and according to Morris, in a spot about one inch to the right of the umbilicus in a line extending from the umbilicus to the right iliac spine. There may be constipation or diarrhea, or the two alternately, sometimes mucous colitis, paroxysmal attacks of pain in epigastrium, at times accom-

*Read before the Huron County Medical Society, Bad Axe, Mich., October 18, 1909.

panied with diarrhea or vomiting; or accumulation of gas; in short, the ordinary symptoms of dyspepsia, so-called.

Diagnosis: It must be differentiated from intestinal colic; gastro-enteritis; hepatic, renal and ureteral colic; gastric or duodenal ulcers, perforated or not; right-sided salpingitis or extra-uterine pregnancy; oophoritis, and, last but not least, pneumonia. Mistakes are apt to arise if the above affections, and a few others rarely occurring, are not borne in mind. No opinion should be given until diagnosis is made and the cases are watched for a day or so, if possible. But occasionally it is extremely difficult or impossible to make an exact diagnosis, as the following cases will show. Of course, with increasing experience, fewer mistakes are made.

Mrs. C., a lady of forty, came under my care some years ago, complaining of digestive disturbances and attacks of pain in the abdomen, atrociously severe, and accompanied with diarrhea and vomiting; both are very difficult to control. The attacks were more or less periodical; the pain was located in the right side of the abdomen, chiefly at the upper part. At any time, the slightest indiscretion in diet would bring on an attack of diarrhea, and for some years she had lived almost exclusively on bread and milk, not even daring to touch a potato. She never had fever, but always a slow pulse and a dry tongue. Physical examination always showed a very tender abdomen, at times most marked in gall-bladder region, at other times at McBurney's point. The complexion was sallow and the urine high colored, otherwise the latter was normal. Largely on account of the absence of fever and slow pulse I made a diagnosis of gall stones. On opening the abdomen, to my chagrin I found a perfectly healthy gall bladder, with free ducts. I drew up the appendix and found it slightly

reddened and thickened. It was removed and in the course of a week my patient was eating almost everything. She gained about 40 pounds, and has been well ever since, now a period of several years.

Mr. B., a man of forty, was sent to the Hubbard Hospital with a diagnosis of acute appendicitis. He gave a history of previous attacks, and was evidently very sick and suffering intensely. On examination I found him very tender all over right side of abdomen, most marked at McBurney's point. The abdomen was as hard as a board. He was too ill to tell much about himself. His pulse was 128, temperature 102.6° and respiration 40.

I could get a few râles over right side of chest, and possibly light dullness. Operation was deferred until the following day. The dullness became more marked and breathing more characteristic of lung trouble; a slight cough was present. Dr. Morden saw him with me and we decided he had pneumonia. This was unmistakable by night. He lived only a couple of days, of course dying without operation. Here the diagnosis of appendicitis was first made by a good physician and I do not believe anybody could be certain for the first day or so. Possibly there was appendicitis also, though I think not. The following two cases are examples of rare complications.

Mr. R., a large strong man of superb physique, was admitted to the Hubbard Hospital on the second day of attack. The pain was atrocious and tenderness marked in appendiceal region; he was rapidly getting worse. On dissection I found the appendix retrocecal and bound down by the firmest adhesions I ever saw; with the utmost difficulty these were separated, and the appendix, the tip of which reached the lower border of the liver, removed. For four days he did well; a severe chill

was experienced, followed by a high temperature. In a few days he became jaundiced. His temperature would remain normal or nearly so for a few days; then again occurred a chill, fever and sweat, the temperature would reach 105 degrees. He went on this way for four weeks and then died of exhaustion. I made a diagnosis of pyelophlebitis. According to Allbutt's "System," this complication occurs in about one-half of one per cent of cases and is invariably fatal and uninfluenced by treatment. Some half dozen other authors make the same statement; in this case the wound was drained and nearly healed when the patient died. Septic thrombosis is said to occur more often in appendicitis than in any other condition affecting the portal system.

The other rare case is a young woman of nineteen, pregnant about three months. She also was suffering intensely and was evidently quite sick. The operation was simple and was completed in fifteen minutes or less. She complained of more pain than usual after the operation and was very restless, throwing herself from side to side of the bed. Apparently this was due to pelvic pain. I felt compelled to remove the fetus. She apparently improved and went home. There she did not do well and I was called to see her again. I could find no trouble in the abdomen or pelvis, but the right side of the chest was distended and flat to percussions, with complete absence of breath sounds. I removed about a quart of extremely offensive pus, and put in a drainage. Unfortunately she was unable to bear the operation in her weakened condition and died in 12 or 18 hours of exhaustion. Empyema is said to be caused by lymphatic infection in these cases. In this instance there was no drainage and the wound healed practically by first intention. Both these cases occurred within a few weeks of each other.

Prognosis: Medically treated cases of appendicitis give a mortality estimated at from 10 to 15 per cent, but the immediate mortality is not the whole story. Some recover after an extremely severe illness and remain well, doubtless because the appendix has sloughed and ruptured into the bowel. Others have recurrent attacks or are never free from pain in the right side; while others again suffer from gas in the stomach and so-called dyspepsia, gastric and intestinal.

Treatment: The more I see of the cases the more I am convinced that the only correct treatment is surgical and that at the earliest stage. This will give a mortality of less than one per cent if the disease has not extended beyond the appendix. When the peritoneum is involved, and according to its extent, the mortality is increased; but this is constantly decreasing under improved methods of treatment. Distended abdomens with diffused peritonitis of two to four days duration are bad operative cases and many will die under any treatment. It is to these especially that the Ochsner treatment is applicable.

In my experience there seems to be considerable uncertainty as to what is meant by the Ochsner treatment, hence I will describe the same as given by himself: (1) Patients with a chronic recurrent appendicitis should be operated on in the interval. (2) Patients with acute appendicitis should be operated on as soon as diagnosis is made, provided that the disease is confined to the appendix and a competent surgeon is available. (3) Aside from assuring a low mortality, this will prevent all serious complications. (4) In all cases of acute appendicitis, without regard to treatment contemplated, food and cathartics by mouth should be absolutely prohibited and large enemata should not be given. (5) In case of nausea or vomiting or gaseous distension of the abdomen, gastric lavage

should be used. (6) In cases where the infection has extended beyond the tissues of the appendix and especially if diffuse peritonitis is beginning, treatment should be indicated by conclusions four and five, until the patient's condition makes operative interference safe. (7) In case no operation is done, neither nourishment nor cathartics should be given by mouth until the patient has been free from pain and temperature normal for at least four days. (8) During the beginning of this treatment not even water should be given by mouth, thirst being quenched by rinsing mouth with cold water and by the use of small enemata. Later small sips of warm water may be given, and still later small sips of cold water. There is danger in giving water too freely and there is great danger in the use of large enemata. (9) All doctors, as well as the public, should

be impressed with the importance of prohibiting the use of cathartics and food by mouth as well as the use of large enemata in cases of acute appendicitis. (10) It should be constantly borne in mind that even the slightest amount of liquid food of any kind given by the mouth may excite dangerous peristalsis. (11) The most convenient form of rectal feeding consists in the use of one of the predigested liquid foods on the market, mixed with three ounces of warm normal salt solution, slowly injected through a soft catheter inserted a distance of two or three inches. (12) This form of treatment cannot supplant the operative treatment of acute appendicitis, but it can and should be used to reduce mortality by changing the class of cases in which the mortality is greatest, into another class in which the mortality is very small, after the operation.

SURGICAL SUGGESTIONS

Surgery is meddlesome therapy in the vast majority of cases of acute hemorrhage from gastric ulcer.—*American Journal of Surgery.*

The presence of shreds in the urine is a presumptive evidence more useful to the surgeon who seeks the etiology of a monarticular inflammation than is the denial by the patient that he has had gonorrhoea.—*American Journal of Surgery.*

“Sexual neurasthenia” in the male not infrequently depends on disease in the posterior urethra.—*American Journal of Surgery.*

Perforation may be the first serious sign of carcinoma of the pylorus as well as of ulcer.—*American Journal of Surgery.*

Pulsating bone swellings are almost invariably sarcomata.—*American Journal of Surgery.*

There is often a “clear interval” after a stab wound of the heart, similar to that following laceration of the middle meningeal artery.—*American Journal of Surgery.*

To the present, the best results in the treatment of injuries of the lungs have been obtained by conservative therapy.—*American Journal of Surgery.*

Glycerine dressings covered by rubber tissue, are frequently more useful than the ordinary wet dressings in reducing inflammatory swelling and in relieving pain.—*American Journal of Surgery.*

The Journal of the Michigan State Medical Society

All communications relative to exchanges, books for review, manuscripts, advertising and subscriptions should be addressed to Wilfrid Haughey, A. M., M. D., Editor, 24 West Main Street, Battle Creek, Michigan. The Society does not hold itself responsible for opinions expressed in original papers, discussions and communications.

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JULY

EDITORIAL

THE ST. LOUIS MEETING

The St. Louis meeting of the American Medical Association was one of the best in its history. For the most part the weather was propitious, and the attendance about 4,500. The whole meeting was as harmonious as one could wish, the scientific work was profitable, and the entertainments enjoyable. Dr. Claude A. Smith of Birmingham, Alabama, was awarded the prize of \$500 for scientific work in the study of Hookworm Disease.

NEW INSIGNIA

In 1906 about twenty-six powers were represented at a meeting of the International Red Cross Association. The United States were represented. At this meeting the signatory powers pledged themselves "to take or recommend to their Legislatures such measures as may be necessary to prevent the use by private persons or by societies other than those upon which this convention confers the right thereto, of the emblem or name of the Red Cross," etc.

There is no law in the United States under which an organization which was using the Red Cross prior to 1906 can be compelled to discard it, but the American Medical Association voluntarily does so,

in order to aid the government to carry out its obligation.

The new insignia is to be the Knotty Rod and Serpent of Æsculapius upon a scarlet and gold shield.

"MEET ME IN BAY CITY"

The Arrangements Committee report that the arrangements for the 45th Annual Meeting of the Michigan State Medical Society are progressing rapidly and satisfactorily. They are planning on an attendance of 500 at least, and have adopted the motto, "Meet Me in Bay City."

Each member of the Bay County Medical Society has agreed to in all his correspondence urge his friends to attend this meeting, and each one is holding himself responsible, personally, for a good attendance. Let us all make an especial effort to attend this meeting. It will be at a time when we will probably not be bothered by intensely hot weather, all will have had their vacation, and will be better able to make this meeting a success, both scientifically and socially.

ROBERT KOCH

Robert Koch died at Baden-Baden the afternoon of May 27th of heart disease. The mere mention of this death is sufficient for the medical profession of Michigan. We all know the wonderful work he did for bacteriology and for humanity; we know his work on the Tubercle Bacillus, the Comma Bacillus of Asiatic Cholera and much other work—we all have learned Koch's Laws in regard to whether a given germ is the causative factor of a disease—it is unnecessary to enumerate his many works and attainments. We all knew his worth—we all mourn his death.

IN MEMORIAM

Dr. Eugene Hodenpyl of New York City, whose untimely death, from pneumonia, at the age of forty-six, occurred on May 5th, was known as one of the ablest pathologists of New York, and the work into which he had thrown all his energy and effort for the last two years was one which will perhaps enable his successors to work out a cure for cancer. He had found that a number of cancerous patients who were considered beyond operative help were relieved, at least temporarily, from all symptoms by the injection of the ascitic fluid obtained by tapping a patient who was one of those rare ones that sometimes recover of themselves from extensive carcinoma.

It is premature at this time to predict that a cancer cure has been discovered; but it is probable that one of the greatest steps forward has been taken, and though the obtaining of antiserum in appreciable quantities may be the work of his successors, the glory of having indicated the new line of work will be associated with Dr. Hodenpyl's memory.—*Lancet Clinic*.

Wm. Dunstone, Dollar Bay, for 44 years a practitioner of medicine at that place, died May 18 from senile debility, age seventy-nine.

N. G. Dryer, University of Buffalo, 1869, a practitioner for 40 years at Bath, Mich., died April 23 from cerebral hemorrhage, aged seventy-one, at Perkins, Oklahoma.

SIXTY-FIRST ANNUAL MEETING OF THE
AMERICAN MEDICAL ASSOCIATION,
ST. LOUIS, MO., JUNE 7-10, 1910

At this meeting the total registration was less than that at the Chicago or Boston meetings, but exceeding that at the last two Atlantic City meetings, 1907 and 1909. ¶

The following were registered from Michigan:

Aaron, C. D., Detroit
Abrams, E. T., Dollar Bay
Anderson, Willis S., Detroit
Ballin, Max, Detroit ¶
Bell, J. N., Detroit
Blain, Alexander W., Detroit
Brady, E. J., Kalamazoo
Carstens, J. H., Detroit
Chapman, W. E., Cheboygan
Cleland, Jas., Jr., Detroit
Connor, Leartus, Detroit
Connor, Ray, Detroit
Crane, A. W., Kalamazoo
Cushman, M. L., Lansing
Darling, C. G., Ann Arbor
Davey, B. M., Lansing
Davis, Clara, Lansing
Douglas, Chas., Detroit
Dunlap, H. M., Battle Creek
Eggleston, E. L., Battle Creek
Epler, Blanch N., Kalamazoo ¶
Freund, Hugo A., Detroit
Friedlaender, B., Sebawaing
Hass, E. W., Detroit
Haughey, Wilfrid, Battle Creek
Hill, H. C., Benton Harbor
Hirschman, Louis J., Detroit
Holmes, Arthur D., Detroit
Houghton, E. M., Detroit
Hume, A. M., Owosso
Ives, A. W., Detroit
Jackson, John B., Kalamazoo
Kane, D. M., Sturgis
Kassabian, Nushan H., Coopersville
Kirton, J. R. W., Phoenix
Larned, E. R., Detroit
Mackenzie, R. G., Ann Arbor
MacRae, John, Calumet
MacQueen, D. K., Laurium
McClure, F. E., Detroit
McKain, C. H., Vicksburg
McKean, Geo. E., Detroit
McLandress, J. A., St. Charles
McLean, Angus, Detroit
McNamara, W. E., Trimountain
Manton, W. P., Detroit

Marshall, E. B., Muskegon
 Martin, W. F., Battle Creek
 Miner, S. G., Detroit
 Moore, G. W., Munger
 Morse H. B., Bay City
 Oakman, C. S., Detroit
 Odell, Anna, Detroit
 Osborn, Samuel, Lansing
 Parker, W. R., Detroit
 Parmeter, Rolland, Detroit
 Peterson, R., Ann Arbor
 Potter, G. E., Detroit
 Robbins, Frederick W., Detroit
 Robinson, F. W., Sturgis
 Rowland, R. S., Detroit
 Sample, John Thomas, Saginaw
 Sample, C. H., Saginaw
 Sanderson, H. H., Detroit
 Sands, T. E., Battle Creek
 Schoch, A. C., Coldwater
 Shurley, B. R., Detroit
 Smith, H. S., Ishpeming
 Smith, R. R., Grand Rapids
 Smithies, Frank, Ann Arbor
 Spitzley, W. A., Detroit
 Starring, Anna M. F., Detroit
 Treat, David S., Adrian
 Vandervoort, Louie E., Battle Creek
 Vandeventer, Vivian H., Ishpeming
 Van Zwaluenburg, J. G., Ann Arbor
 Varney, H. R., Detroit
 Vaughan, J. W., Detroit
 Vaughan, V. C., Ann Arbor
 Walker, Henry O., Detroit
 Walker, R. A., Menominee
 Warthin, A. S., Ann Arbor
 Wickham, A. B., Detroit
 Wiggers, C. J., Ann Arbor
 Young, W. G., Grand Rapids
 Youngquist, O. G., Marquette

The scientific and social programs were fully up to the standard. The arrangements being all that could be asked. The meeting places were all along Grand Ave. within a distance of eight blocks. A stenographer, paraffin individual water cups, telephone service, and in some instances lunch was furnished free to the members of the sections.

For the ladies a trip was arranged to University City, a steamboat excursion to Jefferson Barracks and an entertainment with music and refreshments at Shaws Garden.

For members and guests were the various alumni and section banquets and reunions;

the President's reception, a general Entertainment at Forest Park Highlands, and a visit to the grounds of the Aero Club, where it was hoped to have an aeroplane exhibit which the rain and high winds prevented.

The following papers were presented by Michigan men:

Section on Practice of Medicine:

The Diagnostic Significance of the Paravertebral Triangle of Percussion Dullness (Grococo's Sign). Frank Smithies, Ann Arbor.

Section on Obstetrics and Diseases of Women:

Uselessness of Local Treatment in Puerperal Sepsis. J. H. Carstens, Detroit.

Enteroptosis, with Special Reference to its etiology and development, and remarks on the results of examination of 400 women with reference to this condition. R. R. Smith, Grand Rapids.

Indications for, and Technic of Rapid Emptying of the Uterus in the Toxemias of Pregnancy. Reuben Peterson, Ann Arbor

Section on Surgery:

A Simple Operation for Hemorrhoids Without Hemorrhage. Louis J. Hirschman, Detroit.

Section on Ophthalmology:

Ophthalmia Nodosa, or Caterpillar-Hair Ophthalmia, with report of a case. W. R. Parker, Detroit.

Report of Committee on Family Physician Refraction. Leartus Connor, Detroit.

Section on Laryngology and Otology:

The Difficulties Associated with the Operation for Enucleation of the Faucial Tonsils, and Contra-indication for this Procedure. B. R. Shurley, Detroit.

Section on Nervous and Mental Diseases:

The Functions of the Psychopathic Hospital. A. M. Barrett, Ann Arbor.

Section on Preventive Medicine and Public Health:

The Role of Obstetrics in Preventive Medicine. W. P. Manton, Detroit.

Section on Diseases of Children:

Feeding of Fats to Infants and Difficulties Encountered in Feeding Them. Chas. Douglas, Detroit.

Section on Pathology and Physiology:

The Prognostic Significance of Pulse-Pressure

Changes During Hemorrhage. C. J. Wiggers, Ann Arbor.

Gangrene Following Carbon Monoxid (Coal Gas) Poisoning. Angus McLean, Detroit.

The Reaction of the Hemolymph Nodes to Infection and Intoxication. A. S. Warthin, Ann Arbor.

Dr J. H. Blackburn, Director of Post-Graduate Work reported that more counties than ever before are following this work, and announced that the program for next year will be ready August 1st, and may be secured from him at Bowling Green, Ky., or from the American Medical Association, Chicago.

The Committee on Ophthalmia Neonatorum was enlarged in scope and its name changed to The Committee on Blindness.

A committee was created to bring about, if possible, some standard eye tests for Pilots.

The election of officers resulted as follows: President—John B. Murphy, Chicago.

1st Vice-President—E. E. Montgomery, Philadelphia.

2nd Vice-President—R. C. Coffey, Portland, Ore.

3rd Vice-President—W. G. Moore, St. Louis, Mo.

4th Vice-President—H. L. Johnson, Washington, D. C.

Secretary—Geo. H. Simmons, Chicago.

Trustees for three years:

W. W. Grant, Denver.

F. J. Lutz, St. Louis.

C. E. Cantrell, Greenville, Tex.

A New Council on Health and Public Policy was created, whose work shall embrace the following subjects:

Legislation

Organization

Publicity

Defense of Medical Research

Public Health.

The council may appoint committees to carry out the objects of the Council, and its office shall be at the headquarters of the Association.

The Council Consists of:

Henry M. Bracken, Minneapolis.

W. B. Cannon, Boston, Mass.

H. B. Favill, Chicago.

J. N. McCormick, Bowling Green, Ky.

W. C. Woodward, Washington, D. C.

Dr. Geo. Dock was appointed to the Council on Medical Education.

The next meeting will be held in Los Angeles, California.

DETROIT COLLEGE OF MEDICINE COMMENCEMENT ADDRESS

By Hon. Chase S. Osborn, Sault Ste. Marie, Michigan.

This is the golden age of medicine. During the past century more progress has been made in your profession than during all the previous history of the world. More discoveries of new remedies have been made, more causes of disease have been found and more diagnostic aids have been originated than during all past time. All this has been accomplished despite the fact that the history of the practice of medicine is lost in the antiquity of China, Greece, Egypt, India, Phoenicia and Carthage. Chiron and Æsculapius, Hwang-ti and Hermes, the fathers of medicine on every side of the earth in the dead centuries long ago, if alive today could not be licensed to practice medicine in Michigan, as you are about to be, and a license to practice in Michigan carries with it the exalted privilege of practicing in all the world. Not only has wonderful progress been made in every direction of medical and surgical practice, but ideals, ethics and standards have grown finer and higher until the true medical man of today is nearer to being of the gods than in that olden time when he was considered to be really of the gods.

Within the last century smallpox has been mastered, thanks to Jenner. Morton discovered the use of ether as an anæsthetic in Boston, 1846, quickly followed by chloroform, by Simpson, at Edinburgh in 1847. Koller gave cocaine to the world in 1884. It was in 1882 that Koch discovered the tuberculosis bacillus and in 1883 he announced the comma bacillus of cholera. Diphtheria antitoxin is comparatively young, and aseptic surgery has been practiced for only a few years. The discovery of the typhoid fever bacillus by Eberth was made since most of you were born, and the finding of the phasmodium of malaria by Laveran was an accomplishment of 1880.

The peaceful, bloodless triumphs of Koch, Pasteur and Lister should make them greater world heroes and give them a higher place in history than Cæsar, Hannibal and Napoleon. Ogston, Rosenbach, Klebs, Metchnikoff, Kitasato, Welch, Donovan, Wright and numerous others should have monuments throughout their enlightened lands even before the heroic leaders of conquering armies. Their victories are over death and not life.

The pre-Pythagorean time was known as the sacred age of medicine. Sanitariums are older than Æsculapius. They were directed by

gymnasiarchs, and iatrotropes were the house physicians and internes, giving medical and surgical attention and massage. Following Hippocrates, the father of rational medicine, came the division of his disciples into various schools: Dogmatists, Empirics, Methodists and Eclectics, and the competition and rivalry between these schools was fierce and productive. The first dissections of the human body were made at Alexandria, 300 B. C., which was, under the first Ptolemy, the heart of the medical world. Heriophilus was the great anatomist of that time and his work so seized the attention of the rulers that medical men received much encouragement and assistance. Rome showed no great aptitude for medicine until the beginning of the Christian Era when Celsus appeared as a writer and authority, and made way for the great Galen, whose one hundred books dominated the entire world of medicine for centuries and whose humoral pathology held the leading place of acceptance until 1500 when it fell before the onslaughts of the brilliant and courageous but vain, arrogant and drunken Paracelsus. This most remarkable person with the next to impossible name of Philippus Aureolus Paracelsus Theophrastus Bombastus von Hohenheim, was the most accomplished medical iconoclast of record. He set all the medical men of the epoch by the ears, caused a furor in the entire medical world, publicly burned the works of Galen upon taking up a professorship at Basel, lectured in German instead of Latin, and shocked medical men into such determined action either against him or for him as to result in much good and leave a permanent impression. If irate medical attendants had not thrown him from a window at Salzburg and broken his neck while he was still in his forties, there is no telling where his genius for research and his boldness would have led.

With the death of Galen came the dark age of medicine. Europe was ravaged by the wild hordes from the north and the Saracens from the south. All society was in a state of wildest flux to determine whether Europe should be on the one hand Slav, Teuton, Magyar or Latin and on the other whether it should be Christian or Mohammedan. It took centuries of clash and physical conflict to decide these world's problems and when Europe emerged from the storm of human strife there was little left of the arts and sciences. The early influences of Egypt on Greece, of Greece on Rome, and of Rome upon all Europe seemed to have been effaced. It took

medicine longer to recover than anything else. The medical renaissance did not begin properly until the dawn of the nineteenth century. Mental, moral and physical activity seemed to attack the most important problems last and so we find ourselves surrounded today with a world of questions to answer and unfinished work to be done. Arabia suffered less than European countries and during the dark ages there was important medical activity in that part of Asia. The wise Ahrom wrote several valuable treatises, and the Arabs contributed rhubarb, senna, cassia and camphor and the art of distillation at an early date. Nestorian monks also did good service of preservation during the turmoil of obliteration. Finally medicine reasserted itself and got a new start with the establishment of a medical school at Salerno Italy.

The relationship between the practice of medicine and the supernatural was a very close one in primitive times. All wild tribesmen had and still have their medicine man, who practices frenzied orgies, incantations, spells, witchcraft and various kinds of demonology. They are supposed to intrigue with life and death and are always held in awe and reverence. As society advanced and became organized, the practice of medicine was invested in the priests and their temples were as medical in their purposes as moral. And man up to this time has not escaped this inherited influence. He still more or less secretly believes in and practices spells and wears charms. The buckeye and the base metallic ring and other fetishes are all in use today.

So really, we are surrounded by many primitive conditions. Many of our problems of today are medico-moral in character. You are to be leaders in progressive movements and captains in the reform army. If we police our people closely for their moral and material welfare, why should we not police them more closely for their physical well being?

It is a question whether the practice of medicine, and especially scientific hygiene and sanitation should not be placed on a public basis. No community is safer or cleaner or more wholesome than its filthiest alley, its most unclean home and its vilest slum district. Local, state and government health departments are doing much, but not enough. Using them as central organizations we must go farther, do more and be more thorough. Only a decade ago Michigan started its medical legislation that has

given it renown all over the world. Much indeed has been done in ten years, but there is more to do and you will have to lead in its performance. The public must be awakened along every line. It is already responsive and potent, thanks to active medical agitation, in the anti-tuberculosis campaign. The masses must be taught how to preserve their health and strength and they must have help every waking moment. Men, women and children should not be overworked or underfed. Working places, working homes and schools should be as clean and wholesome and in every way as sanitary as the richest home in the land. Landlords who build hovels and unsanitary houses, big or little, should receive corrective attention. In the days of the highest development of Judaism the government was as much concerned about the health of the people as about their morals. A sound mind in a sound body was the watchword. The Mosaic laws are filled with health regulations and sanitary requirements. The Talmud is at least half a medical work and so also is our own Holy Bible. In pre-Christian times there were not only city physicians, but communal physicians as well. Today the advanced nations of the earth give their armies and navies medical care. Our own work in Cuba and the marvellous extirpation of the deadly *Stegomyia Calopus* and its yellow fever burden by Col. Gorgas from the Panama Canal zone after the heroic Carroll test in 1900, and the martyrdom of Lazare and Myers, are most noteworthy examples. Some day our state will go into every district and factory and dairy and home, kindly, but efficiently and thoroughly, and not only insist upon sanitary conditions, but help to attain them.

There are a few, and their number is growing, who think that medical education should not only be in the hands of the state and medical practice supervised as at present, but that the basic ethics implied by the noble Hippocratic oath should be put into effect by state compensation of doctors, making them part of the public service, as in the days of Moses. Most physicians today are so attached to their profession and so properly submerged in it that they pay no heed whatever to the mercenary side of life. This, it would seem, is really as it should be. Under a state system only such numbers as might be proportioned to the medical needs of the population would be graduated for service in the state. They would be assigned their zones of practice, the rich and poor would be

treated alike, there would be time given and especial opportunities for research, and honorary reward for efficiency. This may be looking long into the future, which Confucius says you can only divine by studying the past. This question will come to you for thought sooner or later.

With all that has been done in medical research the human is still upon the basis of the lower animal in dependence upon the automatic laws of nature. Given the same medicine or the same aseptic surgery the dog will recover as quickly as the most intelligent person, and even more quickly often, without regard to delicate comparisons of vitality and power of resistance and recuperation. The dog is not handicapped by nervous fears or future misgivings. Is there not a big field for research in this direction? Should not man finally be able under your guidance to select just the nutriment he desires for a special purpose and ultimately acquire the intellectual power to assimilate that nutriment and direct it to the spot where it is most needed, whether that be the decaying, loosening tooth or the amputated member? To a remarkable degree nature performs this function automatically in man and dog, but up to the present time man does not seem to be able to help himself any more than the dog. This is not as absurd as it sounds at first. Always the coarse and ignorant have decried and villified what they could not understand and so in your progress through the world you will meet with much intemperate and unreasonable opposition. But be not like the turbulent, belligerent, intolerant Paracelsus, though equally tenacious, and you will not be thrown out of a window and have your neck broken either actually or metaphorically.

It may be repeatedly said there is more to do than has been done. There may be many a Haffkine, or Senn among you. There are other diagnostic instruments beside the microscope, clinical thermometer and stethoscope to invent. Tetanus and hydrophobia are still a baffling mystery. The Opsonic index and polynuclear count may be in their infancy of potentiality. Your numerous leucocytic friends, the faithful phagocytes and the especially useful and numerous polymorpho-nuclears and also the mononuclears bid you to their scene of work and would fascinate you.

The medical profession is almost holy. You who follow it battle with death and suffering night and day. You bare your head and breast

to the scourging epidemic and risk your lives without fear. No oriflamme guides or inspires you. No blare of trumpet arouses you to heroic frenzy. Yours is the cool, poised, quiet, determined, unflinching courage, out of which exalted heroism is created. The standard, and especially the Michigan and American standard of medicine, already high, must be advanced. You are to put Addison's criticisms to scorn and remember with Gray that "bright-eyed science watches round." Today the lawyer keeps his client out of court if possible and in your profession preventive measures and medicine are to be the practice of the future. There is no place in medicine for any but the highest types of manhood. You must love and glorify your profession if you would succeed in it. Rochester and Glouchestershire prove that fame does not grow in the city, but in the brain and heart and soul of the physician. Genius has no hiding place and so swift are transportation and communication today that a man may be in the center of the throng even though he is located in the forest or upon the prairie.

Brahminism required that a medical student

should be of mild disposition, noble nature, lofty in acts, intelligent, modest, endowed with broad understanding, possessed of memory and judgment, truthful, thoughtful, poised, pure, compassionate, devoted to his profession, free from cupidity and sloughfulness and seeking the good of all creation.

The Greatest Physician, He who came out of Nazareth, should be your example, pure, holy, with charity, loving, kindly, hopeful, faithful, loyal, noble, simple, bearing agencies of comfort, messages of cheer and thoughts uplifting. In many families you may not only be physician, but preacher, teacher and faithful friend. Have a faith and attach yourself to it. Do not be of the elements of human chaos who know no creed or God—infidel, atheist, agnostic. We are living in a Christian land, under Christian influences, of a Christian civilization. Breathe deeply of its atmosphere, partake largely of its opportunities, be a true man, an honest doctor, a helpful citizen and a faithful friend and all men who are blessed by coming to know thee, will rise up and praise thy name and call thee blessed.

COUNTY SOCIETY NEWS

ELEVENTH COUNCILOR DISTRICT

The Annual Meeting of the Medical Society of the Eleventh Councilor District.

The meeting was called to order promptly at 10:30 A. M., May 17, at the City Hall, Greenville, with the President and Secretary of the Montcalm County Medical Society presiding and about forty-five in attendance.

Dr. Lee presented a case of Infantile Inguinal Hernia and Dr. Bower a case of Pulmonary Tuberculosis. This latter case was a man of about forty who spent six months at Howell and was also treated at Grand Rapids, after which he was sent home to die. Outdoor air and other appropriate treatment, however, have worked wonders, and the man has only very faint chest lesion demonstrable. The Society next adjourned to the Hospital for a surgical clinic on removal of tonsils by Dr. Wilfrid Haughey, State Secretary. Dr. Haughey demonstrated the method of removal of tonsils by

finger dissection. He spoke of the various methods of finger dissection, and uses the method of cutting the mucosa above the tonsil, and separating the tonsil from above downward, working forward and backward between the pillars. The root may be separated with a snare or scissors.

Dr. A. A. Spoor of Big Rapids, read a paper on Bacterial Vaccines, and Vaccine Therapy, showing the work he has been doing along this line. This paper was discussed by Dr. G. S. Williams of Muskegon and Dr. W. T. Dodge of Big Rapids. Dr. Dodge reported some cases—one an engineer who had suffered for months with acute nephritis. He was treated with autogenous bacterial vaccines, prepared from the urine, and made a good recovery. Later he developed a colon infection, which readily responded to colon vaccines.

Dr. Eugene Boise of Grand Rapids read a paper on Acute Nephritis, which is published

in this number of the JOURNAL. This paper was discussed by Doctors Cope, Williams and Bower.

Dr. F. B. Marshall of Muskegon read a paper on Gonorrhoeal Epididymitis, Treatment by Vasectomy, in which he outlined his treatment of this condition. See page 343 for this paper.

The paper was discussed by Dr. Williams and Dr. Dodge, who favored the treatment. Dr. Dodge said he never had done this operation as he seldom has many of this class of patients, but the method is certainly scientific.

Resolutions endorsing the Owen Bill on Public Health were passed. It was reported that Senator Smith and Congressmen Dodds, Townsend and McLaughlin have expressed themselves in favor of this bill, but the resolutions were ordered sent to them and other representatives of Michigan in the National Congress.

The Dodds Bill, H. R. 22239, introduced by Congressman Dodds of the Eleventh District was also endorsed.

A banquet was served by the ladies in the Parlors of the Congregational church. Following the banquet was a toast program presided over by Dr. O. A. Long, Supt. of the Ionia Asylum.

Dr. John Avery, Emeritus President of the Montcalm County Medical Society was a guest of honor, and responded to the first toast—repeating reminiscences of early years, when chloroform was new. He told many instances of demonstrating its wonderful powers of allaying pain during surgical operations.

The State Secretary, Dr. Wilfrid Haughey, of Battle Creek, dismissed the subject of Peanut Shells and Breakfast Foods, with the statement that he was a good advertisement for them. He spoke in detail of the problems before the Editor and Council in handling the JOURNAL.

The JOURNAL must have advertisements to help pay its expenses, or it cannot exist in its present form. He urged the members of the Society to remember that the JOURNAL is co-operative—partly owned by each member. If each one would patronize the advertisers, and use his influence with those he deals with who do not advertise in the JOURNAL, we would soon have all the advertising we could carry. We could now load up the pages, but are limited to advertising of ethical nature.

Dr. G. S. Williams responding to the toast, "How a Doctor Feels When He is Ill," said he never was known to preach a temperance lecture.

Dr. Eugene Boise in his incomparable way responded to "First Years of Practice." Dr. C. S. Cope to "What I Don't Know," and Dr. D. A. McLean to "Reminiscences of the West."

The next meeting will be held in Muskegon at the call of the Councilor of the District and the officers of the Muskegon-Oceana County Medical Society.

H. L. BOWER, *Secretary.*

BRANCH

Our regular quarterly meeting which should have been held on the 3rd Tuesday in April was held at Quincy on May 6. The meeting was well attended and two excellent papers were read. Dr. O. Waters read a paper on "Ophthalmia of the New Born, and its Prevention." This paper was well received and aroused a general discussion. The second paper was by Dr. A. C. Schoch on "Surgical Diseases of the Abdomen, and Their Early Diagnosis." This was an excellent paper and seemed to be thoroughly enjoyed by every one present.

The Society voted to hold monthly meetings commencing with May. While we know that Branch County is one of the smallest in the State yet we thought that it would be advisable and profitable to us all to hold these monthly meetings. The July meeting which is our annual meeting will be held at Monison's Lake. This is called our picnic meeting. The physicians take a day off with their families and spend the day together, having a good social outing. Last year we held our meeting there and everybody reported having a fine time.

Two applicants were accepted as members, Drs. A. C. Schoch and L. W. Howe.

S. SCHULTZ, *Secretary.*

MONTCALM

The April meeting of the Montcalm Medical Society was held in Greenville. Two-thirds of our members were present, and an unusual interest in our Society meeting was manifested.

Dr. F. J. Fralick of Greenville was appointed to co-operate with the State Committee in the systematic examination of the eyes and ears of school children.

The matter of creating a health department in the cabinet of the nation was heartily concurred in, as was also a communication from the State Board of Health, relative to the early diagnosis of cancer and its cure.

One topic in the literary program was con-

sidered, Influenza. Three papers were read.

1. The Etiology and Pathology, by Dr. J. I. Nelson.
2. The Symptoms and Diagnosis, by Dr. E. M. Highfield.
3. The Prognosis and Treatment, by Dr. D. K. Black.

The subject was timely, the disease being very prevalent in Montcalm County.

H. L. BOWER, *Secretary*.

MUSKEGON-OCEANA

The regular meeting of the Muskegon-Oceana County Medical Society was held at the office of Dr. A. A. Smith, at Muskegon, Friday evening, May 13, 1910, at 8:30 o'clock.

Members present: Drs. J. F. Denslow, W. E. Dockry, Geo. S. Williams, C. P. Donelson, P. A. Quick, A. A. Smith, I. M. J. Hotvedt, W. P. Gamber, J. T. Cramer, F. B. Marshall, P. J. Sullivan, and L. I. Powers.

Doctor Donelson gave a paper upon "Open Air Treatment of Tuberculosis. Methods advisable in the Home and Colony and Sanitorium." The discussion was opened by Dr. Geo. S. Williams followed by Doctors Marshall, Gamber, Hotvedt and Denslow.

Meeting adjourned to meet in two weeks with Dr. Jacob Oosting at Muskegon.

The regular meeting of the Muskegon-Oceana County Medical Society was held at the residence of Dr. Jacob Oosting at Muskegon, Friday evening, May 27th, 1910.

Minutes of the last meeting read and approved as read.

Under new business, the matter of incorporation of the Society was discussed; also the matter of the County Society making a proposition to the Supervisors of Muskegon County for doing the County's medical work at some stated amount per year. It was moved and seconded that a special committee of three members, of which Dr. Chapman should be the Chairman, be appointed by the Chair to investigate and report as to the advisability of incorporating the Society.

The Chair appointed Doctors V. A. Chapman, Geo. S. Williams and J. T. Cramer as this Committee.

Dr. Oosting read a paper on "Fractures." In the temporary absence of Dr. Quick who was to open the discussion, this was taken up by Dr. Geo. S. Williams followed by Dr. C. P.

Donelson and, on his return, by Dr. Quick followed by Dr. Campbell and Dr. Oosting in closing.

V. A. CHAPMAN, *Secretary*.

WAYNE

General meeting Monday, May 16th. The annual election resulted as follows:

President, Dr. Angus McLean; Vice-President, Dr. P. M. Hickey; Secretary and Treasurer, Dr. R. C. Jamieson; Board of Directors, Dr. Arthur D. Holmes, Dr. Frank B. Tibbals, Dr. E. B. Smith, Dr. C. T. McClintock, Dr. B. R. Shurley; Executive Board of Defense League, Dr. A. P. Biddle and Dr. Guy L. Kiefer.

Dr. W. E. Blodgett presented a case of congenital enlargement of the left leg. The X-ray showed that the ends of the bones shared in the hypertrophy.

The subject of the evening was Acromegaly. Dr. Max Ballin read the paper. He first spoke of the embryology of the Hypophysis cerebri, showing how the gland was made up partly of epithelial and partly of nervous elements.

Experimentally, many, especially Cushing of Baltimore, have demonstrated that removal of the gland always leads to rapid emaciation and death.

Tumors of the gland are usually adenocystoma. They do not always produce the same chain of symptoms because the symptoms are not due to the mere presence of the tumor, but to the manner in which it acts on the gland; that is, whether it increases or diminishes the internal secretion of the gland. This was compared with hyper- and hypothyroidism. The diagnosis formerly confirmed only on post-mortem examination is now pretty clearly demonstrated by the x-Ray. As to treatment organo-therapy has thus far been unsuccessful. Removal of the growth has in the past ten years been tried and several cases in which good results followed the operation have been reported. Discussion.

Dr. B. R. Shurly spoke of the intra nasal route successfully performed by Dr. Norval Pierce of Chicago. The nasal septum is first removed, then the anterior and next the posterior wall of the sphenoid bone.

Dr. Don M. Campbell showed how tumors of the pituitary body sometimes produced a peculiar effect on the visual field and that the progress of the disease could well be studied by watching the changes it produced in the retina.

The building committee reported its recom-

mendations at this meeting. On motion of Dr. McLean it was, after a hearty discussion in which Doctors Tibbals, H. O. Walker, Carstens, McClintock, Flinterman, and E. B. Smith took part, decided that this committee develop the idea of a large medical home centrally located; that it investigate the approximate cost of such a building, its maintenance and the income that would be derived through the rental of its store, office space, etc. This committee was instructed to report if possible at the meeting to be held May 30, 1910.

Monday, May 23, instead of the regular meeting, Dr. J. W. Trask of Washington gave a lecture on "The Work of Public Health and Marine Hospital Service." He illustrated his lecture with the Stereopticon. There was a large attendance present. Dr. Trask's lecture was very interesting and instructive and it well demonstrated the stupendous amount of work that is done by this department in preventing the spread of communicable diseases.

The last meeting of the season of the Wayne County Medical Society was held Monday, May the 30th, Dr. Freund reported a case of perforating typhoid ulcer which had come to operation. Dr. Fay reported two cases of Fractured Patella, in which the result with chronic catgut suture was very satisfactory. Dr. Blain reported several favorable results with Beck's Bismuth paste injections.

The question of a medical home was then again discussed. It was decided that the committee purchase a suitable building large enough for a meeting place, medical library and a few extra rooms, remodel it and if possible have it ready for occupancy in September of this year.

The idea of erecting a large medical building with a suitable hall, library, office and store space was entirely discredited.

RAY ANDRIES, *Correspondent.*

TO THE EDITOR: It is a foolish plan to allow a subscription to run a minute after the end of the year. There is no earthly reason why a physician ought not to be on hand with his cash without fooling around until you have to send statements or drop him from the list. He ought to know that his subscription and protection ceases Dec. 31st every year. While I am secretary here, no name will be carried after the end of the year. "Pay up or get out" causes all to cash up when they ought.

Yours fraternally,
S. E. GARDINER, *Sec'y.*

NEWS

Edward W. Sparrow of Lansing, has presented the city a site valued at \$12,000 and \$88,000 in cash for the erection of a new hospital.

Dr. F. J. Hackney will return to Lupton, Mich., to practice. He left there a few years ago and went West. He is now doing Post Graduate work in Chicago.

Dr. G. Sjolander of Midland is in Europe for a couple of months doing Post Graduate work.

Dr. W. E. Blodgett of Detroit, was married to Miss Bishop of New York City, June 2nd.

Dr. Victor C. Vaughan of Ann Arbor, 1st Lieut. M. R. C., delivered the address to the Graduating class of the Army Medical School, May 31, 1910.

Twelve cases of Pellagra were demonstrated in the Section on Dermatology of the American Medical Association at St. Louis. Dr. H. R. Varney, the Secretary, was compelled to obtain the permission of several Governors of States interested to transfer these patients to St. Louis. The cases were very instructive.

The International Association of Medical Museums met in Washington, D. C., May 3, and 4, 1910.

Dr. A. S. Warthin of Ann Arbor was elected President for the ensuing year.

It was moved by Professor Adami, seconded by Professor Klotz, and carried: That this Association favors the establishment of a European section, whose members shall be empowered to take the necessary steps to unite themselves for this purpose to hold meetings, whether annually or triennially, and to contribute papers, and, if necessary, arrange for the publication of the same.

On motion of Prof. W. G. MacCallum, seconded by Dr. Harvey Gaylord, the Secretary was empowered to write to Prof. J. Ludwig Aschoff, Freiburg, Germany, asking him to undertake the management of such a European section and to arrange for the appointment of an Assistant-Secretary resident in Europe, who

shall enter into correspondence with the Secretary-Treasurer, and thus transact the necessary business.

Several new members were elected, and the association decided to meet next in Chicago the day before the meeting of the Association of Pathologists and Bacteriologists.

Dr. O. C. Breitenbach, chemist of the municipal laboratory and milk inspector of Escanaba has accepted the surgeonship of the William Bonifas Lumber Company and the United Logging Company at Watersweet, Mich. He will have charge of the health of 400 men who are employed in these companies. In connection with this he is going to establish a hospital at Watersweet. He left Escanaba June 1, to take up his new work.

Governor Judson Harmon of Ohio, has vetoed the optometry bill, and in so doing has interpreted a situation and set a standard that will have a telling and far-reaching effect on the governors and legislators of all the States of the Union.

There are times in the political life of every high official when there must be a halting between two opinions. It is always a time of crisis with that individual. It is strangely true that on one side of such a question is a principle of right standing alone, while on the other side is arrayed the power of wealth, party influence and the danger of giving offense and blighting future prospects. At such times a true statesman will inquire into the question of what is right; he will closely examine the meaning and intention of the existing laws, and analyze them to see if they are built along lofty lines, with no motive other than the protection of the common people and the promotion of health and happiness. What is commonly called "Politics" will not enter into the question at all. The element of greatness which distinguishes men and makes them leaders has its best opportunity to assert itself at such a crisis.—*Lancet Clinic*.

Dr. Chas. H. Baker and family sailed from New York for Rotterdam, June 28th. They will visit Holland, Belgium, Germany, Switzerland, Italy, France, England and Scotland. Dr. Baker will visit some of the Clinics while in the large

cities, and will return about Sept. 5 by the way of Montreal.

The Medical Society of the Third Councilor District will hold its annual meeting at Sturgis, Michigan, July 22, at 1 P. M. This is the occasion of the Seventy-fifth Anniversary of the organization of the first St. Joseph County Medical Society, and will be an out-door meeting, with a good program. A large attendance is desired and visitors from other districts will be welcome.

Detroit Hospital Appointments.

ST. MARY'S HOSPITAL

Dr. Elmer A. Pillon, D. C. of M. 1910.

Dr. Harvard Coll, D. C. of M. 1910.

Dr. G. H. Ross, Hamilton Toronto University, 1910.

Dr. Leo McCabe, Dr. Fred Organ and Dr. S. F. Haverstock have completed their internship and will begin private practice. Dr. McCabe will locate in Windsor, Ont., and Doctors Organ and Haverstock will remain in Detroit.

HARPER HOSPITAL

Dr. Norman M. Allen

Dr. A. E. Bryant

Dr. Vanney H. Dumond

Wm. E. Miller

Frank L. Morris

George J. Beberdy

Alvord R. Sanderson

Dr. Louis J. Sebille

Rene J. St. Louis

} D. C. of M.
1910

Those having completed their internship at Harper Hospital are Drs. R. Robb, Wm. Cassidy and A. Sterling who will locate in Detroit; Dr. Fred Cole, who will become an assistant to Dr. Max Ballin, and Dr. Fowler who will locate in Canada.

Dr. A. M. Hume of Owosso has recently been appointed chief surgeon of the Toledo and Ann Arbor Railroad with head offices at Owosso, the division terminal. Dr. Harold A. Hume, his son, has been appointed local surgeon, the appointment Dr. A. M. Hume has held for twenty odd years

BOOK NOTICES

Inanition and Fattening Cures, by Prof. Dr. Carl Von Noorden, Professor of the First Medical Clinic, Vienna. Authorized American edition, edited and translated by Alfred C. Crofton, M. D., Chicago, New York: E. B. Treat & Co., 1910. Net \$1.50.

This is the eighth volume of Prof. Von Noorden's Clinical Treatises on the Pathology and Therapy of Disorders of Metabolism and Nutrition. The style is interesting, the reasoning clear, and the analysis compelling. The first half of the book deals with inanition exhaustively, and the latter half with the fattening cures. Diets are given for different conditions and the reasons why they will be fattening for one individual and will not for another are clearly explained. This book is a valuable addition to Von Noorden's already famous clinical Treatises.

A Practical Treatise on Fractures and Dislocations. By Lewis A. Stimson, B. A., M. D., LL. D. (Yale), Professor of Surgery in Cornell University Medical College, New York; Surgeon to the St. Johns, and Christ Hospitals; Corresponding member of the Societe De Chirurgie of Paris. Sixth Edition, revised and enlarged, with 361 Illustrations and 65 plates in Monotint. Lea & Febiger, New York and Philadelphia, 1910.

In the Sixth Edition Dr. Stimson has added much to his former works on Fractures and Dislocations. Those who are familiar with this author need not be told of the thoroughness with which he treats his subject. To new readers it may be well to say that everything of value pertaining to any fracture or dislocation known to the profession at the date the book was written will be found in its proper place. The anatomy of the part, the physiology, the mechanical uses and problems that enter into the diagnosis and treatment, the pathology and the results are each discussed in order, while under treatment every method that has at any time held the attention of the profession is given space from the most crude and antiquated down to the most modern and approved. The use of anæsthetics in both diagnosis and reduction of fractures as well as in dislocations is recognized and endorsed, though it does seem to the reviewer more stress might, with profit, be laid on this important feature, also to the employment of landmarks and measurements, which although noticed could well be given more prominence and emphasis, especially in either fractures or dislocations about the wrist, ankle, elbow or knee.

Many skiagrams illustrative of the various peculiar and unique conditions in both fractures and dislocations are introduced into the work and add greatly to its interest and usefulness. In the discussion of treatment of old and unreduced dislocations a note of caution is sounded regarding hemorrhages and nerve injuries that may follow some of the more heroic efforts at mechanical reduction by dilatation and stretching of the surrounding ligaments, vessels, muscles, etc., also may be reasonably expected by operative procedure in such cases. To his friends the name of Stimson insures the value of the book and all who study it must acknowledge the tact, skill and profound research necessary to compile such an exhaustive volume.

The Diseases of Infancy and Childhood. Designed for the use of students and practitioners of medicine. By Henry Koplik, M. D., Attending Physician to the Mount Sinai Hospital; Consulting Physician to the Hospital for Deformities, formerly attending physician to the Good Samaritan Dispensary, The St. John's Guild Hospitals, New York; Ex-President of the American Pediatric Society; member of the Association of American Physicians, and of the New York Academy of Medicine. Third Edition, revised and enlarged. Illustrated with 204 engravings and 39 plates in color and monochrome. Lea & Febiger, New York and Philadelphia.

In the third edition Koplik has produced a volume of practical utility and entirely up-to-date. As the title suggests, the work covers diseases of both infancy and childhood. The problems in Pediatrics constantly being solved as our knowledge of pathology and diagnosis in important diseases of both infancy and childhood increases, demands that frequent editions to work on these subjects be forthcoming. Koplik has well met the demand in this issue. In Section I Morbidity, Mortality, Normality, Development, Methods of Examination, Management and Hygiene, etc., receive careful consideration.

Infant feeding with a consideration of Pasteurization and Sterilization of milk, the advantages and disadvantages of each. How to sterilize. How to Pasteurize. The instruments for accomplishing each. The seasons of the year, the conditions and the reasons why each or either should be used. The addition of other articles as the age of the child increases, to the sixth year, with feeding of such infants makes Section II an exceedingly interesting and instructive section. Diseases of the Newborn, Rachitis and the Exanthemata occupy the next three sections. In the constitutional treatment of Diphtheria with antitoxine nothing is said

of the possibility of sensitizing the patient with the proteids contained in the serum. In the local treatment a full explanation of intubation together with instruments used and the method of operating is given. Tuberculosis and syphilis receive careful attention. Diseases of the mouth, stomach and intestines, and the respiratory system are treated in sections VI, VII and VIII. The circulatory system in IX, Diabetes in X, while the Lymph-Nodes, Ductless Glands and the blood are carefully handled in Section XI. The Bones, the Ear, the Kidneys and Urogenital Tract receive attention in XII, XIII and XIV. The remainder of the work is devoted to the Nervous System and to the Skin. Here much new material of an interesting nature is introduced.

The book is profusely illustrated with up-to-date cuts. It also contains more than three dozen full page plates, beautifully placing before the eye the condition described in the text. Plate twenty-three, showing diphtheritic tonsils and fauces, is alone worth the price of the book.

Surgical After-Treatment By L. R. G. Crandon, A. M., M. D., Assistant in Surgery at Harvard Medical School. Octavo of 803 pages, with 265 original illustrations. Philadelphia and London: W. B. Saunders Company, 1910. Cloth, \$6.00 net; Half Morocco, \$7.50 net.

While Crandon has handled this subject from a common sense standpoint he recognizes that many general laws must be followed and has beautifully set forth his views, which if followed will bring order where now chaos reigns. He describes the ideal sick-room, chart, bed, posture, care during and after anæsthesia, nausea, vomiting, restlessness, sweating, etc. Thirst, its significance and relief, receive especial attention. Pain, sleep, hypodermic injections, pulse, temperature, respiration, hemorrhage, transfusion, shock, coma, collapse, sudden death, embolism, are a few headings followed by thorough discussions. Artificial respiration and resuscitation are described and illustrated. Diet and forms of artificial feeding are carefully considered. Catheterization, enemas, and care of the urinary organs and bowels are explained.

A chapter is devoted to bursting of the abdominal wound, another to the Sequela of Anæsthesia. Hiccough receives like attention and much space is devoted to bandaging, dressing, stitches. In septic wounds the use of poultices, heat, hyperemia is explained. Habits, delirium, bed-sores, artificial limbs are discussed. A chapter is devoted to massage,

friction and movement, another to x -Ray therapy and Radium. The preparation of special areas complete Part I.

Part II is devoted to care of special operations, therapeutic immunization and vaccine therapy. Twenty-five pages are devoted to Laboratory technique including the preparation of vaccines, determining the opsonic index and the agglutination test for Typhoid.

The book closes with half a dozen pages of Food Recipes for invalids and convalescents.

This work is the result of new thought for 1910, will be a valuable acquisition to any library and will prove of immense benefit to those, either in private or hospital practice, who have the after-care of operative, accident or fracture cases.

Diseases of the Stomach and Intestines. By Robert Coleman Kemp, M. D., Professor of Gastro-intestinal Diseases. New York School of Clinical Medicine. Octavo of 766 pages with 279 illustrations. Philadelphia and London: W. B. Saunders Company, 1910. Cloth, \$6.00 net; Half Morocco, \$7.50 net

In the above mentioned work Dr. Kemp has given us a text book and a treatise on diseases of the stomach and intestines that will surely find its way into many libraries and prove a valuable and prized adjunct thereto. While the work is exhaustive it is at the same time clear cut and concise; so arranged that a given subject may be easily looked up and the smallest points grasped in a very few moments, or if one wishes to read the entire subject he will find it treated fully and at length.

The arrangement of the text into three parts is of advantage. Part first treats on the Anatomy, Physiology and Diagnosis. Part Second of Diseases of the Stomach. Part Third of Diseases of the Intestines.--A thoroughly practical and comprehensive division and grouping. Functional disturbances so prevalent among our people are handled with skill, both from prophylactic and curative standpoints. The diagnostic points are made clear and treatment indicated. Organic troubles are classified and plainly differentiated. There is much to commend and little to criticise in the volume.

Technique of Reduction Cures and Gout. Prof. Dr. Car. Von Noorden, Professor of the First Medical Clinic, Viennal Authorized American edition, edited and translated under the supervision of Alfred C. Crofton, Chicago: E. B. Treat & Co., New York, 1910. Net \$1.50.

Part I of this, the ninth of Von Noorden's Clinical Treatises, analyses obesity and the indications for reduction cures. The various

reduction cures, including Diet, Muscular Exercise, Mineral Water Cures, Hydrotherapy, Thyroid Treatment are carefully described and their use directed.

The Treatise on Gout, Part II, describes the place of Uric Acid in Gout, and its source. The treatment is considered exhaustively..

This book is a fit companion for the many others in the series.

The Conquest of Disease through Animal Experimentation, by James Peter Warbasse, M. D. New York and London: D. Appleton & Co., 1910. Net \$1.00.

This little volume is a strong defense of Medical Research and of its necessary attendant—vivisection—but not in the sense in which that term is used by its opponents. Dr. Warbasse points out distinctly that animal experimentation is not in any sense or degree inhuman as the "anti's" would have us believe—witness the following quotations:

"Practically all experiments performed upon animals are made by medical men, or men allied with the collateral sciences; and I know of no class of men who have higher ideals of the humane and who are prompted in their work by more noble motives than they."

"It has been perversely intimated that biologic investigators are simply working for glory. Would that we might say as much of every one, for glory is no mean ambition."

This is a work that should be in every medical library.

Medical Electricity and Roentgen Rays, by Sinclair Tousey, A. M., M. D., Consulting Surgeon to St. Bartholomew's Clinic, New York City, Octavo of 1116 pages, with 750 illustrations, 16 in colors. Philadelphia and London: W. B. Saunders Company, 1910. Cloth, \$7.00 net; Half Morocco, \$8.50 net.

In this work Tousey has given us a complete and comprehensive treatise on Medical Electricity and Roentgen Rays. In the preface the author proclaims the impossibility of any book on electricity being up to date, because of the rapid development of this science along such important lines, and then proceeds to give us a book that certainly approaches the impossible acme he proclaims.

Beginning with General Considerations, a brief, concise, but lucid description of the fundamentals of electricity as it is known to Science, together with sufficient experiments to insure comprehension, is given.

Static and Dynamic electricity with the

machines to produce each are described. The description of the machines and how to operate them are made sufficiently clear for one interested to perfect himself in their use with no further instruction than he can get from this book. The spark, the force, units, sources, effects, and therapeutic action with methods of application are explained and illustrated.

Everything pertaining to the medicinal use of electricity is explained and valuable suggestions relative to the different machines and appliances are to be found in the work. As are also clear and precise instructions as to use to be found. To high-frequency currents are devoted about one hundred pages. The ionization, of gases, and Photography are elucidated but it is to the x -Ray and the wonderful phenomena produced by it that most attention is given.

After the genesis of the x -Ray a complete description of the tubes both in and out of working order is given. Both by text and illustration the great advance in diagnosis and localization of foreign bodies, or diseased processes as pus, necrosis, are noted. In the head, the orbit of the eye, ethmoid and sphenoid cells, the frontal and other sinuses of the face, and teeth roots are shown. The neck, chest, abdomen and extremities are considered in turn while under Rontgenotherapy a large chapter is devoted to the use of the x -Ray in many enumerated diseases and conditions where relief and cure by its intelligent use may be expected.

The book closes with a chapter on Radium. Radium activity, chemic, physiologic and pathologic effects and therapeutic uses of Radium are considered.

Prescription Writing and Formulary, by John M. Swan, M. D., Associate Professor of Clinical Medicine, Medico-Chirurgical College of Philadelphia. 32 mo. of 185 pages. Philadelphia and London: W. B. Saunders Company, 1910. Flexible leather, \$1.25 net.

In the preface the Author expresses the hope that an appreciation of the rules of prescription writing may result in a diminution in the number of mistakes in continuing medicine, errors in form of prescription and inaccuracies. He also warns against too lightly discarding old and tried remedies to adopt the many new and possibly untried preparations coming and now on the markets.

He treats prescription writing as an art and shows how easily it can be accomplished. He endorses the use of Latin and gives a list of remedies, also one of adjectives with Latin end-

ings, accompanying them with some declensions and rules.

A goodly list of official "galenical" preparations consisting of waters, confections, elixirs, plasters, emulsions, liniments, oils, powders, pills, ointments, syrups, etc., are given.

Weights and measures, doses, number of ingredients, abbreviations, incompatibility, receives attention.

In the Formulary, conditions and diseases are alphabetically arranged, with a few illustrative prescriptions useful in each, suggestively grouped.

The whole is followed by a short but clear and lucid index.

The Pathology of the Living and Other Essays. By B. G. A. Moynihan M. S. (London) F. R. C. S., Honorary Surgeon to Leeds General Infirmary; Professor of Clinical Surgery at the University of Leeds, England, 12mo of 260 pp. Philadelphia and London: W. B. Saunders Company, 1910. Cloth, \$2.00 net.

This book collects in a convenient volume several addresses read by Mr. Moynihan before medical societies and printed in the *British Medical Journal*, *The Lancet*, *The Edinburgh Medical Journal* and other periodicals during the past few years.

Moynihan believes that pathology as studied by surgeons during operation is vastly different from that studied upon the dead body, and is of far more value.

There are nine addresses. The one from which the book takes its name, one on Inaugural Symptoms; Gastro-Enterostomy and After; Early Diagnosis and Treatment of Cancer of the Stomach; The Surgery of the Common Bile Duct; Operation for Obstructive Jaundice and the Proper Selection of Cases; Violation of Courvoisier's Law; Mimicry of Malignant Disease of the Large Intestine; and Surgical Treatment of Cancer of the Sigmoid Flexure and Rectum, with especial reference to the principles to be observed.

All these subjects are live surgical ones, and are treated entertainingly and in an up-to-date manner, in Moynihan's own delightful way.

Education in Sexual Physiology and Hygiene. A Physician's Message, by Philip Zenner, Professor of Neurology in the Medical Department of the University of Cincinnati, Cincinnati. The Robert Clarke Company, 1910. Cloth, \$1.00 net.

For several years we have had dinned into our ears the value of giving education in Sexual Physiology and Hygiene. We have been told

to call attention to the development of plant life, to the prevalence of venereal disease, etc. We have heard much about the regulation of Prostitution. It is a relief and a pleasure to have something tangible placed before us. The question of what to say, and how to say it, is an ever present one,—one which palled Dr. Zenner himself. In this little book of Dr. Zinner's are four talks which he gave to school children. Three to boys and girls on Hygiene in General; Habit, and Alcohol. These are followed by a talk to boys on "The Origin of Life." The talks are given verbatim, and could be repeated, or rewritten, by any one attempting to do this work, with these as models.

Next follow talks to College Boys on Sexual Physiology and Hygiene, and Social Disease. Following are general instructions, and some consideration of the advantages and mode of teaching Sexual Physiology and Hygiene.

All through Dr. Zenner's book he urges strongly that care should be exercised not to do harm while attempting to do good; do not lay too much stress upon these truths you are tempting to teach, but rather mention them incidentally while dwelling upon other general truths; mention them sufficient to make your point, but not sufficient to arouse curiosity. In other words, leave the mind of the child clean and clear and free from speculation.

The book is beautifully written, is suitable for anyone to read, and is in no sense technical.

NOTICE

The secretaries of the sections desire all those expecting to present papers at the Bay City meeting, September 28-29, 1910, to send in a short abstract at once, as the program must be complete by July 15th.

R. Parmeter, M. D., Detroit
A. S. Kimball, M.D., Battle Creek
R. E. Balch, M. D., Kalamazoo

Wilfrid Haughey, M. D.,
State Secretary.

SURGERY

Conducted by

R. E. BALCH, M. D., Kalamazoo, Michigan

Peritoneal Patching of the Aorta.—In order to determine whether an opening in a large artery can be closed by a peritoneal graft Alexis Carell performed a series of experiments upon the abdominal aorta of cats and dogs. His technique is as follows:

1. Preparation of the graft. Under anaesthesia a rectangular peritoneal flap is resected from the antero-lateral wall of the abdomen. It is composed of the peritoneum together with the subperitoneal tissues alone or with the transverse muscle. The flap is then washed in Locke's solution and preserved for a few minutes in vaseline.

2. Opening of the Aorta. Hemostasis is secured by two Crile forceps and by ligature of the lumbar collaterals. The wall of the aorta is opened and a piece extirpated. This wall being hard and friable, great care must be used to keep the edges smooth and not bruised. As soon as the vessel is opened the blood is washed out and the edges covered with vaseline.

3. Graft. The patch is removed from the vaseline and with scissors is given the same size and shape as the opening of the aorta. It is fixed to the edge of the opening by four through and through stitches. Care must be taken to accurately approximate the vascular and peritoneal epithelium. Afterward the graft is completed by continuous suture of the edges of the patch to the edges of the aortic opening.

4. Re-establishment of the circulation. The lower Crile forcep is first removed, while the line of suture is compressed by a gauze pad. Any hemorrhage is controlled by a few complementary stitches. The upper forcep is then removed and the circulation re-established.

Results of the experiments.—One animal died under anaesthesia. The second animal, a cat, placed under anaesthesia, a part of the abdominal aorta removed and replaced by peritoneal grafts. Five months later the cat was etherized and the anterior wall of the aorta was dissected loose. Pulsation was normal; there was no dilatation at the site of the graft; but the color was red owing to a transparency of the patch. Upon section of the vessel, the intima of the aorta and the internal side of the patch were smooth and glistening.

The third animal, a dog, was operated upon in the same manner and a year later under ether was opened and the aorta examined. No evidence of the graft was seen. There is not the slightest difference in the consistency and

thickness of the wall. Upon close dissection an elliptical area is seen the color of which differs slightly from the normal.

Conclusion.—These experiments show that an artery can regenerate itself by using heterogeneous anatomical elements. The adaptation of the peritoneal patch to the aortic wall was so perfect that the vessel two years after the operation was absolutely normal. By a kind of mimicry the connective tissue cell assumed the appearance of muscular fibres.—*Journal of Experimental Medicine*, Mar. 14, 1910.

Radiographic Examination of the Injected Kidney Pelvis.—After experimenting with different solutions that would give a shadow Doctors Uhle, Phaler, Mackinney and Miller of Philadelphia, have come to the conclusion that colloidal silver oxide, fifty per cent, was the best material obtainable for giving a radiographic picture of the renal pelvis.

Before injecting this salt into the renal pelvis, it was first used extensively in urethral and bladder irrigations and found to be non-irritating. The solution is injected through a ureteral catheter immediately preceding the x-Ray. It was found to cause no bad symptoms, provided that it was given slowly and not more than 5 c.c. injected. More than this would in some cases cause renal colic lasting from one to three hours.

Technique.—The buttocks of the patient are elevated and the catheter introduced for a distance of about three inches. The warm solution is allowed to flow by gravity from a graduated burette which is connected with the ureteral catheter by means of a rubber tubing to which is attached a small cannula. Then with a force of gravity of about two feet the fluid is allowed to flow.

The solution flows at times evenly, and at other times intermittently, but at other times it comes to a standstill. The fluid can be drained from ureter by the catheter or be allowed to flow into the bladder.

By the use of this solution a definite shadow of both ureter and pelvis can be obtained. Doubtful shadows in the region of the ureters caused by conditions other than calculus can thus be excluded. This method of examination determines the size of the kidney pelvis, the amount of destruction of the kidney substance and any alterations in the size and shape of the ureter.—*April Annals of Surgery*.

OTO-LARYNGOLOGY

Conducted by

WILFRID HAUGHEY, M. D., Battle Creek, Michigan

Symposium—The Deaf Child—The Laryngoscope, June 1910. J. Kerr Love of Glasgow, Scotland, reviews the history of the teaching of the deaf child for the past three hundred years and comes to the following conclusions:

In order to focus attention on and to facilitate discussion of the chief points raised in this paper, they may be expressed in these propositions. 1. The education of deaf children without previous clinical examination and classification is wasteful and inefficient. 2. The massing of deaf children in institutions should be avoided except in the case of the mentally defective deaf. Necessitous deaf children should be fed, clad, and when necessary, boarded out of the expense of the educational authorities. In these respects they need the same treatment as necessitous hearing children. 3. The education, but not the instruction, of deaf children should begin as soon as the fact of deafness is known, and the mothers should be the first teachers. Unless the speech-habit be acquired before the age of five years the best oral results can seldom be got. 4. If the physician and the teacher are to co-operate in the work of educating the deaf child, there must be not only medical inspection of all school children but there must be a specialist attached to every school or institution for the education of the deaf.

G. Hudson-Makven, Philadelphia, considering the Physiology and Psychology of hearing, says:

Summary. The physiology of hearing has been a subject for investigation and study since before the Christian Era began, but Helmholtz was the first to place it upon a scientific basis. Helmholtz' "resonance theory" with slight modifications is the one now most generally accepted. The only important modifications of the Helmholtz Theory has been the substitution of the tectorial for the basilar membrane as the resonance body.

The importance of hearing as a factor in the

development of speech is of later recognition and even now it is not generally understood. Spontaneous speech development takes place only as the individual is capable of hearing speech sounds, both subjectively and objectively, and speech acquired in any other way is a forced and artificial product. A little hearing in the development of speech is better than no hearing at all, and hearing, like speech, may be improved by training.

The eye is the best substitute for the ear in the development of speech, but the tactile and other avenues to the brain may be trained to take the place of either or both under favorable conditions and in case of necessity.

The symposium includes several excellent articles by teachers of the deaf,—Mrs. J. Scott Anderson, Edward M. Gallaudet, A. L. E. Crouter, J. W. Jones, Mary McCowan and several aurists.

Some Observations on the Removal of Tonsils, by Norton L. Wilson, of Elizabeth, N. J. In the *American Journal of Surgery*, June 1910.—I am convinced from my observations of the various operators that the personal equation plays a very big role. One may use a tonsillotome and another a snare, but both enucleate the tonsil with equal facility. My own method is to separate and cut the plica with a Leland knife, made a little sharper on the end, but not pointed. The finger is then introduced and if any adhesion or bands of plica remain I break them down. The tonsil is then pulled gently toward the median line with forceps. I believe that the wire will follow the path of least resistance more easily than a knife and the wire snare is therefore used. Preference being given to the Kratz-Muller or Peters, because it can be worked with one hand. I think that it is much safer to grasp a tonsil with forceps and pull it toward the median line than to push it toward the median line from without inward, at least there is removed the danger of dropping the tonsil into the larynx by the use of forceps. The question of the anæsthetic is still worthy of serious consideration. I prefer to operate in the upright position under local anæsthesia, when possible, but as yet I have not had the courage to etherize my patients and put them in the upright position.

MEDICINE

Conducted by

W. K. WEST, M. D., Painesdale, Michigan

The Treatment of Hemorrhage from Gastric Ulcer.—In the June 1910 number of the *American Journal of Medical Sciences*, Kaufmann of New York City writes on the treatment of gastric ulcer. In considering the treatment often practiced by physicians, much of which he condemns, he says, "Formerly styptics were used a great deal—acetate of lead, perchloride of iron, oil of turpentine, etc. As hæmostatics they are unreliable, while on the other hand they are apt to increase the ever present and annoying nausea, and often excite vomiting." He has seen benefit from ergot by mouth or hypodermically. "Adrenalin has the great disadvantage that the vaso-constriction produced by this drug is followed by a period of vasodilatation, which may cause a renewal of the hemorrhage." He condemns very strongly the routine treatment of stimulation and says, "When the desired effect of energetic stimulation has been reached, the vigorous action of the heart will eventually result in freeing a freshly formed thrombus and thus cause a renewal of the bleeding. Since the continuation of the bleeding forms the main danger of such situation, it is obvious that energetic stimulation may increase the danger by bringing about exactly what we should try to prevent. For this reason it must be considered unwise to resort indiscriminately to vigorous stimulation." Of internal remedies he considers bismuth subnitrate the most reliable, particularly when given after gastric lavage. He thinks gastric lavage the most important thing in the treatment, providing it is carefully applied. He does not believe the danger of perforation and disturbance of the rest of the stomach, the objection usually raised against it, exist. As for its advantages, he states:

"I have already mentioned the release of partially occluding thrombi. A further very striking advantage is the benefit of lavage when the stomach is distended by large quantities of contents. These stagnating masses are usually

very sour and fermenting, and their presence not only causes nausea and pain, but acts very harmfully by constantly irritating the mucous membrane to intense hypersecretion, thereby further increasing the amount of gastric contents. Again, the fermentation always connected with such conditions invariably leads to pronounced and sometimes to enormous gas distension of the stomach, so that when the tube is introduced the contents shoot out under high pressure, even, as I have experienced, with an explosive sound. . . . The removal of fermenting masses not only relieves the annoying symptoms of gastric irritation, but eventually brings about a direct cessation of the bleeding by allowing the empty stomach to contract and this aids in the occlusion of the eroded vessels. The evacuation of the stomach and the contraction which follows it are of the greatest importance for the improvement of circulatory disturbances. I saw cases of gastric hemorrhage in which the pronounced symptoms of insufficiency of the heart were only in part due to anæmia, but were to a much greater extent caused by the pressure of the gas distended stomach against the diaphragm and heart. In these cases circulation was at once improved when the stomach was emptied, while the anæmia remained unchanged. . . . The understanding of such conditions has been greatly advanced by the recent study of acute gastric dilatation. . . . It is generally admitted that the most rational and the most effective treatment of acute gastric dilatation is prompt evacuation by lavage. This holds true for cases of acute dilatation in connection with hemorrhage."

In considering operative measures, he says, "I only wish to emphasize that in contemplating operative measures we should distinguish more clearly between operations performed for the purpose of perfecting a final and complete cure of the ulcer and those operations which are undertaken for the immediate control of hemorrhages." A radical operation he considers has much better chance of success if performed after the hemorrhage is controlled.

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ORIGINAL ARTICLES

THE OCCURRENCE OF *BACILLUS FUSIFORMIS* IN MEMBRANOUS AFFECTIONS OF THE THROAT—"VINCENT'S ANGINA" WITH REPORT OF 43 CASES*

M. L. HOLM, M. D.

Lansing, Michigan

Vincent was not the first to call attention to the presence of fusiform bacilli and spirilla in connection with ulcerative and membranous conditions in the mouth; but his able work and extensive contribution to the literature on this subject has caused the name "Vincent's Angina" to come into general use.

The organisms were first described in cases of ulceromembranous angina by Rauchfus in 1893. Plaut in 1894 described the organisms in five cases of ulcerous angina. Vincent in 1896 described the fusiform bacilli and spirilla in cases of hospital gangrene and stated that the same organisms were found in certain anginas of an ulcerative type. Bernheim in 1897 reported thirty cases of angina and stomatitis in which the same organisms were present. Vincent in 1898 reported a further series of fourteen cases, and numerous later observers have described these organisms in connection with disease. They have been demonstrated in cases of mastoiditis. The same organisms have been found in noma. Schmorl found them in abscesses of the spleen, lung, and liver. Plaut has demonstrated the organisms in a tonsillar

abscess. They are quite constantly present in the pulp of decayed teeth and in varying numbers along the edge of the gums. Very similar organisms have been described in connection with other pathological processes.

PREVALENCE

Several writers have called attention to the prevalence of the disease in the throat associated with these organisms. But the general custom of studying the bacterio-pathology of throat affections from cultures only, has probably allowed a majority of these cases to go unrecognized. "Vincent's Angina," according to Vincent, constitutes 2% of all anginas, including diphtheria. Lublowitz found the organisms in six out of thirty-eight cases of ulcerative affections of the mouth. Beit-zke found them in five out of fifty-eight cases of suspected diphtheria. Rodella observed the organisms in about one-third of the two thousand cases of pseudomembranous angina from which he made examinations. Edwards says "Vincent's Angina" occurs especially in children between the ages of six and ten, and in medical students and servants in anatomical laboratories. There is no special

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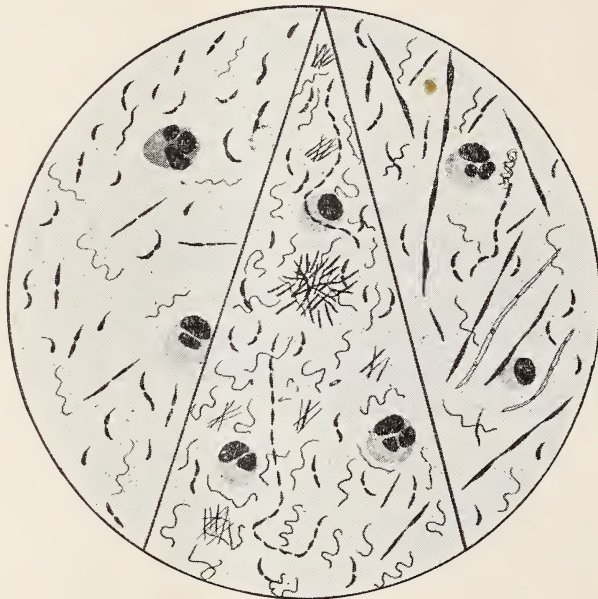
reason why medical students and dissecting room servants should be especially susceptible to "Vincent's Angina," and it is far more probable that because of environments the disease is more often diagnosed in these individuals than it is materially more prevalent.

ETIOLOGY

Our experience would indicate that the

BACTERIOLOGY

The spirilla and fusiform bacilli have been regarded by most writers as two distinct organisms and few have regarded them as different forms of the same organism. The latter view was apparently confirmed by the studies of Ruth Tunnicliffe in 1906. The organism is extremely polymorphous and presents many intermediary forms between the typical spirillum and fusiform



Drawing from smear preparations from three different cases of "Vincent's Angina."
Stained with Unna's polychrome methylene-blue. (X-1,000).

disease is most prevalent in young adults, irrespective of sex. Information obtained from the attending physicians, and personal observation in the cases studied, indicate that the disease most often occurs in individuals with lowered resistance, either from other infections or chronic disease of the throat. Defective teeth seem to be very generally associated and this would seem somewhat significant when we consider the association of these organisms with decayed teeth and the relation of the teeth to the tonsil.

bacillus. The proportion of the various forms varies greatly in different cases, the short curved fusiform bacilli predominating and the presence of a few spirilla being the most common. More rarely, irregular clumps of more slender and sharply pointed organisms are present and occasionally filaments of considerable length are found to be very numerous. The organism stains fairly well with the common stains and is usually said to stain best with carbol-fuchsin. I have found Unna's polychrome methylene-blue most satisfactory. The spirilla are very easily decolorized by Gram's

method, the bacilli give up their color less readily. Some writers have regarded the bacilli as Gram-positive, but the fusiform bacilli may be readily differentiated from diphtheria bacilli by Gram's method of staining.

The organism in pure culture is an obligate anærope and no appreciable growth will occur on Loeffler serum under the usual conditions for diphtheria. Rarely

of Michigan State Board of Health. The material has been collected on sterile cotton swabs and transmitted either by special messenger or by mail. In all the cases referred to, separate examinations have been made from swabs and cultures from same on fresh Loeffler serum (supplied by Parke, Davis & Co.) In most of the cases which had been diagnosed as diphtheria on clinical grounds, two or more swabs



Drawing from smear preparations from three different cases of "Vincent's Angina."
Stained with Unna's polychrome methylene-blue. (X-1,000).

a slight growth of fusiform bacilli and occasionally a few spirilla will occur in mixed culture. Such growth is most abundant in the early hours of incubation and may be very confusing when culture less than ten hours old are examined. During this period, diphtheria bacilli, if present, would generally be of the solid type which resembles certain forms of *B. fusiformis* very closely.

The cases presented here have been gathered during the past year and have occurred among 265 cases of suspected diphtheria, examined at the laboratory

have been examined. In no case, however, examined for diagnosis has a negative finding been followed by a positive. *B. Diphtheria* have been recorded whenever present, regardless of the relative number; other organisms have not been recorded except when proportionately numerous, and then only the predominating organism is mentioned. *Bacillus fusiformis* has been recorded only when found by direct smear from the swab to be more numerous than any other species present.

Total number of cases examined for diagnosis

Total number of cases showing	
B. Diphtheria	118
Total number of cases showing	
B. Fusiformis	73

These 73 cases occurred in 33 males and 40 females. The lowest age given was two years and the highest fifty-five years, the average being 18 years. A membrane was described in all but four cases, involving both tonsils 38, one tonsil 31, and ex-

PATHOLOGY

The primary location of "Vincent's Angina" is usually on the tonsil. From this it may extend to any of the adjacent structures, but extension does not seem to be the rule. Pathologists have divided the affection into three periods, viz., the stage of congestion and edema followed by pseudomembranous formation and finally ulceration. These stages can usually not



Drawings from smear preparations from three different cases of "Vincent's Angina."
Stained with Unna's polychrome methylene-blue. (X-1,000).

tending to adjacent structures 15. The color of the membrane was given as gray or grayish 41, yellow 9, white 8, grayish yellow 5, greenish yellow 2, grayish green 1, and creamy 2. The highest temperature given was 103 3-5°F., the lowest, 98½°F., the average being about 100½°F. The clinical diagnosis was given as diphtheria 28, suspicious or questionable 20, tonsillitis 17, Vincent's angina 5, and scarlet fever 1. The cultural results showed, Streptococci 29, Staphylococci 20, B. Diphtheria 14, M. Catarrhalis 8, Pneumococci 1, Hofmann's bacilli 1.

be clearly distinguished and many of the cases seem to be abortive in the second or even in the first stage. The disease may be unilateral or bilateral. The membrane is generally grayish, but may be white, yellow or greenish in color. When removed it leaves an abraded surface which bleeds easily and in a few hours becomes again covered over. The submaxillary glands are swollen and firm in most of the severe cases, in mild cases these glands may present no change. Recovery generally takes place in a few days, but the more severe cases may persist for several weeks.

CASES IN WHICH B. FUSIFORMIS WAS FOUND TO PREDOMINATE IN DIRECT SMEAR PREPARATION FROM THE SWAB

NO.	AGE	SEX	DAY OF DISEASE	MEMBRANE			COLOR	TEMPERATURE	CLINICAL DIAGNOSIS	CULTURAL RESULTS
				One Tonsil	Both Tonsils	Extending				
1	7	Female	3rd	Yes			White	99.5°	Tonsilitis	B. Diphtheria
2	17	Male	2nd						Suspicious	Staphylococci
3	20	Female	3rd		Yes		Gray	99.6°	Fol. Tonsilitis	B. Diphtheria
4	22	Male	2nd		Yes		Gray	99.4°	Questionable	B. Diphtheria
5	9	Male	1st		Yes	Pillars	Gray	100	Diphtheria	Streptococci
6	20	Female	2nd			None		101.4°		Staphylococci
7	2½	Male	1st		Yes		Gray		Uncertain	Streptococci
8	22	Female	2nd	Yes			Gray	101°	Questionable	Staphylococci
9	14	Female	3rd		Yes		Yellow	100.5°	Tonsilitis	B. Diphtheria
10	19	Female	3rd		Yes		Yellow	102°	Diphtheria	Staphylococci
11	30	Female	3rd		Yes		White	102.5°	Tonsilitis	Streptococci
12	21	Female	8th	Yes			Gray	100°	Diphtheria	Streptococci
13	35	Male	1st	Yes			Gray	100°	Diphtheria	Streptococci
14	6	Male	5th	Yes			White	98°	Diphtheria	B. Diphtheria
15	6	Male	1st	Yes			Gray	99°	Suspicious	Streptococci
16	55	Female	1st		Yes		Grayish Yellow	99.5°	Diphtheria	Staphylococci
17	9	Female	2nd		Yes		Gray	101°		Staphylococci
18	15	Female	2nd		Yes		Dirty Yellow	99°	Diphtheria	Streptococci
19	38	Male	1st		Yes		Grayish	100°	Suspicious	Streptococci
20	2	Female	4th		Yes	Larynx	Yellow	101°	Croup	Staphylococci
21	12	Female	2nd	Yes			Grayish	101°	Diphtheria	M. Catarrhalis
22	18	Female	3rd		Yes		Gray	100°	Diphtheria	Staphylococci
23	20	Female	2nd		Yes		Grayish	99°	Diphtheria	Staphylococci
24	11	Male	2nd	Yes			White	101°	Reserved	B. Diphtheria
25	18	Male	1st		Yes		Grayish	102°	Diphtheria	M. Catarrhalis
26	30	Female	3rd		Yes		Gray	102°	Scarlet Fever	Staphylococci
27	20	Male	2nd		Yes	Pharynx	Grayish	100°	Fol. Tonsilitis	Streptococci
28	21	Male	1st			None		102.2°	Suspicious	Staphylococci
29	15	Female	3rd	Yes		Arch	Gray		Diphtheria	Staphylococci
30	8	Male	2nd	Yes			Gray	102°	Diphtheria	Streptococci
31	12	Female	1st		Yes		White	103.6°	?	M. Catarrhalis
32	18	Male	2nd	Yes			Gray	98.5°	Tonsilitis	M. Catarrhalis
33	17	Male	1st	Yes			Gray	100°	Doubtful	B. Diphtheria
34	8	Female	2nd	Yes			Grayish	100.5°	Tonsilitis	B. Diphtheria
35	30	Male	3rd	Yes		Pharynx	Gray	102°	Doubtful	Staphylococci
36	12	Male	1st			None		99°	Tonsilitis	Streptococci
37	10	Female	3rd	Yes			Grayish	100.5°	Suspicious	B. Diphtheria
38	8	Female	2nd	Yes			Grayish	101°	Suspicious	B. Diphtheria
39	10	Male	2nd		Yes		White	101.5°	?	M. Catarrhalis
40	5	Male	1st	Yes			Gray	100°	Diphtheria	Staphylococci
41	5	Male	2nd	Yes		Post Pillar & Arch	Gray	98.6°	Diphtheria	Staphylococci
42	18	Female	8th		Yes		Yellow Gray	102°	Diphtheria	Staphylococci
43	2	Male	2nd	Yes				105°	Suspicious	Pneumococci
44	15	Female	3rd		Yes		Gray	100°	Diphtheria	Staphylococci
45	45	Female	2nd	Yes			Dirty Yellow	99°	Tonsilitis	Streptococci
46	22	Female	2nd	Yes			Yellow Green	101°	Fol. Tonsilitis	Streptococci
47	30	Male	3rd		Yes		Dirty Yellow	102°	Tonsilitis	Staphylococci
48	19	Female	4th		Yes	Post Pillars	Yellow Green	101°	Diphtheria	Streptococci
49	16	Male	2nd		Yes		Gray	100°	Diphtheria	Streptococci
50	5	Male	2nd	Yes			Grayish	102.6°	Diphtheria	Streptococci
51	24	Female	3rd		Yes		Gray	99°	Angina	M. Catarrhalis
52	21	Male	3rd		Yes		White	99°	Tonsilitis	M. Catarrhalis
53	35	Male	2nd	Yes		Post Pillar	Grayish	99.5°	Vincent's Angina	Streptococci
54	16	Male	2nd		Yes	Post Pillar	Grayish Yell'w	99°	Suspicious	Streptococci
55	32	Female	2nd		Yes	Pillars, Arch	Grayish Green	98.5°	Vincent's Angina	Streptococci
56	17	Female	1st		Yes		Creamy	102.5°	Vincent's Angina	B. Diphtheria
57	26	Female	2nd	Yes			Gray	100°	Fol. Tonsilitis	B. Diphtheria
58	13	Female	1st		Yes		Gray	102°	Suspicious	Streptococci
59	19	Male	1st	Yes		Post Pillar	Grayish	102°	?	B. Diphtheria
60	37	Female	2nd		Yes		Grayish Yell'w	101°	Tonsilitis	Streptococci
61	20	Female	2nd		Yes		Gray	101°	Diphtheria	Streptococci
62	18	Female	2nd		Yes		Gray	100.5°	Suspicious	B. Diphtheria
63	40	Female	1st		Yes		Yellowish	102°	Diphtheria	Streptococci
64	26	Female	1st	Yes			Gray	99.4°	Tonsilitis	Streptococci
65	14	Female	1st		Yes		Creamy	102.5°	Diphtheria	Streptococci
66	6	Male	2nd	Yes			Gray		Diphtheria	Streptococci
67	10	Female	2nd			Back of Each Tonsil	White		Diphtheria	B. Hofmanni
68	25	Male	1st	Yes		Post Pillar and Arch	Grayish Yell'w	101°	Vincent's Angina	Streptococci
69	35	Female	2nd	Yes			Yellow	Normal	Tonsilitis	M. Catarrhalis
70	30	Female	2nd	Yes			Gray	100.2°	Tonsilitis	Streptococci
71	32	Male	1st	Yes		post pillar	Gray	99.5°	Questionable	Streptococci
72	5	Male	4th		Yes		Yellowish	102°	Diphtheria	Staphylococci
73	22	Male	1st		Yes	Post Pillars	Gray		Diphtheria	Staphylococci

CASES WHICH WERE DIAGNOSED AS DIPHTHERIA CLINICALLY, BUT GAVE
NO BACTERIOLOGICAL EVIDENCE OF DIPHTHERITIC INFECTION

NO.	AGE	SEX	DAY OF DISEASE	MEMBRANE			COLOR	TEMPERATURE	BACTERIA PREDOMINATING	
				One Tonsil	Both Tonsils	Extending			Swab	Culture
1	9	Male	2nd		Yes	Pillars	Gray	100°	B. Fusiformis	Streptococci
2	19	Female	3rd		Yes		Yellow	102°	B. Fusiformis	Staphylococci
3	21	Female	8th	Yes			Gray	100°	B. Fusiformis	Streptococci
4	3	Female	2nd	Yes			Yellowish	103°	Staphylococci	Staphylococci
5	5	Male	1st	Yes		Pillar and Arch	Gray	100°	B. Fusiformis	Staphylococci
6	12	Male	3rd			No Membrane		99°	Pneumococci	Pneumococci
7	13	Female	1st			Posterior Pharynx	Yellow	99°	M. Catarrhalis	B. Muc. Caps.
8	5	Male	2nd	Yes		Post Pillar & Arch	Gray	98.6°	B. Fusiformis	Staphylococci
9	35	Male	1st	Yes			Gray	100°	B. Fusiformis	Streptococci
10	55	Female	1st		Yes		Grayish Yell'w	99.5°	B. Fusiformis	Staphylococci
11	6	Male	1st			Throat	White	101°	M. Catarrhalis	M. Catarrhalis
12	15	Female	2nd		Yes		Dirty Yellow	99°	B. Fusiformis	Streptococci
13	12	Female	2nd	Yes			Grayish	101°	B. Fusiformis	M. Catarrhalis
14	18	Female	3rd		Yes		Gray	100°	B. Fusiformis	Staphylococci
15	20	Female	2nd		Yes		Grayish	99°	B. Fusiformis	Staphylococci
16	12	Female	1st			No Membrane		101°	M. Catarrhalis	M. Catarrhalis
17	18	Male	1st		Yes		Grayish	102°	B. Fusiformis	M. Catarrhalis
18	15	Female	3rd	Yes		Arch	Gray	99°	B. Fusiformis	Staphylococci
19	24	Female	2nd	Yes			Grayish	99°	Leptothrix Bucc'lis	Staphylococci
20	18	Female	8th		Yes		Yellowish Gray	102°	B. Fusiformis	Staphylococci
21	10	Male	2nd	Yes			Yellowish White	101°	Sacch. Albicans	Sacch. Albicans
22	8	Male	2nd	Yes			Gray	102°	B. Fusiformis	Streptococci
23	20	Female	2nd		Yes		Grayish	99°	B. Fusiformis	Staphylococci
24	15	Female	3rd		Yes		Gray	100°	B. Fusiformis	Staphylococci
25	16	Male	2nd		Yes		Gray	100°	B. Fusiformis	Streptococci
26	5	Male	2nd	Yes		Arch	Grayish White	102.4°	B. Fusiformis	Streptococci
27	19	Female	4th		Yes		Yellowish Gr'n	101°	B. Fusiformis	Streptococci
28	10	Female	2nd			Back of each Tonsil	White		B. Fusiformis	B. Hofmanni
29	6	Male	2nd	Yes			Gray		B. Fusiformis	Streptococci
30	14	Female	1st		Yes		Creamy	102.8°	B. Fusiformis	Streptococci
31	40	Female	1st		Yes		Yellowish	102°	B. Fusiformis	Streptococci
32	20	Female	2nd		Yes		Gray	101°	B. Fusiformis	Streptococci
33	22	Male	1st		Yes	Post Pillars	Gray		B. Fusiformis	Staphylococci
34	5	Male	4th		Yes		Yellowish	102°	B. Fusiformis	Staphylococci
35	29	Female	1st		Yes		White	101°	Streptococci	Streptococci

SYMPTOMATOLOGY

The symptoms are interesting in comparison with diphtheria. In the entire series of 265 cases, diphtheria was diagnosed on clinical grounds in 99. The bacteriological examination of these 99 cases showed

B. Diphtheria present	64
B. Diphtheria absent	35

This gives a percentage of error in the clinical diagnosis of diphtheria of 35.3. It is worthy of note that the percentage error in the clinical diagnosis of diphtheria was found at the laboratory of Massachusetts State Board of Health to be 38.4 for 4,113 cases, and out of 30,000 certified cases of clinical diphtheria collected from the literature by Dr. G. S. Graham-Smith, the percentage error in the clinical diagnosis was found to be 29. This would indicate that our figures show a fair average

A review of the laboratory results in these 35 cases of pseudo-diphtheria shows a predominance of bacteria as follows:

	SWAB CULTURE	
B. Fusiformis	27	0
M. Catarrhalis	3	4
Staphylococci	1	14
Streptococci	1	13
Pneumococci	1	1
Saccharomyces Albicans	1	1
Leptothrix Buccalis	1	0
B. Mucosus Capsulatus	0	1
B. of Hofmann	0	1

Among the 73 cases showing B. Fusiformis, diphtheria was diagnosed clinically 28 times. The bacteriological examination of these 28 cases showed

B. Diphtheria present	1
B. Diphtheria absent	27

This gives a percentage error in the clinical

diagnosis of diphtheria in the presence of *B. fusiformis* of 96.4, which surely ought to impress the similarity of the two diseases. The constitutional symptoms are usually slight. The temperature shows very little elevation. The breath is generally fetid. There is a burning sensation at the site of the lesion and considerable pain on swallowing. There is nothing characteristic about the pseudo-membrane which will differentiate it from the true diphtheritic membrane and the cases may be often justly designated as pseudo-diphtheria.

DIAGNOSIS

The diagnosis is made by finding the characteristic bacilli and spirilli in smears prepared from the exudate. As these organisms may be found in small number, with persistent search, in the majority of throats examined, the diagnosis is hardly justifiable unless they constitute a fairly large proportion of the bacteria present. Diphtheria bacilli are frequently associated with the fusiform bacilli and should always be properly excluded.

It is not always easy to draw satisfactory conclusions as to what organism is the chief causative factor in a given membrane. Membranous inflammation caused by *B. Diphtheria*, *B. Fusiformis*, *B. Coli*, *B. Influenza*, *Streptococci*, *Staphylococci*, *Pneumococci*, *Leptothrix Buccalis* and *Sacch. Albicans* have been observed. Any of these organisms, however, may be present in the throat sometimes for prolonged periods without causing such inflammation. When dealing with these organisms it has become a custom to regard the predominating species as the essential etiologic factor. If a throat affection is associated with Klebs-Loeffler bacilli, the case is usually regarded as one of diphtheria, regardless of the relative number of bacilli present. It is quite probable, however, in some of the cases, that the disease is

essentially due to other organisms and occurring in diphtheria bacilli carriers. In this series there were three typical cases of "Vincent's Angina" following diphtheria before the Klebs-Loeffler bacilli had disappeared, occurring three weeks, one month and four months respectively after recovery from the true diphtheritic attack. The mere presence of diphtheria bacilli makes the condition important, whether or not these organisms are the essential cause of the existing disease. For this reason, special measures in the bacteriological examination of diseases of the throat have been directed toward the identification of these organisms. Most of the information on the bacterio-pathology of throat affections in the past has been obtained from so-called bedside cultures, and it should be remembered that the culture always represents the organisms present to which the cultural conditions are most favorable, irrespective of their relation to the existing disease, and there are some important pathogenic organisms which do not develop in culture under the usual conditions for diphtheria.

The cultural results in this series of cases indicate that *Streptococci* and *Staphylococci* are the most usual in cases of "Vincent's Angina." It should be further noted that in over three-fourths of the cases of pseudo-diphtheria, the direct smears from the membrane showed a predominance of *B. Fusiformis*. This might lead us to re-consider the literature on membranous affections of the throat due to *Streptococci* and *Staphylococci*. Most of such findings recorded have been based upon cultural results, and whenever such be the case, "Vincent's Angina" has not been excluded.

CONTAGION

Contagion in connection with this disease has been reported by Vincent, Dopter,

Bernard, Auger, and others. During the winter of '08-9 a number of cases occurred at the Home for the Feeble Minded at Lapeer, Michigan. Many of these were regarded as diphtheria, but eight swabs examined at the state laboratory all showed an absence of diphtheria bacilli and a large number of *B. Fusiformis*. Two small epidemics have occurred during the past year at the State Industrial School at Lansing, there being on each occasion about a dozen more or less severe cases. Three or four of the most marked among these have been examined each time to exclude diphtheria. Fusiform bacilli were in each swab examined found to be numerous. Two or three cases occurring simultaneously in the same family have been occasionally observed and recently four cases occurred on the same day among the employees in one of the departments of the State Board of Health. I can, however, not consider any of the above mentioned incidents evidence of contagion. The cases have not seemingly followed each other, but rather occurred in groups in persons who have been influenced by the same or similar conditions.

PROGNOSIS

The prognosis is generally good, none of the cases in our series have proven fatal. It is stated that noma of the face may follow. Noma, however, is a rare disease, and "Vincent's Angina" must be regarded as very common. There is in some of the cases a marked tendency to recur.

TREATMENT

Potassium Chlorate internally has been regarded as specific. Various antiseptic solutions have been used locally, most important among which are Tr. Iodine, Logul's solution, peroxide of hydrogen, and silver nitrate in 2-5% solution. To prevent recurrence, decayed teeth should be

properly cared for, hypertrophied tonsils and other diseased tissue in the throat should be given appropriate treatment. Associated disease should always receive early and proper attention. When associated with diphtheria, antidiphtheritic therapy and prophylaxis is indicated. Anti-toxin treatment can only be neglected, where diphtheria bacilli are present, when it is definitely known that the patient is a diphtheria bacilli carrier. In two of the cases where *B. diphtheria* and *B. Fusiformis* were associated, the physicians have reported a prompt disappearance of the membrane following anti-toxin. In one case, there was no apparent effect following 5,000 units, and the membrane persisted for about a week after the injection. No anti-toxin was used in any of the three cases following diphtheria, but prompt recovery followed in a few days. One severe case of "Vincent's Angina" was given 6,000 units of anti-toxin because of its marked clinical resemblance to diphtheria, although Klebs-Loeffler bacilli had been repeatedly found absent. This treatment had no apparent effect upon the disease and the membrane, which involved both tonsils and posterior pillars, persisted for about two weeks and recurred several times during the following months.

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DISCUSSION

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So insidiously do diseases extraneous to the tonsil creep in through that organ and so definitely may its condition impair the general health of childhood, that a clear knowledge of its physi-ology and anatomy together with the disease, and pathology of the tonsils and tonsillar rings is imperative in the treatment of the disorders of children.

Vincent's Angina is not a disease of such minor importance as might appear, for it is allied with some serious conditions (Vincent considering it positively grave in young children), and it should, for several reasons, be carefully considered.

I. It is not rare, but an unrecognized disease and when looked for in mouth and pharynx af-fections is frequently found. Dr. Koplik, of New York, who has for years so clearly differ-entiated the varieties of Angina, told me that the two organisms, bacillus fusiformis and the spirochete were not infrequent in his observations, and when looked for in the mouths of infants and children, in the wards of Mt. Sinai Hospital, were always found in gan-grenous processes of the mouth.

In 1903 Escherich showed that in the large hospitals of New York, London, Paris, and Berlin in only 60% of the diphtheroid diseases were the clinical aspects caused by the Klebs-

Loeffler bacillus, and the various anginas held the other 40%. The diagnosis of these cases rests upon the intelligent, painstaking findings of a bacteriologist. Many cases of Vincent's angina are passed by the general practitioner as diphtheria, tonsillitis, or syphilis, and the diagnosis from the clinical picture in its similarity to other infections is a vivid illustration of the inability to diagnose throat affections without the findings of scientific research. Now the more we know the more we are convinced that it is impossible to differentiate diphtheria and tonsillitis without the aid of a laboratory. About one-third of the cases of virulent diphtheria present a simple angina clinically, the Klebs-Loeffler bacillus being found deep in the lacunar plugs.

It is just here that the inefficiency of the bacteriological department of our health boards is felt and here arises a definite inquiry as to its limitations and the value of the field of the city bacteriologist in the larger cities and in the smaller ones. Many times the work is inadequate and not in keeping with that of the high grade medical community. In mouth and throat examinations the organism which is looked for is the Klebs-Loeffler. In the larger cities those looking for this organism become experts, skilled in the detection or suspicion of smears with but little suggestion of diphtheria. It is not the rule, however, for the bacteriologist to be in touch with the clinical findings or the history of the case and only an examination from one smear is the custom.

Now the superficial similarity, clinically, of Vincent's angina and diphtheria is great in the early stages, and frequently careful examinations disclose the former and not the latter if Vincent's angina is looked for. It is in just these cases which pass for diphtheria and which are responsible for the so-called inefficiency of the anti-toxin treatment.

In the smaller cities the want of interest or intelligence of the general practitioner in this work is apparent. Only a fractional part of the medical profession avail themselves of the city bacteriological department, and some of these presume to hold the one examination of the bacteriologist responsible for the diagnosis even though the patient be well-to-do. Several examinations should be made and in private laboratories with consultant's fee, where it can be ably met by the patient. But a paltry salary is paid frequently to the city bacteriologist who is used as a consultant rather than a city safe-

guard. These conditions are not an incentive to such investigative work as would be of benefit to the community, and sometimes it is only the personal interest of the bacteriologist obtaining from the material all that there is to learn that such close work obtains as results in obscure cases of diphtheria being disclosed and Vincent's Angina being differentiated from syphilis and diphtheria.

The fusiform bacillus of Vincent's Angina may be mistaken for the Klebs-Loeffler; both infections may occur simultaneously; syphilis or some other virulent organism may be present; so that more than positive or negative findings of the diphtheria organisms from the bacteriological department of a city would be in keeping with high grade work of the medical profession.

II. Vincent's Angina is a tenacious disease, hard to combat and may be fatal. It is one and the same process as noma, ulcerating stomatitis and gangrenous stomatitis, clinically, anatomically, and bacteriologically. It is generally a typical local stomatitis.

Its duration may be several months, during which time the patient loses ground generally; it is a serious and not a harmless disease.

There have occurred as complications, necrosis of the maxilla; destruction of tonsils and adjoining parts as the uvula; necrosis of the pharynx; nephritis; peripheral neuritis of the lower extremities; swollen joints and axillary nodes; albuminuria; endocarditis; mastoiditis; brain abscess; peribuccal abscess.

As to its communicability, that it is somewhat so is probable. Koplik, who almost always has cases in his ward, says that he has not found it communicable, that the organisms are putrefactive saprophytes, doing no damage beyond their host.

A. Baron of Dresden considers a contagiousness, but not of great danger, as in only four out of thirty-five cases has he shown it communicable.

Todd of Minneapolis reports an epidemic in an insane asylum and the contraction of the disease by the pathologist, who had examined the throats for several years. This pathologist has harbored the organism and has had acute severe exacerbations.

Buhleg of Northwestern Medical School, Chicago, reports seven cases among two different associated groups of medical students, suggesting the contagiousness of it. These cases had an incubation period of about seven or eight days. Buhleg suggests the means of contagion may have been the purse strings of the common

tobacco bag. The bag being continually passed among acquaintances, each closing with the teeth the purse strings.

Vincent and Costa suggest communicability within limits.

Inasmuch as the two organisms are found about the gums and teeth of healthy individuals, and have been known for a long time as saprophytes in normal mouths, though they are not found in the mouths of infants without teeth according to Eschinger's broad experience, some other factor presents in the consideration of these two dissimilar organisms as a pathological entity. This factor is the lessened resistance of the tonsils, tonsillar ring and buccal mucous membrane.

In order to appreciate this in the mode of invasion and in the lesions of Vincent's Angina and other anginas, one must know both the normal and pathological anatomy of this region. Some practitioners do not concern themselves with the anatomy, physiology, chemistry and the biological process of the cells and tissues entering into the areas involved in the diseases for which they are treating the patient; they deem such knowledge "too scientific," not being cognizant of the fact that it is practical and called for.

Now it is generally granted, and proved in some of the infections, that the disease finds the portal of entry by way of the mucous membrane of the mouth and tonsillar ring. The locality therefore is worth consideration. For in inflammations of the tonsils the infections gain access through some lesion of the epithelial lining of the crypts, but the type and virulence of the invading organisms, as determined by laboratory findings, determine the mode of treatment rather than that the tonsillar inflammation determines it.

The normal tonsils according to Boswick and others $\frac{3}{4}$ in. x $\frac{3}{4}$ in. should not be seen, and should atrophy by the age of 12 years. They are situated each in a triangular fossa bounded externally by the superior constrictor muscle; anteriorly by the anterior faucial pillar containing the palato-glossus muscle; and posteriorly by the posterior faucial pillar containing the palato-pharyngeal. At every act of deglutition the tonsils are compressed and unless obstructed (commonly this occurs in the upper portion) the crypts are emptied.

The tonsils are situated as if they had been lymphoid bodies, forcing themselves between the epithelial layer and the tunica propria of

the faucial mucous membrane, by which the epithelium lines the internal surface and invaginates the crypts; while the membrana propria layer, as a tough membrane continuous with the faucial mucosa, forms a distinct capsule. This capsule contains fibrous, elastic and muscle tissues and, with the crypts, differentiates the tonsils from the surrounding lymphoid tissue. Merging into this capsule are the trabeculae which divide the tonsils into lobes. There are two membranes covering parts of the tonsils which enter as factors into their lessened resistance. The plica tonsillaris covers the lower third, extending from the anterior to the posterior pillar, while the supra tonsillar membrane covers the upper portion to two years of age, the latter especially sometimes so caps the crypts emptying into the supra tonsillar fossa as to prevent the caseous, decomposing material from finding its way out.

The crypts, eighteen to twenty in number, extending entirely through the tonsils, are lined by the epithelial cells which have a distinct protective property.

The arrangement of these crypts and tonsillar membranes, and the condition of these cells are factors to be considered in the prevention of a number of infectious diseases. The extra-capsular lymphatic bodies sometimes take on the function of the tonsils after their removal. The lymphatics are important as furnishing the path of infection especially of tuberculosis.

The afferents are branches from those of the tongue and nose. The efferent finding their origin in and not merely passing through the tonsils as in other lymphoid tissue empty into the cervical chains and through those about the external jugular into the thoracic duct.

Many anastomoses prevent a direct current and account for the seeming returning line of infection sometimes noted.

Tuberculosis is proven to find a portal of entry through the tonsils, 26% of removed tonsils showing bacteria or focal lesions; the peri-tonsillar glands showing infection in two to four percent, and through the lymphatics the apex of the lungs and the pleura are vulnerable.

Jacobi, by a forty-year observation, considers the anatomy and lymphatic arrangement an important factor in the non-glandular infection in cases of angina, etc., when the membrane is confined to the tonsil.

However, the tonsils are shown by recent research work to be the portals of entry of many diseases and primarily inflammatory in tuber-

culosis, rheumatism, erysipelas, exanthematous diseases, endocarditis, nephritis and others.

As to the function of the tonsils, in spite of excellent work by admirable men it is still a matter of opinion. Best evidence suggests a lympho-genetic power, a phagocytic action, and a strong resisting medium to pathogenic matter; in other words, protective.

A hypertrophied tonsil, from whatever cause, though commonly from repeated inflammations, loses this protection. Goodale has shown that the hypertrophied tonsils readily absorb foreign material, bacteria as well as inert matter.

Stoehr considers that the protective function lies in the germ-centers of the nodules, where lymphoid tissues are changed into lymphocytes, these being migratory and phagocytic. At all events the resistance of the normal epithelium and tonsillar tissue is interesting and important; for if a normal tone is retained, not only will Vincent's angina, diphtheria, and tonsillitis be resisted, but likewise those many diseases extraneous to the tonsils, but which here find their portal of entry.

Jonathan Wright has presented valuable observations on the resistance of the epithelium of the normal tonsil. The two modes of resistance of the epithelial cells he suggests as, (1) A bio-mechanical one, which may decrease with the changes in the protoplasm, thus decreasing the surface tension. (2) A bio-chemical one, stimulated by the toxins of the bacteria, by which a resisting ferment, as in Metchnikoff's leucocytes, produces an equilibrium between immunity and infection.

And so the general economy of the patient is menaced and local conditions such as Vincent's angina may occur, when the tonsils become abnormal or hypertrophied. Escherich in the *Jahrbuch für Kinder-heilte* for 1905 reports from University Children's Clinic Leipsic, cases of Vincent's angina of which 17 were membranous and 5 ulcerous.

Three ulcerostomatitis, typical

One gangrenous stomatitis

One gingivitis

Eleven with diphtheria also

Twenty showed both fusiform bacilli and spirochetes

Four showed only fusiform bacilli

Thirteen of the membranes showed spirochetes.

Escherich considers that the fusiform bacillus penetrates the living tissue and gives the charac-

ter to the disease while the spirochetes are spongers and not causative.

Other authorities, however, consider the spirochete the factor in lessening the resistance of the tissue and making a way thereby for the tusiform bacillus.

Emil Mayer considers the peculiar fruity odor due to the spirochetes.

In work done by A. Baron, Dresden, from 1899 to 1907, in the Foundling Hospital, 239 of so-called tonsillitis cases were studied; twenty-one showed diphtheria, 123 ulcerostomatitis, all presenting the two organisms while at the same time 85 had catarrh and 67 had ulcerostomatitis, and these cases which showed the fusiform bacilli more abundant presented the ulcerostomatitis form, both organisms being most numerous the first days.

Eleven of these 123 had throat and buccal diseases.

Eight had repeated attacks of Vincent's angina. Baron finds the angina in infants without teeth, but finds no involvement of the lymphatics.

His experience has been that Vincent's angina begins as other anginas but with absence of complaint.

Cases:

I. Bernheim reports one of his cases cured by only one operation.

Personal history: Chronic hypertrophy of faucial tonsil.

P. I. Cough and membrane presenting as white patches for two months.

Treatment: Silver nitrate and cauterizing—Worse.

Case acute for three weeks and both organisms very prominent.

Operation—cure.

II. Yates of New York presents an interesting case in a girl of twelve. Complaint, earache, headache, tenderness back of ear, discharge through meatus.

Incision and removal of a dram and a half of foul smelling pus. Mastoid opened, cortex gone, necrosis of tissue; exposure of sinus and dura of middle fossa with yellowish membrane. Microscope showed Vincent's angina organisms.

He reports that in the laboratory of the New York Eye and Ear Infirmary the organisms of Vincent's angina were found in pus from middle ear, mastoid and old brain abscess, together with other organisms—not alone.

III. Rogers of Philadelphia reports an inter-

esting case during pregnancy and puerperium. Fatal.

E. B., age 20.—P. I. Nov. 11, premature labor. Tonsilitis, severe until Nov. 16. White membrane on tonsils, under tongue and on buccal surface.

Nov. 18. Bacilli and spirochetes abundant.

Nov. 18. Twenty-one Klebs-Loeffler negative, but patient had been moved to diphtheria ward in interval after Nov. 11.

Nov. 21. Klebs-Loeffler found.

Nov. 19. Gangrene, necrosis and loose teeth.

Nov. 22. Septic pneumonia.

This was a case of virulent Vincent's angina, and diphtheria was contracted secondarily on removal to contagious diphtheria ward.

Autopsy: Gangrene of tonsils, uvula, and under tongue. Lungs, right and left, presented Klebs-Loeffler. Left lung apex tuberculosis. There was pulmonary tuberculosis, gangrene of lung, nephritis, endocarditis and cloudy swelling of liver and spleen.

IV. A. Baron records a case showing similarity of Vincent's angina and diphtheria.

Patient a girl of fourteen. Personal history, lacunar tonsilitis.

P. I. Lacunar tonsilitis followed by pain in throat, chills and on first day a white exudate on right tonsil.

Temperature, 103; exudate neither spreading nor melting; no Klebs-Loeffler, but numerous spirochetes and fusiform bacilli in pure culture.

Exudate remained three weeks; circulation disturbed, dizziness, irregular heart, small pulse; pain in thorax and symptoms of myocarditis, gallop rhythm and dilated heart, swollen liver.

For three months patient was in bed with pulse 160 on exertion. After this time general health became better, but faucial paralysis, in-

ability to swallow and indistinct speech developed. There was also difficulty in walking and movement of legs and arms.

After two months' treatment with electricity and baths the patient became entirely well, the arms and legs being the last to regain normal tone. Heart normal.

This case was so similar to diphtheria that it would have been so diagnosed unless proved bacteriologically otherwise. Similar cases are reported by Reiche of Hamburg.

BACTERIOLOGICAL EXAMINATION

The swabs should be pressed into the mass of exudate. The smears must be examined as the spirochetes are anaerobic and hard to cultivate; the fusiform bacillus being carried culturally through several generations. Both organisms are motile, and can be examined in hanging drops. The flagellæ have been observed by A. Baron.

TREATMENT

Vincent uses iodine swabbing.

Emil Mayer uses Lugol's solution.

Others use silver nitrate, trichloroacetic acid, A. Baron uses hydrogen peroxide followed by ormorol.

The use of potassium chlorate which is frequently employed as a routine treatment is not indicated and is useless in the experience of those best fitted to judge.

The treatment should concern itself with prophylaxis by paying attention to the hygienic condition of the patient's mouth, especially of children, for the disease is as frequently present in the well nourished as in the ill fed.

In time vaccine therapy combined with local treatment and general hygiene may be the method of taking care of Vincent's angina.

SURGICAL SUGGESTIONS

If a foreign body impacted in the auditory canal (especially if symptoms suggest that it has entered the middle ear) resists safe efforts at removal, administer narcosis, turn the ear lobe forward and open into the canal by a free incision from behind. This procedure, which is simple and leaves only invisible scars, is a very old one, but it is often forgotten.—*American Journal of Surgery*.

When seeking the cause of an obscure or indefinite abdominal pain, and especially of a pain in the loin, making a careful microscopic examination of the centrifugalized urine. Renal calculi sometimes cause only mild, irregular pains, and the finding of a few red blood cells in the urine may be the first clue to their presence.—*American Journal of Surgery*.

TRANSITORY INSANITY AND ITS ABUSES.*

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This paper has more especially to do with transitory insanity as pleaded, as a warrant for exemption from responsibility for crime.

To the astute criminal lawyer eager to divest his accused client of every entangling thread of responsibility, this particular variety of insanity possesses a far more fascinating interest than it can possibly have for the thoughtful physician who knows its rarity, its common improbability and the questionable purposes which it has not seldom served.

Few facts concerning mental disease, are better established than this, that insanity is seldom or never an affair of the moment, seldom the phenomenon which the lurid lawyer loves to paint, finding its expression in flushed face, "bulging eyes" and contorted features which so impress susceptible laymen that they make willing witnesses to uphold this hobgoblin of their vivid imaginations. It has been well said: "It is the rule that insanity is not a sudden instantaneous change. If it has developed suddenly or instantaneously, as is sometimes stated, there may have been omissions to note the import of its threatened approach, or the whole history has been purposely withheld. The only rule upon which we can act or come to a conclusion in these cases is that there is always a developmental stage of insanity as in our clinical experience in the observation of ordinary diseases."†

Not only is insanity rare as an affair of sudden origin, but it is still more rare as an affair of fleeting existence. Its

bona fide nature, is very justly and fairly, then, open to suspicion when it is pleaded as a defense for crime and especially so when of that attractive variety, the evanescent existence of which is only of sufficient length to just cover the criminal act.

Such alleged varieties are, let me assure you, not at all uncommon, indeed they are quite the rule, especially in cases of murder, where there is room for any possibility of doubt as to the guilt of the accused. An excuse which will conveniently cover the crime but which has promptly left its perpetrator as sane as before its commission is naturally a favorite defense. Hence have arisen many common ideas concerning irresistible impulses, "dementia Americana," that insanity which is born only to be gone, emotional insanity, transitory frenzy, furibund mania; and even epileptic insanity has been called upon to cover a multitude of crimes and to stand in the breach, even in the absence of any epileptic history whatever. "It must not be forgotten," says Jas. J. Walsh in the *American Journal of Medical Sciences*, August 1909, "that many of our most prominent murders are committed by native-born citizens of good education and with all the advantages that our civilization is supposed to give. Most of these murderers, however, escape on the plea of insanity." And he adds, "We do not care to make the punishment fit the crime now but the criminal, and we have gone so far to the other extreme that, whenever there is anything suspicious in a man's previous history, we are prone to think that this may have impaired his responsibility to such a degree that he does not deserve punishment."

*Read before the Michigan State Medical Society at Kalamazoo, Sept. 15-16, 1909.

†Dr. John B. Chapin in *American Journal of Insanity* for July, 1909.

Transitory insanity has been, by medical aid and abetment injected into so many criminal cases that it is becoming that we consider its real standing, its probability and frequency. The irresistible impulse, as commonly pleaded in court has little or no standing in psychiatry, except as a possibly rare incident in well developed insanity, but it should go without saying that the crime itself cannot stand as in itself the sole or chief evidence of the insanity alleged.

One frequently hears emotional insanity glibly prated of as if it were of common occurrence, but out of eleven authorities carefully consulted only two make any mention of emotional insanity though scientific authors discuss those disturbances of the emotions which are incidental to well established forms of insanity.

It is obviously a condition better known to the legal than to the well posted medical mind.

Regis discusses the disturbances of the emotions as symptomatic of certain insanities, but merely mentions emotional insanity, not describing it nor according it any prominence.

Blandford, an English writer (*Insanity and Its Treatment*, 1884), discusses moral or emotional insanity though he gives but cold comfort to those who would make of emotional disturbance or storm, a distinct variety of insanity, saying that "when immorality makes us question a man's state of mind, it must be remembered that insanity, if it exists, is to be demonstrated by other mental symptoms and concomitant facts and circumstances, and not by the act of wickedness alone."

Of transitory frenzy, Brower-Bannister (*Practical Manual of Insanity*, 1902) makes only this bare mention: "Transitory frenzy, though denied by some authors, is a recog-

nizable and well established form of disease. Neither Defendorf (adapted from Kraepelin), DeFursac, MacPherson, nor Paton make any mention of transitory frenzy. Gray (1895) discusses furor transitorius, which he defines as an outbreak of violent fury, lasting for a few hours and terminating in deep sleep, from which the patient awakes without the slightest memory of what has occurred; and never recurring in the same person."

"The onset," he says, "is sudden and it is characterized by the blindest fury, the patient smashing articles of furniture and tearing his own clothes into bits at the same time that he howls or growls or murmurs inarticulately. This attack may last a few minutes or hours, when the patient suddenly becomes quiet, and passes into a deep sleep of hours' duration, from which he awakens without the slightest memory of what has taken place." Other descriptions agree essentially with this, which, I venture to say, those long in contact with mental disease will recognize as certainly descriptive of a very rare form of insanity. Its rarity forbids the possibility of its being exemplified in even a small proportion of the cases of crime in which some such attack has been proposed as a defense. The few authors who describe it unite in their characterizing its excitement as blind and purposeless. This, however, is often lost sight of in the desire to make it cover distinctly purposeful acts.

Kraft-Ebing speaks of transitory mania as "presenting the features of an intense cerebral irritation affecting the sensory, ideational, and motor centers, suspending consciousness. The height of the outbreak rapidly attained after brief initial symptoms; self consciousness lost; the patient raving and delirious; the agitation of the patient unbounded and purpose-

less." "This disease," he says, "is under all circumstances very infrequent."

Church-Peterson (1908) refers to "transitory mania" as a term formerly employed to describe cases which, however, "do not really present the characteristic symptoms of a true mania."

"Transitory frenzy" is not mentioned by seven out of eleven authors consulted, and those discussing transitory mania, acute delirious mania, furious delirium, lay no satisfactory foundation for its application to the criminal cases in which its sheltering aid is so often sought.

Epileptic insanity of which epileptic mania, epileptic excitement, is an occasional phase characterized not seldom by intense and blind excitement, in the course of which purposeless acts of great violence are not uncommon, is of course an outgrowth of epilepsy and so is not really of transitory type.

These states are to be regarded as equivalents of the more ordinary epileptic attacks. The psychological disturbances present in this neurosis are to be regarded as exacerbations of an underlying diseased condition, but "in the intervals, a general change of the whole personality is more prominent than in manic-depressive insanity" (Defendorf), and, to quote this author further: "Epileptic insanity is a complex accompanying epilepsy, characterized by a varying degree of mental deterioration, evidenced by impairment of intellect and to a less extent of memory; emotional irritability, impulsiveness, moral anergy, and incapacity for valuable production. . . . Epileptic deterioration may appear at any period after the onset of epilepsy, and thus far no direct relation between the number and severity of the convulsions and the degree of deterioration has been established." No author, however, is content to discuss epileptic insanity, epileptic furor, or epileptic confusion, without first the diagnosis of

epilepsy being well established by the most indubitable evidence. How utterly devoid of the scientific, then, is it to invoke a diagnosis of epileptic insanity to cover a crime in a case where no other evidence of epilepsy exists than a (somewhat dubious) history of three or four attacks of faintness during the life of the patient! Yet such cases are not unknown. Epileptic excitement or epileptic confusion is of course, a convenient cloak to excuse the commission of a crime, and cases are, I believe, well established where criminal assaults have been properly explained as due to that confusional excitement, which not seldom attends upon epileptic states but it is not usually difficult to confirm such a diagnosis by other attendant circumstances. The mere occurrence of the crime and the sometime history of epilepsy (even when this is undoubted) are of themselves insufficient to warrant a careful medical expert in giving such an opinion as will tend to free from all responsibility one charged with a serious crime. It is convenient to forget that the epileptic may be just as responsible as the non-epileptic. While there is, of course, a certain wise justice in resolving all reasonable doubts in favor of the accused it should be beneath any well posted and honest alienist to lend a ready assistance to a zealous advocate in building up confusing doubts upon a slimy foundation. Responsibility is not removed if a single doubt be injected, or several, and physicians, misled as advocates, serve the attorneys' purposes in helping to befog a jury. When a physician has been so misled, we sometimes see the sorry spectacle of one put upon the stand as an expert touching in the course of his testimony upon two or three varieties of insanity, pleading the difficulty of diagnosis and making no clear-cut pronouncement of the case in hand, but lending his

aid thus consciously, or unconsciously, to the eager desire of defendant's attorney to throw such an element of doubt into the case as will befog the issue in the mind of the jurors and so bring about a hoped-for disagreement.

The medical profession should be conservers of the law and supporters of justice rather than lend themselves to aid in the defeat of law and justice, as they have been too often known to do and the disrepute into which transitory insanity as a defense for crime has come, is by no means wholly attributable to the wiles of the criminal lawyer.

The skirts of our profession are not clear in this matter and there is need of a more careful study of all the aspects of such cases.

The employment of experts by one side or the other has been criticized and it has been said that one is of necessity influenced by the theories of the side employing him. As one who has been approached in several cases when sanity or insanity was the problem at issue, I am glad to bear testimony to the candor of the attorneys, who requested the service, in frankly asking that I proceed in such manner as I saw fit to determine the mental condition of the accused, consider the probability of mental alienation and report my findings when these had been determined, nor was there any effort to color these findings or influence my conclusions.

It goes without saying that the self-respecting expert could approach such a case only with a mind open and candid to receive unbiasedly all information bearing on the case, consider it impartially and scientifically and form conclusions deliberately and carefully. A position too seldom taken perhaps is that of the effort to study the case in hand with the immediate circumstances of the criminal act eliminated.

If in these conditions there be found no adequate evidence of insanity, the case is certainly open to suspicion that sufficient basis for a diagnosis of insanity is here wanting.

In a few cases, some evidences of degeneracy appear. These are always to be looked for and carefully considered, but questions of degeneracy should not be lugged into court as a vague matter, simply calculated to inspire the jurors' minds with doubt, nor should fanciful and slight asymmetries be cited as marks of degeneracy. It should ever be borne in mind that degeneracy, to be of serious import, must be attested by such marked departure from the normal as would tend in time to the extinction or marked deterioration of the race. Nothing less than this is of sufficient import to justify its introduction into the experts' testimony before the jury. Degeneracy is too often prated of as if adequately attested by only the slightest deviation from an ideal or classic type. Submitted to this test, we should most of us, I fear, be readily classed as degenerates.

We sometimes fail to appreciate how sadly the very integrity of our fundamental institutions is threatened in the easy putting to one side of the responsibility to which every citizen of a civilized country should be held for his acts. We have all of us heard the opinion lightly passed that one of unstable, emotional, make-up, especially if he can be shown in any way to have a poor heredity, should not be held responsible before the law, that his accountability should be less. It may soberly be questioned if the logical result of such an opinion is not to cheapen human life and detract from the civilization to which we ought to have attained. It is easy to grow sentimental and seek to cloak with excuses the unrestrained play of evil passions, but the medical pro-

fession should be the last, especially under cover of expert knowledge, to easily condone such offenses.

Walsh (already quoted, *Am. Jour. Med. Sciences*, Aug. '09) gives expression to wholesome, albeit unusual, sentiments when he says: "The tendency is toward too great mercifulness, which spoils the character of the nation just as leniency to the developing child spoils individual character. . . . The responsibility of most men for a definite action is quite clear in the sense that if they are punished they will not do it again, or will be less likely to do it again, while if they are not punished their escape becomes a suggestion to themselves and to others to repeat such acts. . . . It is absurd to say that a man may have such an attack of mental unsoundness as will lead him to do so serious an act as taking away human life, and then be expected to get over his mental condition so as not to be likely to do the same thing again. . . . Such acts, when really due to mental instability, occur either in depressed or maniacal conditions and these, as is now well known, from statistics very carefully collected, inevitably recur.

"Society must be protected from such individuals, and this constitutes the most important reason for punishment. It is no longer a personal matter, but a social requirement." And he further insists that "punishment is more needed for those of lowered mentality, of whom the expert may well declare that they are insane, than it is for the normal."

Quite refreshing, in these days of the sentimental conjuring of transitory insanity as a defense for crime, and of lax administering of law, are such words as we find in the opinion of the Supreme Court of Pennsylvania in the homicide case of *Commonwealth vs. Hallowell* (see *Journal A. M. A.* for Sept. 4th, '09, p. 1812.) The

court says: "Any variation, however slight, from normal conditions implies unsoundness in some degree, and ordinarily, when one is said to be unsound mentally, the expression indicates nothing as to extent or degree of the variation. There is, however, nothing uncertain or indeterminate in these words when they are used to denote the mental unsoundness which exempts from legal responsibility for what otherwise would be felonious and therefore criminal homicide. The words used in this connection have a fixed and definite meaning. They denote a mind so far devoid of understanding that it is unable to distinguish between right and wrong, and is therefore without freedom of moral action. However unsound in mind a man may be generally, it is only when he has lost utterly his power of moral perception that he ceases to be responsible in the eye of the law." And in the same opinion the Court further says: "For however correct the defendant's witnesses were in the opinions expressed that the defendant was a man of unsound mind it was manifest from the facts given by each in support of such inference, with a few exceptions, that the unsoundness they were considering was not that which the law exculpates."

To recapitulate: 1. Transitory insanity is of rare, not to say doubtful occurrence.

2. More frequent than its bona fide occurrence is its allegation solely as a means to the end of avoiding just responsibility for crime.

3. Its most frequently pleaded varieties, transitory frenzy, transitory mania, emotional insanity, have but little standing among the best psychiatric authorities.

4. Epileptic excitement and confusion while of admitted occurrence is often, without adequate basis, pleaded as a cover for crime.

5. It is unworthy of experts unable to

make and defend a clean-cut diagnosis in these cases, to inject vague claims of insanity into such a case for the purpose of creating such doubt as will befog the jury.

6. Medical experts should be careful to prove themselves anxious to conserve rather than defeat the law.

7. The medical expert should approach such cases with absolutely unbiased mind, reach his conclusion scientifically, take a clean-cut and firm position and maintain it with the courage of his convictions.

8. If with the crime eliminated the case presents no adequate evidence to warrant a diagnosis of insanity such a diagnosis should not be made, for the crime cannot be of itself the sole evidence to warrant such a diagnosis.

9. The expert especially in cases where transitory insanity is alleged should zealously guard himself against being a party to the further increase of the disrepute into which medical expert testimony and insanity as an easy defense of crime have already come.

THROMBO-PHLEBITIS, AND ITS RELATION TO PHLEGMASIA ALBA DOLENS*

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The pathological conditions occurring in the veins have received in comparison with those of the arteries but scant attention. In a general sense the same disease processes are found in the veins as in the arteries, but owing to the thinner, weaker structure of the vein walls, inflammatory changes are much more common to the veins than to the arteries. Inflammatory processes may originate within or without the vein, but owing to the thinness of their walls, we may assume that all three coats are affected at the same time.

Phlebitis may be regarded as a lymphangitis of the vein wall, as the inflammatory processes extend along the lymph spaces and vessels with which the wall is richly supplied.

As soon as the phlebitis extends to the

intima of the vein, thrombosis results. This condition is known as phlebo-thrombosis. As the origin is from without, the condition is also termed extravascular.

In those cases where the phlebitis results from the thrombosis, the condition is known as thrombo-phlebitis, and is also termed intravascular and hæmatogenous.

The relation that thrombo-phlebitis bear to Phlegmasia Dolens is an interesting one, and a condition over which considerable divergence of opinion exists as to its etiology.

At the June meeting of the Houghton County Society, I presented a clinical report of phlebitis following delivery, and have been asked to give at this meeting a digest of the theories advanced as to the etiology of this complication and its treatment.

The differentiation between phlebitis with

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secondary thrombosis, and thrombosis with secondary phlebitis, is in the majority of cases impossible. Neither the nature of the primary affection, the character of the fever or the pain, nor the late appearance of the symptoms in the course of another disease can be used as differential points. Some of the writers upon this subject refer to one or both varieties under the common head of phlegmasia. So, in considering this condition, and in giving a resumé of the theories of the physicians who have made a study of this pathological process, it will be convenient at one time to refer to thrombo-phlebitis, at another to phlebo-thrombosis, or at times to refer to the subject under the name of Phlegmasia.

The question is, "What are the causes of thrombo-phlebitis in the veins of the lower extremities, and its resulting symptoms commonly known as phlegmasia and what is the treatment for the condition?"

Thrombo-phlebitis of the femoral vein is undoubtedly associated with phlegmasia, but the etiology of the condition is a subject upon which few authorities agree. Fortunately phlegmasia is a rather rare complication, and it is not the ill fortune of every physician to have met with it. I have been able to collect the reports of seventeen cases, and out of that number, nearly one half of the physicians advanced theories as to its etiology, other than that commonly accepted at the present day. It seems only fair to say, that in comparing the various theories, that there is truth in all; but it seems to me that the cause of the contention arises from the fact that some try to class the etiology of all cases under one head, whereas, if one admits that there are causes instead of one cause alone, the subject becomes much more logical and much less confusing.

In order to refresh our mental picture of this condition, let us review briefly the symptoms of phlegmasia. As a greater part of these cases occur following childbirth, let us reckon from the time of delivery in ascertaining the time that may elapse before the first symptoms are noted. Although Phlegmasia may antedate delivery, it usually occurs from the tenth to the thirtieth day. It may occur from the fifth day to the seventh week.

The typical symptoms begin with a stiffness and heaviness in the leg, usually the left, with pain especially in the calf of the leg. This is soon followed by swelling which gradually ascends from the ankle to the groin. There is likely to be tenderness along the course of the femoral vein, which may be marked by a line of inflammatory redness. Other superficial veins may have a like appearance. The lymphatics may be involved. Moderately high, irregular, and continued fever, associated with a rapid, compressible pulse, accompany the swelling. These two symptoms disappear commonly before the swelling subsides. The limb presents a white, swollen, glistening appearance, and is hard, elastic, and does not pit on pressure. There are the usual symptoms of gastric and intestinal disturbance, foul tongue, loss of appetite, nausea and vomiting. Profound physical depression is present, sometimes great restlessness and sleeplessness. The face may present a dusky flush.

Such are the typical symptoms. The condition has long been recognized, but the causative factors have as long been a problem among medical men.

THE THEORIES AS TO THE ETIOLOGY OF PHLEGMASIA

As early as 1784 White advanced the theory that the condition was due to an obstruction, or some morbid process of

the lymphatics, and the glands of the parts attacked.

In 1817 Davis, in autopsy, found evidence of extensive inflammation of the veins. In 1829 Lee succeeded in tracing the inflammation into the uterine branches of the hypogastric veins, and gave it the name of crural phlebitis. In 1843 Holmes advanced a theory more nearly that which is generally accepted today, but it did not meet with popular reception. In 1847 Semmelweiss called attention to puerperal infection. This was followed by the work of Pasteur and Lister, who in giving the nature of puerperal infection, pointed out the way later in the 70's to Mackenzie and Tyler Smith who advanced the theory that phlegmasia results from contagious infection. Smith considered that a woman so attacked escaped a greater danger of diffuse phlebitis or puerperal fever. Tillbury Fox concurred in this theory, but King held the condition to be a primary affection of the lymphatics, and the venous manifestations merely a secondary to the original malady. About this time Mackenzie came to the conclusion, from a series of experiments, that phlegmasia is aggravated by a vitiated condition of the blood. Andral and Gavarret found that the fibrin of the blood diminished during the first six months of pregnancy, but during the latter months greatly augmented, assuming the characteristics of blood present in inflammatory conditions.

A modern writer holds that the condition of the bowels exerts an important influence over the blood, lymphatics and tissues in general. He supports this theory by stating that a chronic catarrhal condition of the bowels may extend to the pelvic tissues during gestation, producing a semi-cellulitis, and an atonic condition that is too weak to support a reparative action. In this condition, after the separation of the placenta, the uterus

is not properly cleansed of its lochia, forcing the system to the other alternative of absorbing it. He further states that the time of incubation depends upon the degree of cellulitis, lymphangitis, quantity of septic absorption, the placental separation, and the resisting force of the tissues. With the appearance of the disease it should be remembered that it begins by increasing the inflammation of the already inflamed lymphatics and pelvic tissues.

Another author points out that the veins of the uterus and of the surrounding connective tissues are prone to thrombosis, by reason of the sluggish circulation, pressure during pregnancy, and the altered constitution of the blood during the puerperium.

THE VARIETIES OF PHEGMASIA

There are two distinct varieties of phlegmasia, the one primarily thrombotic, and the other, cellulitic.

The cellulitic variety consists of a septic inflammation of the connective tissues of the pelvis and thigh, spreading from the perineum, and the deeper pelvic fascia. This form offers a satisfactory answer to the theory of lymphatic infection and extension. It also explains some of those cases, perhaps, where it is claimed that no thrombosis is present. The cellulitic variety gives rise to the extravascular infection of the vein, the result being, in most cases, plebo-thrombosis. This form of thrombosis is rare. In this variety the swelling extends from above downwards.

The more common variety is that of thrombo-phlebitis.

There are cases where the thrombosis is primary, and no infection exists. Thrombosis has occurred before delivery, and those cases may be said to be due to the pressure to which the vessels of the extremities are subjected during pregnancy, along with

the stagnation of the blood current, and the relative increase of fibrin in the blood stream.

CASES OF THROMBO-PHLEBITIS NOT FOLLOWING DELIVERY

It is certain that the condition of the blood favors thrombosis, and that thrombophlebitis of the femoral vein is not due alone to the infection from the genital tract following delivery.

Thrombo-phlebitis has also been associated with malignant growths of the uterus, ulceration of the cervix, and the endometrium. Suppressed menstruation in a young girl, following the walk home from school in a chilling rain, has resulted in thrombo-phlebitis. It has appeared in males following dysentery, diarrhea, typhoid fever, and erysipelas of the arm. It has followed a crutch wound of the mammary gland. It has been a complication of carcinoma of the rectum.

THEORY OF SEPTIC INFECTION

The recital of these cases leads us to the theory of septic infection.

If we assume that the cases of thrombophlebitis are septic in origin, that there is present in the blood stream some micro-organism which enters into the formation of the clot and the resulting phlebitis, that the mild cases are feebly septic, are quickly overcome by the phagocytic elements of the blood, and, therefore, may present no other symptoms of infection, we will have a solution to the majority of the cases.

There is no specific germ. It may be the putrefactive bacteria, associated with the absorption of preformed ptomaines, followed by the spirillæ, staphylococcus, streptococcus pyogenes, and other cocci that multiply and form poisonous ptomaines after penetrating the tissues. The pneumococcus, gonococcus, the typhoid and colon bacillus may also be the micro-organisms of infection. The streptococcus

pyogenes is perhaps the most common, and is usually associated with other vegetable ferments.

It is said that in former days it was the custom of the physician to trust to his olfactory sense to determine whether or not a woman was infected. If the lochial odor was normal, and there were few or no fever symptoms present, and thrombosis resulted, he would feel assured that infection could not have been the cause of the condition. Yet the odor that the streptococci and the staphylococci lend to the lochial discharge is but slight, and the resulting infection may be severe. On the other hand, the odor arising from the colon bacillus infection is very disagreeable, but such infection is comparatively harmless.

TRACING THE FORMATION OF A THROMBUS THROUGH THE MEANS OF SEPTIC INFECTION BY THE BLOOD STREAM:

The primary seat of infection is usually in the genital tract. Assuming that the clot in the end of the uterine sinuses becomes infected by the streptococcus pyogenes, for example, let us trace the infection to the femoral vein. The cocci spread rapidly in the axial direction of the vein, until they pass beyond the confines of the clot and enter the blood. There a battle takes place between the micro-organisms and the phagocytes, resulting in the coagulation of the latter, temporarily checking the advance of the cocci. But the vitality of the subject being impaired, or the phagocytes outnumbered, this barrier is again penetrated and the battle renewed. This is repeated from time to time, with or without chill and fever, the phagocytes gradually falling back in deference to the periodical extension of the clot, until it reaches the femoral, a vein of large caliber. Here the blood stream is sluggish, the excessive fibrin is rapidly deposited, and the vein becomes rapidly obstructed.

The rapidity of the growth of the thrombus depends upon the amount of the septic infection.

The thrombus increases and extends until the phagocytes become sufficiently numerous and powerful to destroy and carry away the invading germs.

The presence of the thrombus along the vein leads to the lymphangitis of the vein wall with the resulting phlebitis.

Extension to the limb by the avenue of the lymphatics is similarly progressive. There are frequent attempts at arrest by coagulation successfully in a number of glands in a chain. This continues until a number of lymph ducts are obstructed and a condition developed that has been called "lymphatic edema." The walls of the vein at a point distant from the infected atrium may become inflamed and softened by a septic lymph gland in close proximity. The intima is roughened and over the surface the white corpuscles build the thrombus. This at first acts as a barrier to shut off the cocci as they penetrate the inflamed vein. If the phagocytosis is successful, the clot is limited, and is known as aseptic or white clot. But if the bacteria penetrate the barrier and enter the blood, the coagulation is rapid, and layer after layer is added until the vein is occluded. This constitutes the septic or red clot. The latter means of infection exemplifies the extravascular means of infection, and the condition resulting is a phlebo-thrombosis of the vein. The former method of infection by means of the micro-organisms within the blood stream is the intravascular form, and the condition resulting is thrombo-phlebitis.

SUMMARY OF THE THEORIES AS TO THE ETIOLOGY OF THROMBO-PHLEBITIS

In summarizing these theories as to the etiology of thrombo-phlebitis we find that the causes are:

1. An atonic condition of the general system.

2. A vitiated condition of the blood following disease, pregnancy and delivery.

3. An excess of fibrin in the blood during the latter months of pregnancy, and during the puerperium.

4. A chronic inflammatory condition of the bowels that may extend to the pelvic tissues during gestation.

5. That thrombo-phlebitis may result primarily under these conditions by pressure upon the vessels of the extremities causing stagnation of the blood current

6. But that in the majority of cases, influenced by the previous causes, the condition may result by means of septic infection extending to the veins by the following means:

(a) An inflammation of the connective tissue of the pelvis and thigh.

(b) By way of the lymphatics.

(c) And in the direct infection by means of the micro-organisms being present in the blood stream.

TREATMENT OF THROMBO-PHLEBITIS

The treatment of the conditions resulting from thrombo-phlebitis is largely symptomatic. As the majority of cases occur as a complication of the puerperal state, the treatment is considered in reference to that period. However, the same principles may be applied to phlegmasia having another cause as an origin.

THE TREATMENT FOR THE VARIOUS SYMPTOMS MAY BE GROUPED AS FOLLOWS:

Limb Indications: The affected limb should be kept well elevated and in a state of absolute rest. No rubbing or massage should be permitted. The entire limb should be wrapped in cotton to relieve the sensations of cold and numbness. Various therapeutic agents have been suggested as local applications, among which may be mentioned:

(a) Unguentum Crede to the site of the thrombus.

(b) A 20% ichthyol ointment applied to relieve pain.

TREATMENT OF THE ORIGINAL SITE OF INFECTION

In a perfectly typical case the disinfection of the uterine cavity may be unnecessary, but it is so difficult to determine whether or not there remains in the uterus some infecting material that it is safe to say that in every case where there is the least suspicion, the uterus should be thoroughly curetted. The genital tract should then be thoroughly irrigated daily, first by cleansing the vaginal portion by a saline or mildly antiseptic douche, followed by a uterine flushing and douche rendered antiseptic by boric or carbolic acid. The Carosa treatment has been suggested as an excellent substitute for the daily douches. This treatment is carried out in the following manner: The vaginal and uterine cavities are first thoroughly cleansed, then a small sterile catheter, to the tip of which is stitched a narrow strip of gauze is introduced into the uterus. The sterile gauze is loosely packed about the catheter until the cavity is filled. The cervical canal is not packed, but a piece of tape is left projecting for the removal of the gauze. The end of the catheter is brought out through a sterile dressing, and is protected by a second dressing. This keeps the catheter from contamination by the vulvar pads. One or two drams of a 50 to 75% alcohol solution is injected into the catheter every thirty minutes for the first 24 to 48 hours, depending upon the severity of the symptoms of the infection. The intervals between the injections are increased as the temperature lessens. The dressing should be left in place four or five days.

GENERAL INDICATIONS

The physical depression and weakness

should be combatted with large quantities of alcohol, and as much food of an easily digestible character as the patient can assimilate.

The condition of the bowels is extremely important. They should be thoroughly emptied by initial broken doses of calomel followed by a saline. The saline may be used alone, by giving it dissolved in hot water, in broken doses, every half hour until the effect is obtained. This procedure should be repeated every third day.

The patient should be encouraged to drink plenty of water in order that the kidneys may be flushed.

She should receive alcohol and water sponge baths daily.

Digitalis, aconite, and gelsemium are used as vaso-motor sedatives, to aid in relieving the inflammation and fever. Potassium nitrate in five grain doses repeated every three hours has been used very successfully in the treatment of these cases.

TREATMENT OF THE CELLULITIC VARIETY

The inflammation of the pelvic tissues and those of the thigh may be lessened by constant application of dressings rendered moist with a solution of aluminium acetate, or a 50% solution of alcohol and water. Cloths wrung out of hot water containing salicylic acid and sodium bicarbonate have also been successfully used in treating the inflammation of the pelvic tissues. Pus in the connective tissue of the thigh should be watched for and evacuated in time to avoid (extensive) burrowing. Extensive and multiple incisions may be required.

The treatment of the secondary or passive stage consists in the administration of proper tonics, and in keeping the patient in bed for two weeks after all pain and swelling have disappeared. The limbs should be gently massaged and rubbed

twice daily with a solution of iodide of ammonia. After the patient begins to use the leg, it should be protected from swelling by the wearing of a fairly snug flannel bandage.

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THE PRESENT STATUS OF THYROID SURGERY*

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I make a statement in the beginning of this paper which will no doubt sound erroneous but it is nevertheless true. There have been more operations performed on the thyroid gland in the past ten years than during the entire 1899 years preceding. Years ago the mortality following thyroid operations was on an average of from 25 to 45%; now in the experienced hand it ranges from 4-10 of 1% to 4%. The Kochers of Europe and Mayos of the United States have been the leaders in this hitherto unexplored department of surgery and it is to these great surgeons we owe our present knowledge of this subject. The surgeons of the past shunned operations about the neck and most of those of the present day do not enjoy goiter operations. For the above reasons diseased thyroid glands were allowed to wreck the general health of patients to that extent where operations if performed were of no benefit and most frequently fatal. The day for treating thyroid glands with semi-surgical, medical, mechanical and electrical means is past. The operative treatment is most satisfactory, giving immediate relief in the majority of cases with but a brief period of disability.

The general technique of this operation is the same in all cases where the gland is of considerable size and may be outlined as follows: The patient and field of operation are prepared as for any major operation. The kind of anæsthetic used is selected to suit the individual case; but ether is most frequently employed preceded by a hypodermic injection of morphine 1-6 and atropin 1-150. In some cases it is advisable to use some local anæsthetic and in others chloroform is preferable. After the patient is placed upon the table it is advantageous to place beneath the back of the neck a firm pad or sandbag to make the gland more prominent and to give the operator more freedom. From now on the technique is that used by Kocher and known as Kocher's method. This method is employed by most operators with few modifications. First a transverse curved incision is made over the most prominent portion of the gland with the convexity of the curve toward the sternum. The anterior jugular veins are exposed and tied above and below; the incision being made between the ligatures. The upper portion of the jugular veins are then elevated with the flap including the skin, superficial fascia and platysma myoides muscle. Now the ster-

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nohyoid, sternothyroid and omohyoid muscles are cut across at a higher level than the skin incision to prevent sinking in of the neck from scar tissue contraction and also to preserve the nerve supply to these muscles. The capsule of the gland is easily reached from this point by blunt dissection. The capsule has the appearance somewhat of the peritoneum, being silvery and glistening. The capsule is now opened and the finger passed between it and the gland from which it is easily separated. When the superior and inferior thyroid arteries and veins are found by the sense of touch they are tied off.

It is a good practice to include a small portion of the glandular tissue within the ligature to prevent slipping and also to keep from injuring the parathyroid bodies that lay within the immediate neighborhood. The lobe is then freed and the isthmus tied and cut. Kocher advises tying the isthmus (*en masse*) and applying to its cut surface pure carbolic acid followed by alcohol. In my limited experience I have found that mattress sutures of catgut are more capable of stopping the post-operative oozing of blood and thyroid secretion from the isthmus than is the single ligature; however, in any method used it is proper to apply carbolic acid to the cut surface of the gland to close up the spaces as well as the minute capillaries. If this searing method is not employed a considerable quantity of thyroid secretion escapes into the surrounding tissues and is reabsorbed, presenting a train of symptoms not unlike acute thyroid intoxication.

Before suturing a wick of gauze is placed in the most dependent portion of the wound and the muscles as well as the skin united around it. Following the majority of operations on the thyroid gland the patients are shocked and to combat this shock I have found physiological saline solution, subcutaneously adminis-

tered, of great benefit. The drain should be left in the wound from 2 to 4 days, after which it is removed and the canal irrigated with some mild cleansing and stimulating solution. The above outlined method with few variations to suit the individual cases may be used in any operation on the diseased thyroid. I have found when the gland is very small it is often not necessary to make the transverse incision but to employ instead a vertical incision, between the anterior jugular vein and the sternocleidomastoid muscle. After this incision is made one can separate the underlying muscles and reach the lobe of the gland without cutting them across. The scar following such an incision is almost invisible and the tissues of the neck show no shrinking or falling in.

Operations upon colloid, simple or diffuse adenomata and upon encapsulated adenomata, as a rule involve but slight risk to life of the individual. For the above reason many patients who are so afflicted wish to be relieved of the deformity, tracheal pressure, cough or hoarseness or possibly a severe neuralgia. We must admit that aside from the discomforts mentioned above, the death rate from these forms is very low, and only then from the intrathoracic type or from malignant or degenerative changes in the gland. There are a number of cases in the Northern Michigan Asylum in which the measurements exceed 20 inches and one case in particular the neck measurement is 28 inches without any severe symptoms being manifest.

In the other great class of cases commonly known as exophthalmic goiter the prognosis is not quite so good. Mayo prefers to use the term hyperthyroidism instead of exophthalmic goiter, because he believes it will come into general use in describing a condition which manifests such varied symptoms. By using this term it is probable that an early diagnosis will be

made and surgical relief given to those who are now treated for heart disease, nervous prostration, gastric crisis and intestinal toxemia until a projecting eyeball or goiter becomes sufficiently prominent to attach the label of Parry's disease, Grave's disease, Basedow's disease or exophthalmic goiter to the unfortunate individual who must then run the gauntlet of the enormous variety of therapeutic agents which are supposed to be good for the disease when properly christened. It is quite probable that many cases of hyperthyroidism never progress beyond the early stages and are not diagnosed as such. It is also probable that many cases in the advanced stages of the disease get well without or in spite of medical treatment. Mayo claims that $\frac{1}{4}$ of the number do so. In examining the gland in 294 cases of hyperthyroidism, Ewing, McCallum and Wilson were able to show a definite change in the parenchyma of the gland in this type of disease. The results from the reduction of secretion by surgical methods are certainly almost marvelous. Before the last decade the mortality following operations for hyperthyroidism was some 45%. Patients frequently died upon the table on account of their poor physical health at the time of the operation. A great many suffered from fatty myocarditis, some from parenchymatous nephritis and others showed arterial degeneration with fatty changes in the para-thyroid glands. Today these cases are recognized earlier and operative treatment given without such fatal results. Mayo has adopted a method of treatment that seems to me to be very appropriate in neglected cases with poor physical health. His method is to first under a local anæsthetic tie off the superior thyroid arteries and veins on each side as a preliminary procedure. By doing so the gland is relieved of its enormous blood supply and its functioning power obtained, whereby the

patient is permitted to gain enough strength to stand the radical operation later. Occasionally this preliminary treatment is all that is necessary to balance the metabolism of the patient, but if not sufficient a second operation is performed and one lobe of the gland removed. The dangers encountered in these cases are shock, hemorrhage, auto-intoxication, infection and pneumonia. Collapse of the trachea is also mentioned by Mayo among the causes of death. You all no doubt are fully aware that the pressure produced by the lobes upon the trachea causes a softening of the cartilaginous rings and when the gland is removed the trachea collapses. One other precaution that is necessary in this operation is to be careful not to wound or cut the recurrent laryngeal nerve, which if destroyed produces paralysis of the vocal chord on the affected side. The para-thyroids also must be spared, because if injured or removed tetany is liable to follow. One of my cases at the Northern Michigan Asylum showed tetany on the fifth day following the operation and lasted for two days. The symptoms were not severe and were promptly relieved by the administration of thyroid extract which contains also extract of the para-thyroids. To digress, I will state the Mayo advises in operating for hyperthyroidism when the auto-intoxication is profound, to remove one lobe with the isthmus and tie the superior thyroid artery on the opposite side.

The prognosis following operations for hyperthyroidism is good. Sixty-five per cent recover completely. Thirty per cent are markedly improved and five per cent are unimproved.

I might state before closing this paper, in operating upon the thyroid gland, always leave the posterior portion of the capsule. If this precaution is taken, injury to the para-thyroids and the recurrent laryngeal nerve is seldom encountered.

SUBPHRENIC ABSCESS*

FRANK B. WALKER, M. D.

Detroit, Michigan

Subphrenic or subdiaphragmatic abscess as usually understood denotes a collection of pus in contact with the concave surface of diaphragm. Abscesses of this kind have long been observed postmortem but only within recent years have they been surgically treated or scientifically studied. Barlow is credited with their first description in 1845. Volkman recorded the first operation for this condition in 1879. Since then Maydl, Finkelstein, Perutz, Körte, Barnard and others have collected and published several series of such cases as a result of which their pathogenesis and treatment have been much advanced.

Subphrenic abscesses are observable clinically on both right and left sides of the upper abdomen. Barnard urges their anatomical classification and from that viewpoint outlines four peritoneal and two cellular spaces in which they occur. The intraperitoneal subphrenic space is divided by the falciform ligament into right and left fossæ and each of these is subdivided into anterior and posterior by the right and left lateral ligaments. A right extraperitoneal space is formed between the layers of the coronary and other peritoneal ligaments of the liver, while the left develops in the cellular tissues around the upper end of the left kidney and extends upward as the spreading inflammation separates the peritoneum from the under surface of the diaphragm.

Of 76 cases at the London Hospital Barnard records that right anterior subphrenic abscesses occurred 27 times. In 15 of them other fossæ were involved. Pus

was found in the right posterior intraperitoneal pouch in 10 cases, in 9 of which other fossæ were associated. The left anterior intraperitoneal subphrenic fossa was involved in 30 of the 76 cases. In three of them other fossæ were affected. The left posterior intraperitoneal subphrenic space was involved only three times and in two was a complication with other fossæ. Right extraperitoneal subphrenic abscesses were met with in 19 cases, in 6 of which other spaces were involved. Four of the 76 cases were abscesses in the left extraperitoneal subphrenic space.

Like pelvic abscesses the subphrenic variety are always secondary and it is only by an investigation of a large number of cases that a correct conception of their causes can be obtained. Their sources include every organ within the abdomen, though of course the commonest sites of abdominal infections are more often in evidence in subphrenic diseases.

As the experience of one individual may vary from another so the findings in one series of cases may fail to be duplicated even in general or important particulars by the investigation of another series. For instance, in 38 cases reported by Hunt and quoted by Moynihan one half had their origin primarily in the stomach, a proportion borne out in no other record that I have seen. In Körte's 60 cases the stomach was the starting point in only 9 cases or 15%. Taken with one case originating in the duodenum they together constituted one sixth. Barnard's studies led to the conclusions that the stomach and duodenum contribute about one-third of all

*Read before the Michigan State Medical Society at Kalamazoo Sept. 15-16 1909

cases, the appendix one-sixth, hydatids and the biliary tract one-sixth, while the remaining one-third are traceable to many sources each of which is individually rare.

Combining 161 cases of Maydl's series, Perutz's 208 cases, Körte's 60 and Barnard's 76, making a total of 509 cases, we find the original sources of the subphrenic abscesses to have been in the

stomach	in 134 cases or	26.3%
duodenum	in 17 cases or	3.3%
appendix	in 119 cases or	23.3%
liver and bile pass-		
ages	in 47 cases or	9.2%
hydatids	in 33 cases or	6.4%
intestine	in 14 cases or	2.7%
pancreas	in 6 cases or	1.17%
spleen	in 12 cases or	2.34%
kidney	in 24 cases or	4.68%
ribs and vertebræ	in 8 cases or	1.5%
intrathoracic	in 24 cases or	4.68%
female generative		
organs	in 7 cases or	1.3%
traumatic	in 16 cases or	3%
metastatic	in 19 cases or	3.7%
various and un-		
known	in 29 cases or	5.6%

This combination indicates that Barnard's proportions are too low for appendicitis and a little too high for each of the other groups.

The signs of subphrenic abscess are in the main those of suppurations elsewhere varying according to the source and route of infection. The constitutional symptoms are pain and tenderness in the upper abdominal region, chills, fever, immobile swelling, leucocytosis, thirst, disturbed nutrition and dyspnea. There is always a previous history of a preliminary affection with its usual attendant symptoms, an investigation of which will lead to the original source of the disease and its route of travel. If the onset be acute the abscess is likely intraperitoneal. If it be insidious it is probably extraperitoneal or in the

lesser peritoneal cavity. On account of thoracic complications which ensue in the majority of cases there may be pleural exudate with dulness and displacement of lung and heart and changes in breath sounds, resonance and vocal fermitus.

The course of subphrenic abscess is that of a complication of some other abdominal infection. One or more fossæ are invaded. A diffuse exudate is poured out. Unless by gravity the exudate be drained to the pelvis it begins by the fourth day to be limited in its progress and by the eighth to the fourteenth day, according to Barnard, the abscess becomes localized. It increases in size, crowding up the diaphragm, obliterating the lower part of the pleural cavity, pushing up the lung, depressing the viscera beneath as far as adhesions will allow, and gradually descending along the thoracic wall or appearing in the epigastric region as a fluctuating swelling beneath the abdominal wall.

Barnard has done well to call attention to the preventive treatment of subphrenic abscess. Between the diaphragm and the recto-vaginal or recto-vesical pouch the dense muscles of the back and the perinephric tissues project like a great divide. If on the occasion of a peritoneal infection the patient be supine in bed, serum will gravitate toward the diaphragm and into the pelvis. If on the contrary the patient be supported in the Fowler position the peritoneal fluids will tend to drain from the subphrenic spaces over the loin structures into the pelvis from which they may more easily be removed. Once formed, subphrenic abscess usually requires radical treatment.

If left to nature most cases of subphrenic abscess ultimately succumb to its effects. Rarely the abscess ruptures into a bronchus, the stomach or intestine or outwardly through the abdominal wall. If the cavity be completely evacuated the

patient may recover, but a discharging sinus is more liable to persist. In the series of 76 consecutive cases of Barnard 12 were not operated upon and all of them died. Deaver and Ashhurst quote a death-rate of 100% in a series of unoperated cases of suppuration in the lesser peritoneal cavity collected by Michel and Gross. Eisen-drath records a mortality of 82% among the unoperated cases of a series of subphrenic abscesses following appendicitis. Of 104 unoperated cases in Maydl's series only six recovered, a mortality of 94%. In Perutz's series there was a mortality of 85% in those cases not operated upon.

Such is the picture set by conservative treatment. In contrast to that surgery presents a noble relief. Of 74 cases operated upon in Maydl's series 39 recovered, 52%. Those were treated prior to 1894. Of 155 cases in Perutz's series operated upon between 1894 and 1904, 116 recovered, 74%. Of 64 operated cases in Barnard's series 40 recovered, 62.5%. Of the 21 cases operated upon by Barnard himself there were 17 recoveries, 81%. In Eisen-drath's cases the percentage of recoveries after operation was 72.62%. From the statistics given it is plainly evident, first, that operation offers by far the more favorable prognosis, and, second, that the later series and technique show the lower mortality.

The operations adopted for subphrenic abscess may be classed as anterior, posterior and lateral. The anterior consist of incisions and drainage through the epigastric and hypochondriac regions. The posterior and lateral include access beneath or through the pleura and diaphragm. Barnard regards posterior methods of drainage more favorable than anterior and affirms that the posterior routes should always be adopted when it is possible.

In explanation I wish to state that the objects of this paper are to call to the attention of the members of this society a patho-

logical condition that I believe to occur more often than it is discovered, and to report an unoperated case that recovered and another that recovered after operation. Like pelvic cellulitis and the perityphlitic conditions which after much tribulation took tangible forms and resolved themselves into pelvic abscesses in Douglas' pouch and appendicitis, so I believe more often than we have supposed the upper abdominal complications of some of our gastric, appendiceal and biliary tract cases would be read more clearly as subphrenic suppurations. It is to be hoped that this reference will stimulate others to observe this condition more carefully.

The cases I desire to report are as follows:

Case 1—L. L., age 15, came under my care March 31, 1908. She had attended school up to four days previous but had not been in usual health for several weeks. I was summoned in haste and found her in a state of collapse. There was dyspnea, general abdominal pain and tenderness over Robson's point, high fever, rapid pulse rate, her complexion was sallow, there was nausea and vomiting, and she could not lie down. Her condition was critical and yet consent could not at any time be obtained to remove her to a hospital. The urine showed traces of bile, but otherwise it and the feces were negative. Believing pus to be present a blood examination was made April 3 with the following result:

Hemoglobin	80%
Differential count of leucocytes	
Polymorphonuclears	84.2%
Large lymphocytes	4.6%
Small lymphocytes	11.2%
Eosinophiles	_____

The red cells showed slight loss of hemoglobin, but no other change. There was a large increase in number of leucocytes,

and the polymorphonuclears were markedly in excess.

Microscopical Diagnosis—Moderate anemia of secondary type, with a marked polymorphonuclear leucocytosis.

The symptoms mentioned continued and became at times more aggravated. Dulness extended upward on the right side as far as the sixth rib and downward to the umbilicus. A diagnosis of subphrenic abscess with pleural complications was made out and the biliary tract was believed to be the origin of the condition. On April 11 the pleural cavity was aspirated in the seventh interspace near the right midaxillary line and four ounces of blood-stained fluid were removed. The abdominal swelling and tenderness moved toward the left and dulness appeared on the left side. On April 17 thoracentesis was performed in the sixth left interspace near the midaxillary line and sixteen ounces of clear serum were removed. The relief following this procedure was marked. Five days later the last aspiration was repeated and twelve ounces of clear serum were removed. Relief was again experienced. The symptoms abated somewhat during the following days and on April 26 and 27 crystals were passed in appreciable amounts with the feces, which on examination with hydric sulphate proved to be cholesterin. The diagnosis had been confirmed. Relief had already been felt, convalescence soon became established and the patient is apparently normal today.

Case 2—This case, quite typical of subphrenic abscess originating in a perforating gastric ulcer, is reported through the courtesy of Dr. H. O. Walker.—J. P. P., age 51, had been treated for stomach trouble for two and a half years. Early in 1908 he had an attack of pain in the upper abdomen after eating. He was distended much with gas, later the pain extended over the whole abdomen. In January 1909,

he had another attack of severe pain which became almost constant. There was great distention, especially on the left side over the stomach. He was removed to the hospital February 13, 1909, and a blood examination showed polymorphonuclear leucocytosis 75%, hemoglobin 85%. On February 16 a median incision was made two inches above the umbilicus. The parietal peritoneum was nicked and seropurulent fluid poured forth in a jet. The opening was enlarged to about an inch when a liter of foul smelling fluid was removed. The cavity containing the fluid seemed to be walled off and confined to the left hypochondrium. A large rubber drainage tube was inserted and the abdominal opening otherwise closed. Relief followed but was not complete. On February 23 long curved forceps were introduced through the former incision and the lowermost border of the suppurating cavity sought for. An incision was made over the end of the forceps through the left loin and a drainage tube pulled through from one opening to the other. A tedious convalescence followed and ended in complete recovery.

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AUGUST

EDITORIAL

THE BAY CITY MEETING

The Bay City Meeting of the M. S. M. S. should be the best we have ever had. The arrangements made by the Bay County Medical Society are all that could be asked—and are under the charge of the following sub-committees:

Space and Exhibits:

Dr. F. E. Ruggles
Dr. R. W. Brown
Dr. Edward Goodwin

Halls and Place of Meeting:

Dr. A. W. Herrick
Dr. R. C. Perkins
Dr. R. W. Brown

Advertising:

Dr. M. Gallagher
Dr. W. R. Ballard
Dr. C. M. Swantek

Information and Accommodations:

Dr. R. C. Perkins
Dr. H. B. Morse
Dr. G. W. Trumble

Entertainment

Dr. P. R. Urmiston
Dr. T. A. Baird
Dr. R. E. Scrafford

Reception:

Dr. Wm. Kerr
Dr. F. H. Randall
Dr. J. W. Gustin

Badges:

Dr. H. N. Bradley

DR. GEO. W. CRILE

We wish to announce that we have secured Dr. G. W. Crile, of Cleveland and the Western Reserve University, to give the scientific address as the guest of honor of the M. S. M. S. at the Bay City Meeting. We feel that Dr. Crile needs no introduction to the medical profession of Michigan. His researches on Cancer, Blood Pressure, Shock, etc., have been world famous, and those in attendance at the Forty-Fifth Annual Meeting of the Michigan State Medical Society in Bay City have a rare treat awaiting them.

THE REPORT OF THE CARNEGIE FOUNDATION

On another page we have copied for the benefit of our readers who would not otherwise see it, the report of the Carnegie Foundation for the Advancement of Teaching, in so far as it relates directly to our Michigan schools.

This report we feel is a long step in advance. There is no question that we have too many medical schools, and too few really good ones. Perfect candor must admit that Mr. Flexner, in making this study, and from his point of view, has been absolutely impartial. The schools in the United States and Canada which receive his unqualified endorsement could be counted on the fingers of one hand.

The criticism in some instances is of a minor defect, or a defect due to location, resources or something similar, while the school is honestly trying to do good work,—to make the most of its opportunities; but how often is it necessary to accuse the school of fraud?—of advertising more in its catalog than it gives to its students.

This report comes to us from the scientist whose ultimate effort is to secure the highest results possible from a teaching standpoint. The most of erudition combined

with the cultural broadening obtained in university associations is the end sought. Questions of time and expense are of minor import. The ideal condition striven for is a medical school fully equipped and an integral part of a liberal university, having its domicile within the confines of the university plant. More or less of a college education is urged as a preparation for the study of medicine, and in those cases where the university is located in a small town, as in Michigan, a clinical year in a hospital is proposed to supply the defects due to the necessarily small clinics.

This question seems to be ultra pedagogical. The student with a college training before entering upon his medical studies has already received the broadening and cultural education aimed at in the school as here proposed. He should be a developed man, ready to concentrate upon his professional training. The Hospital year following his course in medicine is greatly to be desired, but at what age will our future medical man begin his active practice? Will not some of his best years be sacrificed for the sake of completing a cultural education already as complete as that of our average university graduate? The older our young doctor is, the less time will he feel that he can devote to building up a practice. Will not the temptation of questionable methods and practices be strong?

Regarding sectarian schools the report is interesting: "We have considered the making of doctors and the increase of knowledge; allopathy, homeopathy, osteopathy have cut no figure in this discussion" (Page 156.)

"Scientific medicine therefore brushes aside all historic dogma. It gets down to details immediately. No man is asked in whose name he comes—whether that of Hahnemann, Rush, or some more recent prophet." (Page 157.)

"So far as sectarian creeds go, there is, of course, no reason why their schools should be elaborately equipped for scientific instruction." (Page 163.)

The treatment of osteopathic instruction is drastic. "Granting all that its champions claim, osteopathy is still in its incipency. If sincere, its votaries would be engaged in critically building it up. They are doing nothing of the kind." (Page 166.)

The truth, the justice, the force of this report is best evidenced by the number of schools which have already announced improvements.

OUR EDUCATIONAL BEST,—STILL INFERIOR

Educate—E-duce—Lead-out. Much of our educational training does not "lead out," but rather leads in—into a maze where time and energy are wasted in uncertain wanderings.

Man's heritage is a body, brains, and a term of years.

Educationally, body and brains are properly conserved, but what of the years? During the first twenty or thirty years of life,—the educational period,—many of them are wasted—wasted with a prodigality calling for protest; wasted as if years counted but as days; wasted not by the individual himself, but by the educational methods used.

There is an exasperating slowness in the movement of educational methods which should, and can be made time saving, and at the same time, more efficient. A sympathetic feeling comes over one for the passenger on a "stub" train "way down east," who, worn out by repeated stops and delays, called out: "Engineer, don't lose sight of the hearse."

The acquirement of knowledge ought not, need not, be slow or burdensome to

any normal youth, if antique methods be replaced by those that are living and inspiring. In the millions of cells apportioned to each normal brain there are never lacking a sufficient quantity that can be touched with the fire of inspiration, given the right methods of educational ignition. Why do not inventive genius and progressive thought work more along these lines? Is it possible that necessity, the "mother of invention," imagines she has passed the climacteric? Medical training is more in need of a change in methods than any other professional training. The medical student suffers more injustice than does any other. Although paying more to get a working knowledge of his chosen profession, he receives less practical proportionate value. He is buyer of watered stock.

It is safe to say that there comes to many a man who has struggled through the modern advanced and amplified medical course, a feeling of disappointment, when he indulges in retrospection—disappointment because all of value that he received while a student should have been received in less time, in a form more digestible, and more assimilable. Of no value was the ubiquitous cramming, indigenous to every school, evidenced in every examination, and taken as a gauge and measure of educational attainment.

A student may be a repository, crammed with medical bric-a-brac,—the so-called "educated fool" in any line of knowledge is just that. Some brains are veritable warehouses where storage is everything—production nothing. Storage warehouses are not machine shops. They contain no "go"; neither do they furnish an output. One cannot work intelligently with brain cells overloaded by a mass of facts, theories and suggestions offered with little or no thought of making the various integers an interdependent and correlated whole.

An illustrative incident comes to mind—A student, one of the crammed, fresh from one of the foremost medical schools in America, arrived at his home in due time. That night the door bell rang—a call for the doctor. The father, a medical practitioner, called the son. Did the son go?—No. He took his father aside and said, "Father, I am so crammed full of medical intelligence (?) that I am in danger of killing the man if I go to him." It took months and years to disintegrate and rearrange the mass which had been packed into his brain. The man's mentality was not at fault *per se*—the fault lay in the system of dealing with that mentality at the medical school.

The Japanese have a beautiful and instructive custom: One treasured work of art, a jewel, a piece of bronze, a carving in wood or ivory, or perhaps a simple flower, is brought out and allowed to dominate. It teaches and inspires with nothing to distract. In the Japanese department in the World's Fair at Chicago, was exhibited a bronze tablet which left a lasting impression upon those who saw it. There was no crowding together of numerous objects, to distract or confuse. Upon the tablet was engraved a field mouse, a tuft of grass, and a small shrub—nothing more—the Japanese unit idea in art. Perhaps this study of units rather than composites has been a factor in making Japan great. The world's great men have been those who were dominated by units rather than composites. They have worked successfully without loss of individuality or personality.

A medical man, looking back through the clarifying years to his college days, sees but a few instructors, although he may have listened to many; the few were his real instructors who furnished inspiration and enthusiasm; the many did not count—they kindled no spark. Of text books, a few stand out as his familiars, past or present.

These have for him a speaking knowledge. These have filled his cravings for a satisfying intelligence. The great mass have been a waste of wood pulp.

The near future ought to be more promising in general results. Medical progress demands teachers who have a pedagogical enthusiasm born in them; a gift to present and fix essentials; a wisdom ever present, to give the student the stimulus of elaborating detail. The time should speedily come when teachers of medicine will not be dependent upon private practice for a livelihood.

The student will attain far better results if training in special methods of memorizing be made a part of his academic curriculum—if special training in observation be exacted both before and after entering a medical school. The gift of observation, especially in a medical student, is priceless. Developed as it should be, it is that which makes the most efficient type of medical man.

That Agassiz's method of teaching by observation, in his classes in ichthyology, has never been fostered and made more common, is to be lamented.

There may be no "Royal road to learning," but the "Good Roads Department" in matters educational should provide something better than the obscure and erratic paths through which the average student must find his way.

C. B. STOCKWELL.

IN MEMORIAM

Dr. John F. Bennett, coroner of Detroit, died June 19 of apoplexy at Northville, where he had gone to attend the funeral of an uncle.

Dr. Bennett was born at Salem, Washtenaw County, Sept. 13, 1864, studied in the

district school and the South Lyon High School, then entered a drug store and became a registered pharmacist. Later he spent some time in the Medical Department, University of Michigan, and graduated at the Michigan College of Medicine and Surgery, 1892. He has ever since practiced in Detroit. He was a member of the Wayne County and Michigan State Medical Societies, and leaves a widow and two children, aged 14 and 17 years.

Dr. Charles E. Goodwin, of Shepard, a graduate of the University of Michigan, Department of Medicine and Surgery, 1883, and post-graduate of P. & S., Chicago, 1905, died recently at his brother's home in Ithaca, of pernicious anemia, aged 50. Dr. Goodwin was one year president of the Isabella-Clare County Medical Society and health officer of Coe Township. He was an active member of his County and the Michigan State Medical Societies.

Dr. Philander B. Taylor, of Clio, a graduate of the University of Michigan, Department of Medicine and Surgery, 1885, died at his home in April.

Dr. Willis S. Anderson, of Detroit, a graduate of Columbia University College of Physicians and Surgeons of New York, 1891, and for several years devoting his entire time to diseases of the Ear, Nose, and Throat, drowned in the Detroit river near Belle Isle, June 27th. Dr. Anderson was a member of the Wayne County and Michigan State Medical Societies, of the American Medical Association, and American Laryngological, Rhinological, and Otolological Society. He succeeded Dr. Geo. W. Moran as treasurer of the Michigan State Medical Society in Sept., 1909, and completed the term, declining re-election in January of this year.

MICHIGAN MATTER IN THE CARNEGIE FOUNDATION REPORT

Population, 2,666,308. Number of physicians, 4109. Ratio, 1:649.

Number of medical colleges, 5.

ANN ARBOR: Population, 14,734.

(1) UNIVERSITY OF MICHIGAN DEPARTMENT OF MEDICINE AND SURGERY. Organized in 1850. An integral part of the university.

Entrance requirement: Two years of college work, including sciences strictly enforced.

Attendance: 389, 45 per cent from Michigan.

Teaching staff: 63, of whom 22 are professors.

The laboratory work is wholly in charge of full time instructors; but assistants in adequate number are lacking. The clinical teachers are salaried and owe their first duty to the school.

Resources available for maintenance: The school and university hospital are supported mainly by state appropriation. The budget of the school is \$83,000, that of the hospital, \$70,000. Endowments to the extent of \$175,000 carry a part of this charge. The income in fees is \$34,093.*

Laboratory facilities: Excellently equipped laboratories are provided for all the fundamental branches; the men in charge are productive scientists as well as competent teachers. There is a large library, a good museum, and other necessary teaching aids.

Clinical facilities: The school is fortunate in the possession of its own hospital, every case in which can be used for purposes of instruction. A liberal policy has largely overcome the disadvantages of location in a small town; for the clinical material is, in the departments of surgery, psychiatry, and various specialties, of sufficient amount; it is fair in medicine, increasing in obstetrics. The thoroughness and continuity with which the cases can be used to train the student in the technique of modern methods go far to offset defects due to limitations in their number and variety.

Date of visit: March, 1909.

(2) UNIVERSITY OF MICHIGAN HOMEOPATHIC COLLEGE. Organized 1875. An organic department of the university.

Entrance requirement: A four-year high school education.

Attendance: 80, 38 per cent from Michigan.

Teaching Staff: 26, of whom 15 are professors.

* Including laboratory fees paid by students registered in the homeopathic department; see (2).

Resources available for maintenance: The school and its hospital are supported by state appropriations. Its budget is \$16,400; that of its hospital, \$31,000. The income in fees is \$4515.

Laboratory facilities: The students receive their laboratory instruction in common with the students of the Department of Medicine and Surgery, despite the fact that there is a difference of two years of college work in their preparation.

Clinical facilities: The college has its own hospital of about 100 beds, where clinical instruction is given according to homeopathic principles.

Date of visit: March, 1909.

BATTLE CREEK: Population, 25,862.

(3) AMERICAN MEDICAL MISSIONARY COLLEGE. Organized 1895. An independent institution. A divided school, part of the work being given in Chicago, part at Battle Creek. No year is given entire at either place.

Entrance requirements: A four year high school course or its equivalent. Christians only are admitted. The Chicago teachers are all practitioners; the Battle Creek teachers are connected with the Battle Creek Sanitarium as laboratory workers or physicians.

Attendance: 75.

Teaching staff: 31, of whom 22 are professors, 9 of other grade.

Resources available for maintenance: Income from endowment of \$200,000 and fees.

Laboratory facilities: Anatomy is given in Chicago, where the student spends six weeks during each of the first three years and 30 weeks of the fourth year. The other laboratory courses are given at Battle Creek by the laboratory men and physicians connected with the Battle Creek Sanitarium. Indeed, the school and the sanitarium are inextricably interwoven. Students assist in the laboratories and treatment rooms. Their laboratory training thus takes on a decidedly practical character. But this has its disadvantages; for the sanitarium is devoted to the application of certain ideas rather than to untrammelled scientific investigation. Disciples rather than scientists are thus trained. The outfit is adequate for routine work, with abundant practical illustration in chemistry, pathology, bacteriology, and histology. In physiology and pharmacology the provision is slighter.

Clinical facilities: Of the last year, 30 weeks are spent in Chicago, where the students attend St. Luke's Hospital, one or two other institu-

tions, and a dispensary in the school building. For additional clinical teaching they depend on Battle Creek: in the sanitarium they see an abundance of chronic and surgical cases; acute cases are rare, and are accessible chiefly when physicians can ask students to accompany them on their rounds. The clinical laboratory is closely correlated with bedside work. By assisting in the sanitarium and out, the student gets an unusually close experience as far as it goes, but, once more, under the limitations of the therapeutic theories approved by the sanitarium authorities; a critical and investigative spirit is not cultivated.

The instructors of the divided parts of the school form practically separate faculties.

Date of visit: February, 1910.

DETROIT: Population, 393,536.

(4) DETROIT COLLEGE OF MEDICINE. Organized by a merger 1885. An independent institution.

Entrance requirement: A four-year high school diploma or its equivalent, actually enforced.

Attendance: 161, 70 per cent from Michigan (16 per cent from Canada).

Teaching staff: 104, of whom 25 are professors and 79 of other grade. There are no full-time teachers.

Resources available for maintenance: Fees only, amounting to \$22,000 (estimated).

Laboratory facilities: The school is provided with separate laboratories, each with ordinary routine equipment, for the following subjects: chemistry, anatomy, physiology, pathology, clinical microscopy, histology, and bacteriology. There is a slight additional equipment in the way of museum, charts, books, and other teaching adjuncts.

Clinical facilities: The school has access on the usual terms to several hospitals, staff members of which hold positions on the school faculty. The hospital service rotates every three months. At one hospital 100 available beds are perhaps equally divided between medicine and surgery; elsewhere surgery greatly predominates. Obstetrical work is mainly furnished by the Woman's Hospital and by an out-patient department just started. Post-mortems are hard to get.

The dispensary service is fair.

Date of visit: December 1909.

(5) DETROIT HOMEOPATHIC COLLEGE. Organized 1899. An independent school.

Entrance requirement: A four-year high school course or its equivalent.

Attendance: 34.

Teaching staff: 35, of whom 17 are professors, 18 of other grade.

Resources available for maintenance: Fees, amounting to \$3010 (estimated).

Laboratory facilities: These are wretched. There is an ordinary laboratory for chemistry; another, much less than ordinary, for bacteriology. The pathological room contained a few dozen specimens in utter disorder; the anatomical room contained a single cadaver. The teaching rooms are bare, except for chairs and tables; the building is poorly kept. The dean and the secretary have their offices "down town."

Clinical facilities: The school has access to Grace Hospital, the wards of which contain 56 beds, mostly surgical. Clinics are held two days weekly. The hospital authorities are well disposed towards the school, but the "boys don't take advantage of their opportunities."

There is a dispensary at the school building. It is incredibly bad. Prescriptions are found written on scraps of paper, unnumbered. There are no systematic records.

Date of visit: December, 1909.

General Considerations

MICHIGAN is fortunate in the possession of an alert state board, which enforces with vigor the high school requirement, and may perhaps be counted on to advocate an advance of the state practice standard to meet the educational standard of the state university. As the state furnishes a thoroughly admirable education at relatively slight expense, there is no reason why it should keep the practice of medicine open to low-grade physicians, whether trained within or without its borders. Sound policy would quickly close the two homeopathic schools, and, in all probability, the Detroit College of Medicine. To the credit of the latter institution, however, be it said that its officers have heartily co-operated with the state board in the enforcement of a genuine high school standard.

The real problem now agitating the state concerns the medical department of the state university at Ann Arbor. The defects of Ann Arbor as the seat of a medical school have been touched on in these pages. There is no question that, if the entire state university were at Detroit, the medical department would be better off. But this is by no means equivalent to urging

that it be detached or split. The entire detached school is now on trial at Galveston, Indianapolis, New York. It would be well to watch the outcome of those experiments before trying any others. It is already clear that if a university department of medicine is to be genuinely productive, the remote department requires most generous support, for much that is provided at the seat of university for other departments will have to be duplicated. To create the university spirit in a distant institution is almost like developing a second—though much less expensive—university.

An alternative suggestion looks to the removal to Detroit of part or all of the clinical instruction. If part is removed, clinical teachers must oscillate backward and forward between Detroit and Ann Arbor. Where would the productive clinical teacher have his workshop? Nowhere, in all likelihood. If the entire clinical department is removed, the split school faces the conditions we encounter in Nebraska, California, and Kansas. Once more, let us wait for the successful operation of one of these divided schools before multiplying unpromising experiments. Meanwhile, the state can by increased liberality almost at will develop the medical clinic of the university hospital. Agitation in favor of splitting or removing it may proceed from several considerations,—it is not inspired by sound scientific or educational ideas.

For, Ann Arbor has itself proved what the experience of Germany had previously demonstrated,—that a school of medicine can be developed in a small university town. The ideals are there; the contiguous departments are there; there is an absence of the distractions which have thus far proved so damaging to city clinicians. A faculty of distinction, with a hospital well equipped for the care of the sick, and for teaching and research, can successfully overcome the most serious difficulties of the situation. The problem can be solved by intelligent organization and liberal support. Gaps may indeed remain in the student's experience. But if he has been well drilled in technique and method, his defects will be readily cured by a hospital year. The solution for Michigan may therefore come, as has been proposed, through an effective affiliation of the hospitals of the state with the school of medicine of the state university. The hospitals would profit by a connection of this kind, and they would assist by becoming factors in the education of the future physicians of the state.

MINUTES OF HOUSE OF DELEGATES OF A. M. A.

The Sixty-First Annual Session of the American Medical Association was held at St. Louis, Mo., June 6–10, 1910. The registration was 4,070, this being the third meeting of the Association in point of size and only surpassed by the Boston session in 1906 and Chicago session in 1908. The weather was practically perfect and the local arrangements admirable.

The House of Delegates met on Monday morning in the auditorium of the St. Louis Medical Society. The president, Dr. W. C. Gorgas, U. S. A., read his address in which the work of the Association was commended and a number of suggestions made. The report of the General Secretary showed that during the past year 289 members had died, 1937 had resigned, 1031 had been dropped, and 95 had been removed from the rolls on account of being reported as "not found," making a total loss of 3352. During the year 3593 new members were added, making a membership on May 1, 1910, of 34,176. The application of the Medical Association of the Isthmian Canal Zone for recognition as a constituent association was presented. The death of ex-President Herbert L. Burrell was commented on. The Secretary presented a tabulation showing the membership in the constituent state associations amounting to 70,146. The history of the secretaryship and its connection with the editorship of the JOURNAL was reviewed. Doctor Simmons presented his resignation as general secretary and asked that it be accepted. The report was referred to the Reference Committee on Reports of Officers.

The report of the Board of Trustees showed an encouraging progress in all lines of Association work, the work of the Council on Pharmacy and Chemistry, Council on Medical Education, Committee on Medical Legislation, Committee on Nomenclature and Classification of Diseases and the Committee on Ophthalmia Neonatorum being especially commended. The trustees recommended that the report of the Committee on Organization of a Council on Health and Public Instruction be carefully considered. The agenda to the trustees report included a report from the subscription department showing the average weekly circulation of the JOURNAL for 1909 as 55,361. The treasurer's report showed a surplus in the treasurer's hands on Jan. 1, 1910, of \$163,340.72. The auditor's

report showed property to the amount of \$172,081.86 and total assets of \$399,462.16. The report was referred to the Reference Committee on Report of Officers. The report of the Committee on Medical Legislation was presented by Dr. C. A. L. Reed, of Cincinnati, chairman. The year's work on national and state legislation was reviewed. Doctor Reed presented his resignation as chairman of the committee. The report was referred to the Reference Committee on Legislation and Political Action. Dr. A. D. Bevan, Illinois, presented the report of the Council on Medical Education, stating that during the past year the second tour of inspection of medical schools of the country had been made and submitting as a part of the report a classification of medical schools into three classes: (a) acceptable, (b) needing certain improvements to make them acceptable and (c) those which would require complete reorganization. The report of the Council was referred to the Reference Committee on Medical Education.

At the afternoon session, the Board of Public Instruction and the director of the post-graduate work submitted their reports. Dr. F. Park Lewis submitted the report of the Committee on Ophthalmia Neonatorum, reviewing the work of the past year and recommending that its work be enlarged so as to include all preventable causes of blindness, also that renewed efforts be made to have all births reported promptly so as to make possible more thorough work in the prevention of blindness. The report was adopted and the committee continued.

Dr. H. O. Marcy, Massachusetts, submitted report on Davis Memorial Fund, showing total contributions of \$2,771.34. Doctor Marcy presented his resignation as chairman and Dr. Billings presented his resignation as secretary of the Davis Memorial Fund. The report was referred to the Board of Trustees. The Committee on Nomenclature and Classification of Diseases reported progress. The Council on Defense of Medical Research reported the publication during the past year of thirteen pamphlets written by experts in the various fields and prepared for general distribution. The Council has also given much material to the daily press. The formation of a society of laymen for the promotion of medical research is being considered.

The reports of the following committees were presented: Patents and Trademarks, Uniform Regulation of Membership, Elaboration of the Principles of Ethics and the United States Phar-

macopeia. The Committee on Anæsthesia reported progress. It finds itself as yet unable to submit full and final reports for publication but reaffirms the finding of the Committee in 1908 that for general use ether is to be regarded as the safest anæsthetic. Major M. W. Ireland, U. S. A., presented a report from the Committee on Insignia, recommending the adoption of an official button showing the knotted rod and serpent as the insignia of the Association. Dr. Edward Jackson, Colorado, presented a report from the Committee on the Establishment of a committee to draw up a plan for a corporate body to receive and administer funds for the relief of disabled physicians and to establish a sanatorium for physicians suffering from tuberculosis. The report was referred to the board of trustees. President Gorgas submitted a report from the Committee on Memorial to Medical Officers of the Civil War, showing that three members had been appointed and that the two remaining positions would be filled by the appointment of one volunteer surgeon from the Union army and one from the Confederate army. After the presentation of a number of resolutions, which were referred to appropriate committees, the House of Delegates adjourned until Tuesday.

The House met Tuesday afternoon with the newly installed president, Dr. William H. Welch in the chair. Dr. Frank B. Wynn, Indiana, presented the report of the Committee on Scientific Exhibit, recommending the preparation of cheap, compact and complete exhibits for the education of the public on all the problems of public health and comfort. Dr. Alfred Stengel, of Pennsylvania, presented the report of the Committee on Scientific Research, showing that three grants of \$200 each had been made for the current year as follows: Dr. R. M. Pearce, New York; Dr. Gerald B. Webb, Colorado; and Dr. E. C. Rosenau, Chicago. The Committee on Organization of a Council on Health and Public Instruction recommended that the Committees on Organization, Medical Legislation, Public Instruction and Defense of Medical Research be abolished and that a Council of five, to be known as the Council on Health and Public Instruction, be created. This report was referred to the Reference Committee on Amendments to the Constitution and By-Laws. The Reference Committee on Sections and Section work reported recommending the organization of a Section on Genito-Urinary Diseases with the following officers to serve for the coming year: Chairman, W. T. Belfield, Chicago; Vice-Chairman, James

Pederson, New York; Secretary, Hugh Young, Baltimore. The Committee recommended that sections on Physical Forces in Medicine and on Hospitals be not established at present. The report was adopted. The Reference Committee on Medical Education endorsed the work of the Council on Medical Education and recommended that the rating and classification of medical schools as determined by the Council should be made public and that the Council be instructed to continue its investigations. The classified list of colleges was presented as a part of the Committee's report.

The Reference Committee on Reports of Officers recommended that the request of Dr. Simmons regarding his resignation as general secretary be respected and that his resignation be accepted in order that he might devote himself exclusively to the duties of editor of the *Journal of the American Medical Association*. This report was adopted. The Reference Committee on Miscellaneous Business recommended that the reports of the Committees on Pharmacopeia, Nomenclature and Classification of Diseases and Miscellaneous Business be accepted and the committees continued. Dr. J. N. McCormack presented the report of the Committee on Organization, reviewing the work done for a department of public health and presenting the following resolutions:

Resolved, That the President be, and is hereby, authorized to appoint a committee of seven members, which shall be charged with the duty of framing a bill for a National Department of Health, to be presented to the next session of Congress in December, and that this committee shall consider and determine all matters and policies relating to national health legislation, and may invite the cooperation and cooperate with other organizations having the same purpose in view.

Resolved, That the principles of the Owen bill, having for its object the creation of a National Department of Health, now pending in the Senate, and similar bills introduced in the House by Representatives Simmons, Creger and Hanna, be, and are hereby, heartily approved by this Association, and the cordial thanks of the medical profession of the United States, officially represented by it, are hereby tendered to Senator Robert L. Owen, Irving Fisher and their co-workers for their able and unselfish efforts to conserve and promote the most important asset of the nation, the health and lives of its women, its children and its men, properly understood as

the greatest economic question now confronting our people.

The members of this Association stand for pure food, pure drugs, better doctors, the promotion of cleaner and healthier homes, and cleaner living for individuals, for the state and for the nation. We believe this to be held as equally true by the reputable and informed physicians of all schools or systems of practice.

We welcome the opposition of the venal classes long and profitably engaged in the manufacture of adulterated foods, habit-producing nostrums and other impositions on the people—to the extent of hundreds of millions of dollars annually—and express our sympathy for the well meaning men and women who have been misled and worked into hysterics by the monstrously wicked misrepresentations of a corrupt and noisy band of conspirators and who are being used as blind instruments to enable them to continue to defraud and debauch the American people.

Medical science is advancing, especially on its life-saving side, with a rapidity unknown to any other branch of human knowledge. It is known of all men that our members in every community in the United States are unselfishly working day and night, instructing the people how to prevent tuberculosis, typhoid fever and the other diseases from which physicians earn their livelihood. Therefore, we welcome and will wear as a badge of honor the slanders of these unholy interests and their hirelings.

These resolutions were later on unanimously adopted by rising vote.

Dr. T. D. Tuttle, Montana, moved the appointment of a committee to prepare suitable resolutions in regard to the death of Dr. Ricketts, after which the House of Delegates adjourned until Wednesday afternoon.

At the Wednesday session, Dr. Rosalie Slaughter Morton, New York, was granted the privilege of the floor to present the report of the Public Health Education Committee. The Reference Committee on Legislation and Political Action commended the work of the Committee and Bureau of Medical Legislation and recommended that Dr. Reed's resignation be accepted with an expression of appreciation of his untiring, loyal and faithful services. The Reference Committee on Hygiene and Public Health commended the work of the JOURNAL in the direction of a sane Fourth of July. The Reference Committee on Report of Officers, submitted a supplementary report on Dr. McCormack's work, endorsing his recommendation of the appointment of a special

committee of seven charged with the framing of a bill for a National Department of Health to be presented at the next session of Congress. Following the adoption of this report, Dr. Guthrie, Pennsylvania, moved the adoption of the resolutions presented by Dr. McCormack. This motion was unanimously carried. The Committee on Awards recommended that a gold medal be given Dr. Claude A. Smith, Atlanta, Ga., for an exhibit of experimental researches on Hookworm Disease and that certificates of honor be awarded to the following exhibitors: University of Minnesota, St. Louis University, St. Mary's Hospital, Rochester, Minn., St. Louis City Hospital, Indianapolis Department of Public Health, University of Michigan, Dr. Honwink, St. Louis, Special Committee on Prevention of Blindness, New York, Northwestern University, Chicago, St. Louis Medical History Club. The following resolutions were then presented and adopted regarding the death of Dr. H. T. Ricketts.

WHEREAS, Howard Taylor Ricketts, a member of the American Medical Association, lost his life on May 3, 1910, from typhus fever, contracted while engaged in an investigation of that disease in the City of Mexico, and

WHEREAS, He sacrificed himself in the study of a preventable disease and in the interests of the health and lives of the human race; and

WHEREAS, His masterly attainments as a scientific worker in this and other fields rendered his life of inestimable worth to the medical profession and the world at large; therefore, be it

Resolved, That the American Medical Association, in convention assembled, herewith express its high appreciation of the ideals, the efforts and achievements of this brilliant investigator, and its deep sorrow at the loss of a most valued and cherished member; and

Resolved, That we herewith express our sorrow in the death of Dr. Conneffe, of Ohio, who lost his life as a result of infection with typhus fever while working with Dr. Ricketts in Mexico City; and

Resolved, That these resolutions be spread on the minutes of this Association and published in THE JOURNAL.

After the election of a number of associate members and the presentation of miscellaneous resolutions, which were referred to appropriate committees, the House adjourned until Thursday morning.

A special meeting of the House was held on Thursday morning to consider the report of

the Reference Committee on Amendments to the Constitution and By-Laws. A large number of amendments, consisting mainly of verbal modifications were adopted. The last meeting of the House of Delegates was held on Thursday afternoon, the election of officers being the first order of business. The following officers were elected: President, Dr. John B. Murphy, Chicago; First Vice-President, Dr. E. E. Montgomery, Philadelphia; Second Vice-President, Dr. R. C. Coffey, Portland, Ore.; Third Vice-President, Dr. W. G. Moore, St. Louis; Fourth Vice-President, Dr. H. L. E. Johnson, Washington, D. C.

When nominations for general secretary were called for, Dr. I. C. Chase, Texas, nominated Dr. Simmons for reelection in a speech which invoked repeated rounds of applause. In spite of the fact that his resignation had been presented and accepted it was evident that the House of Delegates was determined to reelect him. After a large number of delegates from different states had expressed their views, Dr. Simmons was unanimously reelected. Dr. Frank Billings was nominated for reelection as treasurer by the Board of Trustees and was elected. The following trustees were then elected to serve until 1913: Dr. W. W. Grant, Denver, Colo. (reelected); Dr. C. E. Cantrell, Greenville, Tex. (reelected); Dr. Frank J. Lutz, St. Louis. The president appointed the following as members of standing committees, the appointments being confirmed by the House of Delegates:

The Council on Medical Education—Dr. George Dock, St. Louis, to succeed Dr. E. E. Southard, to serve until 1915.

Council on Health and Public Instruction—Dr. H. M. Bracken, Minneapolis, to represent public health; Dr. W. B. Cannon, Boston, to represent defense of medical research; Dr. Henry B. Favill, Chicago, to represent public instruction; Dr. J. N. McCormack, Bowling Green, Ky., to represent organization, and Dr. W. C. Woodward, Washington, D. C., to represent legislation.

The Reference Committee on Sections and Section Work recommended the election to honorary membership of Dr. Alfred Saenger, Hambury, Germany; Mr. J. Herbert Parsons, F. R. C. S., London, England; and Dr. James H. Honan, Berlin. The Board of Trustees reported regarding the publication of special journals on surgery and pediatrics and after extended discussion the matter was referred back to the Board with full power to act.

Invitations for 1911 were presented from Los

Angeles, Cal., and Buffalo, N. Y., and, on ballot, Los Angeles was chosen, 61 to 58.

The Reference Committee on Hygiene and Public Health presented a report condemning the multiplication of optometry boards and the appointment of non-medical and unqualified persons thereon, recommending the formation of a committee on the prevention of blindness and authorizing the appointment of a committee to cooperate with the Department of Commerce and Labor with a view to establishing proper visual standards and tests for pilots. Following the adoption of resolutions of thanks to the Missouri State Medical Association, the St. Louis Medical Society, Governor Hadley, Doctor

Dorsett and his local committee of arrangements, the House of Delegates adjourned *sine die*.

The attendance of the House of Delegates was large, 133 delegates being registered. An enormous amount of legislative work was done, the bulk of which was transacted in committees. The revision of the constitution and by-laws and the reorganization of the standing committees will greatly strengthen the work of the Association and increase the possibilities for improved work. Taken as a whole, it was one of the most important sessions which the Association has held and the prospects for the coming year are better than ever.

COUNTY SOCIETY NEWS

CALHOUN

The second quarterly meeting of the Calhoun County Medical Society was held at Ceresco, June 21, 1910, with twenty-four members present, and Dr. Victor C. Vaughan Jr., of Detroit, guest of honor.

The first number on the program, "Diphtheria," by Dr. Gubbins, elicited very active discussion. The latter had more particularly to do with the use of anti-toxin, both as to the therapeutic and prophylactic value.

Dr. Vaughan's paper was entitled "Tuberculin as an aid to Diagnosis in Pulmonary Tuberculosis." Dr. Vaughan took a very optimistic view of the value of anti-toxin as a diagnostic aid in the pulmonary form of tuberculosis.

Dr. Lewis Hodges gave a paper on "Abortion," outlining some of the "pleasant" conditions confronting the country practitioner.

Drs. Annie Durrie and A. A. Hoyt, of Battle Creek, were elected as members of the Society.

By a unanimous vote of the Society, the President and Secretary were instructed to purchase a suitable present to be presented to the infant son of Dr. and Mrs. Gubbins, as a token of the esteem in which they are held by the members of the Society. Dr. Gubbins has made this June meeting an annual love feast and has also been the most jovial of hosts at this gathering.

(A silver table set was later chosen for the youthful member of the Gubbins' family circle.)

The committee on Necrology reported upon

the death of Dr. C. G. Vary, and the Society adopted the resolution of respect edited by the Committee.

Adjournment was taken to Marshall on September 6th.

After the meeting all sat down to one of the bounteous feasts which have made this meeting noteworthy through the generosity of the host, Dr. Gubbins.

A. S. KIMBALL, *Secretary*.

GRAND TRAVERSE

The regular monthly meeting of the Grand Traverse County Medical Society was held Wednesday evening June 15, in Dr. Wilhelm's office. Twelve members were present.

Minutes of the last meeting were read and approved. After the usual business was transacted the following papers were read:

Homeopathic Materia Medica by Dr. L. E. Bartlett.

Aneurism, by Dr. O. E. Chase.

Acute Articular Rheumatism, read by Dr. Wilhelm for Dr. Brownson who was unable to be present.

Dr. O. E. Chase presented an interesting case of Aneurism which was probably congenital in origin.

A committee was appointed to make arrangements for a picnic in the near future.

R. E. WELLS, *Secretary*.

HURON

The Huron County Medical Society held its regular quarterly meeting and "Auto Outing" on July 11, at the beautiful summer resort, Pointe aux Barques, on Lake Huron. Dr. Guy L. Connor of Detroit, read an instructive paper on "Acute Poliomyelitis," and Dr. V. C. Vaughan Jr., of Detroit, read an equally interesting article on "Tuberculin as an Aid in the Diagnosis of Pulmonary Tuberculosis." Both papers were thoroughly discussed. Dr. Herrington showed two surgical and pathological specimens from intestinal obstruction caused by volvulus and carcinoma respectively.

D. CONBOY, *Secretary*.

IONIA AND MONTCALM

Mid-Summer Meeting of Ionia and Montcalm County Medical Society.

Ten days before the meeting notices were sent to the physicians of the two counties above named which read as follows:

"Get busy, Doctor, for the annual mid-summer meeting and basket picnic, to be held this year in the Asylum Grove, South Ionia, June 30th, 1910. This invitation extends to you and your wife and daughters and the little doctors. Bring well-filled baskets and come and have a good time.

"Dr. O. R. Long, Supt. of the Michigan Asylum at Ionia, has extended an invitation for us to meet with him at the Asylum Grove and to visit the Institution in its various departments. This will be a rare treat for those who have not already made this visit, for this is one of the world's model institutions. Dr. Long and his able corps of assistants will show you every courtesy, and take real pleasure in your intelligent inspection. The regular program will reach you later."

The day was a typical June day. Autos were in waiting so that all coming by trains were met at depots and conveyed out to the grove. The attendance was the largest we have yet had, and everything passed off pleasantly. Owing to the hot weather the visit to the Asylum was made after the banquet. The banquet was a most delightful affair; presided over by Dr. and Mrs. Long, surrounded by the ladies of the two societies. Our meeting place was a beautiful new pavilion or bungalow, open on all sides yet commodious enough to seat comfortably one hundred persons. The toasts were fine. Dr.

Ralph Spencer of Grand Rapids was with us to cheer and encourage with words of praise and commendation.

The visit to the Institution was truly a red letter day to those who saw it for the first time. The magnificent buildings like lordly castles set well back from the brow of a lofty range of hills command a panoramic view of the city of Ionia and of the Grand River valley that for scenic beauty is unsurpassed. The interior of the buildings are all that art and wealth and scientific design can provide. The apartments in each department are perfect. The walls and polished floors so smooth a fly could hardly hold to them, if he were so fortunate as to gain admittance. Then, too, the farmers who live in the valley below and the dairy and its herd of Holsteins were subjects of the closest scrutiny and unstinted praise. The verdict of all was, "This is the best meeting yet," and a most hearty vote of thanks was tendered Dr. Long for the enjoyable time he had provided for us.

The next meeting will probably be held at Long Lake. This is accessible only by motor and carriage, so that we can make a full day and not have to be hurried by railway time tables.

C. S. COPE, *Secretary*.

KALAMAZOO ACADEMY OF MEDICINE

The Kalamazoo Academy of Medicine held its June meeting on the 14th of the month at Allegan, Mich., as the guests of the physicians of that city. The following program was carried out:

1. Symposium on Scarlet Fever.

(a) Etiology and Diagnosis, Dr. A. L. Robinson, Allegan.

(b) Throat and Ear Complications, Dr. E. P. Wilbur, Kalamazoo.

(c) Relation of Scarlet Fever to Public Health, Dr. A. H. Rockwell, Health Officer, Kalamazoo.

These papers covered especially the new work coming under each heading, and treatment of the different phases of the disease. The third part of the symposium brought out an especially interesting discussion as there were several health officers and ex-health officers present. The topic was peculiarly timely as this disease has been unusually prevalent in the district covered by this society.

2. The Tonsil as a Portal of Entrance for Tuberculous Infection, in Tuberculous Glands

of the Neck, Dr. R. C. Canfield, Ann Arbor.

This was a discussion of the results of observations which Dr. Canfield has made on over a hundred cases of tuberculous cervical adenitis which have come under his care. He gave many case histories with the microscopical findings of the tissues removed from the cases, which seemed to show that this sort of infection frequently arises as a secondary process from an infected tonsil.

He emphasized the importance of the most radical removal of suspicious tonsils and a close

by patients, was turned over to the service of the Academy. The charming landscape surrounding the building, the restfulness of the location, the convenience of arrangement, the completeness of equipment and the elegance of the furnishings and finish make this without any doubt one of the most charming small hospitals in the whole state. The degree of excellence of these appointments was a surprise to most all present.

Another surprise came at the noon hour when instead of repairing to the city hostleries



JOHN ROBINSON HOSPITAL, ALLEGAN, MICH.

examination of the same. He declared that he has frequently found tubercles in the fragments of tonsil stumps where tonsillectomy was supposed to have been complete. In those cases where a distinct enlargement of the "tonsillar lymphatic gland" in the neck was present, he advised removal of the gland as well as the tonsil. Contra, he advised that in operating cervical lymphatic glands, the tonsil be also removed in order to remove all of the infective tissues.

Discussion by Drs. A. W. Crane, E. P. Wilbur, J. H. Van Ness and C. L. Bennett.

A committee was appointed consisting of Drs. E. J. Bernstein, A. W. Crane and Ward Collins to act with reference to securing more medical journals and books for the Academy, the same to be kept in the library and used by physicians.

The meeting was held in the John Robinson Hospital, where hospitality was meted out to those present in an unusually generous fashion. The whole building, where not actually occupied

for lunch, the entire number of guests were invited to the spacious back porch and there served with the following menu as the compliments of Mrs. Robinson, and some friends who assisted:

Combination Salad		
Saratoga Wafers		
Veal Loaf with Creamed Potatoes		
Hot Pocketbook Rolls, Buttered		
Pickles	Jelly	Coffee
Strawberry Shortcake with Country Cream		
Jersey Milk		

The program was up to the standard.

Socially this was the best meeting of the year. Several physicians who practice within the Academy's territory and yet who have not become members, were present; some having never been at an Academy meeting before.

Several new applications for membership were received.

C. E. Boys, *Secretary*.

MUSKEGON-OCEANA

Regular meeting of the Muskegon-Oceana County Medical Society was held at the residence of Dr. G. F. Lamb, at Pentwater, Friday July 1, 1910, at 6:00 p. m.

In the absence of the president, Dr. J. F. Denslow, Dr. Griffin, Vice-President, presided at the meeting.

Members present: Drs. G. F. Lamb and W. E. Dockry of Pentwater; Drs. Jacob Oosting, F. B. Marshall, G. J. Hartman, Geo. S. Williams, A. A. Smith, I. M. J. Hotvedt, R. G. Olson, W. P. Gamber, W. A. Campbell, V. A. Chapman, and J. T. Cramer, of Muskegon; Drs. W. L. Griffin and J. D. Buskirk of Shelby; Dr. VanderVeen of New Era and Drs. L. P. Munger and H. B. Hatch of Hart.

Minutes of previous meeting read and approved as read.

Dr. Lamb read a paper on "Gall Stones and Auto-Intoxications," showing a clinical case. Dr. Dockry opened the discussion, followed by Drs. F. B. Marshall, R. G. Olson, Geo. S. Williams, A. A. Smith, I. J. M. Hotvedt, and W. P. Gamber.

The committee appointed to investigate and report upon the desirability of incorporating the Society made partial report and requested more time for investigation. Dr. Smith moved that the Committee be given more time. Seconded and carried.

The meeting adjourned at 7:15 p. m.

V. A. CHAPMAN, *Secretary*.

OTTAWA

The July meeting of the Ottawa County Medical Society was held July 12, at the Council Rooms, Holland, Mich.

Dr. A. Leenhouts of Holland, read a paper on "The Horse and the Motor Vehicle in the Doctor's Practice." The Doctor took up the subject from a practical viewpoint and gave some very interesting figures. He compared the horse with the motor with the idea of, first, economy, and second, efficiency. The subject of economy was taken up in a very systematic manner.

First was considered the initial cost; second, the maintenance; third, the durability. In regard to the initial cost he placed a runabout at \$1,000 and the horse at \$300. These

figures were as a practical investment only. The question of pleasure for members of the family and friends, and also speed was eliminated. He asserted that no physician was justified in owning and driving a touring car in his practice on the grounds of economy, as the upkeep and maintenance is double that of a runabout. Under the head of maintenance he stated that it would cost \$4.50 per week for either the horse or auto if we consider 15 miles a day an average mileage for both. This, of course, confines their use to the necessary calls in the Doctor's practice. Under the head of durability a runabout at the above cost was estimated to last six years, and the horse twelve years. Both of these figures are purely arbitrary, but for the sake of comparison are fair. To resume we have the figures as given:

Per year	Runabout	Horse
Maintenance	\$225	\$225
Depreciation	166	25
Total	\$391	\$250

Under the head of efficiency the Doctor considered the horse as 100% and the runabout 75%. The discussion which followed the paper was unanimously in favor of the horse as being the most practical and economical.

Favorable mention was made of the number of serious cases which were apparently saved by prompt services through the aid of the auto, but no mention was made of the large number of calls saved to the physician by his promptness in calling before the patient had time to recover and telephone him his services were not required.

Dr. P. J. DePree of Olive Center read a paper on "Migraine." The Doctor showed a very thorough knowledge of his subject and gave practically all the information available on the etiology of this common ailment. The efficiency of any treatment ever given by him in his practice was as doubtful as the etiology of the cases.

Dr. DePree is a sufferer from migraine, and his paper showed the deep personal interest of the author. The discussion was decidedly pessimistic in regard to the efficiency of any form of treatment, and until we learn more of the etiology of this ailment, all treatment must be in the form of relief.

A motion was made and passed to omit the regular August meeting, and the next regular meeting will be held in Holland, Sept. 13.

GEO. H. THOMAS, *Secretary*.

TUSCOLA

The Tuscola County Medical Society met at Millington, June 20, with twenty-seven members and seven visitors in attendance. Two cases were presented for clinic. A case of extensive burn of right arm and chest by Dr. MacKenzie of Reese and a case of well developed rickets by Dr. Bishop of Millington.

Dr. A. P. Biddle of Detroit, presented the subject of "A Consideration of Diseases of the Skin Due to the Trades, Occupations, Clothing and Fashion" in a very practical and beneficial manner. The discussion was general and enthusiastic.

Dr. David Inglis of Detroit met a hearty reception in his discussion of "Problems of Blood Pressure in Nervous Affections" and impressed all to make a more careful study of blood pressure in general practice. Since the clinical use of blood pressure apparatus, questions of blood pressure are being worked out, and we are now coming to realize that the revelations of the blood pressure apparatus are by no means as simple as was at first thought. As far as the pressure is concerned, that depends upon the contractile power of the heart, the relative size and elasticity of the arteries, and, by no means least important, the condition of the muscular coat of the arteries. It is a mistake to consider the arteries as simply elastic tubes; the muscular coat is of profound importance, and for this reason nervous conditions may and do greatly alter the muscular contractility of the normal artery, but the same causes which tend to produce hypertrophy of the heart tend to increase the thickness and strength, and, therefore, the contractile power of the arteries. Evidently the muscular coat of the arteries serves to carry the blood forward in a peristaltic way, but the hypertrophied muscular coat is liable to spasmodic contraction which may lessen the flow of blood through the artery and thereby greatly increase arterial tension.

In the problems of nervous affections this contractility plays no small part. It is the explanation of many cases of angina pectoris or certain passing cerebral phenomena accompanied by temporary changes in brain function—ideation, consciousness, sensory and motor functions. The problem in many of these cases is not a problem of a threatening organic brain lesion but the problem of correcting abnormal muscular tonus.

There is, however, another factor in this matter of so-called blood pressure not to be overlooked. The artery whose walls have been thickened either by connective tissue formation, marked increase in the muscular coat, or by deposit of lime salts, becomes thereby less compressible. Now the blood pressure apparatus registers compressibility, and the tension of the blood within the artery is often of much less importance in establishing a so-called high blood pressure, than is the incompressibility of the artery itself. In an artery with extensive deposits of lime salts compressibility is very small. The manometer will show a tremendously high blood pressure, while, as a matter of fact, the tension in the artery may be quite low. These incompressible arteries bring about nervous troubles, largely through the narrowing of the calibre of the artery, a narrowing which is very little influenced by any treatment. And they also bring about an impaired blood supply by their lack of elasticity. If the patient presents phenomenally high pressure record and a thorough relaxation is brought about the pressure register may drop 30 to 40 mm., but it cannot be made to drop below that. The remaining record is the record of incompressibility.

Therapeutically the letting up on arterial tension, in so far as it depends upon muscular spasm in the arterioles, will respond to drugs which relax the involuntary muscular spasms. Morphine and the bromides are of great value. As a matter of fact, in puerperal convulsions in angina pectoris, morphia has established its position. *Veratrum viride* and *aconite* act well. We have been using the nitrites, but the trouble with nitroglycerine, erythrol tetra nitrate and nitrate of amyl is that they do act but their effect is exceedingly brief. Practically, I have found that the old sweet spirits of nitre, or the liquor ammonia acetate are nitrites that can be given freely and whose action is much more prolonged and satisfactory. Our medical forefathers had no pressure gauging apparatus, but they had a singular clinical insight and used these old remedies to accomplish precisely these results.

Dr. B. S. Pennington and Dr. L. D. Harrison were elected to membership in the society.

The next meeting is to be held at Vassar, the second Monday in August.

W. C. GARVIN, *Secretary.*

ST. CLAIR

In April, Dr. A. E. Thompson, of St. Clair, read a paper before the St. Clair County Medical Society detailing his experiences in defending a suit for \$25,000 damages, charging false imprisonment in an insane asylum, which was brought jointly against the Doctor and ex-Sheriff Moore.

Miss Alexander, the plaintiff, was a professional nurse, who had nursed for Dr. Thompson, with whose work the doctor was pleased and whom he had befriended many times, even to making her matron of his private hospital. This position she filled acceptably for a year when the Doctor began to notice delusions of persecution, irritability, etc., which progressed to such a stage that it was necessary to send her home to her parents in St. Thomas, Ontario.

While in St. Thomas she was properly and legally committed to an insane asylum at London, Ont., her mother and sister being prompted to this course by her attempting to commit suicide.

A while later Miss Alexander appeared at Dr. Thompson's office and became abusive; From there she went to the Hospital, discharged the nurses and terrorized the patients. She created such a disturbance that the Doctor telephoned the London Asylum about her, finding that she had been out on probation for a few weeks. After consultation with the Medical Supt. of the Asylum, Miss Alexander was arrested on complaint of Dr. Thompson and reconfined in the London Asylum.

Several years later suit was brought against Dr. Thompson and Mr. Moore for \$25,000 damages. Dilly-dallying tactics were employed and the Doctor charges that when the suit came up for trial he found that for his plea had been substituted another, written by a Detroit firm, which did not set up the defense of insanity in the plaintiff, thus leaving him no ground for defense against charges of mistreatment and abuse, and immorality set up by the attorneys for the defense. Judge Snow later suspected something wrong and admitted the evidence of insanity of the plaintiff, whereupon the Doctor was entirely vindicated, and a verdict of "no cause for action" ordered.

The Doctor was certainly unfortunate in his experience with attorneys whom he names in his paper, spelled without capitals, but underscored.

NEWS

Dr. Beverly D. Harison of Detroit, has received from the University of Michigan the degree of Master of Arts in recognition of his successful efforts in raising the standard of Medical Education in the State of Michigan.

Dr. Henry J. Pyle, a graduate of the Detroit College of Medicine, 1907, and located at 803 Grandville Ave., Grand Rapids, was married on June 9 to Miss Frances VanZoeren.

The Medical Department of the University of Pennsylvania has announced recently certain changes in the personnel of its teaching staff to take effect September 1910.

Dr. David L. Edsall will fill the Chair of Theory and Practice of Medicine from which Dr. James Tyson has resigned. The Chair of Pharmacology and Therapeutics will be filled by Dr. A. N. Richards, formerly of Northwestern University. Dr. Alonzo E. Taylor, formerly of the University of California, will occupy the Chair of Physiological Chemistry which has a \$100,000 endowment. Dr. Richard M. Pierce of Bellevue, has been appointed Professor of Pathology and will also have charge of the Department of Research Medicine, recently established with an endowment of \$200,000. Dr. Allan J. Smith, the present Dean of the school, will have the Chair of Comparative Pathology and be at the head of the newly instituted courses in Tropical Medicine. Dr. Paul Lewis, who will have charge of the laboratory of the Phipps Institute for the Study, Prevention and Treatment of Tuberculosis, now an integral part of the University, has been elected Assistant Professor of Pathology.

The Wayne County Medical Society has purchased the Marvin Preston house at 33 East High Street, with a lot 60x130 feet. The rooms are large and spacious, and will be remodeled this summer, being ready for occupancy Sept. 1st, when the Society resumes its meetings, after the summer vacation.

Dr. Ben. Brodie has donated his father's fine collection of rare medical books, as a nucleus for a library, to which additions will be made from time to time.

This purchase will necessitate reincorporation

of the society, because under the present incorporation it cannot legally hold property.

It is planned to introduce club features, serving lunches, for the benefit of the many doctors who have to spend their entire forenoons in the hospitals, and to give physicians a better chance for social intercourse.

Dr. L. H. Herbert of Detroit, has gone to Europe, where he will take Post Graduate work in the University of Vienna.

Dr. A. F. Kingsley of Battle Creek, has returned from two weeks spent at the Mayo Clinic, Rochester, Minn.

Dr. I. L. Polozker of Detroit has gone to Europe for a summer trip. He will study in London and Vienna Hospitals, and will visit Italy and Switzerland. He will be back about Oct. 1st.

Since July 1st, Dr. Arthur J. Jones, formerly of Painesdale, Michigan, has been located at 2299 Gratiot Ave., Detroit, Mich.

Mr. Henry Phipps of New York, has selected the University of Pennsylvania to carry on the work of the Phipps Institute. Mr. Phipps has already acquired ground in Philadelphia on which will be erected a hospital for this purpose. The extent of the benefaction exceeds \$500,000.

The report of the Committee appointed to consider the future policy of the Institute has been approved by Mr. Phipps and the Trustees of the University.

The work will be divided into three general departments, each of which will be presided over by a director. For the directorship of the Laboratory, Dr. Paul Lewis, now of the Rockefeller Institute, has been selected. For directorship of the Sociological Department, Mr. Alexander M. Wilson, of the Boston Association for the Relief and Control of Tuberculosis. Dr. H. R. M. Landis has accepted the appointment as director of the Clinical Department.

Dr. H. D. Purdum of the Northern Michigan Asylum, Traverse City, has moved to Baltimore, Md., where he has accepted the position of chief resident physician at the Bay View Asylum.

Dr. H. R. Varney was reelected Secretary of the Section on Dermatology of the American

Medical Association at St. Louis, and was the only Michigan man so honored—either among section officers, or general officers of the Association.

The Secretary-Editor attended the Annual meeting of the Association of State Secretaries and Editors and was honored with the election as second vice-president. The work of the Association is very similar to that of our own Association of County Secretaries. The main topic of discussion was the question of Medical Defense. There are now fifteen states which have some form of Medical Defense plan in active operation. The most successful being those upon the same general plan as our own. There were representatives of twenty-nine states present at the meeting, which was accompanied by a banquet, a very enjoyable affair given by the American Medical Association.

The Milk Inspectors from the Detroit Board of Health, June 27, for the second time dumped a shipment of milk from Frazer into the gutter. The first shipment consisted of 50 gallons and the second of 110. The regulations require that the temperature of the milk be kept below 50°, but will admit milk up to 60°. That dumped June 27 was 80° and some 81°. Some of the cans leaked and had been patched up with soap. These cans were smashed beyond repair.

The Milk Inspectors of Detroit, June 30, condemned and dumped into the gutter a third shipment of milk, this time 70 gallons, because the temperature was too high, 78°. One can had a leak plugged up with soap, and several were rusty and otherwise unfit for milk containers. This shipment came from the vicinity of Royal Oak and Birmingham.

BOOK NOTICES

Progressive Medicine, A Quarterly Digest edited by H. A. Hare, M. D., and L. F. Appleman, June 1910. Lea & Febiger: Philadelphia and New York.

Volume II of this series of Progressive Medicine is well up to the standard of this valuable publication. It contains an article on Hernia, by William B. Coley, Surgery of the Abdomen by Edward M. Clark, Diseases of the Blood, of Metabolism, of the Thyroid Gland and Lymphatic System by Alfred Stengel, and Ophthalmology by Edward Jackson. These authors are all leaders in their departments and have given us the best obtainable.

SURGERY

Conducted by

R. E. BALCH, M. D., Kalamazoo, Mich.

Separation of the Colon from its Mesentery.—In the June number of *Annals of Surgery*, Dr. Frank E. Buntjes gives the results of ten experiments carried out upon dogs, to determine the result of separation of the mesentery from the colon.

EXPERIMENT No. 1.

Male mongrel, weight 135 pounds. Incision through left side of abdomen; large intestine drawn through the wound and about six inches was deprived of its blood supply by cutting between a double row of sutures near the mesenteric border. Care was taken to avoid the large longitudinal blood vessel in the mesentery. The mesentery was then resutured to the intestine as near as possible to its former position.

The dog made an excellent recovery and was killed at the end of the seventh week and an autopsy performed. There were slight adhesions between the small intestine and the wall of the descending colon, and the descending colon where the blood supply had been cut off was slightly constricted. Otherwise normal.

EXPERIMENT No. 2.

Male bull dog, weight 90 pounds. Same technique performed. Was allowed to live fifty days and then was killed by chloroform. Autopsy: The area of the descending colon, the blood supply of which was ligated, was dilated slightly, otherwise normal.

EXPERIMENT No. 3.

Bitch, weight 70 pounds. Same technique. Four and a half inches of the mesentery were separated from the descending colon. The colic artery was not ligated. The mesentery was resutured to the colon with black linen thread. Allowed to live for fifty days and then killed with chloroform. Autopsy: The operated area in this case shows slight constriction.

EXPERIMENT No. 4.

Same technique as before. Four inches of the descending colon separated from its mesentery. The dog is still living and healthy.

EXPERIMENT No. 5.

Male, weight about 20 pounds. Same technique carried out as before, except fully twelve inches of the colon deprived of its mesentery. The dog died on the third day. Autopsy: The entire descending colon which was separated

from its mesentery was black and friable. Necrotic as far down as the rectum.

EXPERIMENT No. 6.

Male 20 pounds. Same technique as before, except that colic artery was accidentally ligated. Death in eighteen hours. Autopsy: No fluid or pus in the peritoneal cavity. The portion of the intestine corresponding to the severed mesentery was greatly dilated and nearly black. Otherwise normal.

EXPERIMENT No. 7.

Technique the same as experiment No. 6, with ligation of the colic artery. Death on the fifth day. Autopsy: Peritoneal cavity filled with thin foul smelling pus. The portion of the descending colon where the mesentery was ligated and resutured was black in color; the sutures had sloughed, and there was an opening in the intestine about half an inch in diameter.

EXPERIMENTS Nos. 8, 9, AND 10.

In these three experiments the same general technique was carried out, but without resuturing of the mesentery to the colon. The colic artery was not ligated. In all three cases, death was the result. Autopsies showing necrosis of the devitalized area.

SUMMARY:

In cases No. 1 to No. 5, in which the colic artery was not injured, and the mesentery resutured to the colon, there were four recoveries and one death.

In cases No. 6 and No. 7, with separation of the mesentery from the colon with resuture, and ligation of the colic artery, both died.

In cases Nos. 8, 9, and 10, separation of the mesentery from the colon without suture, all died.

CONCLUSIONS

Just what length of gut might safely be separated from its mesentery and resutured in the human being, cannot be safely estimated. The greater length of the colon and the larger vessels supplying it in man, make it probable that the average safe length would be somewhat greater than in the dog.

In this connection the author reports a case of strangulated hernia in which he accidentally ligated eight inches of the mesocolon. This was resutured and the patient made an uneventful recovery.

NEUROLOGY AND PSYCHIATRY

Conducted by

GEO. M. KLINE, M. D., Ann Arbor, Michigan

The Syphilis-General Paralysis Question. J. W. Moore, M. D. *Review of Neurology and Psychiatry*, May, 1910.—This much discussed controversy is considered by the author, taking up the principal contentions of the adherents against the syphilis-etiologic theory of general paralysis. In about 20 per cent of cases of general paralysis, no history of syphilis can be obtained and no physical signs of the disease are found. He points out that these cases probably had syphilis, when it has been shown that in tertiary and secondary syphilis, 25 to 50 per cent, give no history of primary lesion. Again, it has been established by Muller that general paralysis in adults may result from congenital or inherited syphilis. That the organism of syphilis undergoes a profound change is a reasonable explanation for its non-occurrence in general paralysis. Attention is called to the interesting analogy existing between sleeping sickness and general paralysis. The organisms in both are protozoa; both positive Wassermann reaction in the blood serum; both have early lymph-gland involvement with febrile disturbance and rash, periods of latency, and late involvement of the central nervous system; and in both the histological changes are similar. The spirochetæ are not found in general paralysis, however, while in sleeping sickness the trypanosome is easily demonstrated. The positive Wassermann reaction in general paralysis points to its syphilitic origin.

In a pertinent way the writer considers other contentions—the interval between infection and onset of general paralysis, uselessness of anti-syphilitic therapy in general paralysis, distribution, percentage of syphilitics developing general paralysis, and the specificity of the Wassermann reaction. His conclusions, which leave little doubt regarding general paralysis being of syphilitic origin, are as follows:

1. The weight of evidence is in favor of syphilis as an essential cause of general paralysis, and, if a history of the disease is not obtained, we are probably justified in supposing either that the infection has been so slight as to escape notice, or that it was inherited.

2. Alcohol, trauma and other factors merely play the part of lowering the general resistance, as they do in any disease.

3. Whether the occurrence of general paralysis after syphilis is determined by a constitutional predisposition, by a special form of virus, or

by the incidence of some other factors, is not yet clear.

4. General paralysis must still be regarded as a meta-syphilitic disease rather than true syphilis.

The Reflexes in Hysteria. Philip C. Knapp, A. M., M. D. *The Journal of Nervous and Mental Diseases*, Feb., 1910.—The writer made a study of the more important tendon and cutaneous reflexes in one hundred cases of hysteria, in which there was a difference of sensibility in the two halves of the body. There was some exaggeration of the tendon reflexes in eighty-six cases. A true ankle clonus or absence of the knee-jerk was not found. He is doubtful whether pathological states of the tendon reflex, such as true clonus and loss of knee-jerk, may be caused by hysteria and where found he would question the diagnosis of hysteria. A difference was noted in the knee-jerk and ankle-jerk in fifty-seven cases, thirty-eight being greater on the anæsthetic or paralyzed side and nineteen on the opposite side.

Of the cutaneous reflexes, the plantar reflex was found absent in two cases, and absent or diminished on the anæsthetic side in forty-seven. The Babinski or Oppenheim reflex was not noted in any case. In twenty-four out of fifty-one cases, the abdominal reflex was diminished or lost on the anæsthetic side, in two out of twenty-four the cremasteric was diminished on that side.

Seventy-six cases of the series showed a difference in one or more of the tendon or cutaneous reflexes on the two sides of the body, the skin reflexes being diminished on the anæsthetic side, the tendon reflexes being often increased but sometimes diminished.

The results of the writer seem to contradict the claim of Babinski that "hysteria is incapable of modifying the tendon reflexes and that, consequently, pure hysterical hemiplegia is never accompanied by an exaggeration of those reflexes." Babinski's belief, that only such symptoms as can be reproduced by suggestion and removed by persuasion should be regarded as hysterical, and as the reflexes cannot be influenced in this way, hysteria has, therefore, no effect upon them, is at marked variance with the findings in the writer's series of cases.

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ORIGINAL ARTICLES

SOME EXPERIMENTS IN INTESTINAL ANASTOMOSIS*

CONRAD GEORG, JR., A. ., M. D.

Ann Arbor, Michigan

Previous to the application of antiseptic principles to surgical technique, the operations of intestinal resection and anastomosis were considered to be extremely dangerous and were very rarely performed. The history of the development of this branch of surgery is extremely interesting.

The very earliest period in which an intestinal suture is mentioned by Celus, A. D. 20, and the first description of it was given by the Italian surgeons of the Middle Ages. The statement is made in the literature that Guilielmus de Saliceto (about 1500) sutured the bowel over a segment of dried intestine. He employed also the so-called suture of the "Four Masters" which consisted of four interrupted sutures passed through the divided bowel and the trachea of a goose which had been inserted within the bowel to keep the lumen open.

Even in 1686 it was considered too dangerous to suture wounds of the small intestine as can be seen by consulting the writings of Richard Wiseman who used the glover's stitch in suturing wounds of the large intestine. Heister in 1739 thought that it was useless to suture the intestine on

account of the high mortality attending it but preferred the glover's stitch in case the operation was done at all. Thus it appears that during the last century and up to about 1812 it was the general opinion among surgeons that wounds of the small intestine ought never to be sutured and that it was practically a hopeless operation to suture the large intestine.

Later on the wounded intestine was sutured to the anterior abdominal wall thus making an artificial anus with no attempt at repair of the wound of the intestine at the time of operation or even afterward. Such was the method of Palfyn who carried a loop of thread through the edges of the intestinal wound and fastened the ends externally. Peyronie passed a double thread around the bowel. Others used a single stitch with the same idea in view.

Reybard of Paris in 1827 used a slightly different method to cause adhesions to form between the peritoneal coat of the intestine and the abdominal wall. He used a small strip of wood with rounded edges in the middle of which two holes were made about a line apart. A loop of thread was carried through these holes and the piece of wood inserted in the intestine. Each end of the

*Read at the Michigan State Medical Society at Kalamazoo, Sept. 15, 16, 1909,

thread was then carried on a needle from within out through the edges of the intestinal wound. The sutures were then threaded with curved needles and carried through the abdominal wall from within outward and tied externally. Reybard cut the thread two days after the operation and the strip of wood fell into the intestine. The mortality following this operation was high and those who recovered developed fecal fistula.

The first successful intestinal anastomosis was done by Ramdohr in 1780 by invagination and suturing the bowel to the abdominal wall. Travers in 1812 was the first to discover that an intestinal anastomosis could be successfully performed without suturing the bowel to the abdominal wall.

Lembert of Paris in 1825 and 1826 did the pioneer work in modern intestinal suturing. As his method is universally misunderstood and misquoted in all surgical text-books and journals I take the liberty of quoting freely from one of his original articles as read before the Surgical Section of the Royal Academy of Medicine of Paris January 26, 1826. Lembert says that, "He employs as many needles as there are points of suture to be passed. The needle penetrates into the cavity of the intestine about two lines from the edge of the wound or its point glides between the muscular and mucous coats according to the thickness of the intestine, then the point of the needle is made to come out again about one line from the edge of the wound whence it is carried across the wound and made to penetrate the bowel wall about one line from the edge of the wound and comes out about two lines distant. When the suture is tied the serous membranes are brought together and the free edges of the wound are inverted into the cavity of the intestine and

form a projection into it of greater or less extent. The sutures cut through little by little the small portion of the intestine which they include and fall into the intestine."

Thus Lembert's original idea was to get union of serous surfaces by means of a suture which passed through all the coats of the intestine. It was only by accident that some of the sutures failed to penetrate the mucous coat. Consequently the sutures always disappeared into the lumen of the bowel. Even after the third day following the operation Lembert could find no sutures at the site of the operation. The suture which is described at the present time as Lembert's is really a sero-muscular stitch which does not penetrate the mucous coat of the intestine and must be differentiated from Lembert's original suture if we wish to be historically accurate. Furthermore a sero-muscular stitch will not disappear into the lumen of the bowel but will remain indefinitely in the intestinal wall as I have frequently demonstrated in specimens of end to end anastomoses which have been performed on dogs in the Surgical Laboratory of the University of Michigan. It is only when this suture becomes infected by penetrating the mucous coat that it disappears into the lumen of the bowel. Consequently the sero-muscular stitch should not be described as Lembert's as it is in all the surgical literature of the present time.

On account of the danger of retraction of the mucous membrane with the attending fecal extravasation and possible obstruction of the bowel when the mucous membrane is not sutured, two rows of stitches are generally employed: one to include the mucous membrane, and the second, a row of sero-muscular stitches to maintain the union until repair is complete. The mortality following the operation of intestinal resection has

been considerably reduced in recent years by a gradual improvement in technique. Mayo reports a mortality of twelve per cent in one hundred cases of resection of the large intestine, with lateral anastomosis. In end to end anastomosis the mortality is considerably higher, being about forty per cent.

The Connell suture is an attempt to overcome some of the difficulties which attend the method by two rows of stitches. It passes through all the coats of the intestine with the knots tied on the inside instead of on the outside, as in the original Lembert suture. It has been experimentally proved that the drainage of infective material is toward the knot and, therefore, in this case toward the lumen of the intestine where it can be eliminated without causing any peritonitis. On the contrary, if any of the sero-muscular stitches which are applied in an enterorrhaphy happen to penetrate the mucous membrane the infective material will drain toward the peritoneum and cause a localized peritonitis. It is the experience of most surgeons, however, that the accidental passage of a few sero-muscular stitches into the lumen of the bowel is usually not followed by the death of the patient if the general condition is good. There appears to be more security in a stitch which penetrates all the coats of the intestine than in the sero-muscular which includes only a part of the intestinal wall. There is also less danger of obstruction where a single row of stitches is used because there is less invagination of the intestinal wall. In operations performed on dogs by junior medical students in the Surgical Laboratory of the University of Michigan there were as many recoveries after using the Connell suture for end to end anastomosis of the intestine as with two rows of stitches.

None of these methods, however, can be considered as aseptic, as the danger of infection from the lumen of the bowel is constantly present. During the last five years various attempts have been made to devise a method of anastomosing the intestine without opening the lumen, thus avoiding contamination of the field of operation with the infective bacteria which may be present in the intestine. J. Schnitzler of Vienna has recently criticized some of these methods on the ground that the present methods of performing resections of the stomach and intestine are followed by a very small mortality and that this would not be materially reduced by avoiding infection from the lumen. It seems rather curious that a prominent surgeon should announce that no further improvement is possible in operations upon the intestine.

Schnitzler maintains that the ordinary bacteria present in the stomach and intestines are not pus-producing germs and could not produce peritonitis. If this were true it would hardly be necessary to take any precautions to avoid infection from the lumen. We know, however, that the less opportunity there is for infection from the lumen, the greater the proportion of recoveries. Injuries of the stomach and intestine which are repaired in six to twelve hours generally result in recovery because the infection is either not virulent or sufficient time has not elapsed for peritonitis to develop. It is true, as Schnitzler says, that there are very few bacteria normally present in the stomach and upper part of the small intestine because of the rapidity of peristalsis. In the lower two feet of the ileum and at the ileo-cecal valve the germs become more numerous and virulent. There are some pus-producing germs always present in the intestinal tract, according to bacteriologists, and the colon germ which is con-

stantly present in the large intestine may under certain conditions produce pus, as in acute appendicitis. The danger of infection from the lumen, therefore, is always present. Cancer and tuberculosis may also be disseminated in this way. Another factor of importance is that injury of the mesentery may result in interference with the blood supply in end to end anastomosis and consequent gaping of the wound may follow from necrosis. In lateral anastomosis there is greater possibility of infection from the lumen but there is less interference with the blood supply than in end to end anastomosis which accounts for the higher mortality in the latter.

The failure to include the mucous membrane in the suture as proposed in some of the more recent methods of intestinal anastomosis has been thought by some to be the possible cause of subsequent gastric or intestinal hemorrhage. On the contrary, compression of the intestine with an enterotribe and resecting it with the actual cautery is generally believed to be successful in preventing hemorrhage because it closes the mouths of the blood vessels. It is also urged by Schnitzler that stenosis may result from lack of suture of the mucous membrane. This was demonstrated in one of my experiments. It can be prevented, however, by making oblique incisions through the intestinal wall. Madelung in 1881 showed that the oblique incisions provide a better blood supply at the free edges and allow for the excess of inturned edge at the mesenteric border.

Rostowzew in 1906 was the first to propose a method of performing an aseptic anastomosis of the intestines or stomach. He devised quite a complicated set of instruments for this purpose. By means of an enterotribe he compresses the intestine at the proposed point of resection, then

uses a strong clamp to compress the intestine at a short distance from here. The blades of these instruments are then heated with the actual cautery sufficiently to sear the edges of the intestine together, leaving depressions and elevations upon the intestinal wall arising from the projections and grooves on the blades of the instruments. These clamps are so constructed that the blades can be separated from the remainder and left in position upon the intestine. Next he cuts through the portion of intestine included between the two clamps with the actual cautery, thus searing the edges of the severed intestine and preventing the escape of the contents. The incision is then prolonged into the mesentery after ligating the vessels. The same procedure is carried out at the other end of the proposed resection. Finally the edges of the intestine to be joined are brought together and sutured by means of a series of interrupted seromuscular stitches passed over the clamps which are then carefully removed and the edges of the intestine remain seared together. The lumen is restored by pulling the sutures, which are oppositely placed, apart after grasping each group of three at one time with a pair of hemostatic forceps. These stitches are finally tied and the operation completed. This method can not be considered as practicable on account of the complicated set of instruments which is required. Moszkowicz has modified the instruments of Rostowzew but the principle is identical.

Parker and Kerr of Johns Hopkins University have devised a very simple method of aseptic anastomosis of the intestine which can be carried out with a few needles and thread and a few ordinary intestinal clamps. The intestine at the proposed point of resection is compressed by two narrow bladed crushing forceps at first placed in actual

contact and then slightly separated. By this process the walls of the intestine are glued together somewhat. Then the portion included between the clamps is divided by the actual cautery or knife. The mesenteric vessels which supply the portion of intestine to be resected are ligated and the intestine at the opposite end of the proposed resection is also divided between two clamps in the same way. The authors then apply their so-called basting stitch to each end of the divided intestine. This stitch is a continuous sero-muscular one applied loosely over the clamp. The ends of this suture are not tied because they must be removed

intestine. After these are tied the basting stitches are removed by pulling on one end of each.

At first the tendency is to invaginate too much of the bowel wall, especially in the case of resection of the small intestine. My first two experiments with this method were failures on this account, resulting in the death of the dogs operated upon from failure of the sutures to hold securely under so great a tension. The result was perforation of the bowel at the point of anastomosis. This was overcome in later experiments by taking the sutures nearer the edges so that no more dogs died on this

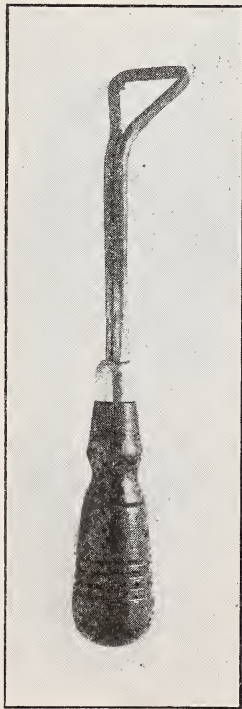


FIG. 1

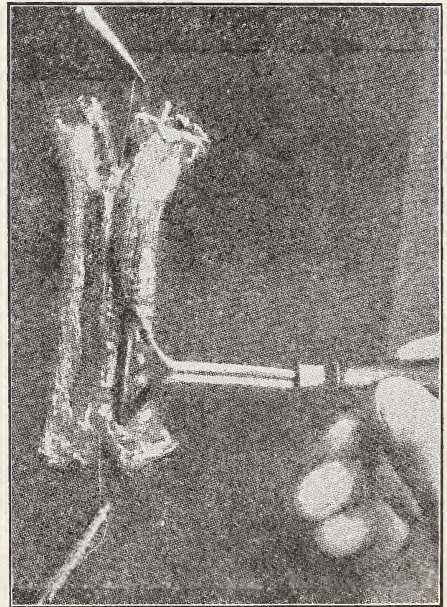


FIG. 2

E. Capek

later. Next the clamp is carefully removed and by pulling on both ends of the basting stitch one can invaginate the end of the intestine perfectly, thus preventing the escape of any of the contents of the bowel. Then a series of interrupted sero-muscular stitches is used for joining the divided ends of the

account. Another complication in one experiment was retraction of the mucous membrane with accumulation of the contents of the bowel at the point of suture, resulting in a stricture which caused the death of the animal about two months after the operation. Upon section of the abdo-

men after death the intestine immediately above the anastomosis was found to be much dilated and filled with a mass of hair firmly matted together. A flap of mucous membrane had not united with the remainder. Microscopical examination of this area showed it to be a chronic ulcer or wound scar tissue with active inflammation and marked glandular hyperplasia. This complication was afterward always avoided by using the oblique incisions of Madelung through the bowel wall. This incision is

at right angles to the bowel axis and plane of the mesentery. The clamps are then placed beneath these needles so as to grasp the intestinal wall between the points of entrance and exit of the needles and the operation is completed the same as in end to end anastomosis. This operation can not be regarded as aseptic as the lumen of the bowel is penetrated and infection may be carried to the peritoneum in this way.

Another method of aseptic intestinal resection is that of F. B. Walker who uses a

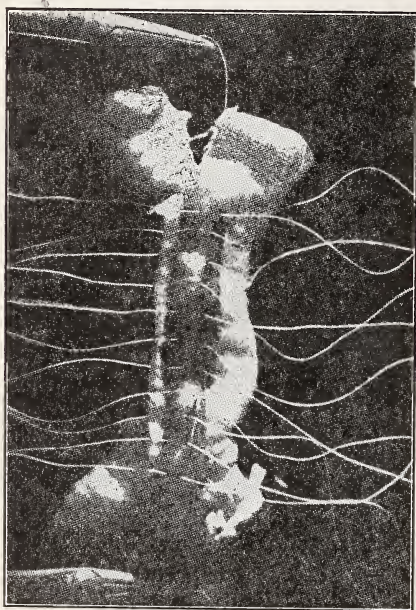


FIG. 3 E. Capek

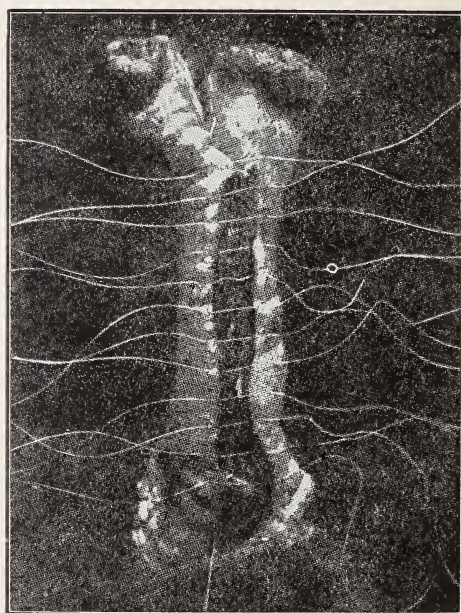


FIG. 4 E. Capek

made at an angle of forty-five degrees to the axis of the intestine and gives a lumen double in area to that of the incised bowel.

In a case requiring a lateral anastomosis the method of Parker and Kerr is varied somewhat in order to be sure of grasping the mucous membrane in the clamp. Three needles are plunged into the lumen of the bowel at its free border and brought out again about one quarter of an inch from the point of entrance. They are placed about one half an inch apart, parallel and

purse string suture to prevent the escape of the contents of the intestine during the operation. These purse string sutures are tied with a slip-knot so that they may be readily removed after the anastomosis is completed. The section of the intestine is made with the actual cautery which sears the edges together, thus preventing the escape of the contents of the bowel. This method seems to require the invagination of more tissue than that of Parker and Kerr and is, therefore, more liable to be followed

by obstruction from stricture of the bowel. It cannot be used for an aseptic lateral anastomosis because an opening has to be made into the lumen of the bowel.

E. Capek of Bohemia has proposed an operation which is very simple and can be applied both for an aseptic lateral anastomosis and a gastroenterostomy. The communication is not established at the time of operation but in about twenty-four hours. The loops of intestine which it is necessary to anastomose are joined with a continuous sero-muscular stitch applied near the mesenteric border. About ten millimeters from this suture an incision is made of the length

heavy steel wire about three and eight-tenths millimeters in diameter. The length of the cautery is three to five centimeters. The hemorrhage must be stopped before the cautery is applied or the blood will cool off the instrument so rapidly that the cauterization will be incomplete and the communication will be established much later than usual or remain incomplete with the formation of a septum. It is necessary to have several of these cauteries heated at one time in order to perform the operation without any delays.

The cautery is applied at a dull red heat with moderate pressure until the smoke



FIG. 5

C. Georg, Jr.

of the proposed anastomotic opening and within the limits of the length of the suture. This incision is made only through the serous membrane and muscular coats exposing the mucosa. The length of the incision varies with the portion of the intestinal tract involved. The field of operation must be kept free of blood by ligating the bleeding vessels and applying a hot sponge to control the capillary ooze so as to avoid cutting the mucous membrane.

The edges of the incision are then spread about two to three millimeters apart and the submucosa and mucosa cauterized with the author's cautery. (See Figure 1.) This is a triangular shaped instrument made of

ceases to arise and one must not remove it to apply it again but it should be applied continuously until the cauterization is complete and it must not be allowed to burn into the lumen of the bowel. The length of time for the application of the cautery is twenty to twenty-five seconds. When the area is properly cauterized it looks like thin parchment. In the case of an intestine with very thin walls the cautery is applied directly to the serosa and less pressure is exerted than on a normal intestinal wall or it will burn through into the lumen of the bowel. (See Fig. 2.)

The cauterized areas are brought into perfect apposition by means of two rows

of interrupted sero-muscular stitches, one placed internal to them and the other external so that the corresponding edges are accurately apposed. Finally the whole wound is covered in with a continuous sero-muscular stitch. (See Figs. 3 and 4.)

I have done five lateral anastomoses and two gastro-enterostomies by this method with success. The necrosis which is set up as a result of the cauterization of the mucous membrane causes it to yield within twenty-four hours, thus establishing the communication. The walls of the opening are generally smooth and there are no necrotic masses. (See Fig. 5.) It requires some experience with the operation upon animals to be able to recognize the proper depth of cauterization. There is no doubt that the method can be readily applied to similar operations upon man.

The results of these experiments which have extended over a period of two years, seem to indicate that the method of Parker and Kerr is the most practical for end to end anastomosis and that of Capek for lateral anastomosis and gastro-enterostomy.

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Do not forget that the next Annual Meeting of the Michigan State Medical Society will be held in Bay City, September 28 and 29, 1910. Program on pages iv and 460.

PRACTICAL CONSIDERATIONS OF CROSSED EYE AND OTHER MUSCULAR EYE TROUBLES*

F. J. BERNSTEIN, M. D.

Kalamazoo, Michigan

Crossed eyes in any individual make such a deformity, ever present in its hideous ugliness that the hapless victim is the constant butt of his thoughtless companions and through this becomes more sensitive to ridicule; to the end that he feels his handicap and becomes less assertive and gradually assumes a position below his natural standard. This lowered stand is not alone due to these extrinsic forces, but we know that in almost everyone of these individuals, the sight of the one eye is, to all intents and purposes, lost, so that that person goes through life seeing but one half his share.

In the case of muscular eye troubles of less marked degree, i. e., where no deformity exists, while they do not cause actual deformity of the face, yet through the constant wear and drain upon nervous energy have an even farther effect upon the general health and vigor leading even to insanity. It is the knowledge of these factors, more or less disregarded by the family physician which seems to me quite worth while bringing this subject to your attention. If I can impress upon only a small fraction of you these truths of modern ophthalmology and that the conscientious oculist is entitled to a support, too often thoughtlessly given to the corner spectacle dealer, I shall feel this has filled its purpose. For the sketchy character of this paper, I must apologize to the specialist, as I feel that the general practitioner wants to know

the important new things in as concise a manner as possible. Firstly, the term crossed eye, internal or external strabismus or squint is giving way to the more exact one of heterotropia and according to its internal, external, upward or downward tendency or preponderance to esotropia, exotropia, hypertropia or hypotropia. Esotropia is usually due to an error in refraction, usually hypermetropia, which causes an undue amount of nerve impulse to be sent the apparatus controlling accommodation—as the impulse to accommodation and convergence are most intimately associated, the force calling for the one function is reflected by the other so that excessive accommodation calls forth excessive convergence stimulus and in the end a permanent internal fixation occurs. This condition may affect both eyes alternately or only one eye. When the latter, it is usually found that this eye has the greater degree of refractive defect. When after a long time, the one eye is constantly deviated to one side or the other, another set of conditions arises—sight is practically lost in that eye, the muscle turning the eye in that direction often becomes unduly strong while the opposing muscle becomes attenuated and weakened. In this latter course, curative treatment—in that we mean restoration of binocular vision—is out of the question and only a cosmetic effect can be hoped for. Here we must seek to elongate and weaken, relatively, the stronger muscle by a tenotomy

*Read before the Michigan State Medical Society, at Kalamazoo, Sept. 15, 16, 1909.

and strengthen and shorten the relatively weaker muscle by an advancement operation. In the purely refractive esotropias curative measures should be carried out, this means that by attention to the refraction—very early in life—after the most thoroughgoing dilatation of the pupil and paralysis of accommodation by days of atropin, properly fitted glasses and training of the weaker eye will not only cure the deformity but preserve the full function of both eyes. This is not new. I have followed this plan since 1892 with scores of good results. In these cases, I am firmly convinced that dictum laid down by Fuchs in the early 80's is correct, that no such child should be operated upon till after the tenth year. From this there is hardly any variance.

Next in frequency, come the paralytic forms either central or peripheral. Among the former may be mentioned those due to meningitis, to cerebellar abscess or abscess in other parts of the cerebrum.

One of the most important of which is paralysis of the third nerve in part or toto from extension of neglected ear suppurations, a stabile pupil clinching the diagnosis. The treatment is obvious. Paralysis of the ocular muscles may also be due to tubercular meningitis, aneurism, parietic dementia, bulbar paralysis, or multiple sclerosis. Peripheral paralyzes may be due to syphilis, rheumatism, diphtheria, diabetes, poisons, or injuries. Finally, quoting De Schweinitz it may be due to violent migraine.

Third—According to Dr. Lucien Howe, "Our ignorance of paralyzes is as great as the subject is important. In spite of the multitude of these cases, few have come to the postmortem table showing even the gross pathological changes and only a few of these latter have been subjected to minute microscopic examination. Therefore, we

must concern ourselves mainly with the methods of diagnosis."

The prognosis, naturally depends upon an infinite variety of factors:—the pathological condition which gives rise originally to the paralysis is of prime importance: though no matter what that may be, much depends upon the age and the recuperative powers of the individual and the length of time since the symptoms first appeared.

Howe, quoting Liebrich, says of 320 cases, 21 cases in which the cause was doubtful, 9 recovered in from 8 days to one and one-half years, four improved in from 12 days to two months, three recovered with paralysis of the pupils, four were unimproved two years later, one not improved twelve years later.

Six cases of syphilitic origin, 2 were well in four weeks and one improved in three weeks, one in four months, one in six days and one not influenced in five months.

Twenty-five tabetic cases, eleven improved in eight days to five months; five some improvement in from one to four months; 9 in intervals ranging from two months to eight years.

Seven cases with other paralytic symptoms, 3 recovered in from eleven days to five months, others unimproved after term ranging from seven months to one and one-half years.

It may be entirely anatomical; due to a muscle too long for the given orbit or the perfectly formed muscle may be placed faultily, too far forward or back of its proper insertion place.

Fourth.—It may be due to an orbital abscess or growth or what is very frequent—a suppurating of an adjacent frontal, ethmoidal, sphenoidal, or maxillary abscess.

Fifth.—Retinal changes may cause any form of heterotropia. Finally a deviation inward or outward oftentimes is caused by a

defect in either the *superior* rectus or *inferior* rectus. I have several cases on my records of cures brought about by operation, not on the muscle apparently at fault, but thorough examination showing quite another muscle at fault. I am sure most ophthalmologists can duplicate these records.

What applies to the esotropias or internal deviations applies likewise to the other deviations with the exception of the cause and treatment of esotropia due to hypermetropia.

The treatment of heterotropias, when not indicated by the foregoing causes and, as will be seen, a great number call for other than surgical procedures upon the muscles apparently at fault, calls for the best and most skillful diagnostic measures at our command.

When it has been determined that operation alone can restore the muscle to function, which operation should be selected? I shall not weary you with the pros and cons for simply tenotomy or advancement. Suffice it to say both operations have their proper field of usefulness, their indications and contraindications which practically every student of ophthalmology is agreed upon. There are still other cases on which opinion has not yet crystalized as to whether in the given case we should do the one or the other operation.

The points I wish to emphasize are that the consideration or advice as to the proper course to pursue are only to be given after the most careful elimination and study of each case. In my early days I have seen dozens of cases brought into the dispensary and with no further examination than inspection, placed upon the operation table. Many of these cases, in a few years had a beautiful exotropia and a wall-eye substituted for a cock-eye and of course, no practical vision in that eye. I also must plead

against advising patients thus afflicted, to "let it alone;" that "it will cure itself." I feel like apologizing for referring to this antedeluvian advice, yet only a few days ago I had a victim of this absurdity.

There is another very large class of muscular eye troubles, in which we have no, or hardly any, manifest aberration from the normal parallelism or concomitance, these are the so-called insufficiencies or muscular imbalance. The very great importance of these troubles can not be overestimated in their relation to reflex neuroses and even bodily deformities. We owe a great deal to the researches of Dr. George Stevens for an accurate nomenclature and classification of these subtle changes and while he went very far from the mark in his almost wholesale advocacy of so-called partial tenotomy of the offending eye muscle, still a great indebtedness is due to his work. It was he who gave us the names esophoria for a latent paresis or insufficiency of the external rotating muscles whereby a homonymous diplopia is produced. Exophoria as affecting the internal muscles in which crossed or heteronymous diplopia; hyperphoria affecting those which turn the eye upward and hypophoria for the downward rotating muscles. To Dr. Maddox of Edinburgh we are indebted for a simple means of detecting the variety of deflection. A clear glass cylinder or rod (later changed to a series of rods) is placed before one eye and causes that eye—when the patient is caused to look at a small bright light with both eyes open—to see a bar of light while with the uncovered eye he sees the natural light. According to the relative position of these two images we determine the nature and character of the defect.

The appreciation and correction of these troubles have done much to bring back to health and active work many who have

been barred from daily work. Unfortunately many quacks have seized the occurrence of imbalance and without adequate knowledge in the first place, and with criminal recklessness have forced numerous patients to submit to unnecessary eye operations simply to gather a fee.

Before entering upon a consideration of the various ills caused reflexly by muscular anomalies it is well for us to know that a large number, possibly the largest majority of people, have some imbalance. In by far the largest number of these, the amount and degree is a negligible one and that there is no fixed rule as to what causes trouble and what can be neglected. Each case, as in every other department of medicine is a law unto itself. What one patient can carry with absolute indifference would set another wild. We must also remember that a considerable portion of these imbalances are temporary or rather transitory and the *result* of systemic troubles rather than the cause of them.

Without attempting to make a complete list we know the following diseased conditions to bring them about, anemia, auto-intoxication from renal disease, from indigestion, from improper pulmonary or cardiac functioning; infections; pregnancy; gout; rheumatism; lack of outdoor life and exercise are probably the more common.

The most common symptom of eye muscle imbalance is asthenopia—difficult or painful sensation especially marked upon attempts at near work. This pain may be referred to the deeper parts of the orbit or to the frontal or occipital region, or to the spine, this latter is the strong point of the osteopathic quack. Patients with imbalance, upon close observation are found to tilt the head to one side or the other, usually favoring the side, in the direction of which the offending muscle should nor-

mally act, this tilting may go so far as to cause even torticollis or scoliosis, indeed many eminent oculists, prominent among whom is Dr. George Gould of Philadelphia, insist that every such case should be thoroughly examined for this defect and are likewise confident that its correction will cure a very large percentage. I may add here that Dr. Gould is a persistent advocate of non-surgical means to remedy them and his very extensive experience certainly is worthy of the highest credence. Certainly no man is more careful to correct every possible error of refraction nor none more worthy of confidence in their statements.

Dr. Leartus Conner has shown that heterophoria may cause acute rhinitis, loss of smell and tinnitus aurium and in this is supported by many.

Dr. De Schweinitz and many others contend that gastric troubles, tachycardia, flatulent and other forms of dyspepsia, indigestion, night terrors in children, may have a like origin. Although gastrologists may think this far-fetched, it is an uncontrovertible fact that most cases of car sickness owe their origin to muscular asthenopia, which upon correction no longer exists, thus plainly showing the relationship. Furthermore, Dr. Howe reports a case of a woman in whom a gastric fistula enabled him to make accurate tests of the effect upon the gastric contents by artificially producing various muscle anomalies by lenses. All are familiar with the nausea produced by swinging. This is due to the rapid change of images and attempt to adjust position of the eyes to them. There is not a careful oculist who can not record cure of gastric disturbances after attention to asthenopia.

General bodily fatigue after prolonged attempts to read are common to everyone. It is therefore not surprising when every at-

tempt to read calls forth excessive efforts of the external and intraocular muscles that the patients who suffer with general lassitude are often cured when refraction and muscles are put in normal conditions.

From general fatigue to neurasthenia is not a far cry, it is therefore not surprising that this symptom complex often owes its origin to disorders of the ocular muscles and the literature is full of reported cures of this and its next door neighbor, hysteria—though almost anything new even to Eddyism and Lourdes makes them happy for a time. Chorea, the "epilepsies" and many other neuroses are likewise often benefited or cured after correction of muscular or ocular defects.

We are not very hopeful nor can we make any extravagant claims as to the relation of these last mentioned diseases (epileptoid disorders), especially not, since the commission appointed by the New York Ophthalmological and Neurological societies, and the examination led by Gould and Bennet at the Craig Colony were fruitful of results in such a small per-

centage of cases. And these men are among the most careful and painstaking. I mention this class of cases and the almost uniform failure especially, as it figures largely among the quacks as a drawing card to separate the poor dupe from his cash.

Finally, a word or two as to treatment. It is important for you to know that in the vast majority of cases it is not surgical. Attention to refraction, to some underlying cause bringing about lack of muscular tonicity, the use of prisms more or less permanent as the case may require, exercise with the many orthopedic measures such as prisms, stereoscope, etc., are usually satisfactory and permanently relieve the troubles.

Finally in a very small percentage of cases, after the most careful and painstaking measurements and observation extending over rather long periods, some form of advancement or tucking operation or tenotomy according to the exigencies of the case, shows the necessity for strengthening a weak muscle or weakening a relatively too strong muscle may exist.

CANCER OF THE PENIS AND EXTIRPATION OF THE ORGAN WITH PERINEAL TRANSPLANTATION OF THE URETHRA, AND REPORT OF A CASE*

SCHUYLER C. GRAVES, M. D.

Grand Rapids, Michigan

Malignant growths affecting the penis are, as would naturally be supposed, sarcoma and carcinoma, the latter being almost always of the epitheliomatous type. These neoplasms as a rule are primary in character and very seldom secondary.

Referring to carcinoma in particular, it can be said that where it affects other organs it does so in advanced life, but cancer of the penis has been observed in a youth of seventeen. It is unusual before forty, and most common between fifty and seventy.

*Read before the Kent County Medical Society, October 13, 1909, with exhibition of specimen and patient.

All authors and observers unite in the

dictum that the smegmous filth associated with phimosis, constantly irritating the glans, is a pronounced etiological factor, as are also the presence of warty growths, trauma, scars (such as precede cancer of the cervix uteri), and benign ulcers long existent.

According to Bergman Kreitner distinguishes three types of penile cancer.

1. The papillary cauliflower variety.
2. The carcinomatous ulcer variety, which exists in the case discussed and presented this evening, and
3. The non-papillary cancer.

The first may grow to large proportions, and resemble the well-known cauliflower of the markets. The second is of the ulcerative type, as its name indicates, and presents indurations and excavations. The third, very rare, resembles scirrhus.

Cancer of the penis may remain penile in character with, of course, later disseminations and metastases or it may spread to the adjacent organs, chiefly the bladder, prostate, rectum, scrotum and testicles.

As with cancer affecting other organs, the disease undergoes metastatic expansion by way of the lymph channels, although metastases other than those of the inguinal glands are rare; but it may extend directly through the vascular (erectile) tissue of the corpora cavernosa.

Chondromata, and tuberculous, syphilitic and phagedemic ulcers may lead one into diagnostic fogs; but the amount or character of the induration, the use of the microscope and the susceptibility to appropriate medication or treatment will quite generally clear the clouds of doubt away and leave the nature of the disease exposed.

As to prognosis the outlook especially in the first two varieties may not be so very bad. Taken a case where the growth has fastened itself upon a relatively young man,

is extending rapidly and is already associated with advanced glandular involvement the prospect could not be worse; but in a case where the disease has selected an elderly gentleman, is early in its course, is extending slowly, and is not associated with glandular complications, the chance of a prolonged life without recurrence or of even a radical cure is not a forlorn one.

When we enter into the discussion of the treatment it is surprising to note that the operation of partial amputation seems to be the popular or perhaps I should say the usual procedure recommended.

It strikes me, however, that the only justification for such a course is that of ridding the patient of an offensive mass without having in view the cure of the disease. Of course the only rational thing to do, the matter of relative operative risk to the subject being practically the same, is to remove all one can of the organ, especially if the case be this side of hopeless.

The operation devised by Pearce Gould of the Middlesex Hospital, London, and whom I have had the pleasure of seeing operate there, is the best. It is described by Peckham in his recent work on operative surgery, but no mention is made of Gould in connection with it.

It is called a total excision; but it is not total inasmuch as it leaves most of the bulb of the corpus spongiosum, and this, by the way, is the only weak point about the operation; for cancer almost always involves the glans, and the glans is the distal expansion of the corpus spongiosum.

Briefly the operation is done after the following fashion: Inasmuch as the passage of a steel sound per meatum is generally impossible *ab initia*, oval flaps at the base of the penis are made, the same dissected back and the urethra opened at or slightly above the peno-scrotal junction. The sound

is then passed *per vias naturalis* from the artificial gateway and held in position by an assistant.

The aid of the sound in differentiating later between the corpus spongiosum and the corpora cavernosa is quite important. Splitting the scrotum along the raphé, the testicles, each in its individual compartment, are thrust aside until the post-scrotal muscular tissue comes into view. The incision is deepened through this area exposing the corpus spongiosum and then extended into the perineum. The former at this juncture is dissected free from the two overlying corpora cavernosa. This dissection is somewhat difficult at first because of the intimate relations obtaining; but is assisted materially by the presence of the sound and becomes much easier the deeper the dissection proceeds.

After complete freeing of the corpus spongiosum from its relations superiorly it is allowed to hang from the perineal portion of the wound.

The crura are then detached from the rami ischiorum, the suspensory ligament severed, the dorsalis penis artery tied, some freely bleeding veins of the cavernous plexus secured and all but the bulb and a distal portion of the corpus spongiosum thus separated and delivered. Section of the bulb flush with the perineal integument and securing there the urethral mucous membrane, with the suturing of the divided scrotum

and the suprapubic wound complete the operation.

The wound may be drained or not; preferably drained I think, by strands of catgut emerging just above the new perineal meatus.

REPORT OF ILLUSTRATIVE CASE WITH PATIENT

L. G., age 61, Ionia, Mich.—Noticed trouble for six months prior to operation, which was done at the U. B. A. Hospital, Grand Rapids, August 18, 1909.

The disease began as a little pimple on the surface of the glans and soon became ulcerous. It was treated almost the entire six months as a benign affair. Finally a few days before the writer saw the case the patient fell into the hands of a physician who recognized the gravity of the situation and referred the patient to your essayist. The penis exhibited an indurated, excavated, ulcerous, œdematous and foul smelling state of affairs involving perhaps one half of the organ.

Common humanity demanded the removal of the offensive mass; but the absence of glandular involvement and the patient's age led me to give this good man the benefit of the doubt and to do what I could to save him. Let us trust that our effort will meet with success.

Aug. 10, 1910.—I saw this patient about a week ago, when there was no evidence of recurrence.—S. C. Graves.

A CASE OF HOLOACARDIUS ACEPHALOUS

ALFORD E. BUDDE, M. D.
Norway, Michigan

A report of a very interesting case of holoacardius acephalus is herewith given which occurred in my practice last September. The specimen after having been photographed was sent to Professor Zeit of Chicago, and pathological report in full was made by Doctor Harry Jackson, of the Northwestern University Medical School, which is also given herewith.

CLINICAL HISTORY:

Name: Mary J.—City; age 19 years; color, white; Canadian, French, born in Canada; married (by illegitimate means, however); occupation, barmaid; para-two.

Previous diseases: None except those of childhood, has had syphilis and gonorrhoea, the latter at the present time. No signs of rickets. Walked first at age of 14 months. Menstruation first at 12 years; regular, lasting 3 to 5 days, and painless.

Family history: Father died of tuberculosis pulmonis; mother living and has syphilis; two sisters living show signs of syphilis.

Personal history: Patient has had syphilis, probably hereditary; has had gonorrhoea with several attacks; at the confinement profuse gonorrhoeal discharge. First pregnancy illegitimate; labor of short duration and normal character. Recovery uneventful. Child though normal at birth lived but two months; cause of death unknown. This was two years ago. Gives rather indefinite history of a miscarriage a year ago. Does not remember last menstruation before confinement. Her health during pregnancy was good. Conception took place about

nine months before labor (under illegitimate circumstances).

Labor: Was called at 9 p. m. Sept. 7th, 1909, labor having been in progress for three hours.

External examination: Showed small round distinctly separate immovable tumor on the right side of the abdomen, apparently a fibroid (?). Was somewhat nodular, irregular and firm. Baby was normally situated, and distinctly separate from the tumor. Heart tones to the left of the median line, below the navel, and of normal rate. Uterine contractions were strong, and came every two to three minutes.

Internal examination: Cervix was almost effaced and os nearly dilated. Membranes not ruptured. Normal amount of liquor amnii. Presentation was normal. Baby was somewhat smaller than normal and was distinctly separate from the so-called tumor at the upper right quadrant of abdomen.

Delivery: Was normal in all respects; baby normal and mature though weighed about 3½ pounds.

Within five minutes after delivery of the baby, to my surprise, so-called tumor was borne, enclosed in a distinctly separate amniotic sac, but having an attachment to the placenta which immediately followed. However, the specimen (i. e. diagnosed tumor before delivery) proved to be a monstrosity of considerable interest. Evidently a twin pregnancy had been begun, and the normal baby grew to maturity, while the other fetus was impaired probably by pressure or otherwise.

Pathological Report: Harry Jackson, M.D.,
Instructor in Pathology, Northwestern Uni-
versity Medical School, Chicago, Ill.

EXAMINATION OF SPECIMEN:

Fetus (Figs. 1 and 2).—The mal-formed fetus measures 16.5 cm. in length and 7½ cm. in width and weighs 350 grams. It shows a body and two legs; the head and arms being absent. The skin is discolored and macerated. The legs are of unequal length, and there are no toes. Two cm. from the anterior extremity of the body is a hernial sac occupying the site of the umbilicus. This sac is 3½ cm. in diameter and contains several coils of intestine. To it the umbilical cord is attached. Two cm.

cles or bones of the arms or skull. Two ilia and two ischia are fairly well developed. Two fibulæ are seen of normal length; one tibia only is present, that of the right leg. What appears to be the calcaneus and os calcis and metatarsal bones are present in each foot. There are no phalanges visible.

A *sagittal section* shows the skin and subcutaneous tissue 1½ cm. thick and edematous. There are several small cysts present in this tissue, and one large cyst, 3x1½ cm., is seen near the anterior extremity of and dorsal to the vertebral column. This contained a clear fluid. Beneath the subcutaneous tissue is a layer of fatty and muscular tissue varying from ½ to 1 cm.

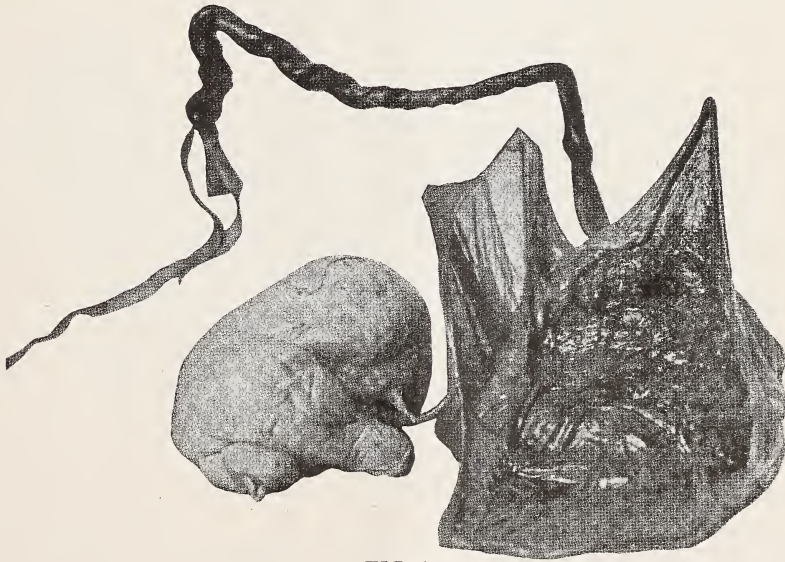


FIG. 1

from the posterior extremity of the body on the ventral surface is a small penis-like structure. There is no anal opening. There is a small, warty nodule one cm. to the left of the umbilicus.

Radiogram (Fig. 3).—The radiogram shows a fairly well-developed skeleton. There are eight ribs on each side of the vertebral column of fourteen vertebræ. The scapulæ are present, but there are no clavi-

in thickness. A soft myxomatous tissue fills in the space between this layer and the bony structures, except a small cavity connected with hernial protrusion, and extending from it downward into the pelvis. This contains a few coils of large intestine which end blindly in the pelvis. No other internal organs can be recognized.

Sections taken from various parts of the body show, microscopically, striped muscle,

fat, edematous connective tissue, epithelium and thin-walled intestine containing desquamated epithelial cells and débris. No nervous tissue was found.

The *placenta* measures $12\frac{1}{2}$ cm. x $11\frac{1}{2}$ cm. and weighs 365 gm. There are two amnions, one being three times as large as the other. There are two separate cords: one to the normal fetus measures 36 cm. x 1 cm. and is attached $4\frac{1}{2}$ cm. from the margin of the placenta. The cord to the malformed fetus is attached to the placenta 4 cm. from the attachment of the other cord and measures 14 cm. x 2 mm.

formed fetus. The disturbances in blood supply probably account for the edematous condition of the tissue of the acardiac fetus.

4. The specimen here presented is a typical example of a headless acardiac fetus—*holoacardius acephalus*.

THEORIES AS TO ORIGIN

Two theories have been advanced to explain the origin of this anomaly.

Ahfeld¹ assumes that two healthy embryos may develop in a single ovum, the allantois of one being formed, by a few hours, sooner than the other. The first, reaching the internal surface of the chorion,

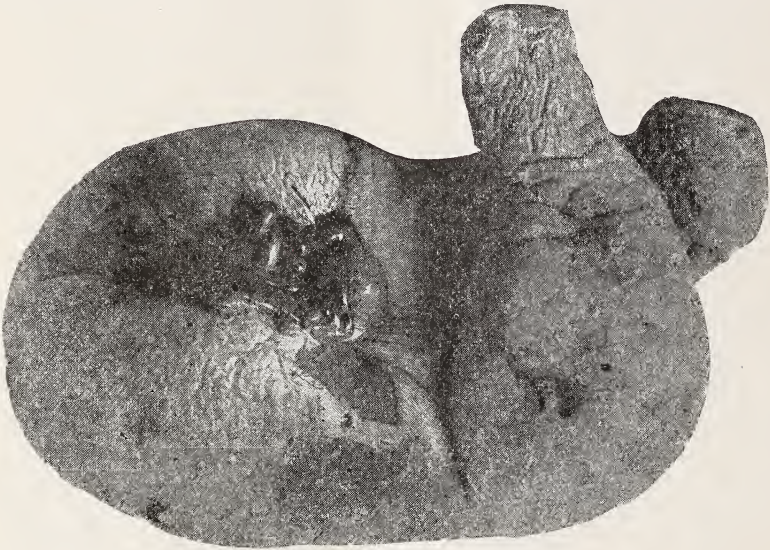


FIG. 2

CONCLUSIONS

1. The specimen presented lacks the upper part of the thorax and the head, and, having no heart (acardius), is dependent upon the heart of a twin fetus for its circulation.

2. Both fetuses had their origin in a single ovum as is evidenced by the single placenta and the single chorion.

3. It is said that the blood current is reversed in the acardiac fetus due to the greater pressure in the vessels of the fully

grows entirely or partly around it. The second endeavors to do this. If it grows to a portion of the chorion, then its vessels have a small portion of the placenta for nutriment; otherwise it attaches itself to the allantois of the first and gets its nutriment directly from the umbilical cord. The heart functionates only feebly and finally atrophies, leaving a mal-development of the upper part of the body.

¹Ahfeld: *Missbildungen*.

Marchand and Schwalbe² disagree with Ahlfeld because:

1. It has been found by recent studies that the embryo does not have the free allantois assumed by Ahlfeld.

2. The theory does not account for the wide divergence of the forms if all develop at the same time.

streak may be imperfect from the beginning and lead to various imperfections.

Schwalbe⁴ gives the following classifications of acardiac monsters:

Gemini inequales:

One twin normal, the other with:

A. Heart rudimentary—hemiocardius.



FIG. 3

3. It does not account at all for the acardius acormus.

Therefore, Daresté, Marchand, Schatz³ and Schwalbe favor the theory of a defect which is developmental. One primitive

B. Heart absent—holoacardius.

1. Acephalus—without a head.

2. Acormus—without a body—head only is present.

3. Amorphous—with only a lump of flesh and no recognizable organs.

²Schwalbe: Die Morphologie der Missbildungen, II Teil-Jena, pp. 140-174.

³Schatz: Beiträge zur Physiologie des Fetus, die acardii. und ihre verwandten, 1900.

⁴Schwalbe: Die Morphologie der Missbildungen, Jena, 1906.

DIAGNOSIS OF ABDOMINAL TUMORS*

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A diagnosis of an abdominal tumor is made by finding an abnormal mass, the symptoms produced by it or the altered function caused by its presence. By palpation we try to determine its "size, shape, consistency, whether fluctuation, pulsation, or creaking, be present, or if it is indentable, its movability, and the organ from which it has its origin" and its relation to the other organs. A bulging of the flanks may be a tumor of the kidney or of the suprarenal gland, retention cysts and perinephritic growths or suppuration. A bilateral swelling of the flanks is seen in bilateral cystic disease of the kidneys. If the tumor be of the lower abdomen we have the advantage of a rectal and vaginal examination. If the bladder or the prevesical space is in question a cystoscopic examination will clear up the diagnosis by exclusion. Use may be had of the inflation of the colon to determine the relations of a tumor, especially if a question arises whether the tumor is of the kidney, spleen and liver, or gall-bladder.

Inflation of the stomach with air may be of service in tumors of the upper abdomen. It will cause tumors of the anterior wall of the stomach to become more prominent. The inflated stomach will aid in distinguishing tumors of the spleen, and tumors and enlargements of the liver by separating one organ from the other.

TUMORS OF THE STOMACH

A dilated stomach is commonly caused by tumors of the pylorus, but dilatation of

the stomach may be produced by stenosis or by fatigue of the gastric muscles. It is necessary to distinguish motor insufficiency and dilatation due to obstruction. There may be gastric insufficiency without dilatation and a dilated stomach may not be lacking in muscle tone. In stenosis the muscles of the stomach hypertrophy to meet the additional demands upon it and it requires greater force to distend it. The energy with which the air is expelled from the stomach tube may give an idea of its tone. Turck advises the following test: "Give a meal of rice, chopped meat and toast mixed with a little bran. Note carefully the time that the stomach is empty. Next day inflate the stomach several times gently until gastric peristalsis is excited. Another test meal like the above and at the same hour is given. The length of time the stomach is found empty is compared with that of the first test. If the time is shorter, say six hours, the case is not one of stenosis of the pylorus. The exercise has stimulated the fatigued muscle to quicker work." Pyloric spasm rarely causes marked dilatation of the stomach.

Inflation of the stomach with air causes tumors of the pyloric end of the stomach to be displaced to the right and either upward or downward. Tumors of the lesser curvature will be displaced beneath the liver and those of the posterior wall will be less prominent, while tumors of the anterior wall will be made more prominent.

A case having the symptoms of gastric ulcer with a tumor that may be felt is in all probability a cancer. A great many

*Read before the Lapeer County Medical Society, Oct. 14, 1909.

cases of cancer of the stomach arise from a gastric ulcer. The patient will have had the characteristic pain of ulcer two or three hours after eating, the pain being relieved by eating. There may be vomiting of blood or the patient may vomit two or three hours after meals. Later, in ulcer, when there are complications there will be pain immediately after eating. At the present time it is impossible to say and our efforts should be to make a diagnosis before a tumor becomes palpable. Cancer of the stomach has two classes of symptoms: those due to pyloric obstruction and those due to gastric atony. In both cases gastric stagnation describes the condition of gastric digestion. Our knowledge at the present time is limited to the chemical analysis and we should know in what cases to suspect cancer of the stomach. The cases that should be suspected of cancer of the stomach are those having chronic ulcer of the stomach, poor and delayed digestion, and if the case has been under observation, the progressive loss of free hydrochloric acid and those patients losing weight and still having a good or a fair appetite. There may be ulcer of the stomach with a decrease of the hydrochloric acid—not always an increase, as is commonly thought. Probably one half of the cases of ulceration of the stomach have a hyp acidity of the stomach. The unreliability of depending on the gastric analysis alone and ignoring the history or a physical examination is illustrated in a case diagnosed by a stomach specialist as gastric catarrh. The case was one of an immense growth of the entire upper abdomen, and anyone could have easily diagnosed it as cancer but the stomach specialist neglected to make a physical diagnosis. The early history and the results of the physical examination and the chemical analysis should all be taken into consideration.

Gastroscopy so far has been a failure and esophagoscopy gives information only of the cardiac end of the stomach. The use of bismuth and X-ray may give useful information. The hemolytic test of Crile may be used in the future. The profession is waiting for a method of making an early diagnosis in cancer of the stomach. In cancer the vomit will be sour and ill-smelling, lactic acid fermentation, and absence of hydrochloric acid, hence undigested food and the coffee grounds or blood. When these take place, the case is well advanced, when a positive diagnosis can be made.

The other tumors of the stomach are sarcoma (rare) and the benign growths. The benign growths rarely cause symptoms unless near the pyloric end of the stomach. The benign growths are adenoma, lipoma, myoma and lymphoma.

TUMORS OF THE SPLEEN

The tumors of the spleen are distinguished by their shape, notches and rather dull edge. As the spleen enlarges the notches are turned toward the right side of the abdomen. A floating spleen is diagnosed by its absence under the left ribs. In distinguishing splenic tumors from those of the kidney the tympany of the colon is used. Inflation of the colon obscures the kidney tumor, while the spleen is brought closer to the abdominal wall. Unequal enlargement of the spleen is a cyst, an abscess or a cancer. Tumors of the spleen come under two heads, acute and chronic enlargements. The acute enlargements of the spleen are caused by typhoid, typhus, and relapsing fever, malaria, scarlet fever, pneumonia, epidemic cerebrospinal meningitis, tuberculous peritonitis, infarction, abscess, leukemia and septicemia. The chronic enlargements are due to malaria, leukemia, splenic anemia, Osler's disease, cardiac disease, cirrhosis of the

liver, Banti's disease, pseudoleukemia, primary splenomegaly, serum or blood cysts either containing serum or blood stained fluid, ecchinococcus cysts and rarely tumors; fibroma, myoma, enchondroma, lipoma, angioma, dermoid cysts, sarcoma and cancer.

In the acute enlargements of the spleen the cause is usually self evident in the run of a febrile disorder. The cases of infarct followed by abscess and enlargement due to septicemia are the most difficult to differentiate from those due to simple hypertrophy and a case due to abscess. Fortunately we are not often called upon to make the distinction. The localized pain and tenderness with enlargement of the spleen and septic symptoms would be the symptoms from which a diagnosis of abscess could be made, but in many of the cases reported there were no symptoms until the abscess had ruptured into the surrounding organs or had set up a peritonitis. In fifty-seven cases of abscess of the spleen, in only fourteen cases was a correct diagnosis made.

In the chronic enlargements of the spleen, the history and the blood examination will be used to determine the type of the enlargement. If the liver is also enlarged it assists in eliminating some of the diseases. In Banti's disease or syndrome the spleen becomes enlarged without known cause. The spleen preserves its normal contour and is firm in consistence. A progressive anaemia with occasional periods of remission develops later. The skin may become jaundiced or bronzed. This stage of the disease lasts from two to ten years. The first is followed by a scanty highly colored urine loaded with urates and contains urobilin, a stage of only a few months, when the patients have ascites with Laennec cirrhosis of the liver. In Banti's disease there is absence of lymphatic enlargement, the blood

picture is between a secondary anaemia and chlorosis leukopenia. It has been thought that many cases operated on for Banti's disease in the early stages were cases of mere hypertrophy and that cirrhosis of the liver attended by hypertrophy of the spleen and hemorrhages from various parts of the body have been mistaken for the advanced stages of Banti diseases. The hemorrhages from the stomach have lead in both cases to a mistaken diagnosis of ulcer of the stomach.

Hodgkin's disease or pseudoleukemia occasionally becomes leukemia and it has been thought that they are but phases of the same pathological process. Enlargement of the spleen is not thought to be a cause of this condition. Nearly all of the splenectomies in this disease have been fatal; 98 per cent have died of hemorrhage.

After ruling out the chronic enlargements of the spleen, Banti's disease, leukemia and cases with an altered blood picture, we have enlargements of the spleen due to hypertrophy, malaria infections, cysts and tumors which may call for surgical interference.

RENAL TUMORS

Splenic tumors are made more prominent by inflating the large bowel, and as the spleen will lie in front of the colon, there will be dulness over the colon when percussion is tracing the course of the large bowel. The tympany of the colon is not interfered with by the kidney tumor. The fact that a kidney can be felt except in very thin subjects indicates that the kidney is either enlarged, displaced or is a floating kidney. A bulging of the flanks or the presence of blood in the urine calls for an examination for tumor of the kidney. The first symptom of a renal tumor may be renal colic, blood, pus or tumor shreds in the urine, tenderness or pain in the kidney

or an enlargement of the side. A proctoscopic and sigmoidoscopic examination or a cystoscopic examination with ureteral catheterization is necessary. The size of the pelvis of the kidney may be determined by the quantity of fluid that may be injected into the pelvis of the kidney through the ureteral catheter. In retention cysts, hydronephrosis, pyonephrosis, from stricture, stone, kinks, or an infected kidney the patients usually have disorders of micturition, such as painful or frequent. Blood, pus, mucus or the type of the epithelial cells found in the urine may give a clue to the diagnosis. It should be borne in mind that kidney lesions often give symptoms referred to the bladder. The kidney is best examined with the patient on the back, on the side and standing up. A kidney has a distinguishing feature, the notch of the pelvis. On the right side the kidney may be mistaken for the gall-bladder or tumor of the colon.

Hypernephromata belong in a class of tumors by themselves. Some cases have been reported in which children affected with this disease have obesity and excessive growth of hair, indicating their relationship with tumors of the pituitary and thyroid gland. Others speak of an extreme degree of calcareous degeneration of the blood vessels. A watery extract of this tumor decolorizes boiled starch stained with iodine. The symptoms of hypernephroma are recurring hematuria and pain. At the operation a yellowish mass is seen in the upper part of the kidney which may be mistaken for tuberculosis of the kidney. If a tumor is not felt in this affection either stone in the kidney or tuberculosis is usually diagnosed. Bilateral hypernephroma is extremely rare but a few such cases have been reported. Prognosis based on the microscopical findings is unreliable as the picture may be

of the most malignant type with no metastases and on the other hand the microscopical section may show a low degree of malignancy with many metastases throughout the body.

GALL BLADDER AND LIVER

The history of gall-bladder trouble with tenderness at or near the ninth costal cartilage or at the Mayo Robson point, or the history of colic or of jaundice and perhaps accompanying disease of the pancreas will indicate gall-bladder disease. A pear-shaped tumor at the ninth costal cartilage, is an enlarged gall-bladder and its connection to the liver can usually be made out. Distention of the colon may be of service in distinguishing tumors of the upper right side of the abdomen. The gall cannot be held down after inspiration. The gall-bladder when distended feels like a pear or a banana and may be caused by gall-stone obstruction or pressure upon the common duct by growth and chronic inflammatory changes in the pancreas or by growths in the adjacent structures. The growths may be benign or malignant and may occur as the result of irritation. Curvoisier's law has exceptions but is a valuable rule well attested by the experiences of many surgeons. The law is as follows: "In cases of chronic jaundice due to blockage of the common duct a contraction of the gall-bladder signifies that the obstruction is due to stone; a dilatation of the gall-bladder that the obstruction is due to other causes than stone." It is of interest that the first operation of opening the gall-bladder was done by Bobbs of Indianapolis in the belief that he was opening an ovarian cyst. No less a surgeon than Lawson Tait mistook a greatly distended gall-bladder for an ovarian cyst. Distention of the common duct is sometimes so remarkable that it has been mis-

taken for a dilated gall-bladder, pancreatic cyst or a hydatid cyst.

A tongue-shaped process of the liver in gall-stone cases has often been noticed and is called Riedel's lobe of the liver. It does not occur in all cases of gall-stones but is frequent enough for a diagnostic point. Jaundice with an enlarged gall-bladder is one of the symptoms of cancer of the pancreas and of the biliary ducts, and because of the hidden position of the pancreas is a valuable symptom. In a few cases of malignant disease of the pancreas the gall-bladder was not distended.

ENLARGEMENTS OF THE LIVER

The liver is enlarged in amyloid liver, in the leukemias, in biliary infections, in heart diseases, in hypertrophic cirrhosis, in cysts of the liver and in various infections. The enlarged liver due to cardiac insufficiency will be recognized in the examination of the damaged heart. Hypertrophic cirrhosis is differentiated from the enlargements of the liver due to biliary obstruction by the symptoms and history of the cases; the latter has tenderness over the gall-bladder, a history of hepatic colic and perhaps an enlarged gall-bladder, fever and pain. Enlargement of the liver may be noticed when gall-stones are attempting to pass down the gall-ducts. Amyloid and fatty liver will be recognized in the concomitant symptoms or habits of the patient. Corset liver is a deformity of the right lobe of the liver forming a tongue-shaped prolongation downward and which allows the intestines to crowd in between the liver and the abdominal wall. Cysts of the liver are the echinococcus and dermoid. A diagnostic feature is that echinococcus disease has an eosinophilia of from two to eight per cent. General or local enlargements of the liver may be caused by the retention of the bile or abscess. The abscess of the liver will have septic symptoms with

soreness and tenderness. In suppurative conditions of the liver during the first stage of inflammatory irritation there is an increase of urea in the urine. When pus has formed and the destruction of a certain amount of hepatic tissue has taken place there is a decrease of urea. The fever would naturally cause an increase of urea, but in hepatic abscess there is an inverted relation of fever and urea. There may be chills and fever, but they refuse to yield to quinine. Cysts of the liver may become septic and may perforate the stomach or the intestines or may break into the abdominal cavity or subphrenic space. The fluid in a cyst may be under such great tension that it will feel like a solid tumor.

The solid tumors of the liver are cancer, adenoma and sarcoma. Cancer and sarcoma are secondary, a primary malignant growth of the liver being exceedingly rare. The diagnosis of gumma will depend upon the history and the results of treatment by the iodides. Several cases of gumma have been diagnosed as cancer. Abscess of the liver will depend upon the history of some septic disease or of amebic dysentery.

PANCREAS

While tumors of the pancreas have been found post-mortem such as adenoma, lymphoma and sarcoma, the two forms of tumor that the physician will be called upon to diagnose are cyst and cancer of the pancreas. Cysts of the pancreas arise from the head or the tail of the pancreas while cancer springs from the head. Cancer produces symptoms referable to the liver due to the obstruction of the bile ducts. The jaundice is commonly painless. The most characteristic symptoms outside of the jaundice are the clay colored stools, the very rapid loss of strength and flesh and the temperature is apt to be sub-normal. The deep position of the pancreas prevents palpation of that

organ but an ill defined mass of resistance may be made out above the umbilicus and along the inner border of the right rectus muscle. In malignant disease of the bile ducts both the spleen and liver are apt to be enlarged. In a few instances the gall-bladder was not enlarged in malignant disease according to the law of Courvoisier. In malignant disease there is often a previous history of biliary lithiasis. In the beginning the patient thinks it but mere indigestion and there may be vomiting. An enlarged pancreas was thought to be cancerous from the nodular condition found at operation on the bile ducts but as many such cases recovered after drainage of the bile ducts the condition of the pancreas was proved to be a chronic pancreatitis instead of cancer of that gland. Chronic pancreatitis has not the rapid and severe wasting of flesh and strength that occur in cancer. The various tests (Cammidge and others) and the hemolytic test of Crile for cancer may give valuable information in doubtful cases. The cysts of the pancreas may present themselves above the stomach, between the stomach and the transverse colon, or below the colon.

TUMORS OF THE INTESTINAL AREA OF THE ABDOMEN

The tumors that may be found in this area of the abdomen comprise all of the tumors that may arise from any organ of the abdomen.

This area is involved or occupied by any abdominal growth when it becomes very large. Splenic, ovarian, parovarian, uterine, nephritic and pancreatic are the most common that will be found when the tumor is large. In cystic tumors fluctuation may be detected. In fleshy people the edge of an assistant hand will eliminate the fat waves. An encysted tumor of the abdomen has a rounded appearance and stands up

prominently when the patient lies on the back. Free fluid in the abdomen, an ascites, will seek the flanks when the patient is in the recumbent position and instead of a round appearance the abdomen has a flat top, unless the abdomen is very full. A greatly dilated stomach has in several instances been mistaken for an ascites and the use of the trocar has led to the bitter disappointment of having food coming through the trocar. In the top of an ascites will be an area of tympany due to the fact that the intestines rise to the highest level of the fluid. Cysts having a rounded appearance are the ovarian, parovarian, distended urinary bladder, enormously distended gall-bladder, pancreatic cysts, cysts of the spleen, mesenteric cysts, hydatid cysts, hydronephrosis, and encysted fluids as in tubercular peritonitis and abscess formation. The abscess is not apt to have the rounded appearance like the others of this group. The diagnosis is made as a rule by elimination. The ovarian in the beginning will be noticed on one side more than the other. The kidney cases will have changes in the urine and the tumor can be traced up in the upper abdomen.

Aneurisms of the abdominal aorta and of its branches will give a tumor having the characteristic bruit, and palpation will show its expansile character. A tumor may have the pulsations of the abdominal aorta communicated through it but it lacks the expansile character. Thrombosis of the abdominal aorta or its branches or pressure upon its channels may cause gangrene or swelling of the thigh and leg. Many times the pressure of a large tumor on the return circulation will cause an edema of one or both legs.

Tumors of the intestine are rarely detected until they give rise to symptoms of obstruction of the bowels or their presence

is surmised from changes in the stools, such as diarrhea or constipation, ribboned or narrowed stools. Interference with the fecal passages may cause colic or visible peristalsis, or an area of tympanitis is seen or felt through the abdominal walls. The benign growths of the intestines are cysts, myoma, fibroma, adenoma lipoma and rarely cause symptoms until obstruction of the bowels occurs, either acute or chronic. If these growths can be palpated they are felt as smooth, movable, and painless tumor. Obstruction of the bowels occurs when the growth is occluding the lumen, or when the tumor is carried down the intestinal stream forming an intussusception, or twists or kinks of the bowel occur blocking the fecal passage.

The cysts of the mesentery and benign growths of the peritoneum and omentum are rarely diagnosed as such before operation. If a centrally located movable fluctuating tumor is crossed in front by a bowel it is a mesenteric cyst. Chylous cysts of the mesentery can hardly be diagnosed from the other fluid tumors of the mesentery, and a distinguishing point might be the discomfort after eating when absorption is taking place. The complications may be peritonitis or obstruction of the bowels. A mass firmly adherent to the surrounding organs may be due to abscess or tubercular infection. Tumors may become adherent to the intestines and form an irregular mass but the history will usually give information to eliminate septic and tubercular infections. Diverticulum of the bowels as the result of inflammation will have dense adhesions thrown around it and many of the cases have been thought to be cancer. When inflamed the symptoms are similar to appendicitis. These cases are rare. The sigmoid has given more cases than other parts of the bowels.

Malignant tumors of the bowels usually occur in the large bowels. In the Mayos' statistics the ileocecal region was the most frequent site of cancer. The rectum furnishes nearly one half of the malignant tumors of the bowels. The early symptoms of malignant disease will be those of functional diseases of the bowels. Constipation rather than diarrhea is given as the early symptom. Rectal specialists advise us to make a rectal and sigmoidoscopic examination in all cases of constipation or diarrhea. A nodule of beginning cancer has not a movable mucous membrane covering it. If ulcerated it may be some time before blood is detected in the stools. A rapid growing tumor in the central region of the abdomen may be sarcoma. If occurring in a young person the probability of the growth being a sarcoma is about certain; in adults a cancer. Cancer of the transverse colon will early have involvement of the lymph nodes about the pancreas. Cases have been reported of cancer of the ileocecal region in which it was impossible at the operation to tell without a microscopical examination whether the growth was a cancer or tuberculosis. Contrary to the ideas of the laity that cancer of the bowels is painful, a malignant growth may attain quite a growth before the pain would cause them to seek medical advice. It is the blood and the fetid discharge of the stools that arouse a suspicion of cancer. Most of the patients come to the doctor with their own diagnosis of piles. If the tumor is of the scirrhus type early stenosis may cause symptoms which make the growth recognizable by causing a dilation of the bowels above the seat of the growth and the extra efforts to propel the intestinal contents through the narrowed opening. The symptoms would be abdominal pain, vomiting, diarrhea, or constipation; the symptoms of chronic intes-

tinal obstruction. Colicky pain from the exaggerated intestinal peristalsis are the suggestive signs of chronic obstruction due to cancer and stricture due to other causes.

TUMORS OF THE PELVIS

Prominent surgeons have mistaken a pregnancy for a cystic tumor. The solid tumors of the pelvis are the fibroma and sarcoma of the ovaries; fibroma and cancer of the uterus; floating kidney, extra-uterine pregnancy, lithopedeon, tumors of the cecum, sigmoid and rectum; hypertrophy and tumors of the prostate; and pelvic tuberculosis. The cystic tumors of the pelvis are the distended bladder, ovarian cysts, tubal pregnancy, pyosalpinx, parovarian cyst, dermoid cyst and pelvic exudate due to inflammation, hematocele, collection of pus and blood and pregnancy. Bi-manual examination is made with one hand on the abdomen and the finger in the vagina or rectum. An effort is first made to mark out the normal organs and if a mass is found on examination our efforts are directed to determine its consistency, origin, size and its relations to the normal anatomy. Ovarian and parovarian cysts, if their pedicle becomes twisted, have symptoms of peritonitis, appendicitis or of obstruction of the bowels. Cancer and fibroma of the uterus have a vaginal discharge of the blood as one of the symptoms. The discharge is inclined at first to be watery or serum like. Irregularities of menstruation, either the loss of too much blood at the menstrual time, or between the regular monthly periods, will suggest fibroids, or cancer if of the can-

cerous age or where there is no other satisfactory explanation of the extra flow of blood. Collections of pus will give a history of fever or chills, an attack of appendicitis, labor, abortion or septic infections or a history of gonorrhoea. In ectopic pregnancy the symptoms will be that of an ordinary pregnancy until abortion or menstruation is supposed to have taken place or there are sudden pains and fainting or collapse. If there be the symptoms of pregnancy, and uterine pregnancy can be ruled out, a mass felt in the Fallopian tube and inflammatory conditions can be ruled out, the case is one of extra-uterine pregnancy.

The retro-peritoneal tissues may be the seat of tumor or of suppuration. Suppurative conditions come from diseased vertebrae, sepsis in the abdomen, absorption through the mesenteric and retro-peritoneal glands. Sometimes suppuration appears primarily. The disease may be confused with hip joint and sacro-iliac disease. Retro-peritoneal hemorrhage and hematocele are rare and the symptoms will be obstruction of the bowels due to the pressure or misplacement of the mesentery. Retro-peritoneal lipoma is another rare condition and some of the cases were thought to be ascites until attempts were made to use the trocar when no fluid was found. Others of the cases were thought to be ovarian cysts. Edema of the lower extremities, dyspnea, and vomiting occur in this disease. Death occurs in from two to five years. In the beginning of this peculiar condition there are no symptoms.

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SEPTEMBER

EDITORIAL

"Look at the program and decide if you can afford to miss the papers, decide even more carefully whether you can afford to miss the stimulus of contact with your old time friends, with keen, enthusiastic men. Bring your wife and daughters; bring your own enthusiasm and carry back a fresh enthusiasm to your work. You may miss two days from the daily grind of practice, but your patients, in the months to come, will feel your enthusiasm, and esteem you as a man who keeps up with the profession."

DAVID INGLIS.

THE BAY CITY MEETING

Forty-Fifth Annual Meeting of the Michigan State Medical Society, Bay City, September 28, 29

The forty-fifth annual meeting of the Michigan State Medical Society convenes this month in Bay City. A complete and interesting scientific program has been prepared, and is published in this issue of the JOURNAL.

The arrangements committee has been busily at work for several months, and no detail has been too small to receive careful attention. All the sessions of House of Delegates, Sections and General meeting will be held in the Ridotto, thus giving us a more unified meeting, and it is hoped one free from confusion.

The time is late enough so that all will have returned from their vacations, and early enough so that we will not be hindered by the rush of our fall and winter work. The weather at Bay City should be

conducive to the best of scientific and social enjoyment—neither too hot, nor too cold.

Bay City is easily accessible to all parts of our State, is a city of ample proportions and ample accommodations, has an enthusiastic profession and can well take care of us. A large attendance is desired and expected. The meeting at Kalamazoo last year was the largest ever held outside of Detroit—let this one set a new record—one that has never been exceeded even by Detroit. The expense of attending is small, and the confidence, zeal and enthusiasm, absorbed, imbibed and soaked in, are great.

LET US ORGANIZE

The objects of our medical organization are worthy, our work important, and we should have the active support of every reputable member of our profession in Michigan. There may be some activities of our Society which do not receive the endorsement of every member, but in this democratic country the majority rules, and the officers and representatives try to carry out the wishes of this majority. If your wishes are not followed in some particular the remedy is easy—become a more active member; take a more active part in the County Society meetings, become a delegate, or help elect your delegate to the State Society. Be among the first to pay your annual dues; be among the foremost workers for the development of your society—then you will be a power to demand and receive recognition. Your views will be heeded and sought after. The ideas and views of the most modest of our members are not intentionally ignored, but the strong active member, the recognized leader, the progressive, constructive man enforces attention to his ideas.

In these times of establishment of sects in medicine our profession should stand

together as one man to maintain the common good; to protect the rights and privileges of every one of us. Our voice on matters of Public Health and Medical Legislation should rise as one united chorus that would compel attention and respect in the halls of legislation, both State and National. It should compel attention and respect in the executive branch of our government, both National, State and Local—to the end that offenders against our laws may be apprehended. It should compel attention and respect in the Judiciary that justice may be meted out; that quacks and law-breakers in matters involving practice of medicine and public health, as well as other matters of law, should be promptly and justly dealt with.

This strength and unity of voice is a condition greatly to be desired, a condition as yet far from attained, but a condition by all means attainable.

How often have we as individuals petitioned our legislators or our congressmen for the enactment of certain legislation? And what has been the result? An equivocal letter stating that "the matter will receive my careful attention."

When we are more firmly banded together, when we can approach these various public officials and state that we are a united profession in Michigan; that we are of one mind in regard to this measure; that we demand its enactment; that we can control our own three thousand votes and many more if need be—then, and then only will our voice be listened to; our opinions sought. Our profession will have come into its heritage of respect and honorable living.

Each member of the profession has it within his power to hasten this approach to the millennium. Each one should take a more active part in our work; attend all

medical meetings that he can and enter into the spirit of organization, for it is all a question of organization. We must organize ourselves, our neighbors, our patients and our friends. But first of all we must organize ourselves.

ARE YOUR 1910 DUES PAID?

On August 1st 1529 members of the Michigan State Medical Society had been reported by the County Secretaries as having paid their dues for the year 1910. There are credited on our books 2079 members, which means that one out of every four is still in arrears. The State Society is being incorporated now, and when this is completed will have to transact its business as an incorporated body, and according to prescribed laws of the State.

The House of Delegates is composed of members elected by each County Society, and apportioned according to the membership in the County Society. If all members have not paid their dues their society may not have its full quota of delegates,—if delegates themselves have not paid they cannot be seated.

Each member of the State Society whose name has been reported to the State Secretary has received a card, reading as follows:

This is to certify that Dr.....
 is a member in good standing in the MICHIGAN STATE MEDICAL SOCIETY for 1910, and that he is entitled to register at the Bay City Meeting on presentation of this card.

WILFRID HAUGHEY,
State Secretary.

Registration at the meeting at Bay City will be by presentation of the above described card, so do not fail to bring it with you.

PROGRAM OF THE FORTY-FIFTH ANNUAL MEETING OF THE
MICHIGAN STATE MEDICAL SOCIETY, BAY CITY
SEPTEMBER 28 and 29, 1910

Meeting Places

The General Session, House of Delegates and all the Sections will meet on the third floor of the Ridotto.

Registration will be at the window on the third floor.

Commercial Exhibits will be on the first floor.

THE COUNCIL

Chairman, W. T. Dodge, Big Rapids.
Secretary, W. H. Haughey, Battle Creek.

Meetings

Tuesday, September 27, 3:30 P. M.
Wednesday, September 28, 2:00 P. M.
Thursday, September 29, 2:00 P. M.

HOUSE OF DELEGATES

Auditorium, Ridotto

President—J. H. Carstens, Detroit.
Secretary—Wilfrid Haughey, Battle Creek.

By-Laws—Chapter IV, Section 1. Each Component County Society shall be entitled to send to the House of Delegates each year one delegate and one alternate for every 50 members, and one for each major fraction thereof; but each County Society holding a charter from this Society, which has made its annual report as provided in this Constitution and By-Laws, shall be entitled to one delegate and one alternate.

First Session, Tuesday, September 27th
8:00 P. M.

1. Call to order by the President.
2. Report of Committee on Credentials.
H. R. Varney, Detroit, Chairman.
3. Roll Call.
4. Reading of minutes of the last Annual Meeting.
5. Report of the Council.
W. T. Dodge, Big Rapids, Chairman.
6. Report of Committee on Legislation and Public Policy and on the work of the National Legislative Council.
W. H. Sawyer, Hillsdale, Chairman.

7. Report of Medico-Legal Committee.
F. B. Tibbals, Detroit, Chairman.
8. Report of Special Committee on Revision of the Constitution and By-Laws.
B. R. Schenck, Detroit, Chairman.
 - (a) Proposal of Amendments to the Constitution.
 - (b) Proposal of Amendments to the By-Laws.
9. Miscellaneous Business.
 - (a) Election of Committee on Nominations to nominate:
1st, 2nd, 3d and 4th Vice-Presidents.
Councilor for the 7th District to serve until 1911.
(Dr. Kay was appointed to fill vacancy caused by resignation of Dr. M. Willson.)
Representatives and alternates in House of Delegates, A. M. A. for two years to succeed F. W. Robbins, and S. C. Graves.
To fix place of meeting for 1911.
"The House of Delegates shall elect annually, at its first meeting, a Nominating Committee of Five from the House of Delegates, no two of whom shall be from the same Councilor District."
(By-Laws, Chapter VI, Sec. 2 as amended June 12, 1903.)
 - (b) Appointment of Business Committee and other Working Committees.
Other Miscellaneous Business.
(Recommendations of Council.)

Adjournment.

Second Session, Wednesday, September 28th.
8:30 A. M.

1. Reading of the Minutes of the Previous Session.
2. Unfinished Business.
 - (a) Amendments to Constitution and By-Laws.
3. Report of the Committee on the Study and Prevention of Tuberculosis.
H. J. Hartz, Detroit, Chairman.
4. Report of Committee to Encourage the Systematic Examination of the Eyes

and Ears of School Children throughout the State.

Walter R. Parker, Detroit, Chairman.

5. Report of Committee on the Relation of the Medical Department of the University of Michigan to the Medical Profession of the State.

E. T. Abrams, Dollar Bay, Chairman.

6. Report of Committee on Medical Education.

David Inglis, Detroit, Chairman.

7. Report of Committee on Arrangements.

Virgil Tupper, Bay City, Chairman.

8. Miscellaneous Business.

Councilor's Traveling expenses.

Adjournment to General Meeting, 10 A. M.

Third Session, Thursday, September 29th.

8:00 A. M.

1. Reading of the Minutes of the Previous Session.
2. Report of Committee on Nominations.
3. Election of Officers.
4. Report of Committee on Venereal Prophylaxis.

A. P. Biddle, Detroit, Chairman.

5. Unfinished Business.

6. Miscellaneous Business.

Adjournment to Section Meetings.

GENERAL MEETING

Auditorium, Ridotto

President—J. H. Carstens, Detroit.

Secretary—Wilfrid Haughey, Battle Creek.

First Day, Wednesday, September 28th.

10:00 A. M.

1. Call to order by the President.
2. Prayer.
Rev. T. S. Anderson.
3. Address of Welcome.
For City—Mayor Gustavus Hine.
For Bay County Medical Society—Dr. J. W. Hauxhurst.
4. Report from the House of Delegates.
Wilfrid Haughey, State Secretary,
Battle Creek.
5. Address of the President.

J. H. Carstens, Detroit.

Subject:

6. Address—Dr. George W. Crile, Cleveland.
Subject: "The Cancer Question."

7. Miscellaneous Business. Under this head there will be a general discussion of questions on medical economics. This opportunity is given to any member who wishes to bring before the entire society, any subject of general interest, either by informal discussion, or by formal resolutions.

(a) Leartus Connor, Family Physician
Refracting.

(b) Michigan Retail Druggists Ass'n.

8. Nominations for President, 1910-1911.

Adjournment.

Wednesday Evening

8:00 P. M.

Ridotto Auditorium

Address—Guy L. Kiefer, Detroit.

Subject:

Reception given by Hon. W. L. Clements, Regent of the University, at his home.

Second Day, Thursday, September 29th

11:30 A. M.

1. Unfinished Business.
2. Report from the House of Delegates.
Wilfrid Haughey, Battle Creek, Secretary.
3. Miscellaneous Business. Another opportunity to bring to the attention of the general body any questions of general interest.
4. Announcement by the Committee on Nominations of the result of the Ballot for President.
5. Introduction and Installation of President-elect.

Adjournment sine die.

SECTION MEETINGS

Third Floor Ridotto.

On account of the length of the program and in order to give every one an opportunity, the fifteen minute rule will be enforced.

The Secretaries of the Sections will collect all papers as soon as read.

Discussions are limited to five minutes.

SECTION ON GENERAL MEDICINE

Ridotto, Third Floor

Chairman—Frank Smithies, Ann Arbor.

Secretary—A. S. Kimball, Battle Creek.

The Secretary of the Section will collect all papers as soon as read.

First Session, Wednesday, September 28th

1:45 P. M.

1. Chairman's Address.
Frank Smithies, Ann Arbor.
2. Interpretation of Gross Urinary Findings in Genito-Urinary Diseases.
W. E. Keane, Detroit.
3. Use of Carbon Di-Oxide Snow, and Demonstration of New Instrument for Moulding Snow.
Andrew P. Biddle, and
R. A. C. Wollenberg, Detroit.
4. Pellagra.

Benton Colver and E. L. Eggleston, Battle Creek.

1. Clinical report of three cases with diagnosis and treatment. (Dr. Colver.)
 - (a) Clinical report, four cases, diagnosis and treatment.
 2. Clinical report of one case together with autopsy of one case; together with etiology and pathology of pellagra. (Dr. Eggleston.)
 - (b) Autopsy of one case, etiology and pathology.
5. Some Points in the Management of Breast Feeding.

Thos. B. Cooley, Detroit.

1. Possibility and desirability of more general breast feeding. (Efforts of pediatricists and sanitarians.)
2. Need of more attention to this subject on the part of general practitioners.
3. Contraindication for nursing. Some unfounded prejudices. Unnecessary weaning.
4. Routine management, modern ideas, diet of mother.
5. Interval between feedings. Regularity of feeding.

Second Session, Thursday, September 29th

9 to 11:30 A. M.

1. Tuberculin in the Diagnosis and Treatment of Tuberculosis.
Collins H. Johnston, Grand Rapids.
2. A Business Man's Cold.
J. Vernon White, Detroit.

1. Vocation and habits as etiological factors in a common cold.
 2. How to prevent a cold.
 3. How best, and to what extent can a physician regulate a system of treatment by which a man can continue with his business without jeopardizing his health.
3. Stomach Disorders Requiring Surgical Intervention from the Viewpoint of an Internist.

Chas. D. Aaron, Detroit.

Utilization of statistics. Author's position as to surgical treatment of stricture of the cardia, ulcer, hemorrhage, pyloric stenosis, hour glass stomach, dilatation, gastroptosis and carcinoma.

4. The Detection of Acid Fast Bacteria (particularly Tubercle Bacilli) in Sputum, Pus, Pathological Tissue, etc., by the so-called "Antiformin Method."

Sober Ide and Frank Smithies,
Ann Arbor.

Common knowledge that the ordinary methods for the microscopic and cultural detection of acid-fast bacteria (especially tubercle bacilli) are inadequate. Recent "digestive methods" more accurate than simple staining technique. Digestion by means of "antiformin," or "antiformin" and ligroin offers greater accuracy.

11:30 adjourn to General Meeting.

Third Session, Thursday, September 29th

1:45 P. M.

Election of Chairman for 1911.

1. Some Phases of Psychotherapy.
Chas. W. Hitchcock, Detroit.
 1. Introduction, introspective.
 2. The omnipresent phase.
 3. The superstitious phase.
 4. The popular phase.
 5. The passing churchly phase.
 6. A glimpse of the really meritorious psychotherapy, scientifically and psychologically founded, what it aims to, and can accomplish.
2. The Future of Psychotherapy and Its Practical Application.

Theobald Klingman, Ann Arbor.

1. The psychic mechanism of hysteria and other psychoneuroses.
2. The psycho-analytic method of treatment.
3. Auto-suggestion.
4. Degrees of suggestibility.
5. Practical applications of psycho-therapeutics in physical disease.
6. The value of psycho-analysis for diagnostic purposes.
7. Dangers and limitations of psychotherapeutics.
8. Psycho-therapeutics: Its practical application must vary with each individual case and must be based upon the results of a careful psycho-analysis.
9. Reports of cases illustrating successful treatment.

3. The Differential Diagnosis of Organic and Functional Diseases of the Stomach.

James E. Davis, Detroit.

1. The chief graphic signs should be as well known as their names. Functional signs will be most frequently used in eliminating the less important.
2. The patient's history should be expertly obtained.
3. Data should be critically thrown against data.
4. Indecision should hark one back to original history.

4. The Crusade against Tuberculosis from a Practical Standpoint.

Victor C. Vaughan, Jr., Detroit.

1. How the work has been conducted in Detroit.
2. What steps were found necessary in order to properly conduct the fight against the disease.
 - (1) The use and limitations of the dispensary.

(2) The tuberculosis hospital as an adjunct to the dispensary.

(3) The proper scope of a city tuberculosis hospital.

(4) Care of patients in their homes and its relative value.

(5) The physician as an aid in the tuberculosis campaign.

5. Bacterial Inoculations in the Treatment of Rheumatic Arthritis.

G. A. Perrson, Mt. Clemens

6. The Diagnosis of Gastric Ulcer.

John T. Watkins, Detroit.

Many gastric ulcers are discovered only at autopsy, others simulate other diseases. Essential elements in the diagnosis; important special symptoms; objective signs; location of ulcer; occult blood in the stools, and method of detection; laboratory procedures. Complications and sequelae. Conditions from which ulcer must be differentiated.

SECTION ON SURGERY, OPHTHALMOLOGY AND OTOTOLOGY

Chairman—W. J. DuBois, Grand Rapids.

Secretary—R. E. Balch, Kalamazoo.

The Secretary will collect all papers as soon as read.

First Session, Wednesday, September 23th

1:45 P. M.

1. Chairman's Address—

W. J. DuBois, Grand Rapids.

2. The Administration of Anesthetics.

C. E. Boys, Kalamazoo.

Importance of properly given anesthetics.....
 General principles.....Selection of anesthetic and apparatus.....Preparations for anesthesia.....
 Position.....Protection of patient.....
 Indications of Depth of anesthesia.....Treat-
 ment of emergencies.....Anesthetics for clinics
Post-anesthetic care.....Anesthesia for
 nose, mouth and throat work.

3. Tincture of Iodine as a Skin Disinfectant.

H. O. Walker, Detroit.

Grossich's original ideas as propounded in 1908. Modification of this by Bogden, Zabudowski, Papi-
 nian, Nast-Kolb, myself and others.

The use of tincture of iodine as a means of sterilization for the skin is of comparative recent origin and has already won many friends. The author has used it with good results in a great number and variety of cases. Of special value in accident surgery.

4. Post-Operative Treatment.

A. W. Blain, Detroit.

5. Operations Under Local Anesthesia for the Radical Cure of Inguinal and Femoral Hernia:

J. A. MacMillan, Detroit.

The Surgical anatomy of these regions favors the successful employment of local anesthesia.

Nerve-block not applicable in operation for femoral hernia. Advantages of local over general

anesthesia for these operations. Modifications of operative technique required.

6. The X-ray Photograph As an Aid in Diagnosis of Suppurations in the Mastoid and Accessory Sinuses of the Nose.

Edward J. Bernstein, Kalamazoo.

The readiness with which differential diagnosis can be made to eliminate sound sinuses. Anomalies of structure clearly shown making thorough opening of pockets and breaking down of more or less complete divisions a certainty in radical cures. Only thoroughly good plates reliable. Illustration by lantern slides.

Second Session, Thursday, September 29th

9 to 11:30 A. M.

1. Indications, Contra-Indications, and Results in Tonsillectomy.

B. R. Shurley, Detroit.

Brief summary of European and American Teaching.

Varieties of tonsillar pathology requiring operation. Hypertrophy, recurrent tonsillitis. Quinsy. enlarged cervical glands, tuberculosis, rheumatism, arthritis, systemic infection, aural disease, thyroid conditions. Contra-indications—haemophilia, anaemias and other diseases of the blood. Pulmonary tuberculosis, test of the coagulation point. Operations when patient is over forty years of age, or under two years. Dangers from anesthesia, hemorrhage or traumatism. Tonsillectomy a hospital operation. The general practitioner. The general specialist, and the specialist. operative technique. Personalities and personal equation. Experience and deductions from one thousand operations. Conclusions.

2. Surgical Treatment of Goiter.

C. D. Brooks, Detroit.

3. Gastro-Enterostomy.

Angus McLean, Detroit.

Its effects on duodenal and gastric ulcer. Some new etiological factors of duodenal ulcer. Effect of retained secretions in the duodenum. Method of operation, with reference to cases.

4. Rupture of the Bladder with Report of a Case.

R. C. Stone, Battle Creek.

Source and mode of Injury; symptoms, diagnosis; prognosis; treatment. Report of a case.

5. Coccydynia.

A. S. Youngs, Kalamazoo.

A paper in which is briefly considered some of the traumatic and pathologic causes of pain within the female pelvis, wherein error of diagnosis and treatment is common.

Also, the consideration of those cases which seek relief through the agency of surgical intervention.

Adjourn to General Meeting at 11:30 a. m.

Third Session, Thursday, September 29th

1:45 P. M.

Election of Chairman for 1911.

1. Spina Bifida.

N. S. McDonald, Hancock.

Embryology of the Spinal Cord. Varieties of Spina Bifida Etiology, Symptoms, Diagnosis. Treatment with especial reference to excision of sac. Report of cases and prognosis.

Discussion opened by Angus McLean, Detroit.

2. The Diagnosis of Surgical Diseases of the Kidneys and Ureters.

James D. Matthews, Detroit.

Morphology of the kidney with special reference to the blood supply—the diagnosis of neoplasms, stone, perinephric abscess. The paper emphasizes the importance of recent diagnostic accessories—the cystoscope and ureteral catheterization as a means of segregating the urine of each kidney for examination—conditions producing disturbance of the functioning powers of the kidney are discussed. Heretofore there has been too much prescribing in a general way for these conditions. The Roentgen ray, the cystoscope, the ureteral catheter and the microscope lifted this department of medicine from the realm of empiricism and placed it within the domain of scientific certainty.

3. The Non-Operative Treatment of Varicose Veins of the Legs.

W. A. Hackett, Detroit.

4. The Truth About Incontinence Following Rectal Operations.

Louis J. Hirschman, Detroit.

So much error exists in the minds of laity as well as a small percentage of the medical profession regarding incontinence of feces following some rectal operations that the reasons for this erroneous idea are given. Incontinence, post-operative, is almost inexcusable. Reasons for its occurrence and how to avoid it.

5. Concerning the Cerebral Complications of Suppurations of the Temporal Bone.

R. Bishop Canfield, Ann Arbor.

6. Lessons Learned from Five Hundred Consecutive Cataract Extractions.

Walter R. Parker, Detroit.

Preparation of the patient, including a bacteriological study of the lids.
The technique in the operation that has given the best results.

The routine use of atropine before extraction. And Finally, Comparison of the results obtained from 35 extractions in the capsule after the so-called Smith Method, with those obtained by the classical operation.

SECTION ON GYNECOLOGY AND OBSTETRICS

Ridotto, Third Floor.

Chairman—John Bell, Detroit.

Secretary—Rolland Parmeter, Detroit.

The Secretary of the Section will collect all papers as soon as read.

First Session, Wednesday, September 28th

1:45 P. M.

1. Chairman's Address—John Bell, Detroit.
2. A Symposium on Obstetrical Anesthesia.
 - I. Scopolamine and Morphine.

W. H. Morley, Detroit.

Historical. Nature and action of scopolamine on the human system. Dosage. Action of morphine. Their combined action. Dosage. The use of scopolamine and morphine in obstetrics. The method and technique of their administration. The effect upon labor pains. The dangers to the mother and child. Results. Conclusions.

II. Chloroform and Ether.

N. N. Wood, Ann Arbor.

Chloroform not the ideal anesthetic for obstetrical use. Its disadvantages. It is not as free from danger as is commonly believed or as the texts usually state. The element of danger is distinctly increased when chloroform anesthesia is used for obstetrical operations.

Ether may be used as a routine anesthesia in obstetric work. Method of administration as practiced at the University Hospital Maternity. Results obtained. Conclusions.

III. Technique of Anesthesia in Obstetrics.

J. B. Whinery, Grand Rapids.

IV. Anesthesia in Its Relations to Postpartum Hemorrhage.

John Bell, Detroit.

Discussion opened by R. R. Smith, Grand Rapids.

Second Session, Thursday, September 29th

9 to 11:30 A. M.

A Symposium upon Inflammatory Diseases of the Pelvis.

1. Etiology and General Consideration of Pelvic Inflammation.

B. R. Schenck, Detroit.

2. Treatment of Puerperal Infections.

W. F. Metcalf, Detroit.

Prevention. Serum treatment. Cul-de-sac incision. Food and Medication. Elimination.

3. Value of Vaginal Incision in Acute Pelvic Infections.

Reuben Peterson, Ann Arbor.

Inadvisable to operate from above in acute pelvic infections because, First: Such septic patients do not stand prolonged abdominal operations well.

Second: Contamination of peritoneal cavity by contents of pus tubes will result in death from peritonitis in a certain percentage of cases, on account of mixed infection present.

Better plan is to open through vagina and establish good drainage. Later on when pulse and temperature are normal, if patient still has pelvic symptoms, a laparotomy can be safely performed and all or part of the internal genitalia removed. Technique of vaginal incision.

4. Abdominal Operations for Acute Pelvic Infection.

Max Ballin, Detroit.

Incision of abscess. Conservative operations. Salpingectomy, etc. Hysterectomy. Ligation for thrombo-phlebitis.

Discussion opened by J. H. Carstens, Detroit.

11:30 adjourn to General Meeting.

**Third Session, Thursday, September 29th,
1:45 P. M.**

Election of Chairman for 1911.

**1. Immediate Versus Deferred Operation for
Intra-Abdominal Hemorrhage Due to
Tubal Pregnancy.**

H. H. Hewitt, Detroit.

Arguments advanced by operators favoring deferred operation and those favoring immediate operations.

Report of 39 cases.

In about 95 per cent of cases there is little difference whether operation is immediate or deferred.

In remaining 5 per cent of cases or cases in profound shock from hemorrhage, there is opportunity for argument as to time for operation.

Hypodermoclysis, enterolysis and intravenous transfusion in shock subsequent to rupture of the tubes.

Suggestion for blood transfusion in these cases.

Question of Haemolysis in blood transfusion.

Summary.

2. What the Colon Tube Will and Will Not Do.

H. Wellington Yates, Detroit.

Absorption in the rectum and colon. How is the process favored and how impeded? Does the colon tube, so-called, really enter the colon when we endeavor to have it? Skiagraphically illustrated.

3. The Use of Cancer Residue.

J. W. Vaughan, Detroit.

The results following the injection of foreign and altered autogenous proteids into the body. Blood changes following the hypodermic administration of cancer residue. The use of cancer residue (a) in inoperable cancer and (b) in so-called operable cancer with special reference to cancer of the uterus and breast.

4. Galvanism in Gynecology.

Eugene Miller, Battle Creek.

Discussion.

Delegates to the Forty-Fifth Annual Meeting

Note.—The Black Face name is that of the delegate, the other, that of the alternate.

Antrim—Branch No. 65

L. S. Willoughby, Mancelona.

Barry—Branch No. 26

G. W. Lowry, Hastings.

E. Fuller, Hastings.

Bay—Branch No. 7

W. R. Ballard, Bay City.

John McLurg, Bay City.

Benzie—Branch No. 59

G. O. Edmonds, Honor.

E. J. C. Ellis, Benzonia.

Berrien—Branch No. 50

E. M. Kerry, Benton Harbor.

C. M. Merritt, St. Joseph.

Branch—Branch No. 9

A. G. Holbrook, Coldwater.

H. W. Whitmore, Quincy.

Calhoun—Branch No. 1

H. A. Powers, Battle Creek.

A. F. Kingsley, Battle Creek.

R. D. Sleight, Battle Creek.

M. A. Mortensen, Battle Creek.

Cass—Branch No. 36

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Chippewa—Branch No. 35

G. J. Dickenson, Sault Ste. Marie

E. H. Webster, Sault Ste. Marie

Clinton—Branch No. 39

E. Schemer, Fowler.

O. B. Campbell, Ovid.

Delta—Branch No. 38

A. F. Snyder, Escanaba.

A. L. Laing, Rapid River.

Dickinson-Iron—Branch No. 56

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Eaton—Branch No. 10

P. H. Quick, Olivet.

C. A. Stimson, Eaton Rapids.

Emmet—Branch No. 41

J. J. Reycraft, Petoskey.

L. W. Gardner, Harbor Springs.

Genesee—Branch No. 24

A. S. Wheelock, Goodrich.

H. E. Randell, Flint.

Gogebic—Branch No. 52

E. Madajeski, Bessemer.

L. O. Houghton, Ironwood.

Grand Traverse—Branch No. 18

E. D. Minor, Traverse City.

J. B. Martin, Traverse City.

Gratiot—Branch No. 25

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Hillsdale—Branch No. 3

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Houghton—Branch No. 7

S. S. Lee, Osceola.

J. B. Quick, Kearsarge.

Huron—Branch No. 47

D. J. Lackie, Grindstone City.

B. Friedlander, Sebawaing.

Ingham—Branch No. 40

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- Ionia—Branch No. 16**
 Chas. S. Cope, Ionia.
 Jos. F. Pinkham, Belding.
- Isabella-Claire—Branch No. 54**

- Jackson—Branch No. 27**
 E. M. Palmer, Brooklyn.
- Kalamazoo Academy—Branch No. 64**
 L. G. Rhodes, South Haven.
 A. S. Youngs, Kalamazoo.
 E. P. Wilbur, Kalamazoo.
 L. E. Ladd, Martin.
- Kent—Branch No. 49**
 F. C. Warnshuis, Grand Rapids.
 W. J. DuBois, Grand Rapids.
 C. H. Johnston, Grand Rapids.
 J. D. Brook, Grandville.
 A. M. Campbell, Grand Rapids.
 M. E. Roberts, Grand Rapids.
- Lapeer—Branch No. 23**
 John P. Eggleston, Imlay City.
 G. L. Chamberlain, Lapeer.
- Lenawee—Branch No. 51**
 L. G. North, Tecumseh.
 G. B. M. Seager, Adrian.
- Livingston—Branch No. 6**
 A. W. Cooper, Fowlerville.
 B. Glenn, Fowlerville.
- Macomb—Branch No. 48**

- Manistee—Branch No. 19**
 J. A. Christiansen, Manistee.
 Harlan McMullen, Manistee.
- Marquette-Alger—Branch No. 28**

- Mason—Branch No. 17**

- Mecosta—Branch No. 8**
 G. H. Lynch, Big Rapids.
 L. S. Griswold, Big Rapids.
- Menominee—Branch No. 55**
 H. A. Vennema, Menominee.
 Robert. G. Murrimer, Menominee.
- Midland—Branch No. 43**

- Monroe—Branch No. 15**
 Chas. T. Southworth, Monroe.
 J. J. Valade, Newport.
- Montcalm—Branch No. 13**
 W. H. Belknap, Greenville.
 A. W. Martin, Howard City.
- Muskegon-Oceana—Branch No. 61**
 F. B. Marshall, Muskegon.
 W. E. Dockry, Pentwater.
- Newaygo—Branch No. 60**
 G. N. Nafe, Fremont.
 G. G. Burns, Fremont.
- Oakland—Branch No. 5**

- O. M., C. O., R. O., Branch No. 11**
 C. C. Curnalia, Roscommon.
 J. H. Pettis, West Branch.
- Ontonagon—Branch No. 66**

- Osceola-Lake—Branch No. 30**
 H. L. Foster, Reed City.
 A. Holm, Tustin.
- Ottawa—Branch No. 32**
 J. J. Mersent, Holland.
 W. G. Winter, Holland.
- Presque Isle—Branch No. 63**
 Martin H. Nester, Rogers City.
 Neil C. Monroe, Millersbury.
- Saginaw—Branch No. 14**
 Pearl S. Windham, Saginaw.
 W. L. Dickinson, Saginaw.
- Sanilac—Branch No. 20**
 E. G. Robertson, Sandusky.
 R. Smith, Carsonville.
- Schoolcraft—Branch No. 57**
 G. M. Livingston, Manistique.
 J. W. Saunders, Manistique.
- Shiawassee—Branch No. 33**
 A. L. Arncid, Owosso.
 Edwin Elliott, Chesaning.
- St. Clair—Branch No. 45**
 C. H. Treadgold, Port Huron.
 Talbert Sleaneau, Port Huron.
- St. Joseph—Branch No. 29**
 A. W. Scidmore, Three Rivers.
- Tri-Coun y—Branch No. 82**
 W. B. Wallace, Manton.
 O. L. Ricker, Cadillac.

Tuscola—Branch No. 44
 T. W. Hammond, Akron.
 A. E. Copp, Tuscola.

Washtenaw—Branch No. 42
 Reuben Peterson, Ann Arbor.
 Aldred Scott Warthin, Ann Arbor.
 John Wm. Keating, Ann Arbor.
 Henry W. Schmidt, Chelsea.

Wayne—Branch No. 2
 F. B. Tibbals, Detroit.
 J. V. White, Detroit.
 Guy L. Kiefer, Detroit.
 H. R. Varney, Detroit.
 Florence Huson, Detroit.
 Guy Connor, Detroit.
 A. D. Holmes, Detroit.
 C. W. Hitchcock, Detroit.
 V. C. Vaughan, Jr., Detroit.
 W. E. Blodgett, Detroit.
 Jas. Cleland, Jr., Detroit.
 F. W. Robbins, Detroit.
 J. A. MacMillan, Detroit.
 G. E. Potter, Detroit.
 Francis Duffield, Detroit.
 Guy H. McFall, Detroit.
 G. E. Frothingham, Detroit.
 W. J. Wilson, Jr., Detroit.

ANNOUNCEMENTS

All the Meetings and the Scientific and Commercial Exhibits will be in the one building, The Ridotto.

The Exhibitors will be as follows, up to the time of going to press:

- Fairchild Bros. & Foster
- Smith Kline and French Co.
- Sharp & Smith
- A. Kuhlman & Co.
- Denver Chemical Co.
- Chas. H. Phillips Chemical Co.
- O. F. Schmidt Chemical Co.
- Kress & Owen
- Farlin Ventilated Window Tent Co.

Automobiles in charge of members of the Reception Committee will meet all trains arriving in Bay City during the Annual Meeting, and visiting members are requested to go at once to one of these machines upon arrival, when they will be conveyed to whatever part of town they wish.

The hotel accommodations are ample, and there will be a list of available boarding houses at the Registration window.

	Accommodations	Rates
Wenonah (headquarters)	250	Am. \$2 50-\$4.00
		Europ. 1.00- 2.50
Republic	75	Am. 2.00- 2.50
Imperial	50	Europ. .75- 2.50
Forest City House	50	Am. 1.50- 2.00
Crawford House	75	Europ. .50- .75
Reuch House	25	Europ. .50- .75
Colonial House	20	Europ. .50- .75

AN ACKNOWLEDGMENT

In one of the advertising pages last month we inserted a liner stating that the files of the Michigan State Medical Society did not contain certain numbers of the "Transactions" and asking where they could be obtained.

Within forty-eight hours we received six numbers from Dr. J. A. Wessinger of Ann Arbor and are pleased to thank him for them in the name of the Michigan State Medical Society. We wish also to acknowledge receipt of several volumes of "The Transactions", and some missing numbers of the JOURNAL received from Dr. F. B. Tibbals of Detroit several months ago.

We are endeavoring to complete the Files of Transactions and Journals, and still have the following missing:

Transactions

Vols. 1, 2, 3, 4, 5, 6, 7, 8, 9, 13, 17.

March and August, 1906; January, 1907, May, 1908; and February and December, 1909.

If any reader knows where these missing numbers can be obtained, will he kindly address a postal card to the Secretary of the Michigan State Medical Society, Battle Creek?

COUNTY SOCIETY NEWS

THIRD COUNCILOR DISTRICT

In the Library Rooms, Sturgis, Michigan, July 22 was held a very important medical meeting, representing three factors besides the Literary Program; viz., St. Joseph County Society meeting, Third District Medical meeting, and the 75th Anniversary of the Organization of the first St. Joseph County Medical Society. Branch, Calhoun and St. Joseph counties were well represented. Eaton county had no representative.

The papers were of special merit as well as interest. An unexpected pleasure to us was the presence of Dr. Sheron J. Thoms, who nine years ago left his home at Three Rivers for Mission work in Arabia. Evidently his work there is full of spice and variety as well as "Showers of Blessing" to a people less favored than we are. In his time there he has been through three epidemics of Bubonic Plague. It is very interesting to hear him relate incidents of Mission and Professional life there. His Mission is at Muscat, Oman Province, Arabia.

Dr. L. W. Howe, of Coldwater read a paper on "Tuberculin, Its Use in Diagnosis and Treatment of Tuberculosis." While the action was not specially beneficial in all cases it was an aid and helpful Therapeutic agent in a large per cent of cases.

Dr. Howe made friends who will watch with interest his further study and experience with Tuberculin.

Dr. Richard R. Smith of Grand Rapids came early with his cheery smile and hand shake, which assured all of his hearty earnestness and pleasure, and his paper on "Present Day Tendencies in Gynecology," was what might be expected from a broad conservative mind devoted to the hope and good of the suffering. We hope to welcome him again.

A rising vote of thanks was tendered Drs. Smith and Howe for their very excellent papers.

Arrangements had been made for an Automobile Drive about the city as a closing feature, but the clouds were sifting out moisture so freely it had to be abandoned.

S. R. ROBINSON, *Sec'y.*

EATON

Eaton Co. Medical Society held its third quarterly meeting at Charlotte, Thursday, July 28, 1910.

The general topic of the meeting was Alcohol and its Prescription and Use in Medicine. Papers were read and thoroughly discussed on all sides of the question. Prosecuting Attorney Roy McPeck gave a well thought out talk and papers were read by Dr. Stimson and Mr. Frank Graham, druggist.

A. H. BURLESON, *Sec'y.*

IONIA-MONTCALM

A Correction—In last month's report speaking of inspecting the "Farmers who live in the Valley" we should have said, "Farm which lies in the Valley."

EDITOR.

MUSKEGON-OCEANA

Regular meeting of the Muskegon-Oceana County Medical Society was held at Hart, Michigan, Friday, July 15, 1910, at 5:45 P. M.

Members present: Doctors J. F. Denslow, I. M. J. Hotvedt, W. P. Gamber, G. J. Hartman, Jacob Oosting, Geo. S. Williams, W. A. Campbell, J. T. Cramer and V. A. Chapman of Muskegon, R. G. Olson of Muskegon Heights; Charles F. Smith and L. W. Keyes of Whitehall; J. D. Buskirk and W. L. Griffin of Shelby; J. H. Nicholson and L. P. Munger of Hart; G. F. Lamb and W. E. Dockry of Pentwater. Also present were Doctors W. T. Dodge and J. L. Burkhart of Big Rapids; O. G. Wood of Hart and Geo. S. Root, D. D. S., of Hart, G. O. Switzer of Ludington, E. G. Gray of Ludington, W. H. Taylor of Ludington, W. H. Force of Ludington, and F. W. Graham of Ludington; W. C. Martin of Scottsville, L. H. DuGuid of Custer, C. M. Spencer and J. S. Hunt of Freesoil.

Dr. Griffin presented a clinical case of Hyperthyroid. The President, Dr. Denslow, appointed a committee consisting of Doctors W. T. Dodge, Geo. S. Williams, J. H. Nicholson and W. H. Taylor to examine the case and report before the Society. The Committee did so and the case was then brought before the

Society and examined by several members. The case was discussed by Doctors W. H. Taylor, Geo. S. Williams and W. T. Dodge and others.

Dr. Dodge read a paper upon "Vaccine Therapy." The discussion was opened by Dr. W. P. Gamber and followed by Doctors I. M. J. Hotvedt, Geo. S. Williams and W. T. Dodge.

The Society extended an unanimous vote of thanks to Dr. Dodge for the interesting and instructive paper.

Meeting adjourned to the dining hall to dinner.

Following dinner, the Toastmaster, Dr. Denslow, called upon different members present for the good of the order.

The Mason County delegation were given some good advice regarding organization and getting together and the Mason County physicians present, promised to reform and do better and to revive the Mason County Medical Society.

Regular meeting of the Muskegon-Oceana County Medical Society was held at the residence of Dr. B. F. Black of Holton, Friday evening, July 29, 1910, at 7:30 P. M. following dinner at 6:00 o'clock.

Members present: Doctors J. F. Denslow, W. A. Campbell, W. P. Gamber, P. A. Quick, Jacob Oosting, Geo. S. Williams, J. T. Cramer, F. B. Marshall, F. W. Garber, R. C. Olson, V. A. Chapman, of Muskegon, W. L. Griffin, J. D. Buskirk, of Shelby, J. M. VanderVeen of New Era and H. B. Hatch, of Hart. Present from Fremont were Doctors Wm. H. Barnum, Geo. W. Nafe, John W. McNabb, Geo. G. Burns, Nicholas DeHaas, and L. S. Weaver. Dr. S. B. Reclison from Hesperia was also present.

Minutes of the last meeting were read and approved.

A paper, "The Diagnosis," was read by Dr. Barnum of Fremont. The discussion was opened by Dr. Geo. S. Williams, followed by Doctors McNabb, Marshall, Griffin, Garber, Nafe, Chapman, Gamber, Hatch, Black, Buskirk, Robison, Griffin, Burns and DeHaas.

Meeting adjourned. A splendid meeting all the way through.

V. A. CHAPMAN, *Sec'y.*

NEWS

Wm. K. Bixby, a former citizen of Adrian, has donated \$25,000 for a city Hospital, which will be built on the Crocker property, recently purchased for \$6,000. The Hospital will be named in honor of Mr. Bixby's mother, Emma K. Bixby.

New Edition of Gray's Anatomy

A man may be a great anatomist or a great teacher, but when one man combines these two faculties, his single mind, by its complete co-operation, can produce a teaching book in which matter and method blend into a result obtainable in no other way. This double-sided genius was possessed by Henry Gray, and until Nature grants to one individual like endowments, his work will stand. Owing to the incessant activity in all branches of medicine, books in any of its departments are almost invariably shortlived. The single exception to this rule is Gray's Anatomy. In the fifty years since the author's early death it has grown beyond even the leadership in its own subject and has become the foremost medical book in all English literature. As English is now the world-language, this is equivalent to primacy in the medical literature of the world.

Eight editions have been demanded in the course of its half century, and they have enlisted many of the ablest anatomists of this period. The principles on which Gray built his book have been followed, and it is not too much to say that during two generations it has guided the teaching of its subjects in America as well as England. An army of students has conned its pages, and has carried it away into practice, for it is equally valuable to the physician and surgeon for reference on underlying points. In fact, the editor has made the applications of anatomy, in medicine as well as surgery, a special feature.

Of all the editions, this new one represents the most thorough revision. Every line has been scanned for possible improvement. Anything in the nature of a possible obscurity has been clarified, passages have been rewritten, and new developments have been incorporated. Rearrangement has eliminated many

duplications, and this, together with condensation in style, has rendered it possible to present more information in one hundred pages less space, to the reader's obvious advantage. Professor Spitzka, the editor, is one of the foremost anatomists in the world, and he joins to this the apt qualification of being himself an artist as well, so that the drawings from his own hand present his knowledge directly to the mind of the reader. Another of Gray's fundamental improvements, in which his book has always been unique, was the engraving of the names of the parts directly on them, so that the student learned at once not only their nomenclature, but also their position, extent and relations, the four cardinal points. The advantage of this graphic method over the elsewhere customary lines and reference letters is obvious. Gray's book was also the first to contain illustrations in color. In this new edition, besides all the improvements in the text, the splendid series of characteristic illustrations has been equally revised, many cuts being replaced and more added, and the use of colors is more lavish than ever. No student in any profession, or in any branch of medicine, has offered to him any instrument of instruction comparable to Gray's Anatomy. It suffices to say that the new edition will excel any of its predecessors.

COMMUNICATIONS

Washington, D. C., July 29, 1910.

Dr. J. H. Carstens,
Detroit, Mich.

Dear Sir:

I have your letter of July 27th respecting the meeting of the Michigan State Medical Society on the 27th of September. I find it will be impossible for me to get to Michigan on that date, in fact, I have had to decline a very pressing invitation to address the great Conservation Congress in St. Paul in September by reason of the exigencies of the public service. I can assure you it would give me the greatest pleasure if I could meet with my professional brethren on the occasion of their annual state meeting. I have not time to prepare a paper but I would at least like

to send a word of greeting and ask you to say to the assembled physicians that I appreciate what the profession is doing in the way of promoting public health and protecting our people against infection, epidemic, and the results of the pollution of streams, also in the promotion of the campaign for purity in foods and drugs. I trust that the efforts of the physicians of the country looking to the establishment of a National Department of Health with a seat in the President's Cabinet may in the near future be crowned with success. It is only by such an organization that the full fruits of medical activity may be gathered and proper protection of the public secured.

With sincerest personal regards, I am,

Faithfully,

H. W. Wiley

MEDICAL ECONOMICS

The Case of the People vs. Rice

Appealed from the Genesee Circuit Court to the Supreme Court of the State of Michigan. Opinion by Judge Ostrander.

Dr. Rice was convicted in the Circuit Court under act 107 of the Public Acts of 1909. He was charged with bad faith in writing a prescription for liquor for a man under an alias.

The charge of the Circuit Judge was to the effect that section 11930, providing that accessories to a felony are chargeable with that felony, held in this case.

The Doctor admitted having written a prescription for liquor without having examined the patient to see that he needed it, the man receiving the prescription being a notorious drunkard. The conviction was reversed in the Supreme Court. The opinion expressed by Judge Ostrander is of interest.

"We do not find in the statute an intention to punish physicians for issuing prescriptions for liquor in bad faith. We mean by this that apt terms are not found to create a substantive offense, the elements of which are writing and delivering carelessly or dishonestly prescriptions for liquor. If physicians are amenable to the pains and penalties of the act it is because they have indirectly, but intentionally, brought about a sale of liquor to

be used as a beverage. They do not, in issuing prescriptions in bad faith, occupy the position of merely practicing subterfuge or telling untruths in order to secure liquor. The law intends that sales may be made upon prescriptions. It intends that no sale shall be made otherwise than upon prescriptions. It has made the prescription, and therefore the physician, potential in securing liquor. In this way a physician becomes a party to every sale made upon his certificate. Nevertheless, we are constrained to say that unless there is open or tacit collusion between the druggist and the physician so that the actual sale is unlawful because, though made upon a certificate proper in form, it is made in bad faith, the law is not so written as to make the conduct of the physician unlawful. It is not so written that an intention can be found to make a particular sale lawful as to the druggist and unlawful as to the physician. And the doctrine and the statutes which make accessories before the fact, and aiders and abettors, principals can have no application if the ultimate act of selling is lawful."

BOOK NOTICES

International Clinics. A quarterly of illustrated clinical lectures and especially prepared original articles by the leading members of the medical profession throughout the world. Edited by H. W. Cattell, A. M., M. D., 20th series, Vol. II, Philadelphia and London; J. B. Lippincott Co., 1910.

This volume of International Clinics is full of useful information well presented. The paper by Dr. Frank Billings on Gall Bladder Infections is especially good. Besides all the other good things is a very entertaining article by Dr. Roland G. Curtin on Book Plates of Medical Men, with remarks on the Physician's Leisure Hour "Hobbies." This number is a very worthy companion to the many which have gone before.

The Practical Medicine Series. Comprising ten volumes of the year's progress in medicine and surgery, edited by Gustavus P. Head, M. D., and Charles L. Mix, A. M., M. D., Chicago, The Year-Book Publishers.

Vol. I General Medicine. Edited by Frank Billings, M. D., and J. H. Salisbury, M. D., \$1.50 net, Series \$10.00

This book of over four hundred pages is replete with new advances in the subject of General Medicine, New Methods of Diagnosis, New Methods of Treatment, New Signs and Symptoms, New Observations on Etiology. References to name and journal are given whenever any important fact is quoted, and these journals are practically all dated 1909 and 1910,

showing that in compiling this book the latest authorities have always been consulted.

Vol. II, Surgery, edited by J. B. Murphy, A. M., M. D., LL. D., Chicago, \$2.00 net.

The different methods of anæsthesia are carefully considered, especially ethyl chlorid, rectal anæsthesia, mixed (chloroform two parts, ether three parts), scopolamin-morphine, and local anæsthesia. Dr. Murphy thinks local anæsthesia is being used by many surgeons in about 25% of their work. The article on Hernia is a valuable one and is handsomely illustrated, as is the whole of the book and series.

Vol. III, Eye, Ear, Nose and Throat, edited by Casey A. Wood; Albert H. Andrews and Gustavus P. Head, Chicago, \$1.50 net.

This book is as full of useful information as the others of this well-known series. It contains especially interesting discussions of the Major Smith Cataract operation, Mastoiditis, the Internal Ear and the status of the tonsil operation. An enormous amount of writing is now appearing relative to the removal of the tonsils, and this is well summarized.

This series of books is intended primarily for the general practitioner, but is so arranged that the specialist can secure the part relative to his especial branch of medicine.

A Text-Book of Pathology. By Joseph McFarland M. D., Professor of Pathology and Bacteriology in the Medico-Chirurgical College of Philadelphia, Second edition. Octavo of 856 pages, with 437 illustrations, some in colors. Philadelphia and London: W. B. Saunders Company, 1910. Cloth, \$5.00 net; Half Morocco, \$6.50 net.

This second edition follows the first after six years and is an index of the advance of Pathology during that time, being thoroughly up-to-date. To those familiar with McFarland's first edition we need say nothing. To others, suffice it to say that the book is not only a general Pathology but also a "special" Pathology. It is profusely illustrated and is written in a pleasant and readable style—a desideratum so necessary in such a subject.

Diseases of the Skin. A Manual for Students and Practitioners by Alfred Schalek, M. D., Professor of Dermatology, University of Nebraska. Second edition, thoroughly revised, illustrated with 47 engravings. Lea & Febiger, Philadelphia and New York.

To the specialist all manuals are objectionable in that they usually attempt to teach too much in too small a space, placing the diseases described in an alphabetical order, with no system of classification, no fixing of the relationship of one disease to the other or to the general economy. Ordinarily, the practitioner or student gets but a vague, unsatis-

factory idea of the disease, which may be of the most serious importance, and from which he may draw unwarranted conclusions. To some extent Prof. Schalek has surmounted these defects. A classification is suggested; a gross description of the anatomy of the skin, its general symptomatology and diagnosis, with general internal and external therapeutic notes is given. As the Manual is most likely to be used by the student of medicine to enable him to prepare himself for examination, the system of questions at the end of the description of the disease is not without value.

With these, to our mind, decided limitations, in so far as it goes, the Manual is well edited in Prof. Schalek's clear, concise style, the printing is good and the illustrations are as fair as one should expect in a Manual.

Practical Suggestions in Borderland Surgery for the Use of Students and Practitioners. By Gustavus M. Blech, M. D., Professor of Clinical Surgery, Medical Department Loyola University, Chicago; Director-in-chief Illinois Legion American Red Cross; Surgeon-in-Chief Abraham Lincoln Hospital, Chicago, Professional Publishing Company, Philadelphia, 1910. \$1.50 net.

A timely book full of friendly suggestions. No effort to teach technic is made but an honest, fair, impartial and just criticism of the surgical methods in vogue marks every page of the book, and makes it at once the most valuable and unique volume of the library. Specially designed for the student and beginner, it will be of more value to the General Practitioner, the occasional operator and to the Specialist himself. Dr. Blech has taken a long step forward toward crystalizing surgical thought on many lines and points that in the past have been neglected.

It is better worth the price asked than any other surgical work on the market today.

The Practitioner's Case Book. For recording and preserving clinical histories. Prepared and arranged by the Editorial staff of the Interstate Medical Journal. Imperial octavo; 286 pages; full cloth binding. Printed on bond writing paper, with 85 colored anatomical charts (detachable), showing outlines of body and skeleton in light red and the viscera in pale blue. Index for listing patients, both by name and case number. St. Louis: Interstate Medical Journal Co. 1910. Price, postpaid, \$2.00.

The importance of carefully kept case records cannot easily be overestimated. By this means not only is an opportunity afforded to study at leisure the salient points in each clinical case, and make comparisons, but the physician is prompted as to all important events occurring in the course of the disease.

This information may prove of invaluable service in arriving at a clear understanding with the patient, his friends, the druggist or the consulting physician.

A simple, clear, comprehensive and effectual scheme for keeping such records is presented to the practitioner in the book before us, "The Practitioner's Case Book."

Specialists have long recognized the importance of Case Records. In this book a means is afforded practitioners of keeping such data of the case as will enable them at any time to know exactly what was done, said or promised at a given time—information that may save much inconvenience or even trouble.

A Manual of Operative Surgery. By Sir Frederick Treves, Bart., G. C. V. O., C. B., LL.D., F. R. C. S. Surgeon-General to H. M. the King, Surgeon-in-Ordinary to H. R. H. the Prince of Wales, Consulting Surgeon to the London Hospital, and Jonathan Hutchinson, F. R. C. S. Surgeon to, and Lecturer on Surgery at the London Hospital, Examiner in Surgery to the Royal University, Belfast. Third Edition, Vol. II. Lea & Febiger, Philadelphia and New York, 1910.

Volume II, Operative Surgery, by Sir Frederick Treves, has made its appearance. The high standard set by this author is perfectly maintained. In this volume the field covered is the Head, Neck, Spine, Thorax, Breast, Arteries, Veins, Nerves, Amputations, Bones, Joints, Tendons, Muscles, Ligaments and Fasciae.

A general comprehensive plan of discussing each operation is pursued somewhat as follows,—A brief discussion of indications, various methods of operating, circumstances; viz, Hemorrhage, Nerve Injuries, etc., extent of operation, preliminary measures, instruments required, position. The operation, technic of; comments. Under comments the comparisons and criticisms of the various operations proposed by different authors are valuable features, affording great aid in determining the course to be pursued in a given case, and must be of immense help in giving an authoritative prognosis on any method used, both as to recovery and functions interfered with.

Rare skill in composition combined with excellent judgment and a perfect command of English has enabled the Author to be exhaustive and yet brief, profound, yet clear, easy of comprehension and interesting. Every operation is described. No important detail is omitted. All dangers are pointed out and warning sounded.

SURGERY

Conducted by

R. E. BALCH, M. D., Kalamazoo, Mich.

The Relation of the Blood-vessel Walls to Coagulation of the Blood—Bertram M. Bernheim, in the *Journal of the A. M. A.* of July 23, reports the results of experiments upon different animals to determine the cause of rapid coagulation of blood when in contact with the adventitia. In the course of his blood-vessel surgery he discovered that the success of blood vessel suture depended upon excluding the adventitia from the line of anastomosis. In considering this it seemed possible that the action of the adventitia might be not wholly mechanical but due to a substance secreted. Experiments:

1. A dog was bled to death and its aorta removed. The vessel was then separated into its three parts, adventitia, media and intima. The three coats then ground up in mortars, and extracts made of each. Blood was now obtained from another dog and to one c.c. of fluid plasma and 0.5 c.c. of serum, 0.5 c.c. of the extract of the adventitia was added. A solid clot formed in one and one-half minutes. The same results followed use of the intima and of the media, showing that all three coats acted alike. With this knowledge then, all three coats of the vessel were ground up together for future experiments.

From the vessels of another dog an extract was made using all three coats of both arteries and veins. Two test-tubes thoroughly cleaned and oiled were taken, in one of which a few drops of the extract were placed, and in the other nothing at all. A second dog was then placed on the table and after being etherized a canula which had been cleaned and oiled was placed in one of its carotids. Three c.c. of blood were allowed to flow into each test tube. In forty-five seconds a clot formed in the tube containing the extract. The blood in the other remained fluid for from 2½ to 4 minutes, the usual coagulation time for a dog.

2. An extract was made from the veins and arteries of a chicken which had been previously bled to death. Two oiled test-tubes, one treated with this extract and the other empty, were taken, and the blood from another chicken was allowed to flow into each. A solid clot formed in the one containing the extract in one and one-half minutes. The other remained fluid over a day.

Experiments upon pigs and other animals gave the same results.

Remote Results of the Replantation of the Kidney and Spleen.—In the March *Journal of Experimental Medicine*, Alexis Carrel gives a preliminary report of the experimental work

along this line. Two points were to be elucidated. First, can an organ which underwent section of its vessels and nerves, a complete interruption of its circulation, and a perfusion of Locke's solution functionate normally for a very long period of time? Second, what is then its anatomical condition?

He answered the first question as follows: On Feb. 6, 1908, he removed the left kidney of a bitch, washed it and perfused it with Locke's solution and replanted. The circulation was interrupted for fifty minutes. Fifteen days later the opposite kidney was removed. The animal remained in perfect health and the following year gave birth to eleven pups, in June. In December, she again had three pups. Twenty-three months have elapsed and she is still in perfect health.

Four other experiments have been performed to study the anatomical condition of the organ. Experiments Nos. 1 and 2. The left kidneys of two dogs were removed; placed in a jar of Locke's solution and perfused. The kidney was then placed in the abdominal cavity; artery, vein and ureter resutured; and the external wound closed. The interruption of the circulation was 50 minutes and 46 minutes respectively. In both cases the animal made a perfect recovery.

They were later killed and upon autopsy, there were found to be no anatomical changes.

Experiment No. 3. Medium sized white dog. Upon February 4th the spleen was removed with ligature of the gastro-splenic vessels which were abnormally large. The splenic artery and vein which were abnormally small, were ligated. The spleen was removed and placed in a jar of Locke's solution. The spleen was replanted and the vessels sutured. The lumen of the splenic artery was only 0.5 mm and the suture was difficult. Two weeks later exploratory laparotomy was performed. The spleen was incised; hemorrhage very dark. Probable occlusion of the artery. Fourteen months later, a second exploratory laparotomy, the spleen had completely disappeared.

Experiment No. 4. The same technique as in experiment No. 3. The circulation was interrupted for 44 minutes. Sixteen months later, exploratory laparotomy shows spleen normal. Five months after laparotomy the dog was killed by accident. Autopsy showed spleen normal.

The five experiments mentioned in this article demonstrate that the section of the vessels of the spleen and kidney of a dog, the section of their nerves and the suspension of their circulation for fifty minutes and their perfusion with Locke's solution do not modify their functions of their anatomical conditions.

DERMATOLOGY AND SYPHILIS

Conducted by

ANDREW P. BIDDLE, M. D., Detroit, and R. A. C. WOLLENBERG, M. D., Detroit

The Treatment of Furunculosis.—Dr. Bowen refers to the staphylococcus pyogenes aureus as the usual etiological factor in furunculosis, infection taking place in a hair or sebaceous follicle. He further refers to the fact that furuncles are propagated by auto-inoculation, the new lesion being produced by infection from an old one; that diabetes, debility, and albuminuria increase susceptibility to infection; that external irritants to the skin, of whatever nature, also facilitate their development; but that in many cases the cause for the peculiar susceptibility to inoculation of the follicles with the staphylococcus is unknown.

Dr. Bowen does not believe that early incision shortens the duration; nor does he recommend poulticing, as it is contrary to aseptic precautions.

Full credit is given to the advantages of the vaccine treatment. All cases do not respond to it, however, and he gives the following local treatment as one to which a considerable number of cases have yielded after having been treated by the vaccine method by most competent people without any success:

The principle is simply to keep the skin as far as possible sterile.

In the first place the patient is directed to wash the whole body with warm water and soap in the morning and at night, this part of the treatment being most essential. When furuncles have been confined to the neck it may be sufficient to wash only the upper part of the body. After thorough washing of the body with soap and water, and the skin having been dried, the whole surface is bathed with a saturated solution of boracic acid in water, which is preferred to other antiseptics. The skin is then allowed to dry without wiping, and the individual furuncles are dressed with an ointment consisting of

Boracic acid	4.
Precipitated sulphur,	4.
Carbolized petrolat,	32.

The individual lesions are not opened until they have become very painful and mature. All clothing next to the skin is changed daily to prevent reinoculation from the collars or underclothing. The general condition should be improved by internal and hygienic measures.

This method has rarely failed when carried out with care and patience, and in the author's experience has frequently succeeded where the vaccine treatment had failed—*Jour. Am. Med. Ass'n.*, July 16, 1910.

The Value of Wassermann's Reaction.—J. E. R. McDonagh states that for all practical purposes a positive Wassermann proves the presence of syphilis. Similar reactions are obtained with leprosy and trypanosomiasis, but these diseases on account of their rarity should not detract from the practicability of the test. The reaction which Wassermann described is considered the most trustworthy, though laborious. Endeavors to elucidate the cause of the reaction and to do away with its empiricism will lead to far better results than any attempts to simplify the technique. Positive and negative reactions are interpreted as they occur in the various stages of the disease.

Primary stage—A positive reaction in the case of a doubtful sore is proof positive of syphilis, and patient should receive treatment at once. A negative reaction is valueless, since before any secondaries have appeared not more than 40 per cent. of the cases react positive.

Secondary stage—Here the interpretation of the result depends upon whether the patient has been treated or not, and how soon after stopping treatment the examination is made.

When no sign is present 80 per cent. are positive, the positive results indicating active virus and calling for treatment. The remaining 20 per cent. may be negative (a) because the syphilitic virus has disappeared or is dormant, and there is no specific antibody in the serum; (b) because the patient is taking mercury. Patients in category (a) should be treated if they have not been treated before.

Mercury converts a positive to a negative reaction, and no examination should be made until three weeks after the last dose.

Negative results are produced most quickly after the use of mercurial inunctions, less quickly after injections, and very slowly after oral administration.

Tertiary Syphilis—Seventy per cent. of all cases give positive results. Cases are considered cured when there are no symptoms and the test gives a negative result. In those who have no symptoms, but give a positive result, visceral lesions are suspected.

One hundred per cent. of cases of general paresis and 60 per cent. of cases of tabes give a positive result.

Potassium iodide has not the power of converting a positive into a negative reaction, therefore cannot be regarded as a specific for syphilis, as is so commonly held. Mercury alone has this power.—*The British Journal of Dermatology*, May 1910.

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ORIGINAL ARTICLES

PRESIDENT'S ADDRESS, DELIVERED AT THE FORTY-FIFTH ANNUAL MEETING OF THE MICHIGAN STATE MEDICAL SOCIETY, BAY CITY, SEPT. 28

J. H. CARSTENS, M. D.

President Michigan State Medical Society, Detroit

To the Michigan State Medical Society:

Medical societies are organized for the purpose of helping their members to keep up with the great strides medicine is taking in order that each individual member may be up to date and work in his respective community for the good of the race.

Medicine has broadened in the last few decades, and from being simply relievers of human sufferings, the aim and object of the profession today is the *prevention of disease*, hence we have taken the lead in advocating public hygiene, pure-food laws and everything that pertains to the physical and mental elevation of the race. It is hardly necessary to say that the Michigan State Medical Society has always been in the front ranks in this great work, and we must continue so. To do this we must pay more and more attention to legislation and to the legislators of our state, to our representatives and senators in congress, that the laws we now have can be strengthened and improved and that we may finally have the central government at Washington establish a department of Public Health, which certainly will be the first, most Powerful factor in the preven-

tion of disease. It is wonderful how much individual members can do if they talk with their representatives on these questions. One or two is not sufficient; *all* should continually and at every opportunity talk for pure food and the prevention of disease.

We are now beginning to study and should aid in every way in our power to help the great questions of eugenics—the improvement of the race. They have improved the domestic animals in various directions, they have improved vegetable foods of all kinds, but the human race has been allowed to drift along without any scientific investigation or methods devised as to how it could be improved, both physically and mentally.

The medical profession of this state was one of the first to take up that great question of social purity, and must continue this work without let-up.

There is one thing which has cast odium on the profession, and which is continually thrown up to us, and very justly so; that is the great question of *medical experts*, which has cast a blur on the profession in every direction. This is something we

should consider and solve. I know there are constitutional and grave legal questions involved which we may not be able to solve easily, but I think if we appoint a committee to consider this question that some light would soon be thrown on it. I have for many years advocated the selection of experts in whatever department it was necessary, by the respective professions, in the particular district. For instance, every county medical society could select from its own members, say three in every department of medicine, whom they consider experts in that particular branch. Larger societies, in fact, could select five or ten in different branches, and of these the judges of the court in that district could select three who are to investigate the particular case. For instance, a case of insanity, or a case of surgical injury, or a case of injury of the pelvic organs, or injury of the chest. In each specialty three men can be found who are experts, and these three men examine the case together, thoroughly investigate it, discuss it among themselves, and *arrive at some definite conclusions*, and then when they come to court they will all testify to the *exact facts* and they will *all agree*. Even as the law now stands, that would not prevent one side or the other from getting outside testimony but I think few physicians would like to testify or *testify contrary to what the selected experts have decided is true*. In this way the following, which is always thrown up to us—"Who shall decide when doctors disagree?" (and which is taken from Pope and does not refer to the medical profession at all but to the ministry)—will cease to be thrown up to us.

Now if we could have a law requiring expert testimony of that kind, not only in medicine, but let the engineering society, the dental society, the druggists, the architects, the plumbers, in fact, every branch of work in every community, from among

their own number, select experts on every possible question, and have the court designate these, and let them investigate the question. This plan for expert testimony certainly would carry very great weight with a jury, and I think greater justice would be done, and the so-called professional expert witness would soon cease to exist. I refer this question to your most serious consideration, as I think it is one of the most important with which we have to deal at the present time.

One of the first things we found out was that the Michigan State Medical Society had never been incorporated, although a special act for that purpose was passed in 1879, and we must be incorporated to do business, especially in the direction of protection. So the Council had our attorneys immediately make out the necessary papers and have them signed by the different councilors as incorporators, so that we will now have legal standing.

When some of us recall how difficult it was for us to get our medical education and raise the necessary money for the purpose we can readily see that it is today the same with some young graduates, and that it is quite a hardship to make them pay the fee to take the State Board examination.

Now it seems to me that this great state of Michigan should not ask the members of the medical profession to pay the fees to sustain its Board of Registration, and that the state ought to appropriate enough money to pay the running expenses, and only ask the candidates who come up for examination to pay a nominal fee, say \$1 for the certificate, if they pass. By making the life of the Board dependent upon the fee that it receives, certainly is not a desirable thing and may lead to many troubles.

I would therefore suggest that the profession make a special effort with the members of the legislature, so that the medical

registration act will be amended in that direction.

Allow me to thank you for honoring me as you have, for when it comes from those who know one best, it is certainly a great satisfaction. No one can judge of the abilities of the medical men except the physician, and to be honored by one's fellow

practitioners, as I have been by you, is certainly highly appreciated. The profession all over the country have honored me over and over again, but to be honored by one's colleagues with whom you have worked for forty years, is certainly a great pleasure and honor. I thank you very much.

PRESIDENTIAL ADDRESS DELIVERED BEFORE THE UPPER
PENINSULA MEDICAL SOCIETY AT SAULT STE MARIE,
AUGUST 4, 1910

EDWARD T. ABRAMS, A. M., M. D.
Dollar Bay, Michigan

GENTLEMEN OF THE PROFESSION:

It is with particular pleasure that I wish to express my sense of appreciation of the honor you have conferred upon me by electing me to the presidency of the Upper Peninsula Medical Society.

We are standing today upon the brink of the unknown. It is impossible for us to foresee the developments of even a few years. Changes of momentous importance are occurring about us in every department of thought and science.

The past was only yesterday and we saw its completion. We are living in today and can discern only the smallest fibers that are weaving the world of tomorrow. While this may have been true in a degree of all past ages, it was never so particularly true as of our own age.

A new human ideal is taking possession of the world, and the consequence will be limitless in its significance.

The past periods of civilization found their chief excuse and justification in the fact that some few men came to the surface and had some part and share in the development and moulding of life. It never dawned upon the mind of the most astute

philosopher that all men might have some part in these ends, and not only had that right, but should be encouraged to seek out and find them.

Even Aristotle assumed that civilization and its advancement must always rest fundamentally upon slavery. All the activities of society,—agricultural, commercial, industrial—were carried on by slaves or by men little removed from the condition of serfs.

But the era of humanity has come. As the whole science of arithmetic is locked up in the multiplication table, so the whole value and significance of life is summed up in the table of each one's values.

Hamlet sitting alone among his "sea of troubles" says, "To be or not to be—that's the question." But who of us can doubt that "to be" is far better than "not to be?" What in life is higher and nobler than that which is inanimate? And not only is this true, but the real value and worth of life is measured by the quality and power of that life. Belief in the good of knowledge is one of the strongest bonds that unite thinking men. For whether it be law, theology, medicine, or any of the more

modern sciences, that which ultimately determines our place and standing is our ability and power to render service by knowledge; think as we may, act as we please, it is nevertheless expected of us that we be wise men among the people, competent to advise, to guide, to defend, and in some measure at least save them when their vital interests are at stake. We must never forget that our calling has had its origin in human miseries.

It is not virtue that makes the priest necessary. It is not the law-abiding citizen that calls into being that much-maligned individual, the lawyer. Neither is it the bounding blush of youth or the firm and elastic tread of fully developed manhood or womanhood that makes the gentle hand of the surgeon or the acute brain of the physician necessary.

All of the infirmities upon which we severally subsist and thrive are so intimately and closely correlated that he who ministers to one must of necessity minister to all. How often is disease the child of folly, sin or ignorance? While ignorance is the common mother of all our miseries, folly is the child of sin, disease is the child of sin, folly and ignorance.

Without sin priests would be needless appendages; without folly, lawyers would be unheard of, and without ignorance, physicians never would have been. The general heart of mankind well knows of the priest's proverbial love of ease, the lawyer's slit eye and cunning tongue, and the wise look of the physician whose mistakes are all hidden and forgotten in the grave.

Imagination, as Shakespeare's Macbeth has it, tickles the parson's nose and again he dreams of marriage fees and coffers full; she whispers into the lawyer's ear and again he dreams of arguments and fat fees; she gently touches the doctor's fingers and immediately the leucocyte count mounts

to 20,000, his fingers feel the cold steel, and a gangrenous appendix appears before his imaginative eyes.

But after all, Shakespeare put it right when he says, "Physicians mend or end us *secundum artem*, but although we sneer in health, when sick we call them to attend us, without the least propensity to jeer." When the naked truth is told, we are the best friends of man, for we are the true ministers of health, without which life would hardly be a blessing. Anything, however small or trivial, if it has to do with man's well-being or perfection, is of concern to the physician. The true physician waits as a servant upon the miseries of mankind. There he stands like a soldier at his post, ever ready to do his duty. The darkness and blackness of night, the raging storm, contagion or pestilence,—not even the field of courage itself can stay him when duty calls. His services are at the command of the poor as well as the rich. His kind and gentle touch is felt in the bedroom of the hut and hovel as well as in the chambers of mansions and castles. His mind is ever occupied with thoughts of preventive medicine. If to minister to the sick be Christ-like, then to forestall disease by searching it out to its secret hiding-places is God-like.

Those who are today throwing themselves as consolers and helpers into the very midst of a pestilence-stricken people, are God's men and women, whatever their creed, belief, or unbelief.

Our country at the present moment is being stirred from center to circumference on the Medical Education problem. Some harm and much good will certainly be the result.

The demand put forth a few years ago for a liberal education in the profession of medicine may now be considered an accomplished requirement. But a liberal

education is not so much knowledge stored away to be brought out for parade when an examiner makes his appearance, as it is real, true preparation for knowledge. It stands for openness and flexibility of mind. It stands for a justness of view, a candor, a patience, and a reasonableness. It is always discipline of mind and character. In short, it does for the mind what food and systematic exercise do for the body—it gives it grace, energy, enthusiasm, endurance, ease. As the trained athlete can perform feats which the untrained can only sit and admire, so the trained minds can accomplish that which the untrained cannot comprehend. The one has a quickness of perception, a soundness of judgment, and last, but not least, a refinement of taste, which education alone can give. In the last edition of "Who is Who in America" more than fifty-five per cent are college and university graduates.

In our own great Civil War, where the citizen-soldier won such a conspicuous place, not one man rose to first place as a Commanding General who was not a West Point graduate. "Who is Who" contains more than 15,000 names—better than 8,000 are professional men. The lawyers lead the list with something more than 3,000; next come the clergymen; while last of all comes our own profession with somewhat over 1,000. In our country today 80 per cent of the clergymen are university trained men, 52 per cent of the lawyers and 49 per cent of the physicians.

Twenty-five years ago the percentage of college trained clergymen was 25, lawyers 20, while our own profession could boast of but 8. The last decade has truly been one of educational advancement. While they may decry the limited preliminary education, it remains true, nevertheless, that the medical profession is thoroughly awake and alive to the de-

mands and twentieth-century progress, and to the limited educational means the profession had at its command to meet those demands.

Not one of the so-called learned professions can compare for one moment with medicine when viewed from the standpoint of equipment offered the student of today as over against that of twenty-five years ago. The advance has been so great and with all so radically changed that it is safe to say that a medical man returning for the first time in, say, twenty-five years to a well-equipped medical school, would scarcely realize whether he were visiting an institution for the instruction of medical students or those of some other branch of scientific learning. The medical man has ever been the truly great lover of truth; for with him investigation and experimentation has been life. Let your imagination run—from what a long list of sufferings has not quinine spared humanity, to what countless millions has Jenner come with his vaccine and relieved of pain, and saved beauty itself from hideousness. Who can imagine the saving of life and the destruction of pain brought to humanity through the agency of anesthetics. When aseptic and antiseptic treatment of wounds hove into sight in the surgical sky, a new and advanced era of surgery burst in upon the world. Pasteur has robbed hydrophobia of its terrors. Is it too much to hope that in the near future, now that we know the cause of tuberculosis, we shall rid the human family of this dread disease? And again, cancer, though it has baffled our every effort at curability, will surely some day be conquered by the combined forces of bacteriology, pathology and surgery. Men of science have succeeded in cultivating the germs of diseases as a gardener does the plants in his garden. And as truly as we live, when the cause of disease is once discovered, the human mind that can weigh

the stars and count the pulsations of light, will surely find a remedy and a cure.

We belong to the body of men who are striving day by day and year by year to do this work. We stand, often in silence and obscurity, far remote from the praise and admiration of men. Our profession is daily carrying on a warfare in comparison with which the noisy battles of so-called statesmen are as the shoutings of the rabble and the mob. We each and all stand facing disease and death in its most secret hiding-place, and in the still small hours of the night, when all the world sleeps, we are found standing on the threshold of some home, looking down deep into the eyes of death and disputing his passage to the side of the beloved one.

Cheap work is never good work. How often have you and I heard the statement made in political circles that the state should not tax the people to make lawyers and doctors. The people should not be burdened to help young men into these very easy professions. The question for those politicians to answer first is, "Shall the state demand that the lawyers, doctors, engineers and others who serve the people, know their business?" If not, why not? Have we not had enough of fools and fakes? If we could only save the money wasted each year in Michigan on quacks and quackery, we should have money enough from this to educate all the professions of the state and have a balance remaining.

Only the best and cream of our young men are being brought to our profession. The training being given them is of the very highest order. Now that our state, through our Board of Registration in

Medicine, demands that physicians should know what they ought to know, quacks are disappearing from our state like tramps before a stone pile.

"No more room for doctors," is an expression very commonly heard. It is always made with a superficial conception of medicine in mind. The profession stands today on the very brink of the greatest discoveries since Galen and Esculapius. No more room for doctors when the germ theory of disease is beginning to work its revolutions in surgery, obstetrics and the general practice of medicine, and evolution has just begun to throw its strong electric lights down the broad avenues of science, which were dark, closed and unknown to the fathers of the past!

The profession is not overcrowded. There is always room for doctors; but only for those of the nobler kind. Their work must always rest upon a scientific basis. No man who has spent years with a great jurist will sell himself to the first scoundrel who would use him. The truly scientific physician does not prostitute his skill in any of the many ways condemned by the code of ethics. No true man can be used for a base purpose. Professional training must imply professional honor. And in all our work let us not forget that when we begin to study the human body, the study of the humanities need not end.

Let our ideals be so high that we shall be satisfied only in the pure air of the mountain peaks, always remembering that the example of truly educated men is the best surety that the men who shall come after them will be men of culture, refinement and ability.

THE TRUTH ABOUT INCONTINENCE FOLLOWING RECTAL OPERATIONS*

LOUIS J. HIRSCHMAN, M. D.
Detroit, Michigan

An erroneous idea in the minds of the laity, which has been fostered and made much capital of by the advertising quack, has been their belief that most operations upon the rectum or anus are followed by a loss of fecal continence. The advertising quack prints in bold-faced type, in large capitals, in his literature, the admonition to beware of the knife and the awful consequences which follow its use. They would lead a patient to believe that every rectal operation means cutting of the sphincter muscles, and that cutting of the sphincter muscles means permanent loss of bowel control, with its attendant semi-invalidism, constant leakage of feces, and social ostracism.

It has been an astonishing fact for the writer to learn that not a few members of our profession are imbued with the idea that any operation on the anus which requires the division of either or both of the sphincter ani muscles, means loss of control of the bowel outlet and therefore they oppose many necessary rectal operations on that ground.

The writer grants that in the past many patients have suffered from fecal incontinence following surgical operations upon the anus, but he believes that ninety-five per cent of such cases were absolutely inexcusable, while but five per cent of the cases were really unavoidable. He has many times been called upon to rectify the surgical wrong done the patient, and is glad to say that in almost every instance he has been able to restore the continuity of the sphincters and bring back to the patient a return of normal bowel function,

health, happiness and the enjoyment of life.

Why does incontinence occur after certain rectal operations? In the *first place*, because of a lack of a proper knowledge of the anatomy of the muscles which govern fecal control.

Second, unskillful, careless, or unsurgical division of the sphincter muscle when done intentionally.

Third, injury to the sphincter muscle done by too deep or too extensive *incisions*.

Fourth, by incisions made at an improper angle to the anal outlet.

Fifth, no attempt being made to re-unite severed sphincter muscles when divided knowingly.

Sixth, improper methods of re-uniting the sphincter when attempted.

Seventh, multiple incisions made through the sphincter muscles at one operation.

Eighth, improper dressing after incision of the sphincters, illustrated by the *packing* of wounds after fistula operations.

Ninth, the needless sacrifice of sphincter muscle in major surgical operations, such as extirpation for cancer, resection for prolapse, or in the performance of the Whitehead operation.

Tenth, the abuse of the actual cautery and the injection of escharotics in the sphincter region in the treatment of hemorrhoids.

There are other causes which lead to incontinence which are purely accidental, such as the complete laceration of the peritoneum from childbirth, the rupture of the sphincter from the sudden introduction of foreign bodies, from unnatural practices or careless instrumentation during rectal examination; but the function of this

*Read before the Surgical Section of the Michigan State Medical Society at Bay City, Sept. 28, 29, 1910.

paper is to deal with the former class, or those which the writer believes are unavoidable and can be charged to faulty surgery of this region.

We hear occasionally of cases of incontinence following operations for the removal of prolapsing internal hemorrhoids. When one remembers that hemorrhoids occur beneath the mucous membrane and above the sphincters, it can be seen that any operation which involves damage to the sphincters is an unskillful and improper one, and therefore inexcusable. Of course if one uses the actual cautery he is apt to produce a burn whose subsequent cicatrization may extend into tissues beyond where he desired it, and the sphincters may be damaged by the infiltration with scar tissue and subsequent contraction. I have been called upon to operate upon cases of stricture of the rectum following the use (or shall I call it abuse?) of the actual cautery in the removal of internal hemorrhoids. Incontinence has been known to follow the incision of the sphincters for the relief of anal fissure. In such a case the incision was undoubtedly made too extensive and too deep, and in the after-care, the gaping wound was packed tightly with gauze and at each succeeding dressing repacked so tightly that the severed ends of the sphincters were kept separated and a sulcus lined with scar tissue was formed, thus preventing the reunion of the sphincters and their subsequent muscular activity.

The great majority of the cases of incontinence, however, follow operation for fistula-in-ano. I maintain that any man who operates for fistula-in-ano, whose operations are followed by incontinence in more than five per cent of his cases, is incompetent and not fit to do rectal surgery. The reason why incontinence follows fistula operations in the hands of the general surgeon or the occasional operator, is due to the fact that there is a lack of

intelligent after-care due to a lack of interest on the part of the surgeon following the operation, or ignorance of its importance as compared to the operation. It is the packing and repacking of wounds made for the removal of fistula that keeps the ends of the sphincters apart, which is responsible for more cases of incontinence than any other surgical procedure.

These operators do not seem to grasp the idea that it is *simple drainage* of these wounds that it calls for, and not *packing*.

The writer has seen cases of incontinence which followed good surgical work, by good operators, but on account of the after-care being left to an assistant or interne who meant well, but lacked the necessary experience, the wound was kept apart by packing, and union was prevented by over-zealous after-care.

Wherever possible, when dealing with a simple complete fistula, the whole fistulous tract, including the indurated scar tissue surrounding it, should be dissected out and oftentimes the wound may be closed immediately by suture. The writer has repeatedly demonstrated that incision and curetment of an ano-rectal fistula does not completely remove the diseased tissue. There are numerous minute side tracts leading from the main channel down into the peri-fistular tissues, which, if not removed, will cause a recurrence.

Curetting does not remove these tracts they must be excised. The only way to be sure of getting rid of them is to excise all of the diseased tissues surrounding the fistula, leaving a bed of good normal healthy tissue behind. If it is not thought advisable to suture, the wound should be lightly filled with gauze for drainage purposes only, and inside of 24 to 48 hours this gauze is removed and a single strip inserted daily thereafter for drainage. The edges of the wound are allowed to fall together and the sphincters should regain

their continuity without any difficulty.

Inasmuch as division of the internal sphincter is responsible for more cases of incontinence than of the external, L. J. Krouse, of Cincinnati, made some investigations, as to the reason therefor. He realized "that fecal incontinence following operations for fistula-in-ano was due to the severance and faulty cicatrization of the internal sphincter and because of the fact that this was an involuntary muscle. Even though the muscle is cut at right angles to its fibres complete division is necessary." He discovered that "there were some fibres of the levator ani muscle inserted and intimately interwoven with those of the sphincter ani muscle. The sphincter being cut, the fibres of the levator ani muscle inserted into the sphincter, pull the cut ends of the sphincter in the direction of the fibres of the levator ani muscle, which is away from the center of the anal canal and outward towards the periphery. They are held there by the tonic contraction of the levator ani muscle while healing is taking place. In this way a triangular gap is left whose base is directed inward and whose apex points upward. It can be readily seen that a sulcus will result with incontinence unless some operation is done to the muscle which keeps the parts in such an unnatural position during the healing process." To overcome this defect Krouse proposed at the Boston meeting of the American Proctological Society in 1906, to incise the levator ani muscle on each side of the original cut at the outer margin of the sphincter ani, so as to allow the cut ends of the sphincter to drop in and assume a more normal position while the healing process was going on."

Another reason for the occurrence of incontinence following fistula operations in women when the fistula is located at the anterior commissure of the anus is the

fact that the fibres of the sphincter vagina and the sphincter ani decussate at this point and a division here would cause the decussating fibres to retract, leaving a U-shaped sphincter instead of an oval.

Where one is dealing with multiple fistula one should be exceedingly careful not to incise the sphincter in more than one place at the same operation. Where one has two or more incisions to deal with, faulty cicatrization is almost certain to result, which will seriously interfere with the contractility of the sphincters. As has been stated above, every incision which crosses or severs the sphincters, should do so only at a right angle. Such a wound will always heal without any trouble with intelligent after-care, if immediate suture is not used.

Another unfortunate and inexcusable class of cases of incontinence is that where extirpation of a rectal cancer has been performed and the sphincters removed. Primary cancer of the anus is very uncommon and the majority of the other cases of rectal cancer rarely involve the sphincters. One should be exceedingly careful therefore not to damage or remove the sphincter muscles in the extirpation of rectal cancer, and the same thing applies to the excision of the prolapsed rectum.

In conclusion the writer would reiterate that if one is familiar with the anatomy of the sphincter muscles, avoids the use of the actual cautery or the injection of escharotics, is careful not to injure the muscular layers of the bowel in excising hemorrhoids, incises the sphincters at right angles in excising fissures of fistula, and uses common sense in his after-care—avoiding packing and using drainage—there is no reason why incontinence of feces should ever be held up as a reproach to those who are doing honest and conscientious work in rectal surgery.

PRESENT-DAY TENDENCIES IN GYNECOLOGY*

RICHARD R. SMITH, M. D.
Grand Rapids, Michigan

Although I deeply appreciate the honor you have done me in asking me for a paper today, and should like to express that appreciation in a more formal effort, the heat of the past few weeks has quite discouraged any such attempt. It has suggested, too, that I would hold your attention better, and would please you equally as well, if I gave in a less formal and less serious way an outline of the work that is being done today in gynecology.—I should like to note, if I may, its tendencies, and indicate, if I can, some of its possibilities.

It seems, perhaps, well to do this, since most men in general practice are not today directing much of their attention to gynecology and its literature, but are interested in lines of work that are apparently more active. This very lack of interest, which we all must acknowledge is, after all, not a very remarkable thing, when one considers the vast amount of attention that has so long been paid to this small branch of medicine, the fact that so many of its practical problems have already been solved, and that the changes now taking place are slower and apparently less brilliant. The profession is simply seeking new worlds to conquer. Fifteen or twenty years ago gynecology occupied a most conspicuous place in our attention, and general surgery, in comparison, a far lesser one. The profession—general practitioner and specialist alike—flocked to the meetings devoted to the subject, papers and discussions excited the keenest interest. Today those of you who attend our general meetings, such as those of the State Society and the American Medical Association, cannot but note a great difference.

The attendance at the section of general surgery is fully three or four times as great as at that of gynecology,—popular favor having apparently turned from gynecology to its more lively younger brother. So much has this tendency been in evidence that we have even doubted whether gynecology were to exist much longer as a separate specialty.

Perhaps these assertions are rather too sweeping, for if we turn to the world's literature and note the work that is being done in other countries, we will find that they are not altogether true. Our best literature in gynecology today undoubtedly comes from Germany. In America (and elsewhere) we seem less patient, less willing to delve deeply, more ready to slight this object of our earlier, eager attention than are the Germans. They are apparently as keen as ever in the work of investigation. There now, as formerly, assistants, as well as chiefs of clinics, are taught from the beginning to contribute their share to the general fund, and so, in Germany, where nothing in the way of hard, persistent work discourages or daunts, we still find gynecology occupying a prominent and popular place. Still in the United States, the birthplace of the best in gynecology, though less popular, there is still a large amount of good work being done by men who are earnestly interested in gynecological problems, who are appreciative of its possibilities, and who have faith in its future.

As I have stated the popular interest in gynecology has waned largely because many of its problems have been solved. These problems are, however, largely the easier and more practical ones, and more especially those dealing with operative technique. It does not seem

*Read at a meeting of the Third Councilor District Medical Society at Sturgis, July 21, 1910.

likely that, barring some new and revolutionizing discovery, the advance in operative methods will be as marked as in the past, although the finishing touches that make an art of a science are gradually being added. If the more youthful days have gone, with all their brilliancy, wonderful achievement (and their mistakes), then the no less important ones of serious, patient, hard work have arrived. We do not lack for opportunity. Most important matters remain still to be solved, and, when solved, to be taught to the profession and laity. There can be no question but that such will necessitate the exclusive attention of men who can devote their time and efforts to them alone; gynecology will always, I believe, require men particularly fitted to deal with its peculiar problems, to deal with, operate and direct our women. At present, however, there are but few of the younger men who are going into it. If surgically inclined, they are apt to be attracted to the more general field. In ten more years this, too, it seems certain, will have gone through much the same experience. Some other department of medicine will, perhaps, occupy the lime-light.

What have the past ten years brought to gynecology? It seems to me the most important thing is that we, as a profession, have learned to view women as individuals, whose lives are not *altogether* centered in the pelvis and whose usefulness and happiness are not entirely dependent upon these organs. Rather we have come to study the life of the woman as a whole in all its complexities, the demands upon it under modern conditions, and its intimate and inseparable association with the lives of others. We have learned to discriminate as to the importance of these organs at various ages, and have been brought to realize the necessity of her maintaining her other functions in

the household and in society. To do this she must be well. Though our attitude toward the preservation of the pelvic organs should be a conservative and serious one, it should not make us blind to the facts of which I have spoken. There is accordingly, less attempt today than for some time past, among thoughtful men to preserve these organs after a woman has had a reasonable number of children or after forty years.

The second thought that occurs to me is that the nervous system of the woman is much better understood today, in its true relationship, to pelvis problems than formerly, and that this knowledge is being slowly disseminated among the profession. The day of the reflex neurosis came and went years ago. Like all things of its kind, it has left a trace here and there, and the gynecologist occasionally has cases referred to him whose headaches, digestive disturbances, and heart palpitation are confidently referred to a lacerated cervix, a relaxed outlet or a so-called inflamed ovary. This is, however, getting rarer each year. Again, the common habit of referring indiscriminately various states of ill nutrition and neurasthenia to the pelvis is no longer so strong as it was. We now recognize more clearly that these states, often exist without an appreciable disease of any organ, pelvic or otherwise, and that we must not ascribe to imaginary or slight pelvic abnormalities the cause of their existence. We know, as never before, the nature of neurasthenia, the frequency of its presence and understand better its relationship to the pelvis.

It may be put down as an axiom today that the minor lesions of the pelvis, such as endometritis, erosions and lacerations of the cervix, lacerations of the outlet and retrodisplacements in themselves are rarely productive of any marked

disturbance. The repair of these conditions may be and usually is necessary, since they may produce a certain degree of ill health and their neglect lead to more serious trouble; but we may not expect the cure of our patient in a markedly neurotic and tired state by doing away with them, unless in addition thereto, other factors producing her ill health are attended to. It is neglect of this very thing, more than anything else, that years ago brought gynecology into much popular disfavor, both with the laity and with the profession. Earlier recognition of it would have done away with many of the bad or indifferent results of operative work.

Neurasthenia in our women is produced by many causes, the least of which are minor lesions in or out of the pelvis; and to ascribe to any such minor lesions any great amount of importance in the production of a nervous condition is dangerous and very apt to be finally disappointing. The wear and tear of every-day life, which would include care and responsibility, indoor living, lack of sleep, minor but constantly recurring frets and worries, and, with some people, the monotony of their lives, are the potent and direct factors in its production. Major lesions, may, to be sure, bring about a marked neurosis through pain, hemorrhage or sepsis.

To pass on, however, to the diseases of the pelvis, one of the most important is, of course gonorrhœa. Until it invades the uterus and appendages, it remains to the gynecologist, except for its possibilities, rather unimportant. His chief concern at present is to prevent further spread of the infection, as far as we may, by warning her of the contagiousness of her disease, and the institution of such measures (most of them ineffectual) in the way of applications and douches which we are able to apply. These manifestations of gonorrhœa are apparently

but little controlled by any vaccine therapy. One cannot a hope, though, that they sometime will be. Gonorrhœa may invade the cervix without going further, but, as near as we may judge, gonorrhœal endometritis rarely exists any length of time without invading the tubes. When involved, a lesion, until now comparatively innocuous to the woman herself, becomes at once a very serious affair. A certain percentage of cases, when once the disease has gone this far, clear up satisfactorily and allow of future child-bearing, but I believe the vast majority some time or other require, radical removal for relief.

Conservative work for these lesions has no longer the strong preference that it once had. The tendency to remove the uterus and appendages under such conditions is greater now than formerly, and I may say, everything considered, the results are far more satisfactory. The saving of a uterus, with the removal of both appendages, has really nothing to recommend it. The saving of the ovaries and the uterus when the tubes are removed, is usually applicable to the younger women, and those with a strong sentiment against such removal. The results are too apt to be more or less unsatisfactory. If one good tube exists, however, with one or both good ovaries, they should, as a rule, be saved, because of the important possibility of child-bearing. Some such women have to be re-operated upon, but I believe this is today the stand most commonly held. No hard and fast rules can be made in this, as in many other gynecological indications, but what I have said serves today as a working basis, I believe, for many of our best gynecologists.

As to ovarian cysts, the position has long been a radical one, and remains so. With fibroids, the former more or less conservative tendency has, I believe,

changed to a more radical one. The rule for fibroids should be *removal*, either by, myomectomy or by sterectomy and only under exceptional circumstances should operation be advised against. There is marked risk of inflammatory or pressure complications or of malignancy. To wait upon a fibroid to see if it is going to grow larger or make other troubles is no longer considered safe nor wise by most men. With women near the forty mark, or over, hysterectomy is to be preferred to myomectomy. The younger the woman, the more reason for the latter. Most operators consider it wiser to remove a uterus than to leave one crippled by extensive and multiple incisions, or markedly hypertrophied. The habit of leaving one or both ovaries, however, when the uterus has been removed, has become a general one. With uterine cancer the tendency has been toward the radical operation, by which is meant the removal of the uterus and upper third or half of the vagina, and, barring the ureters, all of the structures at the base of the broad ligament and sometimes the glands higher up. We note also a more humane treatment of our inoperable cases. Practically, all such patients should, at the stage of necrosis and bleeding, be under supervision. Curettage and cauterization, following this up with other local treatments of various kinds, add to the length of life and almost invariably to the woman's comfort. To neglect these women, allowing them to die from hemorrhage of sepsis, is as bad as not to attempt to aid a patient with any other incurable disease. The difference is merely in the remedy.

Of late years there have been no very remarkable changes in the character of our minor plastic work. Before and during the early days of abdominal gynecology, men directed their principal attention to it and evolved operations which

have stood splendidly the test of time. If you wish to see fine plastic work done, go to the gynecologist who was in his prime twenty years ago. His is a work of art, which the younger men have never surpassed. When he is done with a cervix and it is healed, we see the virgin cervix. His perineum is one through which a child's head has apparently never passed. Our attention has been altogether too strenuously directed toward abdominal work to excel in the former. We may note, however, a few minor advances in perineorrhaphy. Instead of leaving the tongue-like projection that covers the rectocele in the wound, this is now usually cut away, the rectum whipped in high up in the vagina, and the levators and fascia directly and carefully brought together from above downward. I believe this gives a little better support than the old Emmett operation as commonly done. The so-called Mayo operation is but a modification of this, which does not remove the mucus membrane. My impression is, however, that in many instances this membrane is better removed, since it is apt to be redundant and give rise later to an annoying discharge.

Although as yet we understand but little in the matter of etiology of uterine prolapsis, practically, the operative results that are obtained are, on the whole very satisfactory, and in direct contradiction to those obtained ten years ago. The necessity of a good piece of plastic work on the perineum seems to be still an essential feature. The main changes that have taken place are in those efforts directed to the uterus itself. A good many men will remove the uterus in a woman who is near or beyond the menopause, whether the uterus be large or small, and are relying upon no operation from above upon the uterus, such as ventrosuspension or ventrofixation. The

operation done by many German operators, and one which has been especially recommended by Watkins, of Chicago, is a vaginal fixation, which brings the uterus through an anterior vaginal opening and fastens it directly to it, the bladder lying upon and over the fundus. This same operation serves as a most excellent cure for the simple cystocele of older women. Watkins' operation has given most excellent results, so much so that many men have almost given up ever removing the uterus for prolapse.

In the matter of retroversion the tendency has been to look upon it as rather less frequently calling for interference. Operations to cure displacements are rarely done alone, but often in combination with others upon the pelvic floor and appendages. Ventrofixation and suspension have been given up by most operators, principally because of the danger in subsequent child-bearing and the possibility of bowel obstruction. The round ligament operations, of which there are many, give equally as good results as regards cure, and are free from these dangers. In the matter of retrodisplacements and prolapse, the discussion of etiology still goes on. We shall never arrive at any definite conclusion until the problem has been worked out on an anatomical basis by actual dissection, and with due regard for and a deeper knowledge of our embryology. We may not ever be able to repair the actual damage that has resulted in such displacements, but we will at least have a rational basis on which to work.

From our present-day tendencies may we cast a look into the future. That the gynecologist is to be a man of wide education goes without saying, since this is true of all medical men. He must be a man who is not only well versed in matters of operative technique, and possessing technical skill, but he will have a special knowledge of neurology and the nutritional diseases which are the peculiar results of our modern life. He will understand and know how to direct the child in whom he sees the future neurotic, illy nourished, complaining woman. The American gynecologist will know more of pathology than he does now. Our most eminent men have been clinicians and operators, not pathologists—but this will not remain so in the future. The study of the functions of the generative organs is still in a most primitive state. We know but little of menstruation, even its simple mechanics. We know but little of the ovarian secretion, or its influence upon the body at large, or upon the sexual functions of menstruation or pregnancy, or of its co-relation with other ductless glands.

My object in this paper has been mainly to arouse in you a little fresh thought in regard to this important branch of medical science, to get you to think, if I can, of gynecology not as a developed and inactive department of medicine, but, on the contrary, as a slowly maturing one that holds within its grasp tremendous possibilities not simply for the present good of our American women, but still more for the future ones

TUBERCULIN: ITS VALUE IN THE DIAGNOSIS AND TREATMENT OF TUBERCULOSIS*

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Tuberculosis, its prevention and its cure, well merits the ubiquitous importance which it today holds to the public. To the medical profession, this pathological process exhibits insidious phases, particularly in its incipency, which often escape (and without blame to the physician) the most careful methods of physical examination. It is in these obscure cases that the use of tuberculin, as a diagnostic agent, has proved its efficiency to suffering humanity.

In October, 1890, at the Berlin Medical Congress, the late Robert Koch first described his now so-called "old" tuberculin. The ever-gullible medical profession hailed it enthusiastically as a sure diagnostic agent and as a sure specific for the disease. Its subsequent universal application, its indiscriminate use, and the abuse to which it was subjected, together with the disrepute into which it fell for so long, is now a matter of medical history; and not until the recent work of Sir Almroth E. Wright were we able better to understand its action and the dangers incident to the previous methods of administration.

Today, in the use of tuberculin for the purpose of diagnosis, "old" tuberculin is used almost exclusively in some form. Of the various tests proposed, the four following are the most important: (1) The original subcutaneous test; (2) the von Pirquet (1907) or cutaneous scarification test; (3) the Calmette-Wolff-Eisner (1907) or the ophthalmo reaction; and (4) the Moro (1908) or inunction test. To these

might be added the differential test of Detre, which, however, is but a modification of the scarification test of von Pirquet. Briefly, the symptoms constituting a reaction to any of the above are as follows: In the subcutaneous test, a rise in temperature, a general feeling of malaise, a focal reaction at the point of lesion, and a local reaction at the point of injection. In the von Pirquet there obtains a reddish zone covered with minute papules or vesicles; in the ophthalmo reaction, we see a characteristic reddening and congestion of both the ocular and the palpebral conjunctivae; and in the Moro test there develop red nodules or papules upon an inflammatory base, usually accompanied by some itching.

The administration of tuberculin, whether for diagnostic or for therapeutic purposes, is but one form of vaccine therapy elaborated by Wright. He demonstrated that, following an injection of any bacterial vaccine, there is first a fall of the opsonins in the blood serum of the individual, called the negative phase, and accompanied by an exacerbation of the symptoms of the disease; and secondly, a positive phase characterized by an amelioration of the symptoms and by improvement.

In the administration of the subcutaneous test, we inject a definite quantity of "old" tuberculin hypodermatically, and consequently are sure of the organism receiving a known amount. We can readily see the fallacies of the other tests in which we depend upon the skin and conjunctiva to absorb the proper amount. If the entire amount applied were absorbed, we would be reverting to the enormous doses,

*Read before the Third Councillor district meeting at Sturgis, July 21, 1910.

which in a large part were responsible for the disrepute into which tuberculin formerly fell. Although the Moro and the von Pirquet cutaneous tests are at the present enjoying widespread popularity, the consensus of opinion of careful workers favors the subcutaneous test; for in it we are dealing with a definite dosage, which produces the reaction at the point of application, as in the other tests, and also other factors which, I think, serve to distinguish a latent or a quiescent lesion from an active one. It has been claimed for the subcutaneous test that reactions are frequently observed in healthy individuals; but when we realize that from seventy per cent to eighty per cent of post-mortems show active, latent, or healed lesions of tuberculosis, might not these apparently healthy persons, who reacted positively, have or have had the disease?

Let us grant that both latent and active tuberculosis will react (as I believe it will) to the subcutaneous test. The factors of a reaction due to this test are four in number: (1) a rise of temperature varying from one to several degrees, usually not over two; a systemic reaction, most clearly described as a "grippy" sensation; a focal reaction at the site of lesion, consisting of an exaggeration of the signs and symptoms referable to said lesion; and a local reaction at the point of injection. My work has about demonstrated to me that the latter, the local reaction, occurs in both latent and active tuberculosis, as likewise does the rise in temperature. Hence, given the two preceding factors, we may say only, "You have, or at some previous time have had, tuberculosis." Symptoms or signs, dependent upon the focal reaction at the site of lesion, mean active tuberculosis; while the systemic factor is variable, occurring, however, with far greater frequency in active lesions. The subcutaneous is the most reliable test

when wishing to solve an obscure case, or to arrive at a positive diagnosis in so many of these incipient cases. I wish to present a few of my own results in the use of tuberculin in diagnosis:

The cases of which I have complete records, and in which I have applied the subcutaneous test number fifteen. I have used this test in ten cases clinically tubercular, and have found a positive reaction in all. Three of these showed no reaction to the Moro, and one was positive. I have used it in two cases suffering from affections clinically non-tubercular, and was unable to obtain a reaction in either. The Moro test was not applied in either of these cases.

I have used the subcutaneous test in three apparently healthy adults, and have obtained a local reaction and a rise of temperature in all. One of these cases had an enlarged cervical gland, which from the clinical history was evidently at one time the seat of an active tubercular process. The other two both gave clinical histories of a previous "run down condition," as they said, following a "cold," and lasting for about eighteen months in each case, but from which they later made a complete recovery. In two of these healthy adults the Moro test was negative. It was not applied to the other case.

I have used the Moro test further in two healthy adults; in one case of clinically tubercular cervical adenitis, and in one of clinically incipient pulmonary tuberculosis, and found no reaction in any one of the four.

After having found out that our patient has tuberculosis, the next question for us to answer is, "What can I do to help him?" We have for years known the beneficial results obtained by a rigorous routine of fresh air and nourishing food. We tell our patients to sleep out of doors if possible, and if this is not feasible, to sleep with all windows raised and the doors open

in order to secure all the fresh air possible. We tell them not to be afraid of a current of air. We tell them to spend the day-time in the open, availing themselves of the pure air and the sunshine. We feed them milk, eggs and beefsteak, and whatever other variety of nourishing, wholesome food that pleases their palate. We may administer creosote, tinct. nuc. vom., etc., *ad infinitum*,—but all with the purpose of securing a general tonic effect upon the whole system, and not with the idea of arresting a tubercular process any more specifically than the same treatment would hasten convalescence following pneumonia.

I am far from decrying the above treatment, as we have all seen the gratifying results following the same; but measuring the patient's resistance to tuberculosis in terms of his different immune bodies, we find but very little increase following the application of the treatment outlined above. The degree of health attained by said treatment will combat one disease nearly as well as another.

In tuberculin lies our only present hope of a specific therapeutic agent in the disease, and I believe it will accomplish what we desire in nearly all of our early cases, if handled properly, and if the patient does his part. The treatment is not one, however, to be applied to each and every case, nor is it to be used indiscriminately by members of the profession unless they are willing to consider the minutest details. While the principle is gradually ascending doses, it is not to be given the patient with instructions to increase the dose by one drop daily. After using it, one's first impression is a profound respect for tuberculin, as a most powerful toxin, and one which, if not properly handled, may do more harm than good.

The specific immunity attained by repeated injections of tuberculin has been

well shown by the results in a large number of cases by Karl and Silvio von Ruck (Asheville, N. C.). Their records show that on admission of 567 cases of tuberculosis, the agglutinating power of the patient's serum was lost in every case in dilutions greater than 1:50, while in 30 it was absent even with undiluted serum. Upon discharge, 23 of the total number showed lost or diminished agglutination; but all of these 23 grew worse or died; 133 cases showed agglutination in dilutions up to 1:100; 193 cases showed agglutination in dilutions up to 1:200; 173 cases showed agglutination in dilutions up to 1:300, and 45 cases in dilutions over 1:300.

The amboceptor, as determined in 71 cases, showed an average increase for each case of 150% between dates of admission and discharge; while for the same number of cases the opsonic index showed an average increase of 27% per case.

Their complete records of the blood alkalinity on admission and on discharge in 367 cases of tuberculosis having tuberculin treatment show very interesting results, and the possibility of prognostic deductions being made from its degree on admission. One hundred seventy-four cases classed as "apparently cured," showed an average increase of .23 with 1 as the normal; 90 cases, "much improved," showed an average increase of .15; 62 cases, "improved," showed an average increase of .14; 19 cases, "stationary," showed an average increase of .04, while 20 cases that became worse showed an average increase of .06.

The entire above series of cases had had tuberculin treatment, and the increase in immune bodies is well shown. In the examination of 23 cases that had recovered without tuberculin, the blood alkalinity and the agglutinins had not increased over what they had ordinarily found on admission in their other cases. It was below

normal in 4 cases, and the agglutinins gave an average of 1:10. The blood alkalinity was normal in 6 cases, and the average agglutinins 1:15. Blood alkalinity was above normal in 13 cases, ranging only from 1.05 to 1.15 with an average of only 1.07; average agglutinins 1:108.

Returning now to the practical side of the specific treatment of tuberculosis, I believe that sufficient evidence is present to establish the position that the protective substances, as well as the blood alkalinity, are increased after active immunization, and that there occurs a corresponding improvement in the tuberculous process. The general hygienic-dietetic method of treatment brings about only a better state of cell nutrition; but in doing so helps to maintain the specific immunity, and hence is of the highest importance.

The particular form of tuberculin to be used in therapeutics is a subject over which there is much diverse opinion. The principal forms in use are the Bouillon Filtrate of Denys, the T. R. or tuberculin ruckstande, and the Bacillen Emulsion. The difference in composition between these preparations will not be discussed in this paper. Some workers prefer the Bacillen Emulsion in the hope of stimulating the production of immune bodies to the whole bacteria, rather than to any one product of their growth. Others prefer the T. R. for various reasons, and still others base their hopes on the Bouillon Filtrate. Some have even gone so far as to mix equal proportions of all three. I used T. R. for some time and then sought to try out the Bacillen Emulsion. This latter preparation seemed more prone to produce local reactions at the point of injection, and I consequently began the use of Bouillon Filtrate, which I am now using. In my work to date I have no preference for either the T. R. water extract or for the Tuberculin of Denys.

The subject of dosage is one regarding which no fixed rules can be made. Each patient is a case unto himself, and the dosage must be varied accordingly. However, in the absence of any contraindications, I increase the dose by certain amounts at certain regular intervals in nearly all cases. In the advent of any undesirable signs or symptoms, the case must then be treated as an individual.

Not all cases of tuberculosis are suitable for specific treatment, but incipient cases with a temperature not over 99.4° to 99.8° usually show a gratifying improvement after two to four months treatment. I have used tuberculin in cases of tuberculosis of the skin, intestinal tuberculosis, primary tubercular pleurisy with effusion, incipient pulmonary tuberculosis, and in one case with laryngeal involvement. While the ideal treatment in these cases is first-class hygienic-dietetic routine combined with specific therapy, I have found marked advantage following tuberculin in cases in which the patient was unable to leave his vocation, and I here wish to report a typical case with which we have to contend.

CASE

Mrs. W. A., age 31.—Widow, tailoress. First seen Jan. 2, 1910. Patient thinks trouble started from a severe "cold" which she had two years ago. Ever since, she has had some cough and an irritation in the throat. Onset was gradual, with increasing cough and hoarseness, some anorexia and general diminished dynamic activity. Appears anemic and somewhat emaciated, but says she has lost no weight. Continual hacking cough with a moderate amount of sputum which has been streaked with blood occasionally during the last week. Sense of oppression in both sides of chest, chiefly upon the right, and some pain around costal border in axillary line increased by coughing. Examination of

larynx shows an anemia of the true vocal cords and of the arytenoids, with a small ulcer on the left cord. Examination of thorax shows beginning involvement of right apex.

This patient was started on a routine tuberculin treatment on Jan. 12, 1910, with a dosage of 2-10,000 mg. of Bouillon Filtrate. She was instructed to sleep with both windows raised, and to be in the open air as much as possible. However, she has worked in the tailor shop from nine to ten hours every day, and while having had instructions as to diet, has been eating in a public restaurant. Her last injection of tuberculin on July 20, 1910, was 2-10 mg., and she now has practically no cough, and no sputum, except, as she says, "she has to clear her throat occasionally in the morning." She has no pain in chest, no hoarseness, and has gained five pounds in weight. There has been a marked decrease in her "nervousness" and irritability, and she says she feels as well as ever.

Typical of another class of cases of incipient pulmonary tuberculosis is the following:

CASE

Mrs. L., age 27.—Married, housewife. First seen May 31, 1910. Says she caught cold in November, 1909, and since then has been troubled with attacks of cough, dyspnea, great prostration and nervous depression. Since the beginning of the trouble

there have been periods of only a few days that she has felt comparatively well. Patient was never pregnant. Menses regular. No night sweats. Has a scanty sputum. Patient has lost fifteen pounds during last six months. Chest examination shows early involvement of upper lobe of left lung and beginning involvement of right apex. Patient was in a position to take the open air most of the time daily, and has had a daily walk of about one mile. Does no housework. Sleeps indoors with two windows raised. Takes a regular mixed nourishing diet, including three eggs and one pint of milk daily. She received her first injection of tuberculin on June 20, 1910, of 1-1000 mg. Since then she has received seven injections, and when seen July 21, 1910, had gained six pounds. Has no dyspnea, no sputum, and but very little cough. Has none of her former depression of spirits, and says she feels well again. Her series of injections will, however, be continued for three or four months longer.

The above two cases, while not proving that tuberculin is a sure cure in the disease, are typical examples of what may be expected of specific treatment when combined with the hygienic-dietetic treatment, and of what may be expected from tuberculin alone when used in selected incipient cases of tuberculosis.

SURGICAL SUGGESTIONS

When a foreign body in the nose is not easily removable with forceps, remember Félizet's simple method—the injection of warm water into the opposite nostril. Use a syringe or douche nozzle that snugly fits the naris. Begin gently and slowly, then increase the force. As the resistance suddenly ceases, the foreign body is shot out (or at least is dislodged), by the pressure

of the fluid reflected from the posterior wall of the pharynx.—*American Journal of Surgery*.

When attempting to loosen with a hook a foreign body almost or quite obstructing the auditory canal the passage of the instrument along the antero-inferior aspect of the canal involves the least risk to the drum membrane.—*American Journal of Surgery*.

SOME DISTRESSING BLADDER SYMPTOMS: HOW CAUSED AND HOW CURED *

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At the outset it is necessary to keep in mind a few facts, as follows: The normal adult bladder contains, without discomfort, about eight ounces of urine; the bladder mucous membrane is not sensitive to touch, heat or cold; that while the sense of over-distention is well known, this, in health, is the only sensation of distress that may be attributed to it.

On the other hand, the portion of the urethra, both in male and female, in close proximity to the bladder, is highly sensitive to irritants; and dysuria may be caused by a pathologic urine irritating this portion of the normal urethra, or a pathologic urethra be irritated by a normal urine and all in the presence of a normal bladder.

Catarrhal cystitis may exist without pain but where pain is present, it is caused by disease other than the cystitis.

Bladder symptoms, as generally understood, may be considered under the heads:

- Pollakiuria or frequent urination
- Dysuria or painful urination
- Enuresis
- Neuroses
- Haematuria and
- Pyuria

In general these symptoms may be clearly due to bladder disease, or as certainly to troubles without the bladder, while other cases must be considered with great care unless one should fail in diagnosis.

My purpose today is not so much to discuss fully all of these symptoms as it is to present a few pathological specimens and histories of cases, thereby emphasizing a few points that seem to me of interest or

importance. The last symptom mentioned that of pus in the urine, is a very frequent one, and in my experience has more often than not been due to a secondary infection of the bladder or the bladder has been a receptacle for purulent urine instead of being itself infected.

If there is no kidney complication or urinary obstruction, in the absence of bladder stone, tumor or tuberculosis, removal of the source of infection will generally be followed by disappearance of pus from the urine. I think we are prone to forget that the bladder mucosa is exceedingly tolerant of infections, and as we become firmly convinced of this fact, the fewer diagnoses of cystitis are we inclined to make.

It may not be the case everywhere, but in large cities by far the largest number of pyuric cases are found in young men in whom a gonorrhoea has extended not back into the bladder, but into the prostatic urethra, and the purulent secretion passed back to be mixed with the urine. Needless to say the urine becomes clear when the urethra and adnexa cease secreting pus.

Again there are certain diseases of the kidney in which the chief symptom is pyuria, although dysuria and pollakiuria may be present and the bladder be healthy or nearly so. Not to extend this part of our discussion, let me present this specimen of a tubercular kidney, chiefly to emphasize the need for accurate diagnoses, together with the following history:

Miss B, age 27, called on me Jan. 22, 1904. She had for two years been troubled with her urine. Much of the time she had

* Read before the Tuscola County Medical Society.

been treated by a good physician, who, besides giving her internal remedies, had frequently washed out the bladder. The urine was very turbid, and the weight ninety-seven pounds. Dr. Shurly, who directed her to me, had been treating her several months for a cough. After washing out the bladder and introducing a cystoscope, the mucous membrane was seen to be normal, with exception of a velvety roughness around right ureteral opening; the left being normal. Ureteral catheter showed urine from left kidney normal except for presence of little blood, which I believed to be of traumatic origin, while from right ureter nothing was obtained until catheter was withdrawn and found to be choked with a pus cast six inches long. Palpation revealed tumor in right flank and a diagnosis of tubercular kidney made. I removed the kidney at Harper Hospital. Patient immediately began to gain weight until she tipped the scales at 118 pounds, and seemed perfectly well when last seen, a few months ago.

Appreciating the impossibility, in the time allotted me, to discuss at any length all symptoms of bladder disease, the time has not yet arrived when one can ignore, whenever an opportunity arises, the impulse to say something regarding haematuria.

It may be that we may not be able to do very much in attempt to cure the condition when caused by a malignant growth in the bladder or tuberculosis when well developed, and even some so-called benign growths may be as fatal to life as carcinomata, yet stones may be removed long before they often are. Some papillomata may be operated before their bases undergo cancerous degeneration. The kidney, and not the bladder may be found to be the fountain from which the blood flows. The importance of making sure of this arises from the fact that this symptom is

so evanescent that the patient, and I am sorry to say many a physician, is lulled into a sense of security which the facts do not warrant.

I cannot forget how several years ago a woman sent for me and I examined her bladder and found blood coming from the left ureter, but casting aside all of my suggestions, she doctored at sanitariums and with quacks until a tumor of the kidney which was then in its incipency, had grown during a period of two years, until all hope of surgical help was past.

The kidney is not to be needlessly sacrificed, and yet if it contains a large stone, as the one shown you, or is the seat of chronic tuberculosis, even if there be secondary infection in and about the ureter and even on the bladder mucosa, or if it be enlarging from probable malignant disease, or is the source of recurring attacks of haematuria, there is no reason under heaven why it should not be exposed, examined and, if need be, removed. Two-thirds of one healthy kidney is all that one needs, and the shock from nephrectomy has not, in my experience, been great or the mortality high. I hope we all are optimistic, but in the face of haematuria we are not to *guess* that it is due to congestion *somewhere* or to bladder varices, but must insist on knowing its origin and pathology.

Bladder neuroses are studied under the three heads,—atony, paralysis, and irritable bladder. The first, while its chief symptom, retention, is very similar to that of paresis, is not due to central nerve lesion, but loss of normal muscular force from disease of the muscular coat, as in cases of arteriosclerosis, parenchymatous cystitis, or a persistent over-distention of the bladder.

In the former case little can be done other than relieve by regular catheterization, but in the latter we find a good reason for overcoming the obstruction by operation,

whether it be a stricture of the urethra or an obstructing prostate. An acute prostatitic congestion may be accompanied by atony, and as the congestion disappears and the obstruction with it, the tired muscle again recovers its normal elasticity. When, however, following the acute retention, it is discovered that the prostate is decidedly and permanently obstructed, as must be the case in the specimens shown you, the only wise proceeding, as I see it, is, unless there be some marked contraindication, to remove the gland.

Not infrequently we are consulted by men in middle life who tell us either that they have a stricture or an enlarged prostate. The sound reveals no stricture and the finger no enlarged prostate. Such patients one does not like to see, knowing that little can be done for them. Their inability to start the urinary stream is due not to obstruction, but to syphilis of the cord. To the physician this symptom often announces the early stages of locomotor ataxia or general paresis.

That form of neuroses called irritable bladder is quite interesting. The patient may urinate every fifteen minutes during the day and sleep like a child at night. Casper attributes this irritability of the sensory nerves sometimes to a small meatus. I think it often due to abnormal or excessive sexual excitement. Psychic conditions also have an undoubted effect upon the motor nerves, causing irregular contractions of the detrusors or relaxation of the compressor muscle.

Personally, I dislike to be compelled to explain symptoms on a psychic or neurotic basis for want of a cause whose relationship I can understand. I feel sure that with some of these irritable bladders careful research will demonstrate pathological lesions that are fully explanatory.

The cases which I wish to report, as it happens; are all females, and have to do

with inflammatory conditions at the vesico-urethral junction. The cause of the inflammatory area seems different in each of the three cases. Little can I find in print regarding any of these conditions, probably because all that is needed to solve the mystery of the causes of the symptoms presented is the application of certain well-understood surgical principles. Indeed, I should scarcely dare to bring these before you were it not for the fact that all of these women had been treated without relief by men of good reputation.

I have said that in each of these cases the dysuria and pollakiuria was due to inflammation of the urethra at about the urethra cystic junction, or where the vesical sphincter may be thrown into spasm as a result of the inflamed mucosa beneath it.

The case first to be reported is one of a good many that I have seen, and to the urologist is of frequent occurrence, but I am persuaded that it is generally overlooked by the general physician or surgeon.

CASE I

Mrs. F. K.—No children; no miscarriages; her general health had been perfect, but some years ago suffered a short attack of cystitis. After long bicycle ride on the fourth of September and then sitting on a cold and damp veranda, she noticed irritation of the urethra, and for sixteen days before I saw her, on October 6, she had not been able to urinate and had been catheterized frequently, the operation not having caused much pain. The urine was acid and of normal specific gravity, but contained a few pus cells and many staphylococci. Cystoscopic examination revealed a healthy bladder wall with small congested spots in neighborhood of right ureter, but at bladder opening of urethra underneath the vesical sphincter was a ring of inflamed mucous membrane nearly one-half inch wide, which I believe caused spasm of the sphincter muscle and urinary retention.

A bladder irrigation with weak sublimate solutions killed the bacteria, while stretching the urethra with the cystoscope and application of silver nitrate to the granular area, cured her like magic. She has had no similar trouble since. This patient had been treated for obstinate cystitis, but there was no bladder inflammation to speak of, and the case was anything but an obstinate one.

CASE 2

URETHROCELE

Mrs. A. S., age 42.—No children, generally well until 1905, when round ligaments were shortened to overcome some uterine displacement which seemed to be causing discomfort. She improved for a time, and then for two years suffered distressing vomiting attacks, when another surgeon did a uterine fixation and removed the Fallopian tubes and a cyst from the broad ligament. Again she seemed better for a few months, when she began to complain of pain in the bladder with involuntary passages of urine. When over-tired would occasionally have attacks of hysteria. It was stated that at times the urine was clear and at others turbid; at time of examination the urine was very slightly turbid, containing pus. Cystoscopic examination did not reveal disease of the bladder other than slightly increased trabeculations. Examining the urethra from the vagina, there seemed to be a sac about the size of a large filbert pointing toward the vagina from the urethral wall. Intense pain was produced by pressing up against the urethra at location of urethral sphincter.

For a time I irrigated urethra and bladder and applied sol. silver nitrate to deep portion of urethra, which together with tonics, seemed to do good. I had never seen a case like this and treated her for several months. She had her ups and downs, at times pains in the rectum, at neck of bladder and frequent urination,

the urethrocele being ever present, but the urethra not being to the same extent inflamed or the urine within the sac purulent at all times.

At Harper Hospital, Feb. 9, 1909, I passed a large sound into the urethra, turned the beak into the cavity and from the vagina incised the urethra through the entire length of the urethrocele. Through the incision passed finger into the bladder, well dilating the sphincter, curetted the sac, then applied sol. silver nitrate, gr. xl to $\bar{5}$ i, and packed with gauze after having introduced a self-retaining glass catheter. She did nicely; the pain immediately ceased; the distended sac contracted rapidly and had entirely disappeared when she left the hospital. She has reported within a month that she is absolutely well.

Nothing could have done her more good than this simple procedure, yet for a time it seemed to me that I must in some manner quilt up this large sac or do some other complicated operation. It was not necessary.

Her severe symptoms occurred when the urethrocele sac became foul with retained urine and the inflammation of the urethra at its junction with bladder became more intense.

CASE 3

UTERINE FIBROID PRESSING UPON URETHRA-CYSTIC JUNCTION.

Mrs. S. E. C., age 58.—Widow; health generally has been good; no children. For a long time the call to urinate had been sudden; has had pain on urination which has increased for several years. The calls have been sudden, urgent and the act painful. Much of the time for the past two years she has been confined to her bed. When I saw her, at the suggestion of Dr. Henry A. Cleland, Sept. 14, 1909, it was on the theory that she had some obscure bladder disease. She had not lost flesh, and looked well. Had

had several physicians and some quacks and was completely discouraged.

She complained bitterly of pain when the catheter was passed, but the urine withdrawn was clear and shown to be normal, both by chemical and microscopical tests. I could feel a movable mass to left of uterus and a nodular mass attached to or a part of the uterine body to the right. The possibility of a malignant growth involving bladder wall, a non-malignant growth outside of uterus not the cause at all of the pain or some unthought of condition, made a cystoscopic examination under anesthesia absolutely necessary. This was done at St. Mary's Hospital, Sept. 24, 1909. Bladder capacity was found to be eight ounces, and bladder wall perfectly normal. I

could now nicely palpate the growths, which I believed by their pressure caused congestion at the cystic orifice and this the dysuria, of which the patient so bitterly complained. Malignancy in all probability was not present and an operation advised. These specimens were removed a few days later. They are an infantile uterus studded with small fibroids and a large fibroid two and one-half inches in diameter attached to body of uterus by long pedicle, allowing the tumors to fall between cervix and bladder, pressing strongly against vesico-ureteral orifice. Since that time the patient has had scarcely an uncomfortable moment, and is one of the most grateful patients that I have ever known.

VARICOSE ULCERS OF THE LEG*

D. W. ROOS, M. D.
Manistique, Michigan

An ulcer is defined as an "open sore remaining stagnant." It is distinguished from an abscess, the latter occupying some cavity, and from a slough, which is the death of some visible portion.

Ulceration is spoken of as a "molecular death." Not all open sores, however, are ulcers. Unna says, "So long as a loss of substance induced by trauma, gangrene, etc., does not granulate, it is not an ulcer, nor is it if it granulates well." In the true ulcer there is a constant tendency to heal.

New connective tissue is formed, and this is transformed into granulation tissue, but there is also a constant tendency to necrosis or death of these granulations. Therefore, we have granulation and necrosis, regeneration and destruction. If

the retrograde changes equal or exceed the reparative, the ulcer will remain stationary or constantly increase in size. The skin around the edge of the stationary ulcer is generally thickened, due to the accumulation of epidermic cells, and the surface of the ulcer is usually covered with a layer of granulation tissue.

The causes of ulceration are legion. Some occur during the course of certain infectious diseases, as syphilis and tuberculosis; others from pronounced disturbances in nutrition. Decubitis, or bedsores, occur where there is a feeble circulation which is arrested by the continual pressure of the bed upon the part; or, we may have the neuro-paralytic ulcer which comes from diminished innervation. A combination of these two latter factors is found in the very large and intractable ulcers which we are very apt to get in our cases of acute

*Read at the Eighteenth Annual Meeting of the Upper Peninsula Medical Society, Sault Ste Marie, Aug. 4 and 5, 1910.

transverse myelitis. Finally, ulceration may be caused by a passive hyperemia due to a retardation of the venous circulation, and this brings us to the class of cases upon which I will chiefly dwell; namely, the varicose ulcer of the leg.

Venous stasis is, we might say, the principal etiological factor in the production of varicose ulcers. All other conditions are secondary or accidental, and the reason this ulcer appears most frequently upon the leg is because we have here the greatest obstacle to the return of the venous blood. This is why we most often see this condition among those who labor long hours upon their feet, and among women whose frequently impregnated uterus presses upon and retards the flow of venous blood through the pelvis.

These varicosed veins are easily recognized. If near the surface, they are plainly evident upon inspection; if deeper, they can usually be palpated and recognized as soft caverns. Pathological conditions aside from the ulcer are usually found in the skin. The latter does not receive sufficient nourishment, and may be thin, stretched, and eczematous. We often have a peculiar pigmentation showing a dark bluish color. The successful treatment of these ulcers, and their associated conditions, depends not so much upon the method or remedy employed as upon the careful attention to technique and meeting the different conditions as they exist in different individuals. But I will add that the great majority of these cases can be cured and the patient made comparatively comfortable by this same careful attention to detail.

As venous stasis is the one prime factor in the causation, so its removal or amelioration is the principal consideration in the treatment. But very few patients can afford to lie in bed a sufficient length of time to accomplish much of a result.

Elastic bandages or stockings are fairly useful when new, but soon become soiled and stretched, and fail to accomplish their purpose. For some time I have used Unna's gelatine paste in these conditions, and I find that when properly and persistently used, I am seldom disappointed in the result. It is both a medicament and a support.

The leg may be in such a condition, however, that the paste cannot be applied at once. An associated eczema must be treated separately. If there is but little maceration of the epithelium, Lassar's paste, with or without the addition of ichthyol, is very efficient. If there is much serous oozing, however, greasy pastes or ointments will not be well tolerated. Drying and antiseptic powders made up of varying proportions of oxide of zinc and boric acid, or lotions containing the above with some astringent may be used to advantage.

There may be an excessive cornification and the thickened margins will not allow healthy granulations to form. This condition is best treated by covering the entire ulcer, and two-thirds of the circumference of the leg, by strips of zinc oxide adhesive plaster, one inch wide, beginning slightly below and letting each succeeding strip overlap the other about one-fourth or one-third of an inch, and then covering the whole limb with a snug-fitting bandage. This should be changed daily, and the pressure of the strapping will soon remove by absorption much of the old cicatricial tissue.

Or there may be a deficiency in granulation, the ulcer may be torpid and anemic. In this case the application of stimulating remedies is indicated, such as balsam of Peru, tincture of iodine or iodoform. When the ulcer and surrounding skin are in a fairly healthy condition, it is ready for the application of the gelatine paste.

The formula most frequently used by myself is the following:

Gelatine	℥i
Zinc oxide	℥ss
Glycerine	℥i ℥vi
Aqua	℥iii

Mix and prepare over a vapor or hot water bath.

The amount of any of these ingredients may be varied, and other medicaments, such as ichthyol or boric acid, may be added.

This is spread, while quite warm, over the entire surface of the cleansed and disinfected leg by means of a brush. When the paste begins to harden, a muslin bandage is placed around the leg, and a second coating applied, and this is followed by a second muslin bandage. A window must then be cut through the dressing directly over the ulcer, through which dusting powder and absorbent material may be applied daily.

This dressing may remain from three to seven days and is easily removed with hot water. Later, it may remain two, three and even four weeks. It exerts a gentle elastic pressure, and is much more comfortable than an elastic bandage or stocking.

This dressing will also be found of good value as a prophylactic during pregnancy, when these veins sometimes become engorged and extremely painful. And again, after your gynecological patient has left you and has spent a few weeks in one of the metropolitan hospitals, has undergone a more or less complete evisceration of her pelvic organs, has been duly impressed with the greatness of the man behind the knife, and your own relative insignificance, you can sometimes regain a portion of your lost prestige by applying this dressing, and thus relieving the subacute phlebitis that frequently develops after these operations.

INFANTILE PARALYSIS AND PELLAGRA

There were 569 deaths from acute anterior poliomyelitis, or infantile paralysis, 116 from pellagra, 55 from rabies, or hydrophobia, and 9 deaths from leprosy in 1909, in the death registration area of continental United States, which comprises over .55 per cent of the total population, according to the Census Bureau's forthcoming bulletin on mortality statistics for 1909 submitted to Census Director Durand by Dr. Cressy L. Wilbur, chief statistician for vital statistics.

It is reported that, of the 569 deaths from infantile paralysis, 552 were of white and only 17 of colored persons. There was a somewhat greater incidence of disease among males and an increased mortality in August, September, and October.

Numerous outbreaks have occurred in this country, the most important of which were those in Vermont, in 1894, and in New York and Connecticut, in 1907. The 569 deaths compiled for

the registration area for 1909 were widely distributed, and indicate endemic or epidemic prevalence in many parts of the country. It should be remembered, the bulletin points out, that the census data relate only to registration sources, and that for the non-registration States the deaths are only those returned from the registration cities, contained therein.

Pellagra is a new disease in the mortality statistics the bulletin states. Only 23 deaths were returned from this cause for 1908, and no deaths for any previous year except one for 1904. Such deaths undoubtedly occurred, but were not recognized and were consequently returned as due to other causes or as of unknown cause.

As the registration area includes only a small portion of the country in which pellagra is most prevalent, it would seem that many hundreds and perhaps thousands of deaths from this disease must occur each year in the United States. How many can never be known until systems of complete registration of deaths are more generally adopted.

The Journal of the Michigan State Medical Society

All communications relative to exchanges, books for review, manuscripts, advertising and subscriptions should be addressed to Wilfrid Haughey, A. M., M. D., Editor, 24 West Main Street, Battle Creek, Michigan. The Society does not hold itself responsible for opinions expressed in original papers, discussions or communications.

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OCTOBER

EDITORIAL

MEDICAL LEGISLATION

About this time every second year members of the medical profession are approached by members of other professions, callings, guilds, etc., asking our support for certain proposed legislation in which they are interested. This legislation is carefully worded, so that the casual examination given by the doctor fails to detect its faults and dangers, and, to be a good fellow, or in order not to deny a friend, he signs the petition.

This thing occurred two years ago when the opticians under the name of "Optometrists" asked us to support a bill for the regulation of the practice of "Optometry." Two hundred and forty-three of our professional brothers signed these petitions, without investigating the matter further than to see that it was a measure to regulate "Optometry," and they failed to see that it was a measure designed primarily to open the back door to medical practice, to give to incompetent and untrained men the right to practice in certain fields of Medical Science.

This is but one specific instance in which these cults have caught medical men unawares, and have secured enough apparent support from the medical profession to befuddle the learned Solons at Lansing.

Michigan is not alone in this state of unpreparedness of the medical profession—

optometrists are recognized by more than twenty states—solely because the profession was caught napping. We thought we had good laws regulating the practice of medicine, but failed to see that certain fields might be sliced off and given to others untrained or poorly trained. To remedy this state of things the Michigan State Medical Society has a standing committee on Legislation and Public Policy.

At the reorganization of the State Society provision was wisely made in the By-Laws* that no measure could go to Lansing with the support of the State Society until it was approved by this Legislative Committee, and by the Council,—both bodies small enough that each member can give the matter careful study and determine if it is contrary to the spirit of our medical laws, or the interests of our profession.

At our Bay City meeting, the Michigan Retail Druggists will present (this editorial was written Sept. 15) a plan of legislation which they propose to ask the legislature to enact next winter. The editor has asked them for the details of this plan but has not received them. We believe there is nothing vicious in what they propose, but wish to caution our members not to sign petitions nor endorse *any* legislative measures this year, or in future, until they have been considered and have received the endorsement of our committee, appointed for this express purpose. These matters will be considered carefully at Bay City, and will be reported in the November number of the JOURNAL, in ample time for those of our members who wish, to endorse and support any measure they may desire to support.

We wish it distinctly understood that we are in no way attacking the Michigan Retail Druggists' Association or their policy. We are sure the Michigan Retail Druggists Association would much prefer our intelligent support than our blind support in any matters which they may advocate.

*By-Laws chap. ix, sec. 3.

COLLEGE MERGER

The American Medical Missionary College of Battle Creek and Chicago, has merged with the College of Physicians and Surgeons, the Medical Department of the University of Illinois.

Since the establishment of the American Medical Missionary College fifteen years ago, the Board of Trustees and Faculty have made it their aim and endeavor to maintain a standard equal to that of the best American Schools. During that time there have been about two hundred graduates whose records in their practice and whose standing before State Boards and other examining bodies have demonstrated the efficiency of the school. The college at present is in good standing with every state board in the United States and is a member in good standing of the Association of American Medical Colleges.

The board of trustees of the American Medical Missionary College carefully considered all of the matters relating to the best interests of medical education, and, although the school has excellent standing in the United States and abroad, more than a dozen of its students having secured diplomas from foreign schools since their graduation, and, although the school participates in an endowment of \$200,000 and the trustees are able financially to meet any and all legal requirements to maintain its position as a first-class medical school, the board of trustees were convinced that the best interests of the students and the school would be served by merging with a state university. The American Medical Missionary board will continue to promote the training of Medical Missionary students in the merged school, and not a single student has or will abandon his medical missionary plans on account of the new arrangement.

With reference to the property in Battle Creek, the College Building will be used by

the Sanitarium and the various schools which are under its management. So far as the public can see no change has taken place in the arrangements "on the hill." The laboratories each year make more than 16,000 examinations for the Sanitarium and the city, and this work will continue as heretofore.

TRANSACTIONS RECEIVED

During the past month we have received from Dr. W. C. Stevens of Detroit, three copies of the Journal of months that were missing from our files; also one copy of the Journal and fourteen copies of the Transactions from Dr. W. L. Dickinson of Saginaw.

This makes our files much more complete but there are still several numbers of both the Journal and Transactions missing. We wish to publicly thank Drs. Stevens and Dickinson in the name of the society for these donations.

MEDICAL DEFENSE

Is Medical Defense a good thing for the Michigan State Medical Society? Several suits have been threatened and none have come to trial. In the matter of defense, therefore, the only argument we can make is that it has served as a prophylactic measure.

On Sept. 20, 1647 members of our Society had paid their dues—not a material change from conditions in past years. Of these 1574 had paid their defense dues—ninety-five and five-tenths per cent. This is an overwhelming endorsement of the plan.

A few members have resigned from the Society, and others have dropped out on account of our defense plan, but their number has been more than replaced by new members, so that about sixty more names have been added to our rolls than have been removed therefrom.

All but three of our County Societies

stand unequivocally committed to the plan. One of these three has selected its member of the Medico-Legal Committee, but has paid no dues into the fund. One has sent us no report either way, and has paid no dues of any kind, defense or other. A third—with a membership of 110 held a meeting some months ago with forty-six in attendance and voted not to participate. The By-Laws distinctly require a majority of all the members, voting not to participate, else the society does participate. No further action from this county has been reported to the state secretary and no dues or subscriptions have been received, notwithstanding the oft-repeated requirements of the postal regulations.

RUBBER GLOVES

In olden times the surgeon kept a soiled coat hanging in a convenient place to use in surgical or obstetrical operations that he might keep his ordinary wearing apparel clean and unstained with blood.

Washing his hands as a preparation for an operation was a superfluity—he was about to soil them still more than they were. It remained for Semmelweis, Holmes and Lister to teach us the necessity of surgical cleanliness of the hands. Cleansing the hands became a science and an art.

We have been taught to wash our hands with soap and water, with lime and soda, alcohol, etc. We are told to spend ten minutes or more with the toilet of the hands, and after all this along comes the bacteriologist with the statement that our hands are still not sterile.

Next came rubber gloves, the acme of asepsis—for the only sure germicide, heat, can be applied—the gloves can be boiled. Surgeons and obstetricians adopted the gloves and many always wear them.

So far all is progress, but—

When we knew that we had to scrub our hands until there was very little skin left we religiously did so, with wonderful success, and extremely few septic patients. Then came the rubber gloves. Surgeons doing much operating said they simply could not scour their hands as they had been doing in the past—the hands were always tender. They offered a sigh of relief with the advent of rubber gloves. Obstetricians did likewise.

The result is easy to see. There are fewer sore and tender surgeons' and obstetricians' hands, but how about the patients? How about the puerperal mothers? Are there fewer cases of peritonitis—of puerperal fever?

Occasionally we read of a woman who has died two or three weeks after childbirth, of a fever. Sometimes the obstetrician is a man who prides himself upon always wearing rubber gloves. He had "an experience or two which taught him that he must wear rubber gloves."

We do not deprecate the use of rubber gloves—far from it—we use them ourselves; but, and this is most important, do not neglect the scrupulous care of the hands. We fear that there often develops too much of a sense of security with rubber gloves, and consequently a feeling that nine minutes' washing of the hands is sufficient instead of ten. In fact we have heard such expressions made by surgeons of extensive training.

One should remember that the glove-covered hand is subject to maceration during a long continued operation. The skin at best is septic, and as a consequence germs grow, are liberated beneath the rubber glove, and await only the prick of a needle or other accident to the glove.

Wear the rubber glove by all means, but wear it "mixed with brains", on a hand as sterile as art and science can make it

IN MEMORIAM

Dr. R. A. Jamieson died at his home in Detroit, August 9, 1910. He was born in Brock township, Canada, June 16, 1843, and is survived by his wife, Mrs. Emma L., two daughters, Mrs. J. J. Delbridgt, Mrs. W. S. Duncan, Jr., and two sons, Dr. R. C. Jamieson and Andrew Douglas Jamieson.

Dr. R. A. Jamieson attended the public and private schools of Brock township, Canada, spent several years at McGill University, and completed his medical studies at the university of Pennsylvania, receiving his M. D. in 1866, coming to Detroit in 1870. For many years Dr. Jamieson was Professor of Medicine at the Detroit College of Medicine. He retired from this position in 1895, becoming Emeritus Professor of Clinical Medicine. Dr. R. A. Jamieson was a member of the Wayne Medical Society, of the Michigan State Medical Society, and of the American Medical Association.

Dr. Jerome J. Valade, of Newport, Monroe county, died on Monday morning, August 15. Dr. Valade was the son of the late Dr. Joseph L. Valade and was born in Erie, November 11, 1859. He obtained his education in district schools, the Monroe public schools and the State Normal College. At the age of twenty-three he graduated from the Detroit College of Medicine. He located in Newport, following his graduation and took up his father's practice. In April 1906, he took over the Bank of Newport that had been organized a few months before, and the institution immediately grew and prospered under his careful direction. The last year or two the doctor had limited his practice of medicine to a few of his old patients, as the strain was too much for him. He was one of the organizers of the Monroe County Medical So-

ciety and never missed a meeting until the last when he was too weak to attend. He died of chronic nephritis.

That he realized the end was near is evidenced from the preparations and arrangements he made before dying. Calling his friends and advisors together, he made arrangements that his banking business should continue and be placed in competent hands.

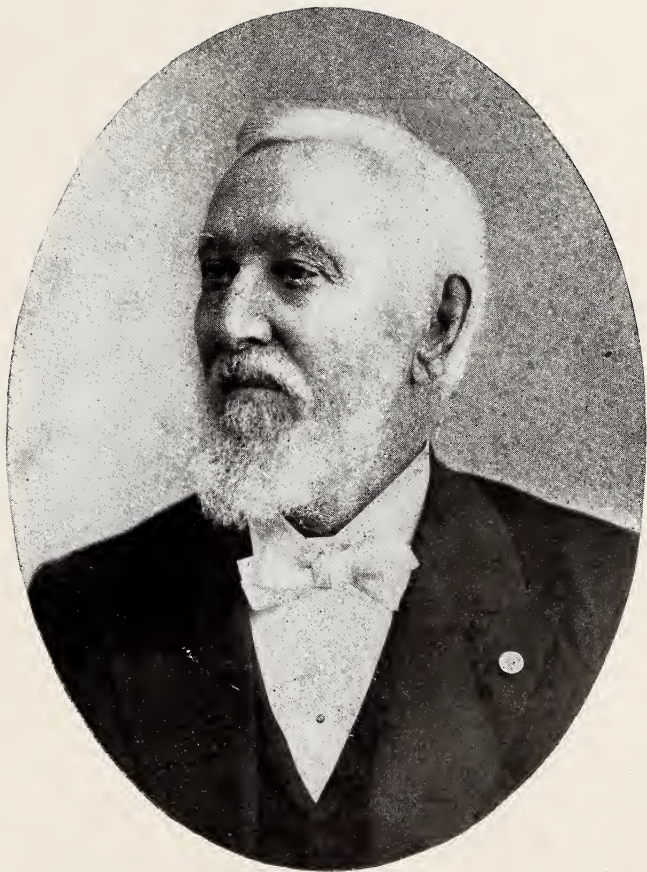
He was married to Miss Mary Thayer of Vermont, fourteen years ago, and from this union there are three children. Death severed this union three years ago, and in June, 1909, he was married to Miss Partlen, who survives him, with a 10-months-old son, Jerome J., Jr.

Dr. Geo. W. Chisholm, of Pontiac, Mich., a graduate of the Detroit College of Medicine in the class of 1904, died at his home in August.

Dr. Simeon S. French, a member of the Michigan State Medical Society, since 1877, its president in 1888, and since 1902 an honorary member, died September 10, at his home in Battle Creek.

Dr. French was born in Otisca, Onondaga county, New York, August 25, 1816. When but a lad of five years his father died. He secured an education entirely by his unaided exertion, completed his literary studies at Onondaga Academy, and in January, 1842, graduated with honors from the Geneva Medical College, N. Y. He immediately began practice at Onondaga, but in 1847 came to Battle Creek, where he practiced until his retirement six years ago.

During the first year of the civil war, he received an appointment as assistant surgeon of the Sixth Michigan Infantry and the next year was transferred to the Twentieth Michigan. He was constantly on



S. S. FRENCH, M. D.

the operating staff, and a portion of his time acting as brigade and division surgeon.

The Doctor's connection with the political life both of the city and the state has been of no little importance. For two terms he was Mayor of Battle Creek and he served as alderman one term, supervisor several terms, and health officer fourteen terms. He was originally a Whig in politics. To him belongs the honor of reading the first resolution which resulted in the forming of the present republican party.

His interest in schools was shown by his work in their organization. While still in New York, he established, with the aid of the proper authorities, the first public school for the Indians in the United States.

It was a pleasure to talk with Dr. French. His mental faculties were perfectly clear up to the end, and his view of the practice of medicine was clear and interesting. He was practicing in Battle Creek before the researches of Semmelweis, which resulted in such a marked decrease in puerperal fever were undertaken. He had seen the whole progress of modern aseptic surgery, from its inception to its present perfection.

The funeral occurred Monday, Sept. 12, and was largely attended by the medical profession, six of whom acted as pall bearers, by the G. A. R. of which Dr. French was an honored member, and by the Odd Fellows of whom he was the oldest member in Michigan. Below are appended a few words of appreciation from medical men throughout the state:

He was a noble man. J. H. CARSTENS.

Dr. French's life was full of days, of deserved honors, for the distinguished services he had rendered his country, his state and the profession of medicine, and deserves a large place in the memory of his fellowmen, and of his survivors in the State Medical Society.

WM. F. BREakey.

I have long known and esteemed Dr. French.
CHARLES W. HITCHCOCK.

The death of the pioneer physician, Dr. French, after years of usefulness and devotion to the highest medical ideal, is the occasion of much grief to the profession of Michigan.

C. B. BURR.

I well remember Dr. French as one of the old men of the profession, when I was only a youngster, and at that time his wisdom, integrity and strong individuality impressed me in a way to cause me never to forget him.

Strong in his convictions and ever loyal to whatever cause he espoused, he has left an impression for good upon the profession of Michigan as well as upon the people of the community in which he lived.

ARTHUR M. HUME.

I shall remember Dr. French not only as prominent in his profession, but as a leader in all affairs that made for a stable government, and good citizenship.

J. B. GRISWOLD.

Dr. French's life has bridged a wonderful epoch. Measured by world events and progress, he lived to be older than Methuselah. How many times I have thanked the good Lord for allowing me to live, to look and to learn in this last half century. How much more Dr. French must have been impressed with his almost century life. The doctor was rich in abundance of love for his fellow men. It made us all love and honor him.

C. B. STOCKWELL.

I have it in my heart to do honor to Dr. French. After all 'tis the soul of a good man we honor and with many a doctor and with uncounted patients and friends I join in holding Dr. French in honor and affection. I think life is wonderfully fine to a man like Dr. French. It was a rich and abundant life—rich in that finest thing in life—service, and Dr. French was the man who found the divine happiness in the divine service, and it was fine that he rounded out a long life as well as a rich one.

I do not know any member of his family, but even in their present sorrow, they must have the joy of feeling that Dr. French must today stand refreshed, renewed and happy with having heard the summing up of his earthly life:

Well done, good and faithful servant,
Enter thou into the joy of thy Lord.

DAVID INGLIS.

THE OWEN BILL FOR THE ESTABLISHMENT OF A FEDERAL DEPARTMENT OF HEALTH, AND ITS OPPONENTS *

S. ADOLPHUS KNOPF, M. D.

Professor of Phthisio-Therapy at the Post-Graduate Medical School and Hospital, New York

Anyone who is familiar with the workings of governmental departments of health such as exist abroad, who has seen or experienced the sanitary benefits bestowed upon the people by the Reichs-Gesundheitsamt of Germany (Imperial Department of Health), the Conseil Supérieur de Santé Publique de France, and the similar institutions of most European governments, cannot help feeling amazed that any opposition should exist to the establishment of a federal department of health in this country. This amazement becomes all the greater when one considers some of the elements of which the opposition to that measure is composed. There is, for example, the *New York Herald*, a large and influential newspaper with an honorable career and a brilliant record for advocating everything that is conducive to the public welfare. Only in this particular instance has it allowed itself to become the mouth-piece of principles to which it is in general opposed, that is to say, principles and measures whereby the good of the people at large and the progress and welfare of mankind are hindered, and the lives of individual American citizens endangered. This particular newspaper is independent of any political party, or professional or religious association which might prejudice its point of view, and still it opposes a measure whereby all citizens of the country would benefit. The writer cannot help thinking that this powerful news organ has not informed itself thoroughly of the real purpose and function of a federal department of health, and in its attack upon a large body of men such as compose the American Medical Association, the American Public Health Association, the National Association for the Study and Prevention of Tuberculosis, the American Association for the Advancement of Science, and the various medical academies of the country, it is certainly

misguided. It is to be hoped that the distinguished editors of the *New York Herald* will soon see that in their attitude toward the Owen Bill they are not on the side of the people, but are working against the welfare and interests of the masses.

The principle of the Owen Bill, establishing a Department of Health, has been endorsed by the President of the United States, by Gen. George M. Sternberg, Surgeon-General of the Army (Retired), and Rear-Admiral Charles F. Stokes, Surgeon-General of the Navy, by Gen. Walter Wyman of the Public Health and Marine Hospital Service, by Dr. Harvey W. Wiley of the Bureau of Chemistry, by Governors of States by the Conference of State and Territorial Boards of Health, by the United Mine Workers of America, by the National Grange, by the Republican and Democratic platforms, and by numerous other organizations.

What is the principle of this bill which is advocated by thousands of men trained in medicine or sanitary science and interested in the public welfare?

Section 7, which embodies the main purpose of the Owen Bill, reads as follows: "That it shall be the duty and province of such a Department of Public Health to supervise all matters within the control of the Federal Government relating to public health and to diseases of animal life."

Section 2 of this bill deals with the unification under a Secretary of Public Health of the various agencies now existing which affect [the medical, surgical, biological, or sanitary service. There has recently been formed an organization which calls itself "The National League [for Medical Freedom." It has for its purpose to combat the Owen Bill, it is opposed to the establishment of a Federal Department or Bureau of Health. The name of this organization is certainly, if not intentionally, misleading. It cannot claim to battle for medical freedom, for there is not a word in the entire bill which could

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be interpreted as limiting the practice of medicine to any particular school. Their claim that the establishment of such a bureau of health would have any resemblance to a medical trust is entirely unfounded.

The life insurance and industrial insurance companies which advocate this bill certainly have no desire to limit medical freedom or to repress any system which offers the chance of lengthening human life. These companies do not favor medical partisanship, and their sole interest is to prolong the lives of their policy-holders by whatever means possible. Their actuaries state specifically that they believe human life could and would be lengthened by the establishment of a Federal Department of Health.

Lee K. Frankel, Ph. D., representing the Metropolitan Life Insurance Co., is a member of the Committee of One Hundred, appointed by the American Association for the Advancement of Science, to further the propaganda for the establishment of such a department. Neither the above-mentioned great newspaper nor any of the leading spirits of the "National League for Medical Freedom," all of whom, I regret to say, have allowed themselves to ascribe the worst motives to the members of the Committee, will deny that the names of the officers of this Committee show that it is thoroughly representative of the highest type of American citizenship. The officers of the Committee of One Hundred are:

President: Irving Fisher, Ph. D., Professor of Political Economy at Yale University.

Secretary: Edward T. Devine, Ph. D., LL.D., Professor of Social Economy, Columbia University, and Secretary of the New York Charity Organization Society.

Vice-Presidents are:

Rev. Lyman Abbott, D.D., LL.D., Emeritus Pastor of Plymouth Church, Editor of *The Outlook*.

Jane Addams, A.M., LL.D., Founder and Headworker of the Hull House Settlement, ex-president of the National Conference of Charities and Correction.

Felix Adler, Ph.D., Professor of Political and Social Ethics, Columbia University. Leader of the N. Y. Society for Ethical Culture.

James B. Angell, A.M., LL.D., Professor of Modern Languages and Literature and President Emeritus of the University of Michigan.

Joseph H. Choate, LL.D., D.C.L. (Oxford), Diplomat and United States Senator.

Charles W. Eliot, A.M., LL.D., President Emeritus of the University of Harvard.

Rt. Rev. John Ireland, LL.D., Archbishop of St. Paul.

Ben B. Lindsey, Judge, Reformer and Author, Denver, Colo.

John Mitchell, President of the Labor Union of America.

Wm. H. Welch, M.D., LL.D., Professor of Pathological Anatomy, Johns Hopkins University.

Need I say anything in defense of the Committee of One Hundred after having given the names of its officers?

Direct and most unkind comments, not to use a stronger term, have been directed especially against one vice-president of the Committee representing the medical profession. I refer to Wm. H. Welch, M.D., LL.D., President of the American Medical Association. Those who know Dr. Welch, and even those who only know of him, would justly think it absurd if I should see the need to say even a word in defense of this master of medical science. To us it is indeed difficult to understand that there could be any man or woman in this land capable of speaking ill of Dr. Welch. There is no name in the medical world which is more honored in this country and abroad, no medical teacher more admired, no one who has a larger following than this John Hopkins professor of pathology, and no physician more beloved and looked up to as representing all that is best and noblest in the profession than Dr. Welch. If there is any man in the American medical profession who is unselfishly devoting his high intelligence, his time, and his means to the public welfare, it is Dr. Welch. Gladly do we acknowledge him as our leader.

To accuse the president and members of the American Medical Association of selfish motives in advocating the establishment of a Federal Department of Health is absurd. If there ever was an unselfish movement inaugurated, it is this one. It is a movement by physicians for the reduction of disease which, *ipso facto*, means a movement against their financial interests.

The writer is a member of the regular profession; he, nevertheless, would not wish for a moment to limit the freedom of any citizen to choose his physician from some other school or cult, providing the individual assuming the function and responsibilities of a physician had the training necessary to prevent him from endangering the life of his patient by lack of medical knowledge or skill.

The official mouthpiece of this "National League for Medical Freedom," is Mr. B. O. Flower, who had heretofore the reputation of a fighter for everything involving the spiritual, social,

and physical progress of humanity, and it is inexplicable to many of his admirers how he can lead a movement opposed to the improvement of the health of the nation. The vast majority in the ranks of this so-called "League," though they may be well meaning, noble, and earnest, are not men and women who have toiled patiently for years in order to acquire the thorough scientific medical training which enables one to assume that great responsibility of the care and treatment of the sick. They are unable to appreciate the inestimable value of federal help in preventing disease. These people are blindly following certain individuals who designate the regular profession as a medical trust, and accuse the thousands of noble men and women who are devoting their lives to the alleviation of human ills of a desire to monopolize medical practice. The establishment of a federal department of health would mean pure food, pure medicine, control of plagues and epidemics, the advancement of medical science and through it the improvement of the health and increase of material wealth of the nation. It is said that many of the individuals opposing the Owen Bill are commercially interested in the manufacture of drugs or patent medicines, of which latter the American people swallow about \$200,000,000 worth annually. Whether it be true or not that the National League for Medical Freedom is backed financially by drug manufacturers and patent medicine concerns, I am not prepared to say, yet even these men have nothing to fear from a Federal Department of Health if the drugs they put on the market are pure and the claims made for patent medicines do not delude the public or endanger its health. The element which clamors most loudly for medical freedom is composed in many instances of men and women who have attended one or two courses of lectures or got their "degrees" without any training at all, and have developed into "doctors" and "healers" in a most remarkably short space of time.

Because the American Medical Association has always advocated a thorough medical education, is pleading constantly for pure drugs, is opposed to quackery, patent medicines and nostrums, its 40,000 members are considered a medical trust. Yet it is in the ranks of this very American Medical Association that are found the greatest number of unselfish devotees to preventive and curative medicine. It is among this association that are found the men who have added the greatest glory to the medical and scientific reputation of

this country. America's greatest surgeons—Marion Simms, Gross, Sayer, O'Dwyer, Bull—were members of this association. McBurney, Jacobi, Stephen Smith, Welch, Osler, and Trudeau have graced this association by their membership for nearly half a century. The heroes in the combat against yellow fever—Reed, Lazare, and the hundreds of others who have devoted their best energies and knowledge and often sacrificed their lives for the sake of medical science, were members of the American Medical Association.

One of the most illustrious members of the American Medical Association is its former president, Col. William C. Gorgas, of the U. S. Army, Chief Sanitary Officer at Panama, an adherent to the regular school. It is thanks to the genius, the scientific and thorough medical training of Dr. Gorgas that the formerly deadly Isthmus of Panama has now become as sanitary a region as any. A great patriotic enterprise, important to commerce and the welfare of nations, was made possible by this man. He has labored and is constantly laboring for the establishment of a Federal Department of Health because he knows the inestimable benefit which such a department would bestow upon the nation.

Whatever advance has been made in medical science in America or in Europe has been made by scientifically trained men or by physicians not without but within the ranks of the regular profession. The greatest benefactors of mankind are those who diminish disease by prevention and cure. As another illustrious example of medical benefactors, may I be permitted to cite that great trinity of scientific giants who through their labors have accomplished so much in reducing disease and lessening human misery in all parts of the globe. They are Pasteur of France, Lister of England, and Koch of Germany, all of them aided their governments by direct participation in the governmental health departments. We are still mourning the death of perhaps the greatest of the three—Robert Koch. I do not believe that there is, even in the camp of our opponents, in this so wrongly called "League for Medical Freedom," a single intelligent individual who will deny the inestimable benefits which Koch has bestowed upon mankind through his discovery of the germs of tuberculosis, of cholera, of the spores of anthrax, of tuberculin, and through his many other equally important scientific labors. Yet, had it not been for the Imperial German Reichs-Gesundheitsamt, which is the equivalent of the institution we are striving for

—a Federal Department of Health—Koch never would have been able to devote his life, energy, and great genius to those important discoveries through which thousands of lives have been saved in all civilized countries during the past few decades. It was while working in this governmental institution, which is doing exactly the work the Owen Bill asks the Federal Department to do, that Koch discovered the tubercle bacillus and the bacillus of cholera. Because of the discovery of the comma bacillus, we no longer have those fearful cholera epidemics which formerly decimated our own and other countries. This disease can now be easily diagnosed, and by proper quarantine its mortality can be reduced to a minimum. And what shall we say of the progress that has been made in the fight against tuberculosis because the Federal Department of Health of Germany enabled Koch to do research work and thus discover the bacillus of tuberculosis to be the primary and only direct cause of the disease. As director of the Hygienic Institute and member of the Reichs-Gesundheitsamt he inaugurated that wonderfully effective campaign against tuberculosis whereby the mortality from this disease in Germany has been

reduced to nearly one-half what it was prior to the discovery of the tubercle bacillus.

Under Koch's inspiration and guidance and in the same institute many great scientific discoveries of incalculable value to humanity were made. Foremost among them are the works of Ehrlich, one of Koch's most celebrated pupils, who recently gave to the world a new remedy which promises to prove a specific in an affliction from which mankind has suffered for centuries.

As co-worker in the Kaiserliche Gesundheitsamt and the Institute for Infectious Diseases, affiliated therewith, we must also mention Behring, the discoverer of the anti-diphtheritic serum. Thanks to the discovery of this serum thousands of young lives are now saved which would formerly have fallen victims to the terrible disease known as malignant diphtheria. This was made possible by the opportunity given to the workers in the Reichs-Gesundheitsamt and Imperial Institute for Infectious Diseases.

Can there be any better argument in favor of the establishment of a Federal Department of Health?

COUNTY SOCIETY NEWS

UPPER PENINSULA MEDICAL SOCIETY

The eighteenth annual meeting of the Upper Peninsula Medical Society was held at Sault Ste Marie, on Aug. 4 and 5, 1910, in the rooms of the La Sault de Ste Marie Club. The morning session was called to order by Dr. C. J. Ennis, president of the Chippewa County Medical Society. Dr. Ennis introduced the Rev. Archdeacon Lord, who pronounced the invocation. The Hon. Frank P. Sullivan then delivered an eloquent address, welcoming the visitors to the Soo, and assuring them that the city was theirs as long as they favored us with their presence.

Dr. E. T. Abrams, of Dollar Bay, being absent the president's address was read by Dr. G. T. S. Gregg, of Calumet. (Published in this issue of the JOURNAL.)

The meeting was presided over by the Vice-president, Dr. Robt. Bennie, of Sault Ste Marie. Dr. A. I. Laubaugh, of Calumet, read an able paper on "Club Foot."

Dr. H. S. Smith, of Ishpeming, read Dr. Felch's paper on "Arteriosclerosis." In the discussion Dr. J. H. Carstens said that regulated daily ex-

ercise, keeping digestion at par, and the ingestion of not less than five pints of fluid per diem, will prevent the arteries becoming sclerotic.

Dr. C. W. Thompson, of Newberry, read a very interesting and instructive paper on "General Paresis." He stated that ninety per cent of such cases treated at the Upper Peninsula Hospital for the Insane gave history of syphilis.

Dr. W. K. West, of Painesdale, read a paper on "Fractures and Their Management," a very practical paper. Dr. West has had a wide experience with fractures, and the paper was listened to with marked attention. A general discussion followed. A banquet was held at the La Sault de Sainte Marie Club at eight o'clock, Dr. Ennis presiding as toastmaster. Toasts were responded to by the Rev. Lord, Rev. Kennedy, Hon. F. P. Sullivan, Dr. Harrison, Dr. Carstens, Dr. Gostanin, Dr. Gibson and others.

At the business meeting, Friday morning, the following members were elected officers for the ensuing year:

Dr. C. J. Ennis, Sault Ste Marie, *President*.
Dr. Wm. Elliott, Escanaba, 1st *Vice-president*.
Dr. T. W. Sholtes, Munising, 2nd *Vice-president*.

The society accepted Delta County's invitation to hold its next meeting in Escanaba.

Dr. H. J. Hornbogen, of Marquette, reported two interesting cases: (a) Tuberculosis of the Choroid. (b) Homonymous Hemianopsia. The former was especially interesting, as there seemed to be a primary tubercular condition of the choroid, which was cured by injections of tuberculin.

Dr. E. H. Webster, of Sault Ste Marie, read a paper on "Establishing District Hospitals for Tuberculosis," taking up especially the cost of construction and maintenance.

Dr. G. J. Dickison, of Sault Ste Marie, read a paper on "Forceps: Their Use and Abuse in Obstetrics." The paper covered the subject thoroughly, and was discussed by Drs. H. S. Smith, H. W. Long and J. H. Carstens.

Dr. D. W. Roos, of Manistique, read a paper on "Varicose Ulcers of the Leg," (Published elsewhere in this issue of the JOURNAL.) In the discussion that followed, Dr. A. W. Hornbogen described a method of treatment that was entirely new to the members present. A perforated tin plate is cut three-eighths of an inch larger than the surface of the ulcer. This plate is strapped firmly over the ulcer, and the leg strapped with adhesive plaster, as a support to varicose veins; an absorbent dressing is placed over the plate. The points in favor of the method are the rapidity of healing, the lessened amount of attention required, and ease of application.

The visitors were taken in launches to the Canadian Soo and shown through the Steel Plant and Pulp Mill. About fifty-five members and visitors were present.

I. V. Yale, *Secretary*.

THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION

The Mississippi Valley Medical Association met at the Hotel Ponchartrain, Detroit, Sept. 13, 14 and 15.

Dr. H. O. Walker, Mayor Breitmeyer and Dr. J. H. Carstens, president of the Michigan State Medical Society, and Dr. A. D. Holmes, welcomed the guests.

President Frank P. Norbury, of Hospital, Ill., delivered an address on "The Teaching of Clinical Psychiatry," in which he had many years' experience. The treatment of mental disorders is now receiving close attention, and the medical fraternity does not attempt to hide the fact that little progress has been made in the treatment of insane persons. The truth of this is forcibly illustrated by the average state asy-

lum, where patients are simply herded together and left to await the inevitable end. There have been attempts at clinical treatment, but the private practitioner is outstepping public officials, who should be the leaders in the movement. Neurologists now agree that the greatest weakness of insane asylums is the herding system and they insist that every effort should be made to keep patients busy and occupied, giving them as much work as possible in the open air.

Dr. John K. Mitchell, of Philadelphia, a well known neurologist, delivered the address in medicine, his subject being, "The Modern Doctor—His Successes, His Failures, and His Future." It was a careful summary of the science of medicine, in which Dr. Mitchell held that the modern doctor is far better equipped in the field of preventive medicine and the care of public health than the old-time country doctor, for the reason that today knowledge of medicine is better defined and the present day physicians have aids which were unknown 25 years ago.

In concluding Dr. Mitchell ventured the prediction that the time would come when the nation would enlist its doctors the same as it now enlists its soldiers, who would fight disease shoulder to shoulder; when the man who allowed disease to pass him would be subject to court martial, and that the battle would be waged and won against everything but old age.

At the conclusion of the morning session the 14th, all the members were taken to Parke, Davis & Co.'s plant, where they had luncheon and were then permitted to inspect the various laboratories and departments. At 3 o'clock the members and their ladies boarded the steamer *Pleasure*, which went down as far as the Livingstone channel and then headed for St. Clair.

The following officers were elected for the coming year:

Pres., Robt. H. Babcock, Chicago, Ill., 1st Vice-Pres., A. D. Holmes, Detroit, Mich.; 2nd Vice-Pres., Chas. E. Barnett, Fort Wayne, Ind.; Secretary, Dr. Henry E. Tuley, Treasurer, Dr. Samuel C. Stanton.

CALHOUN

The Calhoun County Medical Society held its 3rd Quarterly Meeting in Marshall, Sept. 13, 1910. President Powers presiding.

Some twenty-three members were present. Dr. Angus McLean of Detroit was the guest of the day and gave a very interesting and practical talk on "Duodenal Ulcer."

Dr. A. W. Alvord of Battle Creek outlined "Some Things the State Board had done." He briefly went over the work of that body during the past ten years and showed how Michigan had advanced to the head of the procession for better requirements and consequently better men in the profession.

Dr. Jas. T. Case gave a paper on "High Blood Pressure and Some Phases in its Treatment." He was followed by Dr. A. F. Kingsley with a "Report of Two Cases of Hemorrhage in Obstetrical Practice."

A committee consisting of Drs. Alvord, Haughey, Sr., and Brown was appointed to draw up proper resolutions in memory of Dr. S. S. French, whose death occurred in Battle Creek, Sept. 10, in his ninety-fifth year.

Drs. C. W. Ryan and Clara Radabaugh were elected to membership in the Society and five other applications referred for consideration.

The meeting adjourned to Battle Creek, Dec. 6, at which time the banquet and election of officers for the ensuing year will take place.

A. S. KIMBALL, *Secretary*.

GRAND TRAVERSE

The regular monthly meeting of the Grand Traverse-Leelanaw County Medical Society was held in Dr. F. P. Lawton's office, Sept. 6, 1910. Twelve members were present. After the routine business was transacted, Dr. W. D. Mueller, of the Northern Michigan Asylum staff, read a very interesting paper on "Arteriosclerosis." The paper was followed by a general discussion.

The program committee announced that there would be three papers at the next meeting.

Dr. Halliday invited the society to meet at his office for the next meeting. Adjourned.

R. E. WELLS, *Secretary*.

MUSKEGON-OCEANA

The regular meeting of the Muskegon-Oceana County Medical Society was held at the residence of Dr. L. P. Munger at Hart, Mich., Friday, Aug. 12, 1910, at 5:45 p. m.

Members present were Doctors L. P. Munger, J. F. Denslow, Jacob Oosting, J. D. Buskirk, Geo. S. Williams, R. G. Olson, J. T. Cramer, V. A. Chapman, G. J. Hartman, J. M. Vanderven, G. F. Lamb, W. L. Griffin and H. B. Hatch.

Minutes of the last meeting were read and approved as read.

Dr. Munger read a paper on "Reports of Some Unusual Cases." The discussion was opened by

Dr. Geo. S. Williams, followed by Dr. Hatch, Dr. Lamb, Dr. Buskirk and others.

Meeting adjourned to dinner with Dr. Munger.

Regular meeting of the Muskegon-Oceana Medical Society was held at Pentwater with Dr. W. E. Dockry Friday, Aug. 26, 1910, at 5:25 p. m.

Members present: Doctors W. E. Dockry, P. A. Quick, C. P. Donelson, F. W. Garber, Geo. S. Williams, J. D. Buskirk, J. H. Nicholson, F. B. Marshall, L. P. Munger, Chas. F. Smith, J. G. Hartman, W. A. Campbell, G. F. Lamb, R. G. Olson, J. T. Cramer, Jacob Oosting, I. M. J. Hotvedt, J. F. Denslow and V. A. Chapman. Dr. Switzer of Ludington was also present as a visitor.

Minutes of last meeting read and approved.

Dr. Chas. L. Mix, Professor of Physical Diagnosis of Northwestern University, Chicago, gave an excellent lecture on "Arteriosclerosis." The discussion was opened by Dr. Geo. S. Williams, followed by Doctors Marshall, Olson, Donelson, Buskirk, and Dr. Mix in closing.

On motion of Dr. Donelson, seconded by Dr. Cramer, a vote of thanks was extended to Dr. Mix for the interesting lecture.

Meeting adjourned to dinner with Dr. Dockry.

Regular meeting of the Muskegon-Oceana County Medical Society was held at Casnovia with Dr. S. J. Drummond, Friday evening, Sept. 9, 1910, at 8:20 p. m., following dinner at 6:30.

Members present: Drs. J. F. Denslow, R. G. Olson, F. W. Garber, Jacob Oosting, W. P. Gamber, I. M. J. Hotvedt, S. J. Drummond, J. T. Cramer, P. A. Quick, Geo. S. Williams and V. A. Chapman, also Dr. Hersey as visitor.

Minutes of the last meeting read and approved as read.

Dr. T. M. Koon of Grand Rapids read a paper upon "The Diagnosis of Tuberculosis," which was generally discussed.

V. A. CHAPMAN, *Secretary*.

O. M. C. O. R. O.

The O. M. C. O. R. O. Medical Society met in West Branch, Aug. 17, 1910. There were present Drs. P. M. Hickey, and Louis J. Hirschman of Detroit, and Wilfrid Haughey of Battle Creek, together with about twenty members of the Society.

Dr. Hirschman presented a paper upon the "Treatment of Rectal Cancer," the summary of which is given herewith.

Dr. Hickey gave a very interesting talk demonstrated by pictures, upon the "Value of X-Ray in the Diagnosis of Fractures, Dislocations and Diseases of the Bone." It is now possible to make accurate diagnosis between the different

cases of joint lesions, which in the past have been classed as chronic rheumatism. It is possible to diagnosis gout, sarcoma and cancer of the bone. In the early days of X-ray we were unable to make these diagnoses, being confined to fractures and dislocations of the bone and to foreign bodies. Investigators have been working and improving our technique for the past dozen or fifteen years with the results shown by this lecture. In making these investigations and these improvements in technique eleven men have sacrificed their lives to science. The last of whom was Mihran K. Kassabian, of Philadelphia.

Dr. Haughey addressed the society upon the questions of medical defense, of organization work, of our Annual Meeting, of our loyalty to the Society and to its Journal, and to advertisers in the Journal, who while they are deriving their income from the medical profession see fit to return to the medical profession some of their publicity appropriation.

At the close of the meeting a supper was served to the members and guests at the hotel.

ARCHIE MACKINNON, *Secretary.*

Some Rectal-Cancer "Don'ts"

Louis J. Hirschman, Detroit

1. Don't take it for granted that stomach symptoms are always due to pathology situated in the stomach. They are more often due to some interference with intestinal activity.

2. Don't ever take the patient's history of "indigestion" or "an attack of piles" for granted. Insist on a rectal examination in every instance.

3. Don't fail to make a proctoscopic examination of every case of so-called "constipation."

4. Don't take it for granted that the passage of bloody or slimy stools means dysentery.

5. Don't take it for granted that chronic diarrhea is always due to stomachic or intestinal indigestion.

6. Don't take it for granted that all you need to do for a case of so-called chronic diarrhea is to prescribe a limited diet and intestinal antiseptics and astringents. These cases demand proctoscopic examination for diagnosis.

7. Don't take it for granted that the patient's history of rectal hemorrhage means the presence of hemorrhoids.

8. Don't take it for granted that a cancer patient must be over forty years of age. The so-called "cancer age" means any time from puberty to senility.

9. Don't be led astray by the absence of the cachetic appearance. Many patients may be suffering from rectal cancer so far advanced as to be inoperable and yet appear to be in robust health.

10. Don't forget that the majority of patients suffering from cancer, give a history of constipation.

11. Don't fail to remember that ninety per cent of all patients suffering from rectal cancer give a previous history of intestinal indigestion, intestinal fermentation and so-called dyspepsia.

12. Don't forget that recurring attacks of diarrhea that are worse in the morning are very suggestive of commencing cancer of the rectum.

13. Don't forget that rectal cancers which comprise sixteen per cent of all malignant growths of the digestive tract and between eight and nine per cent of all cancers are diagnosed less often in their early stages than cancers in the other parts of the body on account of their insidious onset and the neglect on the part of the profession to make rectal examinations.

14. Don't fail to remember in examining for cancer of the rectum that a digital examination does not mean an examination of the rectum by any means. Ocular inspection by means of both proctoscope and sigmoidoscope are imperative for a correct diagnosis.

15. Don't fail to remove several small sections of tissue from every suspicious ulceration in the rectum or sigmoid of a patient giving a history of digestive disturbances, diarrhea or constipation. Don't rest satisfied with a single microscopic examination if it proves negative.

16. Don't forget that in inoperable cancer a colostomy retards the growth and adds from one to three years to the patient's life.

17. Don't forget that in inoperable cancer or in a cancer patient suffering from cardiac or pulmonary complications that colostomy may be done under local anesthesia.

18. Don't forget that the first indication for treatment in every case of cancer of the rectum is immediate extirpation.

The discussion of the technique of this operation does not of course come within the scope of this title. The author would conclude by reiterating that if every physician makes it a routine practice to examine every case presenting symptoms of continued digestive disturbances of indigestion constipation, diarrhea, the presence of blood or increased amount of mucus in the stool, he will occasionally discover the presence of cancer of the rectum or sigmoid early enough so that its prompt removal will result in a permanent cure of his patient in forty-five per cent of all cases, and a prolongation of life and comfort varying in time from three years up in at least twenty per cent of cases, which would, if not diagnosed early and removed, result in a mortality of one hundred per cent.

OTTAWA

The September meeting of the Ottawa County Medical Society was held Sept. 13, 1910, at the Council Rooms, Holland, Mich.

Dr. Peppler of Byron Center read a paper on, "Some Features of Clinical Diagnosis." The paper was written with the idea of provoking discussion and from this viewpoint was certainly a success.

Dr. Pepler seemed to take a very pessimistic view of the accuracy of the average diagnosis made in general practice and also of the efficiency of most forms of treatment. His statement that "about seventy-five per cent of all his cases would recover without the aid of a physician" is probably true of all cases. The duty of a physician is to give relief, shorten the duration of the disease, and prevent, if possible, more dangerous complications. It is not to be expected that even twenty per cent of all cases are serious in themselves, but the question is one of economy of time.

The discussion was, as would be expected from so radical a paper, very spirited.

Dr. T. H. Boot, of Holland, read a paper on "The Value of Quinine as a Test in Malaria," presented herewith.

The next regular meeting will occur Oct. 11, at Holland. This is our annual meeting and election of officers

GEO. H. THOMAS, *Secretary.*

The Value of Quinine as a Test in Malaria

T. H. Boot, Holland

Speaking of syphilis, Bartolow said "When in doubt give K. I." This was before the day of the "Spirochete." Similarly, Dr. Palmer used to say "any fever that failed to yield to the use of quinine, was thereby proved to be non-malarial." This was before the day of the Plasmodium.

Formerly when malaria was more prevalent than it is now, and when, in the form of remittent and intermittent fever, it was an almost constant factor in the daily life of the people. The accuracy of a diagnosis of malaria, rested altogether upon the "therapeutic test" by quinine. At the time the fact that a fever or for that matter any ailment, yielded to the use of quinine was taken as a full proof that the morbid condition was malarial in its nature.

Of late years, and especially since the introduction of laboratory methods of diagnosis, the great value of which are too well known to call for any remark, the tendency seems rather to be to rest the accuracy or inaccuracy, of a diagnosis upon the result of a bacteriological analysis. This is true not only in the case of malaria, but for other diseases as well. Generally speaking this position is the correct one; but I am satisfied that the cases in which malaria is present, and in which the *Hæmatozoon*, or *Plasmodium* of Laveran is not demonstrable, are by no means few. And it is in these cases that the value of quinine as a test is shown. To say that the use, of any other drug would have given equally good results, is disproved by experience, and sounds like that therapeutic nihilism that has no use to speak of, for a *Materia Medica*. That malaria is hydra-headed in its manifestations, is an admitted fact, and at the present time I think these

manifestations are much more likely to assume irregular forms than those of the Tertian or Quartan forms once so common. It is more than probable that in these irregular forms of malaria the difficulty of isolating and demonstrating the *Plasmodium* becomes greatest, and at times impossible.

At least such is the inference to be drawn from a series of cases reported by R. A. Gardner. This series includes cases of dysentery; of quartan diarrhea; of ulcerative stomatitis and many others; in only one of which was the parasite found, and all of which yielded promptly to quinine, after other treatment had failed.

Owing to its rarity I would like to report here a case of what I believe to have been Tertian malaria or intermittent fever.

The accuracy of the diagnosis rests on the therapeutic test by quinine. The patient, a man of thirty-five, of good family and personal history, had enjoyed good health up to two days before the full development of the present illness. At that time he was taken with a severe diarrhea accompanied by a feeling of malaise extending over a period of twelve hours when the symptoms subsided without medication and he felt as well as usual. The next day he felt well. On the third day the diarrhea being present, he was taken with a chill followed by fever and later by profuse sweating. On this day I saw him and found his temperature 104, pulse and respiration accordingly. The day following I found him feeling well, no temperature and no symptoms apparent. Next day, however, there was again the cycle of chill, fever and sweating and I concluded my patient had intermittent fever. Following a mercurial and saline I gave him sixteen grains of quinine which drug in the same dose was repeated the following day. This proved effective. There was no return of the symptoms after the first dose of quinine and no other treatment save a tonic.

We come now to the crux of our subject. Does the result following the use of quinine in this or for that matter any case, recovering under its administration, prove the presence of malaria? I believe that in the absence, or even in spite of a demonstration by laboratory methods to the contrary, the therapeutic test by quinine does just that.

Incidentally I would say that I believe the initiatory diarrhea in the case reported to have been a malarial outbreak.

WAYNE

On September 12, 1910, the first regular meeting of the Wayne County Medical Society took place. The meeting was called to order by the retiring president, Dr. Holmes. Dr. Angus McLean, the president-elect, was then escorted to the chair by Drs. McGraw and Flintermann.

Dr. McLean gave a short address in which he thanked the society for conferring upon him the honor of becoming their president and expressed

his desire to continue with the policies so well begun by his predecessor; above all, to make the new home and library a real success, something the society ought to be proud of.

The secretary for the coming year, Dr. R. C. Jamieson, next announced his willingness to perform his duties to the best of his ability and for the interest of the society.

Dr. Holmes now gave the annual address of the retiring president. He showed how the past year had been very successful in both a scientific, social and financial way. He thanked the different committees, the board of trustees, the chairman and members of the program committee and secretary for their untiring efforts, also the members of the society for their hearty co-operation; with pride he presented to the society the result of the combined labors of all, a home and a library of its own, the realization of which the Wayne County Medical Society had longed for and desired many years. The success of this undertaking, as well as of any proceedings of the society, depends, he said, as much on the individual members as upon the officers.

Some of the methods followed in successfully purchasing the new home were now enumerated; \$42,000 all payable in five years, has been subscribed by 260 members. In the beginning it was hoped to raise \$50,000. The balance to complete this amount will easily be raised during the coming year. The home was purchased under a land contract for \$18,500, \$1,500 to be paid down, \$4,500 to be paid on or before August 30, 1910, \$2,500 to be paid on or before June 30, 1911, and the balance \$10,000, on or before June 30, 1912. Up to date \$6,000 has been paid, having to borrow only \$500 of this amount. As the expense of equipment and maintenance is greater the first year, the members have been asked to make their first installment as large as possible in order that all obligations might be met. Three rooms on the second floor have been leased to the Detroit Clinical Laboratory for \$50 a month. This and an affiliation of the dentists, pharmacists, chemists and engineers, which is very probable, will aid materially in reducing the expenses for maintenance, which will be about \$2,000 a year.

The near future ought to see an auditorium for which there is room in the rear. In conclusion, Dr. Holmes said that medical men need just such a place as this home. Doctors are inclined to live too much alone with the rich and morbid as their associates; hence, they grow introspective and sometimes morbid. They should take more

time for recreation, for they owe it to the public, to their families and to themselves. This medical home ought to become a means to foster just such conditions, and there is no reason why some rooms could not be set aside where games of all kinds could be indulged in, and even light lunches served. This building should be a meeting place of doctors, noons, afternoons and evenings.

Secretary and Treasurer's report in substance is as follows:

Balance on hand Sept. 1, 1909.....	\$ 637.07
Received from dues.....	672.97
Received from Bulletin.....	211.50
	<hr/>
Total	\$1,521.54

Expenditures	\$ 731.91
Sept. 1, 1910, balance in bank.....	789.63

Thirty-seven new members were enrolled during the past year.

There are still about 200 doctors desirable and eligible for membership. They have not joined simply because they were not asked.

During the past year death has claimed five of our members—F. D. Summers, C. N. Lake, W. S. Anderson, J. F. Bennett and R. A. Jamieson.

R. C. ANDRIES, *Reporter.*

NEWS

A well disposed citizen of Battle Creek has announced through the mayor a donation of \$30,000 to install a filtering plant at Lake Goguac, the source of the municipal water supply. Lake Goguac is a public resort and bathing place of about three square miles area, and an efficient filtering plant is sadly needed—but \$30,000 would not begin to cover the expense and the acceptance of the gift is problematical.

The city of Battle Creek has bought a ten-acre plat of land just on the outskirts for \$3100, upon which it is proposed to erect a contagious disease hospital following the cottage plan. The plans are not yet completed, but Battle Creek is assured a modern up-to-date place for the care of all contagious diseases.

The Bay City council on Monday evening, Aug. 15, appropriated \$1,200 for the purchase of the site for a detention hospital. The special committee reported that a location had been selected, but would not be made public at present. The property is in the out-skirts of the city, and it is said will cause little objection on the part of people in the vicinity.

Dr. Frederick B. Miner, announces his resignation from the medical staff of the Oak Grove Hospital, and the opening of an office in the new Walsh building, North Saginaw St., Flint, Mich. In practice special attention will be paid to the diseases of children and orthopedic surgery.

Dr. J. H. Powers, of Saginaw, was married at Ionia, Sept. 5, to Miss Lenore M. Beattie.

Dr. A. L. Alger of Saginaw fell from a 25-foot ladder, Sept. 2, and has been at the General Hospital suffering from a severe concussion of the brain. Several ribs and his nose were broken.

At the June meeting of the Board of Regents it was voted to limit the admission of patients to the University Hospital to the following classes:

1. Those whose admission is provided for by special statute.
2. Emergency cases.
3. All students in actual attendance at the University.
4. All persons bringing letters recommending their admission from their usual medical attendant.
5. Any person applying for admission to University Hospital and not coming under any of the classes mentioned above must make affidavit that he or she is financially unable to pay the usual minimum fees of the profession for such treatment as he or she may require.

Dr. Geo. T. Baskett, formerly of St. Peter, Minn., was married in August to Dr. Alice Thorne, of Jackson, Mich. Drs. Baskett have purchased the practice of Dr. J. H. Pettis, of West Branch, and have located there.

Dr. J. H. Pettis of West Branch, Mich., has been appointed first assistant in the Department of Surgery of the University of Michigan, and will assume his duties at the University with the beginning of the school year. He has sold his practice at West Branch, and has resigned his office of O. M., C. O., R. O. member of the Medico-Legal Committee of the Michigan State Medical Society, being succeeded by Dr. F. S. Love, of West Branch.

Dr. A. J. Wilkinson, of Hillman, has gone west, and is succeeded in Hillman by Dr. Geo. F. Lister, formerly of Atlanta.

Dr. G. Carl Huber, Secretary of the Department of Medicine and Surgery of the University of Michigan, has been made Research Professor of Embryology in the Wistar Institute of Anatomy, Philadelphia. This is claimed to be the only Research Professorship in existence, and will take Dr. Huber to Philadelphia from March to September of each year.

Born, August 13, to Dr. and Mrs. Wilfrid Haughey, of Battle Creek, a son, Wilfrid Henry, Jr.

Dr. R. M. Gubbins, of Ceresco, fell from a step ladder August 23, and fractured the radius of the left arm about an inch above the wrist.

Toward the end of August the presence of typhoid fever in the city of Detroit became so marked that the Health Department addressed a letter to every physician in Detroit on August 30th, calling upon him to report his cases of typhoid, as required by law. These reports previously had been very lax. Since that time 240 cases have been reported to the Board, of whom 90 are in the hospitals. Seventy doctors acting under the direction of the Board of Health have been investigating the source of this epidemic. They have visited 1800 farms supplying milk to the city of Detroit and upon at least ten of them there had been cases of typhoid. These were barred from selling more milk to the city until given permission so to do by the Board of Health. In the short space of time it has been impossible to trace the different milk routes of these various dairymen, but so far as the Board has been able to do this, quite a percentage of the cases have been traced directly to the milk. The Board is diligently investigating this epidemic and promises us a complete report when the matter is thoroughly sifted out.

The Public Press, about the 1st of September announced the presence of 900 cases of typhoid fever in Detroit, but this estimate has not been confirmed so far by the reports of the physicians.

The meeting of the Wayne County Medical Society, held Monday, September 12, claims the largest attendance of any regular meeting in the history of the society. There were 175 members present. What a home won't do!

Dr. F. E. McClure, formerly located at 703 Gas building, has abandoned the practice of medicine. He has associated himself with the automobile business and assumed the management of the Brush-Sampson Cleveland Co., for the district comprising the northern half of Ohio. At present his offices are located at 1938 Euclid Avenue, Cleveland, Ohio.

Dr. Raymond C. Andries of 468 Gratiot Ave., Detroit, has been chosen chairman of the program committee of the Wayne County Medical Society and editor of the Bulletin. Judging from the contents of the first issue of the Bulletin for this year, he will meet with good success. The Wayne County Bulletin is issued every week during the season from September to June and contains a report of the last meeting of the society, together with the program of the coming meeting.

MICHIGAN STATE BOARD OF REGISTRATION IN MEDICINE

CERTIFICATES ISSUED THROUGH RECIPROCITY

		Reciprocity		Date of License
		Qual. I	Qual. II	
McLean, Donald Alex., Stanton, Mich.	Dept. Med. & Surg., Univ. of Mich., 1867		Colo.	4- 9-10
Schuster, Brung L., Port Huron, Mich.	Jefferson Med. Col., Pa., 1898		Wis.	4-19-10
Ustick, Clarence M., Detroit, Mich.	Hahnemann Med. Col. & Hosp., Pa., 1890		Ohio	4-20-10
Schoch, Andrew C., Coldwater, Mich.	Northwestern Med. School, Chicago, Ill., 1907	Illinois		4-29-10
Pifer, John Lincoln, Flint, Mich.	Ohio Med. Col., Cincinnati, Ohio, 1883		W. Virginia	5- 3-10
Woodruff, Charles A., Detroit, Mich.	Med. Col. of Indiana, 1900		Indiana	5-24-10
Riewel, Henry V., Leslie, Mich.	Med. Dept. Western Reserve Univ. Ohio, 1902		Ohio	5-24-10
Cooke, Edward H., Franklin, Mich.	Col. of Med: Syracuse Univ., 1881		Oklahoma	6- 1-10
Kenney, George W., Birch, Mich.	Atlantic Med. Col., (Southern Homeo.), 1909	W. Virginia		6-24-10
Tibbitts, Flora V. Woodward, Petoskey, Mich.	Hahnemann Med. Col., Chicago, 1906	Illinois		7-12-10
Hamburger, Walter W., Lake Harbor, Mich.	Rush Med. Col., Illinois, 1906	Illinois		7-12-10

REPORT OF EXAMINATION HELD AT DETROIT, MICHIGAN, MAY 19, 20, 21, 1910

Aldrich, Addison D.,	Winona, Mich.	{ Sag. Valley Med. College, 1903
Babcock, Myra Everts,	Detroit, Mich.	{ Detroit College of Med., 1910
Bennie, James W.,	Oungah, Ontario	Detroit Homeo. College, 1910
Bowers, Merlin H.,	Perrysburg, Ohio	Detroit College of Med., 1910
Bradley, Harry W.,	Saginaw, Mich.	Detroit College of Med., 1910
Biowne, Wm. H.,	Detroit, Mich.	Detroit Homeo. College, 1910
Butler, Harry J.,	McGregor, Mich.	Detroit College of Med., 1910
Carey, Cornelius,	Ishpeming, Mich.	Detroit College of Med., 1910
Coll, Howard R.,	Windsor, Ontario	Detroit College of Med., 1910
Dimond, Edwin G.,	Flint, Mich.	Detroit College of Med., 1910
Dumond, Vanney H.,	Windsor, Ont.	Detroit College of Med., 1910
Durocher, Ulysses J.,	Ojibwa, Ont.	Detroit College of Med., 1910
Gates, Versile M.,	Cusino, Mich.	Detroit College of Med., 1910
Gratton, Henri L.,	Detroit, Mich.	Detroit College of Med., 1910
Harrison, Lee D.	Tuscola, Mich.	Detroit College of Med., 1910
Herrmann, Max,	Detroit, Mich.	Detroit College of Med., 1910
Hodges, J. M.,	Detroit, Mich.	Detroit College of Med., 1910
Holmes, Alfred W.,	Detroit, Mich.	Detroit College of Med., 1910
Kitson, Verner H.,	Rockford, Mich.	Detroit College of Med., 1910
Miller, Wm. E.,	Windsor, Ont.	Detroit College of Med., 1910
Organ, Fred W.,	Hamilton, Ont.	Detroit College of Med., 1910
Pillon, Elmer A.,	Windsor, Ont.	Detroit College of Med., 1910
Polozker, Jacob H.,	Detroit, Mich.	Detroit College of Med., 1910
Reberdy, George J.,	Detroit, Mich.	Detroit College of Med., 1910
Riley, John H.,	Grand Rapids, Mich.	Detroit College of Med., 1910
Roberts, Frederick J.,	Detroit, Mich.	Detroit College of Med., 1910
Sanderson, Alvord R.,	Detroit, Mich.	Detroit College of Med., 1930
Sebille, Louis J.,	Detroit, Mich.	Detroit College of Med., 1910
Sevenama, Elisha S.,	Grand Rapids, Mich.	Detroit College of Med., 1910
Southwick, George H.,	Grand Rapids, Mich.	Detroit College of Med., 1910
St. Louis, Rene J.,	Windsor, Ont.	Detroit College of Med., 1910
Stone, Albert F.,	Bay City, Mich.	Detroit College of Med., 1910
Watkins, Walter E.,	Centerville, Mich.	Homeo. Dept. U. of M., 1910

In addition to the names given, three applicants failed in the Detroit examination, and one was conditioned. The latter obtained 75 per cent total, but fell below 50 per cent in one subject.

EXAMINATION AT BATTLE CREEK, MICHIGAN, JUNE 14, 15, 16, 1910

Adair, Roman T.,	Battle Creek, Mich.	American Med. Missionary Col.,	1910
Garcia, Alberta G.,	Battle Creek, Mich.	American Med. Missionary Col.,	1910
John, Joseph,	Battle Creek, Mich.	American Med. Missionary Col.,	1910
Johnson, Gertrude W.,	Battle Creek, Mich.	American Med. Missionary Col.,	1904
McFarland, Guy E.,	Battle Creek, Mich.	American Med. Missionary Col.,	1910
Nicola, Benn E.,	Battle Creek, Mich.	American Med. Missionary Col.,	1910
Sneck, Arthur R.,	Battle Creek, Mich.	American Med. Missionary Col.,	1910
Wood, Alvin J.,	Battle Creek, Mich.	American Med. Missionary Col.,	1910
Potchinvoc, Alex.,	Battle Creek, Mich.	American Med. Missionary Col.,	1910

RESULT OF EXAMINATION AT ANN ARBOR, MICHIGAN, JUNE 14, 15, 16, 1910

Agnew, James H.,	Ann Arbor, Mich.	Dept. M. & S., U. of Mich.,	1910
Barnum, Spencer B.,	Coloma, Mich.	Dept. M. & S., U. of Mich.,	1910
Bartholomew, Henry S.,	Lansing, Mich.	Dept. of M. & S., U. of Mich.,	1910
Beck, Alfred C.,	Ann Arbor, Mich.	Dept. M. & S., U. of Mich.,	1910
Beck, Estel T.,	Ann Arbor, Mich.	Homeo. Dept., U. of Mich.,	1910
Beel, Horace J.,	Grand Rapids, Mich.	Med. Dept., U. of Buffalo,	1909
Braley, Wm. N.,	Ann Arbor, Mich.	Med. Dept., U. of Mich.,	1910
Brower, Alonzo B.,	Ann Arbor, Mich.	Dept. M. & S., U. of Mich.,	1910
Brown, Hugo Otto,	Ann Arbor, Mich.	Dept. M. & S., U. of Mich.,	1910
Burr, A. D.,	Ann Arbor, Mich.	Dept. M. & S., U. of Mich.,	1910
Carr, Earl I.,	Ann Arbor, Mich.	Dept. M. & S., U. of Mich.,	1910
Childs, Lloyd H.,	Adrian, Mich.	Dept. M. & S., U. of Mich.,	1910
Colgan, Frank J.,	Ann Arbor, Mich.	Homeo. Dept., U. of Mich.,	1910
Cooley, Randall M.,	Manchester, Mich.	Dept. M. & S., U. of Mich.,	1910
Cornell, Harold D.,	Ann Arbor, Mich.	Dept. M. & S., U. of Mich.,	1910
Cummings, Howard H.,	Ann Arbor, Mich.	Dept. M. & S., U. of Mich.,	1910
DeWitt, Leslie H.,	Ann Arbor, Mich.	Dept. M. & S., U. of Mich.,	1910
Dobson, John E.,	Albion, Mich.	Dept. M. & S., U. of Mich.,	1910
Dugan, Chas. B.,	Ann Arbor, Mich.	Dept. M. & S., U. of Mich.,	1910
Foden, George S.,	Ann Arbor, Mich.	Dept. M. & S., U. of Mich.,	1910
Foster, Argo M.,	Ann Arbor, Mich.	Dept. M. & S., U. of Mich.,	1910
Gannon, George W.,	Ann Arbor, Mich.,	Dept. M. & S., U. of Mich.,	1910
Giddings, Allen M.,	Augusta, Mich.	Dept. M. & S., U. of Mich.,	1910
Gilding, Zina L.,	Ann Arbor, Mich.	Homeo. Dept., U. of Mich.,	1910
Haskell, Robert H.,	Ann Arbor, Mich.,	Dept. M. & S., U. of Mich.,	1910
Hazlewood, Fred M.,	Vassar, Mich.	Louisville Medical College,	1902
Hillman, Wm. H.,	Ann Arbor, Mich.	Dept. M. & S., U. of Mich.,	1910
Hodgen, John T.,	Grand Rapids, Mich.	Dept. M. & S., U. of Mich.,	1910
Holmes, John T.,	Hudson, Mich.	Dept. M. & S., U. of Mich.,	1910
Hudnutt, Orrin D.,	Hanover, Mich.	Dept. M. & S., U. of Mich.,	1910
Hunter, Leslie L.,	Ann Arbor, Mich.	Dept. M. & S., U. of Mich.,	1910
Jennings, Alpheus F.,	Detroit, Mich.	Harvard Medical School,	1910
Knapp, Roy O.,	Ann Arbor, Mich.	Homeo. Dept., U. of Mich.,	1910
LaBine, Alfred,	Laurium, Mich.	Dept. M. & S., U. of Mich.,	1910
LaFerte, Alfred D.,	Detroit, Mich.	Jefferson Med. Co., Pa.,	1910
Laning, George M.,	Ann Arbor, Mich.	Dept. M. & S., U. of Mich.,	1910
Martin, Robert M.,	Portland, Mich.	Dept. M. & S., U. of Mich.,	1910
MacArthur, Nelson,	Detroit, Mich.	Detroit Col of Med.,	1905
McClelland, Carl C.,	Detroit, Mich.	Dept. M. & S., U. of Mich.,	1910
McCotter, Rollo E.,	Ann Arbor, Mich.	Dept. M. & S., U. of Mich.,	1910
Miller, Edward A.,	Ann Arbor, Mich.	Homeo. Dept., U. of Mich.,	1910
Moore, Frank L.,	Ann Arbor, Mich.	Dept. M. & S., U. of Mich.,	1910
Negley, James C.,	Ann Arbor, Mich.	Dept. M. & S., U. of Mich.,	1910
Nichols, Rudolph H.,	Ann Arbor, Mich.	Dept. M. & S., U. of Mich.,	1910
Palmer, Raymond A.,	Ann Arbor, Mich.	Dept. M. & S., U. of Mich.,	1910
Parker, Harry L.,	Ann Arbor, Mich.	Homeo. Dept., U. of Mich.,	1910
Peet, Max M.,	Ypsilanti, Mich.	Dept. M. & S., U. of Mich.,	1910
Penberthy, Grover C.,	Houghton, Mich.	Dept. M. & S., U. of Mich.,	1910
Phillips, David B.,	Ann Arbor, Mich.,	Dept. M. & S., U. of Mich.,	1910
Reeder, Frank E.,	Ann Arbor, Mich.	Dept. M. & S., U. of Mich.,	1910
Rhonehouse, Wm. L.,	Ann Arbor, Mich.	Homeo. Dept., U. of Mich.,	1910
Richardson, Allan L.,	Detroit, Mich.	Dept. M. & S., U. of Mich.,	1910
Ross, Albert H.,	Battle Creek, Mich.	American Med. Missionary Col.,	1905
Rowe, Allen D.,	Detroit, Mich.	Homeo. Dept., U. of Mich.,	1910

Result of Examination at Ann Arbor (Continued)

Secrist, Leo F.,	Alpena, Mich.	Dept. M. & S.,	U. of Mich.,	1910
Shepherd, Winfield,	Kearsarge, Mich.	Dept. M. & S.,	U. of Mich.,	1910
Smith, Ferris N.,	Pontiac, Mich.	Dept. M. & S.,	U. of Mich.,	1910
Smith, Wm. E.,	Manistee, Mich.	Dept. M. & S.,	U. of Mich.,	1910
Stark, Robert P.,	Ann Arbor, Mich.	Dept. M. & S.,	U. of Mich.,	1910
Stone, Dayton D.,	Washington, Mich.	Dept. M. & S.,	U. of Mich.,	1910
Taylor, George R.,	Lapeer, Mich.	Dept. M. & S.,	U. of Mich.,	1910
Thorne, Wm. M.,	Ann Arbor, Mich.	Dept. M. & S.,	U. of Mich.,	1910
Townsend, Roy A.,	Ann Arbor, Mich.	Dept. M. & S.,	U. of Mich.,	1910
Uren, Claude T.,	Ann Arbor, Mich.	Dept. M. & S.,	U. of Mich.,	1910
Van Vlack, Hall G.,	Ann Arbor, Mich.,	Dept. M. & S.,	U. of Mich.,	1910
Ward, Earl LeGrand,	Birmingham, Mich.	Dept. M. & S.,	U. of Mich.,	1910
Ware, Hugh M.,	Ann Arbor, Mich.	Dept. M. & S.,	U. of Mich.,	1910
Weaver, Bruce S.,	Ann Arbor, Mich.	Dept. M. & S.,	U. of Mich.,	1910
Welch, Gilbert H.,	Ann Arbor, Mich.,	Homeo. Dept.,	U. of Mich.,	1910
Welton, Gertrude W.,	Ann Arbor, Mich.	Dept. M. & S.,	U. of Mich.,	1910
Williams, Edwin G.,	Traverse City, Mich.	Dept. M. & S.,	U. of Mich.,	1910
Wilson, George H.,	Ann Arbor, Mich.,	Dept. M. & S.,	U. of Mich.,	1910
Dixon, Robert L.,	Ann Arbor, Mich.,	Dept. M. & S.,	U. of Mich.,	1910
Herriman E. A.,	South Haven, Mich.	Victoria Med. Col.,	Canada,	1860
Polglase, Wm. A.,		Chicago Homeo. Col.,		1878

BOOK NOTICES

Modern Medicine. Its Theory and Practice in Original Contribution by American and Foreign Authors. Edited by William Osler, M. D., Regius Professor of Medicine in Oxford University, assisted by Thomas McCrae, M. D., Associate Professor of Medicine in the Johns Hopkins University. Vol. VII. Diseases of the Nervous System. 969 pages, with illustrations. Cloth, \$6.00. Philadelphia, Lea and Febiger, 1910.

It would be an almost impossible task to review in detail the many splendid articles which comprise this last volume of Modern Medicine. They are from the pens of well-known authorities, and are arranged in a systematic and logical order, making this one of the best treatises on nervous diseases in English.

The contributors include Barker, Bremwell, Burr, Buzzard, Collins, Cushing, Holmes, Jelliffe, McCarthy, Russell, Southard, Spiller, Spratling, Taylor and Thomas. Any one familiar with the literature of this branch of medicine will recognize at once that the above list is a guarantee of the excellence of the work. There are 37 plates, which add much to the text, as well as a number of other illustrations. Mental diseases are not included.

This being the last volume of the seven comprising Modern Medicine, there is an index to the complete work. It covers some 50 pages, and has been well prepared.

Modern Medicine was announced by the publishers three years ago and has been completed in a remarkably short space of time. It seems to us that there is a greater uniformity of the constituent monographs than is usual in works of

this kind. Viewed as a whole, Modern Medicine is well balanced. It is well printed, attractively bound and will remain for many years the best, as well as the latest, treatise on internal medicine in the English language.

Hookworm Disease. Etiology, Pathology, Diagnosis, Prognosis, Prophylaxis, and Treatment, by George Dock, A. M., M. D., Professor of the Theory and Practice of Medicine, Medical Department Tulane University of Louisiana, New Orleans; and Charles C. Bass, M. D., Instructor of Clinical Microscopy and Clinical Medicine, Medical Department, Tulane University of Louisiana, New Orleans, 250 pages, royal octavo. Fifty illustrations, including one covered plate. Price, \$2.50. C. V. Mosby Company, St. Louis. Publishers.

The subject of hookworm disease is such an important one to the South, and is receiving so much attention by the profession generally that anything authoritative must needs be accepted with thanks to the authors.

Drs. Dock and Bass in this book have treated the disease quite exhaustively—giving pathology diagnosis and treatment very clearly. The book is well illustrated with photo-micrograms, drawings and photos of cases. The history of the disease is considered briefly, but treatment occupies many pages and is concise. Prophylaxis receives its proper consideration. We recommend the work to anyone interested in hookworm disease.

Dislocations and Joint-Fractures. By Frederic Jay Cotton, A. M., M. D., First Assistant Surgeon, Boston City Hospital. Octavo of 654 pages. 1201 original illustrations. Philadelphia and London, W. B. Saunders Company, 1910. Cloth, \$6.00 net. Hair Morocco, \$7.50 net.

There is perhaps no field of Surgery upon which more light and confusion has been thrown by the X-ray in its decade of existence than that of bone surgery—a field most prolific in error,

actions at law, sleepless nights and grey hairs. In a commendable effort to assemble and place in one volume what we really do know of the subject of Dislocations and Joint Fractures, Cotton has produced a book peculiarly free from speculations and opinions, but filled with proven facts, either obtained from previous generations, or gained from a large experience, including exhaustive use of the X-ray, post-mortem examinations, and the knowledge acquired from an extensive operative practice on freshly inflicted injuries.

The practitioner who treats a case of fracture or dislocation today must expect to have his work tested by results, more than by intentions. That the best modern results can only be obtained by the intelligent application of the best modern knowledge in a given case must be obvious to all. None can afford to risk poor or faulty results by the use of old or antiquated methods of treatment if by the use of more modern methods and the application of more modern knowledge better results are possible.

In the work under consideration, Cotton considering the reduction of each fracture as a mechanical problem in itself, has made an honest effort to acquaint the practitioner, not only with the types that commonly occur, but treats minutely and in detail the special and less common injuries.

Great attention to diagnosis is given and in this respect the text is clear and full. The study of symptoms and manipulations, the use of the X-ray and land marks is urged, and the methods of applying each are carefully described. To mention each in this review would be tiresome. They will be found in the text, where nothing is omitted and every injury is described.

The illustrations are a wonderful help to understanding the mechanism described in the text. Great pains have been taken to make them descriptive, more than half being drawings by the author especially for this work, and therefore directly to the point.

From the slight mention of the use of anesthetics the reviewer does not understand that Cotton discredits their use in suitable cases, but rather he wishes the operator to have a full and clear understanding of the mechanical problem involved, and of what actually does take place at the seat of replacement, if of a dislocation or the reduction if it be a fracture.

This work following so closely the appearance of Stimson's sixth edition shows the great need and demand for elucidations of the new pathol-

ogy made necessary by developments of the X-ray, corrected and proven by dissections and post-mortem.

The Practical Medicine Series. Comprising ten volumes on the year's progress in medicine and surgery. Under the general editorial charge of Gustavus P. Head, M. D., Professor of Laryngology and Rhinology, Chicago Post-graduate Medical School. Charles L. Mix, A. M., M. D., Professor of Physical Diagnosis in the Northwestern University Medical School. Volume IV. Gynecology. Edited by Emilius C. Dudley, A. M., M. D., Professor of Gynecology, Northwestern University Medical School; Gynecologist to St. Luke's and Wesley Hospitals, Chicago, and C. von Bachellet, M. S., M. D., Assistant Professor of Obstetrics, Chicago Polyclinic and College of Physicians and Surgeons; Gynecologist to the German Hospital, Chicago. Series 1910. Chicago: The Year-Book Publishers, 40 Dearborn Street.

Volume IV of The Practical Medicine Series on the year's progress in medicine and surgery by Dudley and Bachellet of Chicago treats of the advances made in Gynecology during the year proceeding the publication of the volume. In this book is collected and arranged in findable and readable form the investigations made, the deductions drawn and the conclusions reached by a multitude of workers, assigning to each his individual share in the work, thus giving the reader individual opinions of individual men on individual subjects. It is a library within itself, a storehouse of valuable information, a reference book of easy access, and an index to more extensive research.

A leading feature and a valuable one of the Practical Medicine Series is each volume being devoted to a given subject, enabling one interested in a special subject to purchase only the parts treating of the subjects in which he is interested.

Dyspepsia: Its Varieties and Treatment. By W. Soltan Fenwick, M. D., (London), Doctor of Medicine of the University of Strassburg, Octavo of 485 pages, illustrated. Philadelphia and London, W. B. Saunders Company, 1910. Cloth, \$3 00, net.

In the above work dyspepsia is recognized as depending largely upon some underlying Anatomical and physiological condition, e. g., abnormalities of secretions, failure of the muscular power of the stomach, inflammation of the stomach, disturbances of the nervous mechanism, displacements, foreign bodies, age, etc. The subject is systematically grouped under ten headings, each of which is extensively subdivided, and the subject treated at length under the subdivision. i. e., it is evident that a treatment effectual in the treatment of dyspepsia, due to hypersecretion would be of no avail and useless in achylia gastrica or too little

secretion, and treatment for failure of muscular power would be vicious in presence of inflammation, therefore, the etiology, symptoms, diagnosis and treatment of each variety is carefully and interestingly given. The conclusions given have been drawn from a long experience covering thousands of cases, and are clear cut and decisive. The finding and removal of the cause is the object sought and to this end much effort is given. Also, the most effectual means from anatomical, physiological and common sense views of treatment are studied. Where corrections of diet alone are needed nothing else is recommended and where surgery is needed the recommendation for this is just as positive. The work is fascinatingly written. Every page proclaims the author master of the subject. The reviewer has derived much pleasure and no little profit from his investigation of the book. It sheds much light on the dark spots. It brings hope to the dyspeptic, the hypochondriac, and in some measures to the neurasthenic. It should be frequently referred to by every practitioner, to whom it will surely prove a friend in need.

Nephrocoloptosis: A description of the Nephrocolic Ligament and its action in the causation of Nephroptosis, with the technic of the operation of Nephrocolopexy in which the Nephrocolic Ligament is utilized to immobilize both kidney and bowel. By H. W. Longyear, M. D., Professor of Gynecology and Abdominal Surgery, Detroit, post-graduate Medical School; Clinical Professor of Gynecology, Detroit College of Medicine; Gynecologist to Harper Hospital, consulting Obstetrician to the Woman's Hospital; ex-president of the American Association of Obstetricians and Gynecologists. With eighty-eight special illustrations and a colored frontispiece. St. Louis, C. V. Mosby Company, 1910.

Nephrocoloptosis is the name Dr. Longyear gives to a condition to remedy which he has devoted many hours, days and weeks during the last decade. In the present volume he presents to the profession the result of these labors. In The *Foreword* the doctor gives a good insight of his own appreciation of the importance of the condition.

In the body of the work he treats the subject in a truly scientific manner, beginning with Pathology and Anatomy, and passing to Etiology, Symptomatology, Diagnosis, treatment and finally to reports of cases.

The text is very clear and full. All points are carefully described and well brought out. In addition, the profuse illustrations will certainly leave no doubts in the minds of any one possessed of ordinary surgical acumen. All illustrations of the Pathology and Diagnosis are distinctively clear, as are also those descriptive of the operation but these latter are each accompanied with a skeleton reference which brings out every detail, making all maneuvers particularly clear and

plain. The Case Reports are a valuable adjunct bearing the stamp of truth in every line, and will aid the inquirer greatly in his estimate of the condition under consideration, and the treatment recommended for its relief.

Gynecological Diagnosis. By Walter L. Burrage, A. M. M. D., Fellow of the Obstetrical Society of Boston; Consulting Gynecologist to St. Elizabeth's Hospital; formerly visiting Gynecologist to St. Elizabeth's and the Carney Hospitals; Electro-Therapeutist and Surgeon to Out-Patients, Free Hospital for Women; Clinical Instructor in Gynecology, Harvard University and Instructor in Operative Gynecology in the Boston Polyclinic. With two hundred and seven text illustrations. New York and London, D. Appleton & Company, 1910.

It is refreshing to note the present tendency of medical writers to cultivate a field that has been too long neglected. In this age of medical advancement diagnosis demands a broader space in literature than can be given in a few paragraphs or pages of the old style of medical text-book. Along all lines, volumes are being devoted to this important feature, and there is no more important feature in medicine. Specialists have discussed and written much on the subject of diagnosis, but this work of Burrage is designed entirely for use of the general practitioner in the hope that he will find it a help in his daily work and in extending the field of his usefulness.

After laying stress on the importance of history taking and dwelling on the proper methods of so-doing, the author devotes four chapters to the physical examination, thoroughly describing all preparations, inspections, manipulations, and maneuvers, macroscopical, microscopical and otherwise, calculated to aid the physician in obtaining an accurate knowledge of his patient's ailments. A chapter is devoted to investigations of the urinary tract and another to the rectum, while a third interprets the chief symptoms of pelvic diseases.

Eighteen chapters are devoted to special diagnosis of special conditions, such as, Disease of the vulva, vagina, uterus, tubes and ovaries the ureter, pregnancy, abortion, gonorrhoea, cellulitis, peritonitis, etc. Also to gynecological affections of infancy, childhood and old age. Many conditions, attention to which has recently been called by pediatricists, are pointed out. To diseases of the breast is given a chapter which should be of great help as careful differentiation to tumors, as to age, situation, duration, mobility and other characteristics is given. The whole subject of pregnancy, both normal and abnormal is gone over in an effort to aid in avoiding some of the many mistakes too often made in the field. The book contains 215 illustrations alphabetically indexed, a valuable feature. This work should find favor with all and will be of much help to those who make use of its pages.

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ADDRESS

ON CANCER

GEORGE W. CRILE, M. D.
Cleveland, Ohio

My first duty is to acknowledge, with my best thanks, the great honor you have conferred in inviting me to deliver the address in Surgery before the annual meeting of the Michigan State Medical Society.

There is no disease which has so completely baffled medicine, and so mercilessly tortured the human race, as cancer. While neither the cause of cancer nor its cure has been found, great progress has been made by disproving many false theories; by discrediting many empyric cures; by making more complete studies of its distribution in the various races of man under the various conditions of life; by determining its incidence in the lower animals; by a more complete study of its predisposing causes; its method of growth; the changes in metabolism of its host; by establishment of the fact of immunity in the spontaneous cures; and the effect of various physical and biochemical agents on its growth. Experimental cancer being less resistant than spontaneous cancer, is affected by extracts of various glandular tissue of the same or of other species; by the blood or serum of immune

animals; by the X-ray; and by certain toxins. Of the agents that influence experimental cancer, none have as yet proven of sufficient value in human cancer to take the place of the treatment by excision. We will therefore accomplish nothing on this occasion by discussing the many theories proposed or by speculating on the discoveries that we hope will be made. There are two aspects of this question which we can discuss with a clear understanding. I refer to the curable stages,—the pre-cancer stage, and the early stage in which the disease is still local.

The investigation of cancer is now so largely in the hands of men working along purely laboratory lines that it has come to be believed by some that only observations upon the lower animals are of scientific value. Now, the principal means thus far of attacking the problem in the laboratories is through observations upon transplantable tumors. In my own observations on transplantable tumors in animals—(in comparison with the spontaneous cancers in man) it seemed clear to me that in at least one important respect we are dealing with a materially different problem. Transplantable cancers in animals must be

*Address of Guest of Honor at the Forty-fifth Annual Meeting of the Michigan State Medical Society at Bay City, Sept. 28, 1910.

nursed and coddled to make them grow. Who ever saw a human cancer that required any encouragement to make it grow? In animals there is meager opportunity for the study of the pre-disposing causes of cancer—the pre-cancer state. In man there is abundant opportunity for such study. Is there a pre-cancer state? If so, can it be recognized? We may, I think, safely assume that cancer obeys some general law of growth, and that this law applies equally well whether applied to cancer of the internal invisible organs or of the external and visible parts. If it can be shown that cancer of any particular part of the body follows a certain sequence of events, this would be an example of the law of its growth. It was not necessary for Sir Isaac Newton to observe the fall of apples from other trees to conceive the law of gravity.

Now, with respect to the incidence of cancer at the base of the horns of cattle, they have never been observed except in those cattle wearing an irritating yoke. Cancer of the skin of the human abdomen occurs with relative frequency only in Kashmir.

The abdominal skin of these people has been frequently burned and irritated by the braziers they carry. Here we have conditions of value for drawing deductions. A vast proportion of the human race,—say several hundred million under intelligent observation, in whom the skin of the abdomen has not been subjected to burning or irritation in this particular manner, show no cancer of the skin of the abdomen as compared with the relative frequent incidence of cancer among the Kashmirs. What is the conclusion to be drawn from an experiment in nature on so magnificent a scale? If this had been planned as an actual experiment, how remarkable would it seem to us, and how conclusive! None the less remarkable and none the less con-

clusive should it be because this gigantic natural experiment has been made for us. It was the interpretation of such vast phenomena in nature that led Darwin to the theory of the origin of the species. No case of cancer has, to my knowledge, been observed on the normal, uninjured skin of the arms, the legs, the back or the chest. But cancers have been observed on the skin of all of these regions in scars from injuries and burns, especially following the latter, or on the parts of the skin subjected to frequently repeated trauma, or at the base of chronic ulcers, or from X-ray burns, or pre-existing benign tumors. As to the skin of the face, the region par excellence for accurate observation, there is an opportunity for the study of the natural development of cancer of greater value than that of any possible laboratory condition. The human face, observed daily from birth by the most faithful and interested observers, (those of the family circle) and thanks to the mirror, by the patient himself even the coming and going of a freckle would be as the visit of a comet. The superficial cancer of the skin of the face is always preceded by a pre-cancer stage, a keratosis, a mole or wart or tumor, or ulcer—never have I seen a cancer flash fully formed upon the healthy skin of the face.

How frequently is the pre-cancer history a long one,—little scales that were picked off as frequently as they returned, a wart that was by habit goaded by picking,—there is always a benign pre-cancer history. How utterly impossible it is for the laboratory investigator to secure, at any cost, any such comprehensive display of the natural history of the cancer phenomena! Then again, in cancer within the mouth,—although the opportunity for accurate observation here is not so favorable as in that of the skin,—we almost never see cancer in a sanitary mouth with normal teeth, in the absence of syphilis or leuco-

placia, or warts or fissures. In cancer of the buccal surface, the question is not so much, is there a goading irritant, but rather,—what is the goading irritant? Again and again one sees the ragged tooth fitting into its cancer cup like the head of a bone into its socket. Again and again one hears the history of leucoplacia, fissure, wart,—then cancer of the tongue. One does not think of melanomata excepting as the malignant sequence of a pigmented mole, and the death toll from this cause is by no means small. The pre-cancer stage is, in most instances, a remediable condition. Yet how often has the physician, as well as the patient, been an interested spectator waiting to see whether the firebrand upon the roof will burn itself out or burn down the house. There is an unexplainable inertia with respect to the protection from cancer,—an inertia that is strongly suggestive of the paralysis of fear of the bird in the presence of the serpent.

If, in the cancer period of life, every unhealthy scar were excised and the surface covered by skin grafting, every chronic irritation were removed, every ulcer healed soundly or excised, and the surface covered by skin grafting, every wart and mole excised, every keratosis relieved, and the mouth kept wholesome, teeth smooth and even,—it would be found that without surgical mutilation and without the specter of fear, the cancer problem of this portion of the body would be measurably solved. Now, just as certain as every apple that ever fell obeyed the same law of gravity as the particular apple that gave to Newton the suggestion of the great law, so certain may we be that cancers of the invisible, inner regions of the body obey the same law as do the cancers of the skin. We may, not assume, but conclude that internal cancers have their pre-cancer stages, their chronic irritation, ulceration, benign growth stages. Of the larynx,—the ulcer

of syphilis and the papilloma; of the stomach,—the chronic ulcer; of the gall bladder,—the irritating gall stones, and chronic inflammation; of the large intestines and rectum,—the many ulcers and irritations; of the pelvis, of the kidneys, the irritating stones, and so on through the long list of pre-cancer states.

The pre-cancer stage in the stomach, gall bladder, intestines and uterus is, to a certain extent (though not at all as in the external parts of the body) amenable to treatment. The frequent incidence of cancer of the stomach is certainly another reason for disposing of the ulcer or the scar of the stomach. So too, in diseases of the rectum, ulcers should be relieved not alone on account of the discomfort they produce but also because of their being a possible source of cancerous growth. Likewise, the presence of irritating calculi in various parts should always be regarded as at least a potential cancer. In benign tumors of the uterus, cancer appears in a higher percentage than in the normal uterus. This constitutes an added indication for the removal of tumors of the uterus. From many sources we have corroborating evidence that cancer of the breast is a sequence of a pre-cancer stage. Since Warren introduced his method of approach to the breast, making the incision along its lower and external border in such a fashion that the entire breast may be turned up and the breast be freely inspected, many operations for removal of the multiple cystic breast have been done for the protection of the breast from the dangers of this pre-cancer stage. I have many times performed this operation, frequently on both breasts. It is not necessary to excise the subcutaneous fat nor the nipple. From the very brief allusions we have made to the vast possibilities of the pre-cancer stage, it is obvious that this subject demands the fullest consideration of the

profession and it will be admitted that a large number of cancers are, and a still greater number may be, prevented. Prevention is far better in patients than a cure of cancer, because in patients operated upon and cured there is left a mental dread of the return of the disease. This anxiety and worry constitutes in itself a disability.

We will discuss for a moment certain points in operations in the curable stage of cancer. The curable stage is very frequently encountered in cancer of the lip and cancer of the skin. It is less frequent in cancer of the mouth, least frequent in the internal organs. At the present time, thanks to the many surgical cures, the public are beginning to understand that cancer, if early and adequate operation is made, is curable and many more patients now seek relief in the earlier stages of the disease. I am consulted by more women who fear they have cancer of the breast but have none, than cases in which there is a cancer.

Growing tumors, persistent ulcers, chronic indigestion and disturbances of internal organs in the cancer period of life should always be minutely investigated. No tumor should be watched to see whether it will take on the characteristics of cancer. It should be dealt with as a suspected or convicted cancer.

One of the most important considerations is the diagnosis of cancer. On the diagnosis of cancer certain general principles hold. If the focus is superficial and in doubt, a specimen for microscopic examination will decide; but the difficult problem is that of diagnosing cancer of the internal organs. In such cases I have an established rule. The patient is sent into the hospital for several days where a systematic survey of his chemical phenomena is made. This survey consists in making a hemolytic test, benzedine tests, gastric analysis, examination of the excreta, physical ex-

amination, and in doubtful cases the patient is examined while immersed in a warm bath. This gives a remarkably good relaxation,—in most cases the diagnosis can be accurately made. In cases of doubt an exploratory incision under nitrous oxide anaesthesia is made.

There is one sign of great clinical import in cancer of the pylorus, that is, an increased muscular tone, or slight rigidity of the muscles under the costal border over the pylorus. In every instance of such rigidity thus far observed the cancer had extended through the wall of the stomach and had involved the peritoneum, and every case was inoperable. An increasing experience has confirmed my earlier opinion as to the value of the hemolytic test in the diagnosis of cancer. During several years I have had hemolytic tests made in 347 cases of cancer. These cases occurring in my private practice are quite easy to follow and have been favorable for study.

As against the group of malignant cases, a much larger group of operative cases for a variety of lesions, (such as tumors, gallstones, appendicitis, hernia) have also been studied. Here we have rarely seen any hemolysis. The only cases being those in which there has been infection, particularly chronic, and in two cases of neurasthenia without a real diagnosis. The technique must be carried out with the utmost care. In non-malignant surgical diseases, excepting tuberculosis, hemolysis is rare. In malignant diseases, hemolysis is relatively common. In advanced and inoperable cases, it is more frequently absent than present, and when present is usually the reverse type.

In the earlier and surgically favorable period, especially in mucous membrane cancers, four out of five cases show hemolysis. In this class of cases, the reaction is direct. It is at once apparent that the

percentage of positive reaction depends upon the stage of the disease and the technique employed. In a home for incurables one would not see many reactions and those that do appear would be mostly reverse. In private practice a larger proportion of cases are seen early, hence a higher percentage of positive reactions. The further observations here recorded support the conclusions,—that hemolysis occurs most frequently in cancer and tuberculosis. In advanced cancer and in active tuberculosis reverse hemolysis prevails. The hemolytic reaction offers additional evidence of cancer, but is in no sense a specific reaction.

Could an accurate and simple test be found, it would then be a matter of testing every specific case and if the reaction were positive to proceed by processes of elimination until the location of the growth were found. The harmlessness of such a test in the few suspected cases, would if proven needless, be hardly objected to for the patient would then have the satisfaction of knowing that he was free from cancer. On the other hand, if a cancer were disclosed, the reward would be great, as it would indicate the line of procedure.

Cancer of the stomach and gall bladder at the present time, while encouraging must remain to a certain extent unsatisfactory until an adequate method of early diagnosis is discovered. In the large intestines the results are far more satisfactory. In operations for cancer of the cecum, sigmoid and of the rectum we have often most satisfactory results. In cancer of the sigmoid the growth is apt to be slow. The operation when complete restores the alimentary tube and the patient remains comfortable thereafter. Not so with operations on the rectum. Here there is a great discomfort and favorable conditions are difficult to obtain. Those who are cured rarely escape some serious inconvenience in the necessary surgical proced-

ures. In cancer of the uterus, or in cancer of the fundus, the results are very good indeed. In cancer of the cervix they are less favorable. There is a great underlying principle the operative technique of which I consider of great importance, viz: the immediate ingrafting of cancer cells upon the operative wound. It has seemed to me that in no place, excepting possibly cancer of the tongue, has there been so much direct evidence of immediate implantation of cancer cells in the wound as in hysterectomy for cancer of the uterus. For example, there is no other way of explaining the wide-spread recurrence in the operative field excepting by implantation of cancer cells at the time of the operation. I have been impressed with the resemblance between the operation by the vaginal route for cancer of the cervix with the consequent extensive local recurrence in the operative field, in the complete excision of the breast. I have seen a rapid growth of cancer through the entire operative field following directly after the latter operation. In these cases implantation is obvious. If there has ever been any doubt, this must be dispelled when one sees in these incomplete breast operations cancer foci marking every stitch-hole. The needle and the thread alone could have implanted the cancer cells in the stitch paths. It seems to me that the precaution against infection by cancer cells should be as great as the precaution against infection by pyogenic organisms, especially when operating upon cases of ulcerating cancer. The entire ulcerating surface should be destroyed by a thermo-cautery or otherwise prior to any technique that could transfer cancer cells from the original focus to the freshly divided tissue. It is principally by thus sowing cancer that incomplete operations or operations by improper technique cause a more rapid growth than if no operation had been performed. In

experiments on animals it has been shown that cancer may be transplanted from one animal to another by rubbing cancer tissue on an abraded surface. In the conduct of operations for the cure of cancer, experience based on the clinical and 'pathologic studies is the guide to the planning of the operation. The most important consideration is the judgment required in the determination as to the extent of excision of apparently normal tissue surrounding the growth. This is not a matter that can be discussed academically but is one of actual experience applied to individual cases. I am certain that we have not by any means reached the maximum of operative effectiveness—certainly the operative risk is being steadily lowered, and I cannot better illustrate this point than by referring to the principles governing the operation in certain handicapped cases. In cancer of the gastrointestinal tract there frequently occurs emaciation and weakness on account of the failing nutrition from obstruction. In cancer of the uterus an equal degree of vital depreciation may be due to hemorrhage. An extreme degree of vital impairment frequently occurs during the curable stage of the disease.

There is a definite group of curable cases that are by the current surgical method inoperable. This class of cases may now be definitely reclaimed by the direct transfusion of blood. Only a few days ago I was consulted by a patient who was bedridden with weakness due to long starvation from obstructive vomiting in a cancer of the pylorus. The patient had been reduced in weight from approximately 140 to 71 pounds, and dissolution was near. I made an anastomosis between her husband's radical artery and her median basilic vein and a sufficient amount of blood was transferred to improve her general condition to such an extent that nitrous oxide

anesthesia could with safety be given. Under the judicious management of my associate Dr. Sloan, the ebb and the flow of the stream of blood was so adjusted that at the end of the operation the patient's condition was much better than it was before the operation began. The operation consisted in a re-section of the pylorus including over half of the stomach and a portion of the duodenum and making the usual omogastro-styoenter. In these hazardous risks demanding a life-saving operation, a combination of nitrous oxide anesthesia, gentle and precise technique, and the direct transfusion of blood has made it possible to perform with the greatest safety the most formidable operations upon emaciated and debilitated patients.

There is just one more subject that I should like to touch upon before closing and that is the great importance of an early operation. This point can not be too strongly emphasized. I am fully aware of the great responsibility of the attending physician. His task is under gall circumstances a difficult one. The greatest number of disasters arise from his decision to wait to make certain of the diagnosis, or he may wish to try local treatment or a course of specific treatment. He argues from this that he is giving the patient a chance; instead the cancer gets the chance! In this way the physician has too often robbed the patient of his only chance and has allowed the cancer to gain a mortal grip. Again, the diagnosis of cancer may be delayed until there appears glandular enlargement, general emaciation and cachexia. It would be a great boon to mankind if the words glandular enlargement and cachexia as indicating the diagnosis of cancer were stricken from every text-book of Medicine. These are terminal symptoms and indicate that the surgical opportunity is forever lost. It is our duty, as I see it, to interrogate every

chronic ulcer and every tumor and determine whether or not there is malignancy. Tumors should not be watched. They should be mastered.

Summary and Conclusion:

I can express my views no better than to repeat the conclusion of a previous address as follows:

Cancer is widely distributed in Nature; is slightly, if at all, communicable; is not yet proved to be increasing or hereditary; and is rarely transplantable. Its biologic characteristic is the power of endless division of its cells. The natural prognosis is death. Frequently there are well-defined predisposing causes and pre-cancer states. The pre-cancer state is the preventable or curable state. It is vastly better to prevent a cancer than to cure it. No specific therapeutic measure exists; excision is still the most reliable means of treatment. In its beginning cancer is always local and is curable by complete excision. The chances of cure diminish in inverse geometric ratio to the lapse of time since its inception. There is evidence that a reliable blood test for cancer may be established.

If there is in many cases a recognizable and curable pre-cancer stage, if the disease

in its incipiency is local and curable by excision, if the magnitude of the necessary operation increases in a direct geometric ratio and the chance for cure diminishes in a reverse geometric ratio with the lapse of time since its inception, what is the duty of the profession, especially in its organized function and in its altruistic aim, toward the hundreds of thousands of fellow-creatures who now, without suspicion of the dreadful truth, are in the pre-cancer or early curable stage of cancer? What is the duty of the profession toward hundreds of thousands who will be stricken next year and each year to follow? This duty is to undertake a campaign of cancer education. The public is entitled to receive from the profession all the enlightenment required for self-preservation. It may be difficult to persuade a man to change his political tenet or his religious creed. Sentiment here may bind him closely. There is no tie of sentiment between a man and his cancer. Enlightenment ought to be easy and effective.

Finally, a careful consideration of the progress made in cancer research and in treatment should banish despair, give new hope, and urge all to put forth still greater endeavor to conquer in the end.

1021 Prospect Avenue.

A SIMPLIFIED METHOD FOR THE TRANSFUSION OF BLOOD.

Archibald M. Fauntleroy, U. S. Navy, gives us a method of transfusion for which he claims no originality, but that the use of his curved tubes makes the operation very easy for the general surgeon. The technique is simple and very satisfactory. For the operation he makes use of a curved glass tube in the shape of an S, or

one shaped like a half circle, which can be manufactured by the user from glass tubes, or very easily obtained from the instrument maker. He gives careful directions for the performance of the simple operation, and says that any general practitioner may extemporize quickly the apparatus.—*Medical Record*, September 3, 1910.

ORIGINAL ARTICLES

THE USES OF SOLID CARBON DIOXIDE AND AN INSTRUMENT FOR COLLECTING AND MOULDING THE SNOW*

ANDREW P. BIDDLE, M. D., and R. A. C. WOLLENBERG, M. D.
Detroit, Mich.

About a decade ago an entirely new field of therapeutics was opened by the discoveries of the effects on living tissues of liquid air; but though liquid air may be used to meet a wide range of indications, it has not become an agent of general utility for the reasons that it is not commercially available and is very difficult to preserve. Dr. A. C. White who introduced its use gave us the principle of destroying superficial lesions by refrigeration. However, a more convenient method for the application of extreme cold was sought for several years and found in solid carbon dioxide, the use of which was suggested by Dr. William Allen Pusey of Chicago about three and one-half years ago. His having made practical to every physician a therapeutic measure of such efficacy is one of the great successes of American dermatology.

The value of carbon dioxide snow surpasses in many respects that of Roentgen-, radio-, or phototherapy. Its scope of serviceableness is greater, though its full range of application has by no means been reached, and new uses are continually being suggested and found. Its low cost, general availability and wide usefulness, the safety and the precision with which it may be employed, and the certainty of results make it pre-eminently an agent for the general practitioner.

Carbon dioxide gas, which is so readily converted into a snow-like substance of extreme cold, is marketed in steel cylinders

which contain it in the liquid state. This liquid is colorless, extremely mobile, and floats upon water. When heated, liquid carbon dioxide expands more rapidly than any other gas, its co-efficient of expansion being greater than that of any other known substance. In the process of brewing, the gas is evolved in enormous quantities. As it leaves the fermenting vats, it is collected and pumped by means of powerful compression pumps into steel cylinders, called drums, which may be found at any soda water fountain, wherever aerated drinks are manufactured, and in cold storage plants. The gas is also commonly prepared by the action of sulphuric acid on calcium carbonate, as marble or limestone, finely powdered.

The critical temperature of the gas is 31.35° C. Above this temperature carbon dioxide exists in the cylinders as a gas, but below that as a liquid. At the critical temperature it changes from a gas to a liquid without a change of volume. When the liquid is released from its container, and collected in a receptacle the absorption of heat due to the rapid evaporation causes it to become a fluffy, snow-like substance on the collecting surface. The temperature of this snow is the same as the boiling point of the liquid, -80° C. As it evaporates, it slowly passes into a gaseous state without passing through that of a liquid.

The liquefaction point of air is from -182° C. to -190° C., according to the mixture of gases in the air. Although liquid air is considerably colder than solid

*Read at the Forty-fifth Annual Meeting of the Michigan State Medical Society, Bay City, Sept. 28-29, 1910.

carbon dioxide, there seems to be no difference in its effects on living tissue, as it is thoroughly frozen on contact by either agent. According to Jackson, quoted by Pusey, "there is no difference—except that the effect is more rapidly attained by liquid air." For practical purposes, however, this difference in time is negligible.

The action of solid carbon dioxide can be graded from a mildly stimulating one to that of a very severe cauterant, depending in most cases upon the length of application and the pressure exerted during its use. The effects of the cold are so quickly obtained that applications of longer than one or two minutes are rarely necessary, and ordinarily less than one minute is required.

An application first gives the sensation of cold; in a few seconds this becomes a stinging one, which after a few minutes changes to a burning. The amount of discomfort varies. After applications of about fifteen seconds to areas covering several square inches, the resulting pain has never in our experience lasted over two or three hours, and the degree of pain has never been severe enough to cause much complaint. Where the areas treated are small, say of one-fourth inch or less in diameter, the annoyance is slight and evanescent. We have used carbon dioxide snow on persons of ages varying from a few weeks to extreme old age, and never has it given any ill after-effects. In one case of crateriform epithelioma, one and one-half inches in diameter, in a person aged sixty years, a four minutes' application gave the usual bleb at the border of the lesion, and no loss of healthy tissue resulted. Four weeks after the application nearly the whole area was healed and covered by epithelium.

After applying the carbon dioxide stick with a moderate amount of pressure for several seconds, it is noticed that the tissues are blanched and congealed and that the

pitting caused by the pressure remains. This continues a few seconds only and is followed in a few minutes by an erythema and a slight edema limited almost to the points of application. There is no spreading of inflammation over a larger area than intended. With a mild application the inflammatory reaction disappears after a few hours; longer applications to unbroken surfaces are followed by a bleb which crusts in a few days. This is thrown off in a week or ten days. Applications on broken cuticle are followed by a more or less amount of free exudation of serum. Besides being affected by the time and pressure of the application, the degree of reaction is influenced by the thickness and hardness of the epidermis. Over crusts, palmar or plantar surfaces, infiltrated, calloused, or crusted-over epidermis the effects are obtained more slowly than over skin which is soft and pliable. The scar of its caustic action is smooth and of normal skin color, never being deeply pitted or ugly, as may follow the use of chemical cauterants or surgical means. Healing is complete in two or three weeks, and the cosmetic effects cannot be improved upon by any other agent. In this respect it is almost ideal.

"In comparison with electrolysis for removing small lesions like papillary ectases and moles, the carbon dioxide stick has a disadvantage in that it causes a greater amount of swelling," states Pusey. "It results in a blister which leaves an abrasion that does not exist after a treatment by electrolysis. It has a counterbalancing effect in that it is very much less painful." In our experience with many such cases the swelling has always been so slight as to be hardly worth taking into account, and the readiness with which the snow stick is applied gives it by far the overbalancing advantage.

In cutaneous therapy this simple agent

supplies so many of the indications of the X-ray and phototherapy that for the cure of superficial skin lesions, at least, it bids fair to displace them.

The advantageous effects of the solid carbon dioxide are stimulating, caustic, and somewhat bactericidal. Although it has been shown by a number of prominent investigators that prolonged freezing with liquid air had little effect on bacterial growth, the application of extreme cold to superficial infections nevertheless seems to have an inhibitory effect on the growth of micro-organisms, so that the natural body defenses are able to overcome the invaders. In bacterial diseases where we have used the treatment, as lupus vulgaris, sycosis vulgaris, etc., the results were excellent. In one case of lupus of over thirty years' standing one application of deep freezing for twelve seconds gave a clinical cure in three weeks.

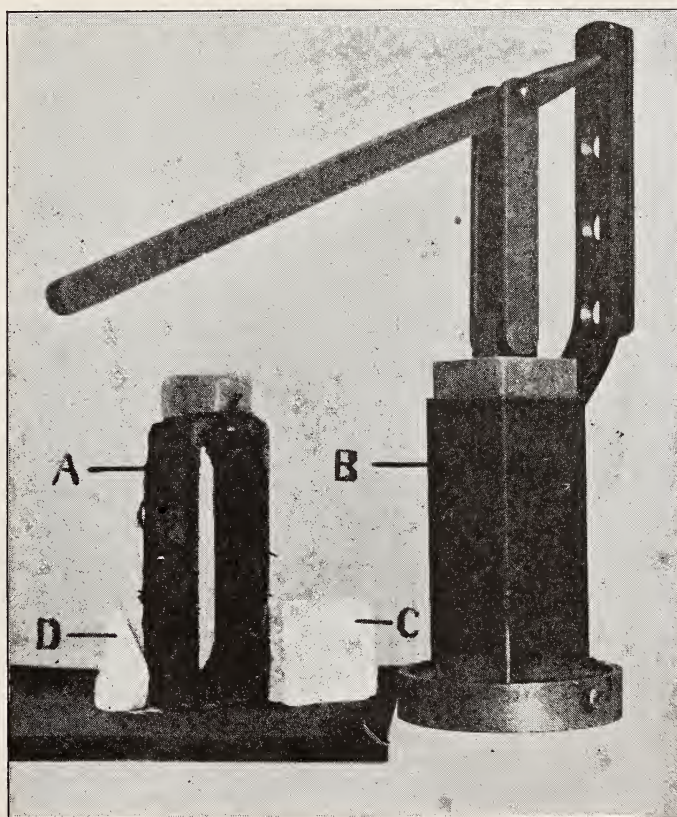
Pusey gives the therapeutic indications to be: first, where the production of stimulating reaction is beneficial; second, where it is desired to destroy certain tissues in the skin by the production of an interstitial sclerosis; third, where it is desired to produce immediate destruction of diseased tissue. Tissues of low vitality are readily destroyed by a reaction which need not be severe enough to cause immediate destruction. To produce such an interstitial sclerosis the stick is applied for a length of time sufficient to destroy the diseased tissue only, the whole to be replaced by scar. It is most difficult to lay down a rule as to the time necessary to obtain this effect, but here experience is the best guide. This is found with little difficulty, as a wealth of clinical material can be found most anywhere.

Diseases in which solid carbon dioxide has been used up to the present time are numerous. In minor skin blemishes such as chloasma, senile keratosis, simple

warts of face, hands, or feet; corns, xanthoma, senile lentigo, naevi, and moles, it is found especially efficacious. In chronic indurated eczema, lichen planus, and other chronic scaly dermatoses it may be used with benefit as a stimulant. For this effect the surface is touched but a few seconds so that only an erythema results. In lupus erythematosus the method has no peer. In these cases a mild caustic action is desirable, which is obtained with freezing of ten to fifteen seconds. Instead of allowing the disease to terminate in large unsightly scars after years of disfigurement, the lesions may be removed in a few weeks, scars being pink, smooth, and hardly noticeable. Lupus vulgaris, a most intractable disease as a rule, appears to be amenable to the treatment, as our three cases were all such as to put it to severe tests. One child of seven years had patches on arms, legs, face, and ears, and the disease entirely disappeared after one application of ten seconds to each lesion. A gentleman aged forty-five years had two dollar-sized patches on his body since boyhood, and an application of twelve seconds effected a cure in three weeks. In a case of lupus of the nose, which is still under observation, improvement has been very steady, and an early recovery is anticipated. We have successfully treated sycosis vulgaris, and one case of blastomycetic dermatitis is improving but is still on our hands. Tattoo marks and powder stains may be removed, but the freezing must be of sufficient duration to cause considerable destruction of tissue which will result in scarring. Small keloids and hypertrophic scars have been treated with varying success according to several authors. In warts and callosities the treatment has given very good results in our hands. It is always desirable that a bulla be obtained, so that all the thickened epidermis will be removed after one application; and, depending largely on the

thickness of the epithelial covering, applications from ten seconds to one minute are necessary in these cases. In cases of pigmented, vascular, and hypertrophic naevi the average duration of application is about fifteen seconds. Small portwine stains on children are removed readily. Up to the present we have treated five cases of epithelioma varying from a quarter inch to one

surface is of much assistance. The stick of carbon dioxide is pared to cover the lesion; it is then grasped with a chamois covering to protect the operator's fingers and is pressed upon the lesion for the required length of time. When free exudation is anticipated or when the skin is broken ordinary antiseptic dressing follows, but when the resulting bulla is small and will not be sub-



A.—Collector.
B.—Mould,

C.—Square Block of Ice.
D.—Moulded Stick

and one-half inches in diameter. Applications were from ten seconds in the smallest to four minutes in the largest. Four cases have recovered, and one is still under treatment.

Areas to be treated should be clean and dry, and crusts and thickened epidermis should be removed as far as possible. In warts a mild curetting or paring of the

jected to accidental rupture no dressing need be applied. To limit the pain and discomfort it is best to treat no more than one or two square inches at one sitting.

For collecting and moulding the carbon dioxide snow a very convenient instrument has been devised by one of us.* The ordinary method of packing the snow by

*Dr. R. A. C. Wollenberg

ramming in various handy pieces of tubing generally gives sticks that are unsatisfactory. They are not firm and are often fractured or bent by a little uneven pressure; furthermore, their preparation takes too much time. The moulds on the market are quite expensive and leave otherwise much to be desired, as the diameter of the stick is too small. With some the expense is added to on account of the occasional bursting of their hard rubber covering. As the drum orifice occasionally clogs with the crystals, very slight movement of the valve stem will sometimes remove them with violence sufficient to break the instrument. Through the courtesy of Dr. Jackson the writers used for a time the device of Dr. S. Dana Hubbard. To us it seems that the stick formed by this instrument is not of sufficient firmness for use on small lesions, for, when pointed to cover a small area, pressure "melts" it so quickly that the diameter is soon much larger than that of the lesion. Our device is made of metal and consists of a collector and a mould. The first part is made of a chamois-covered frame attached to a perforated screw cap for connection with the drum outlet; the frame encloses a cylindrical space one inch square and three inches long, two sides being open. After attaching the collector to the drum, a piece of chamois about nine inches square is quickly wrapped about it so that a closed receptacle is formed. The chamois has three advantages: it conducts heat (or cold) so poorly that the fingers of the operator are protected; its roughness facilitates the formation of the snow; and its porosity allows the escape of enough gas to keep the cover from bursting. When snow

is to be collected, one hand holds the wrapping while the other releases the gas. When a quantity is gathered, it is removed to the mould directly or with a spoon. The mould consists of a square cylinder, the lower end of which is closed by an easily removable cap attached to the cylinder by two studs fitting into inclined slots; a cubic plunger fits into the upper end. Pressure is made by means of a lever, the small arm of which is inserted successively into the perforations in the stock acting as a fulcrum. Ordinary hand pressure then compresses the snow into a firm block of the size of an yeast cake. This mass is easily pared to any desirable shape to cover large, small, or irregular lesions, and, being originally square, it may be used on large surfaces and gives perfect coaptation of edges at the points of application. By cutting the large piece into thirds, there result three square pencils which may be pointed by a small metal mold or a knife. These are used on small lesions.

The whole operation from the time of connecting the collector until the desired stick is prepared need not consume more than two minutes of time and can be done in less.

The advantages of the device may be summarized as follows:

1. Simplicity and durability.
2. Short time necessary to prepare stick.
3. Firmness of the sticks.
4. Square surface of the cakes.
5. The large sized cakes make unnecessary the repeated applications over medium sized lesions.

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TONSILLECTOMY*

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During the last five years the American internist, the pediatricist, and the laryngologist, have established a revival of the ancient methods of Celsus that demand a complete enucleation of the pathologic faucial tonsil.

A glance at the literature of this particular subject is sufficient to prove that tonsillectomy is almost distinctly an American operation. A discussion of its merits, its indications, its contra-indications and results, may be of interest, therefore, until a uniform procedure may be established throughout the profession.

In certain sections of our country the demand for complete and radical enucleation of the tonsils has been so great that operators have been classified as those who do or do not remove tonsils completely. Every well defined surgical procedure must retain its usefulness and necessity upon the basis of ultimate results. Any contribution to this field of endeavor is additional evidence that swings the pendulum of conservative or radical interference.

The indications for tonsillectomy may be established and classified as definite and doubtful indications. Tonsils are described as pathologic tonsils of hypertrophic or the buried varieties whose deleterious effects are local or systemic.

A decision in favor of complete enucleation must be based upon a careful investigation of the local and general condition and history of the individual. The fact that the patient has hypertrophied tonsils is not necessarily a certain indication that the tonsils must be entirely removed. The

guillotine operation has given relief to thousands of these patients.

On the contrary the tonsillectome is an instrument which should be discarded when the velar lobe of the tonsil is diseased. If the pathologic condition in this supra-tonsillar region where the drainage of infected crypts is deficient or suppressed must be remedied, nothing but a complete removal of this tissue will produce a satisfactory result.

Complete enucleation is demanded in tonsillar tuberculosis, in tonsillar rheumatism, in cervical adenitis of definite tonsillar origin and after suppurative tonsillitis or quinzy. It is a well-recognized fact that scarlet fever, influenza, quinzy, and tonsillitis, are often direct etiologic factors in the development of the various types of Graves Disease. The inter-relation of the physiology of the tonsil and ductless glands is well known, but not scientifically elaborated. It is true that the complete removal of the tonsils is often attended by a subsequent diminution in hypertrophy of the thyroid gland.

From these observations it is possible and probable that the tonsil manufactures an internal secretion in early infancy. The normal function is comparatively unimportant and according to some observers has a regulating action or governing function over the ratio of the various varieties of blood corpuscles.

There is an effort on the part of some laryngologists to maintain that all rheumatism is tonsillar in origin and should be dealt with surgically. The internist will agree, I am sure, that the etiologic factors in rheumatism are frequently classified with

*Read at the Forty-fifth Annual Meeting of the Michigan State Medical Society, Bay City, Sept. 28-29, 1910.

great difficulty, and that gout, systemic infection, gastro-intestinal toxemias, and so-called auto-intoxication with joint symptoms, give rise to more or less confusion, in diagnosis. While in catarrhal and suppurative otitis media, the adenoids and like hypertrophies in the fossae of Rosenmuller are most frequently at fault; pathologic or enlarged tonsils may exert pressure that may interfere with the function of the middle ear. In such cases the velar or offending lobe at least must be removed.

It cannot be gainsaid that thousands of cases of simple hypertrophied tonsils or those subject to occasional tonsillitis have been completely relieved by the skillful use of the tonsillotome. We must certainly respect the opinion of renowned laryngologists of the old world, such as, Killian, Chiari, Luc, Massai, Turner, Tilley, Frenkel and Dundas Grant. These men whom I have personally consulted almost universally favor some method of incomplete operation.

Dr. Dundas Grant states that in England complete enucleation is performed in a very small proportion of cases. It is surprising he says to what an extent even a considerably buried tonsil can be made accessible when the tonsil is pushed in and the pillars are pushed out by the framework of the MacKenzie guillotine.

It was my privilege while in London last summer to perform tonsillectomy before the postgraduate class, in one of the large old hospitals. According to the laryngologist in charge, Dr. Davis, this was the first complete operation ever done in this institution. Tonsillectomy is strictly an American operative method revived, and it is necessary that our results should justify our procedure before it is possible to receive universal adoption.

The contra-indications for tonsillectomy are certainly well defined. We know that therapy other than surgical is of little

avail in the relief of actual pathologic tonsils. Non-surgical methods are failures and the problem is reduced to the time and method when pathologic conditions require surgical interference.

Tonsillectomy in pulmonary tuberculosis is contra-indicated except in the earliest stage, as shock, hemorrhage, loss of food and general resistance are often sufficient to allow some slumbering focus of infection to become active. A thorough blood examination including the coagulation point, may furnish valuable information and the dangers of haemophilia and pernicious or other anaemias may be avoided.

Chiari absolutely forbids the removal of tonsils after forty years of age on account of disastrous hemorrhage from fibrous tonsils and other unhappy experiences. The complete enucleation of tonsils under two years is attended by additional danger, although severe obstruction to drainage or respiration must be given proper operative interference. After the year of expectoration, usually three years, any possible function of tonsil may be eliminated.

Unhappy personal experiences certainly magnify the dangers from anesthesia, hemorrhage, and traumatism, throughout a lifetime. Ether in the absence of pulmonary lesions, is decidedly the safest anesthetic in this operation, and this fact is very generally recognized. The position of the patient should be that which will allow a rapid drainage of blood from the throat. Statistics show that chloroform is attended by the greatest danger especially in a possible status lymphaticus. Ethyl chloride is a favorite in many clinics in England and America. It requires a graduated dosage and comparatively few men are familiar with its use.

Hemorrhage, after pain, and traumatism are more frequent and serious in tonsillectomy. The reasons for these facts are

obvious. It has been necessary for operators who were formerly dexterous in the use of the guillotine to learn the modified technique of tonsillectomy and provide special instruments.

In this process of evolution pillars innumerable have been torn, and hacked and portions of the tonsil only have been severed. Again, cut arteries have not been clamped or ligated at the time of operation or adrenalin may have been used, with a consequent increase in cases of secondary hemorrhage. In my experience the greatest danger of hemorrhage comes when there is excessive traumatism in the region of the supra-tonsillar fossae.

If the capsule of the tonsil is completely loosened from its several points of attachment the dangers of hemorrhage are greatly diminished. In a personal experience with more than a thousand tonsillectomies and tonsillectomies, five serious hemorrhages have occurred. In two of which, only was it necessary to ligate. The vessel most frequently wounded is that of the anterior pillar in the region of the supra-tonsillar fossa.

The ideal tonsillectomy is performed in a hospital. It cannot be considered as a simple procedure. A rapid and skillful operation demands a series of carefully selected details. The illumination of the throat with an electric headlight, the lateral position with the head dependent, continuous etherization with a special apparatus; trained assistants who will steady the head and use the gauze sponges dexterously; and well-chosen instruments add so much to the comfort, speed, and success of the operator that they are worth the effort to maintain them. These requirements are easily fulfilled in any good hospital and the safety of the operation is greatly enhanced.

The general practitioner with surgical attainments who enjoys the field of lar-

yingology can readily master the modernized removal of tonsils. If the indications are present for a complete and thorough enucleation this operation and none other should be attempted. The individual peculiarities of the patient and the personal equation of the operator necessitates a wide difference in the choice of method.

A general anesthetic is certainly advisable in all cases under ten or twelve years. Local anesthesia is usually sufficient in adults. Exceptions may be made frequently and the method must be adapted to suit the individual.

Digital exploration of the tonsil preceding and during the operation is a great aid in locating the boundaries of the base and the buried portion of the velar lobe. Information in regard to the attachments of the capsule and the consistency are readily obtained. Many tonsils in children may be partially or completely removed by the use of the finger. This is frequently useful when blood has obscured the vision.

A good pillar knife such as Freers is essential for a proper initial incision that will lead the dissection back of the capsule. This first incision as in the submucous re-section is the key to a successful tonsillectomy.

Logical and valuable deductions from surgical work of this kind can be complete only when five to fifteen years have elapsed. We are therefore at the beginning of a study of results from tonsillectomy.

If conclusions are not premature we might say that tonsillectomy has taken its place as a necessary radical operation in all pathologic conditions of the tonsil that produce repeated systemic infections such as early tuberculosis, rheumatism, quinzy and chronic or repeated follicular tonsillitis. Its usefulness is well defined and thoroughly demonstrated. It is a procedure that demands a careful surgical

technique that is suitably rewarded by most satisfactory results. It may be roughly estimated that tonsillotomy relieves the pathologic conditions in more

than sixty per cent of cases; paritil tonsillectomy in seventy-five to eighty per cent and complete enucleation in ninety to ninety-five per cent of operations.

GONORRHEAL SALPINGITIS, WITH ESPECIAL REFERENCE TO THE PROPHYLAXIS AND TREATMENT

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Detroit, Mich.

Gonorrhœal inflammation of the uterine adnexa is practically never a primary condition, but is always secondary to an infection of a lower portion of the genito-urinary tract whence it extends, by contiguity, along the endometrium of the cervix, and of the body of the uterus to the tubes. The favorite sites of the primary infection are the ducts of the Glands of Bartholin, the Glands of Skene, the urethra and the cervix. The initial invasion however, especially if involving the cervix alone, may have been so mild as to have escaped unnoticed by the unobservant patient, and her physician is consulted for the first time when the disease has extended to the tube; and this may be weeks or months after the primary invasion. With the involvement of the tube a much more serious condition arises and one infinitely harder to cure.

So the question of prophylaxis is an important one. What can we do, given a case of acute gonorrhœa of the urethra, glands or cervix, to prevent tubal disease? Although it is not always possible to limit the infection to its original focus even with the most careful handling, yet on the other hand many a salpingitis can be traced directly to careless and unscientific treatment of acute primary gonorrhœa. In treating

such cases the rule must be never to do anything, or allow your patient to do anything, that might possibly lead to the extension of the infection to an as yet uncontaminated portion of the genito-urinary tract.

If the infection appears limited to the urethra or to the duct of a vulvo-vaginal gland, (and this condition can be fairly accurately determined when a careful examination shows that the purulent discharge does not issue from the vaginal orifice) the physician should refrain from making a vaginal examination either with finger or speculum and should warn his patients against intra-vaginal douches; for either of these procedures is very apt to carry the infection to the cervix or beyond. If the cervix is involved, as long as the acute stage lasts, make no local applications to the interior of the cervix; for remembering that the mucous plug normally in the cervix and the internal os are Nature's barriers, it is in my opinion better judgment to leave both undisturbed and to rely on douches, sitz baths, etc., rather than run the risk of infecting a healthy endometrium. The same thing applies even more emphatically to the treating of acute gonorrhœal endometritis. I believe very little can be accomplished by direct local treatment, and much harm may be done; when the infection reaches

*Read before the Lapeer County Medical Society, April 14, 1910.

the chronic stage the secretions are much less virulent and there is less danger of artificially extending the disease.

Because the menstrual period seems an especially favorable time for tubal extension, it is a good rule to keep your patient in bed during that time and for a few days after. In fact, the patient suffering from acute gonorrhoea should be put to bed and kept there, for as good an authority as Veit says, that extension of the infection is sometimes induced in a purely mechanical way through a sudden or violent movement of the body.

I feel sure that if the practitioner to whose lot it falls to treat these acute cases would observe these simple precautions, there would be fewer women losing their health, their powers of generation or their lives through acute or chronic tubal diseases and their sequelae.

Any intelligent consideration of the subject of this paper, namely, the treatment of gonorrhoeal salpingitis, demands some reference to the pathology, the symptoms, and the diagnosis of the same. For the kind of treatment indicated in any individual case depends primarily upon the stage to which the disease has come; in other words, upon the pathological condition present. To determine this, we must be able to correctly interpret the symptoms, subjective and objective; the diagnosis, thus established, will point the way to the treatment best suited to the particular case under consideration. The treatment we give our patient should be the outcome of scientific reasoning along these lines, and not the haphazard, "hit-or-miss" so-called routine treatment. The patient as a result of the latter method too often either undergoes an unnecessary, mutilating, or perhaps fatal operation, or is allowed to waste her time, strength and health with non-operative measures, when an operation holds out to her the only chance of cure.

The first result of gonorrhoeal invasion of the tube is catarrhal inflammation of the mucosa; the latter becomes swollen and hyperemic and secretes a watery turbid exudate. Microscopically there is an infiltration of small round cells as in any other acute inflammatory condition, this finally extends to the deeper coats and a general enlargement of the tube results. Very soon the exudate, swarming with gonococci, loses its watery character and becomes true pus. This pus, forming in ever increasing quantities, has at first two means of exit: from the uterine opening into the uterus, and from the fimbriated end into the general peritoneal cavity. Should the uterine end remain open, as happens occasionally, the prognosis would be favorable for a spontaneous cure; but unfortunately it is usually early occluded either by the swelling due to the inflammation or, as is usually the case, by a kink in the tube itself near the uterus. This leaves the ostium abdominalis the sole exit. This is generally soon closed by adhesions, for as soon as the first few drops of pus dripping from the tube come in contact with the adjacent peritoneum, a local protecting peritonitis is instituted; next the ostium is further sealed—in some cases this is the first process—by the turning in and gluing together of the fimbria. Thus we have a bag closed at both ends in which is accumulating ever more fluid: a hydro- or pyo-salpinx has formed. In many cases adhesions have formed between the tube and the adjacent ovary, which in turn is infected and finally becomes a sac of pus connecting with the tube: a tubo-ovarian abscess has formed.

Occasionally the adhesions around the inflamed adnexa prevent them sinking into the cul-de-sac, but usually the increased weight brings this about and produces the so-called pelvic abscess. This may consist simply of the distended pus-

filled tube and ovary, the walls of which wall off the contents from the general peritoneal cavity, or of a collection of pus outside the tube walled off by adhesions between the adnexa, the uterus, the sides of the pelvis and sometimes the intestines. What we most frequently meet with are two or three adjacent abscesses within and without the tube. The terminal result of this condition should it not be checked, is rupture of the abscess into the bladder, vagina or rectum, or into the free peritoneal cavity.

This ends a brief outline of the progress of an unchecked attack of gonorrheal salpingitis through its various stages. Of course the disease may become inactive or may be cured, spontaneously or through medical aid, long before the terminal stage is reached.

But with gonorrheal salpingitis, in contrast with that caused by the so-called pyogenic organisms, unless the disease resolves itself in a very early stage, a permanent deformity of the tube results, which, even though there is a return to comparative health, prevents a cure so far as the function of the tube is concerned and exposes the patient to the danger of a subsequent tubular pregnancy. Thus the early diagnosis and treatment of gonorrheal salpingitis is of the utmost importance.

Let us now take up the symptomatology of the different stages, together with the treatment appropriate to each one. Gonorrheal salpingitis, as we have seen, seldom stands alone but is a link in the chain of general gonorrheal involvement; for that reason it is difficult to ascribe to it any one train of symptoms that will be present in every case, for certain symptoms which in one case may be due purely to tubal infection, in the next should be ascribed to the accompanying endometritis or pelvic peritonitis. Then, too, cases may vary much in severity, depending probably

upon differences in the virulence of the coccus and in the patient's resistance.

In those cases where the question of diagnosis is the important one (as for instance between appendicitis and right-sided salpingitis), the history of the primary invasion of the lower part of the genitourinary tract, can it be obtained, is very suggestive. The patient must be carefully questioned, remembering that the primary attack may have been a very mild one, from which the patient has long recovered. A history of sudden increase of vaginal discharge, especially after the menstrual period, dysuria or increase in frequency of urination, disturbances of menstruation, especially menorrhagia, should be looked upon as suspicious. In many cases the diagnosis may be clinched by finding the gonococcus in the secretions.

The invasion of the tube is very apt to follow immediately after the menses. It may be marked by a chill followed by sudden severe pain in the region of the lesion; this pain in some cases radiates over the whole lower abdomen and is accompanied by exquisite tenderness and by rise of temperature from 101° to 103° . Add to this, nausea, vomiting, tympanities and rigidity; it may be difficult at first to distinguish it from general peritonitis, or, if the right tube is involved, from acute appendicitis. Usually, however, though the temperature is high and the pain is severe, the patient's general condition seems better than is usually the case with an equally severe appendicular attack. The pulse is proportionately lower and the patient does not seem quite as sick. Careful examination will reveal signs pointing to the genital rather than to the extra-genital regions; the presence of profuse vaginal discharge, the discovery of a swollen, very tender tube or tubes attached to an enlarged immobile uterus, together with the history will determine the diagnosis. The bi-manual exam-

ination in these cases should, however, be made very cautiously, and the physician should never make any pressure on the tube for fear of mechanically extending the infection.

From these severe symptoms there are many gradations down to the type in which the invasion of the tube seems to have been so mild that there was no acute stage and the physician is first consulted when the condition is chronic.

Just as in the treatment of gonorrhoea of other portions of the genito-urinary tract, our endeavor must be in treating salpingitis to prevent the extension of the infection; in this case, into the general peritoneal cavity; if we can confine the exudate to the tube until it is closed (this, after all, is one of Nature's defences), or to the vicinity of the fimbria until the adhesions are strong, we know that in time the gonococci having nothing fresh to devour will, so to speak, devour themselves, and the pus will become sterile. To accomplish this, one thing above all others is required, that is *rest*; Complete rest in bed is the cardinal rule for these cases, and in the great majority—I will cite the exception later—will be sufficient treatment to bring about a cessation of the acute symptoms. There are a few other measures we use that do no harm, and perhaps good, but rest is the great requirement, for it aids the patient's resistance, increases her vitality, favors the formation of protecting adhesions, and keeps the exudate localized. An ice-cap, acting as a sort of local anesthetic is grateful to the patient and may slightly affect the course of the disease. Hot applications are in some cases more soothing. Differing from appendicitis cases, I give a good cathartic, preferably the salines, aiding it a few hours later by emptying the lower bowel by a glycerine enema. Beyond a little anodyne if required, no medication. If the discharge

is profuse I order vaginal douches. But above all, the treatment should be negative, "scientific neglect," as Morris calls it. Make no local applications to the endometrium and give no intra-uterine douches.

If the treatment, (or, you might call it, lack of treatment) as outlined here is adhered to, there will usually be a prompt abatement of the acute manifestations. Sometimes within twenty-four hours the temperature will fall, the pain subside, the rigidity and general abdominal tenderness will disappear, and the patient will complain only of dull localized pain with tenderness on pressure.

However, there occasionally comes a case—here is the exception mentioned above—that does not respond to this treatment, and instead of a subsidence of the symptoms, they increase rapidly in severity until with a rising pulse and temperature, ever increasing abdominal pain and distension, constant vomiting and septic facies we know that a general peritonitis has developed. Fortunately these cases form a very small percentage of the whole. They are almost always cases of mixed infection, a strepto—or staphylo-coccus with the gonococcus, yet there have been a few cases reported in which the pure culture of gonococcus was obtained. In this variety no protecting adhesions are formed, or very inefficient ones, or rarely, as in a case I reported recently, a sudden external trauma has expressed the virulent contents from the tube and spread the infection throughout the general peritoneal cavity. In these cases, of course, immediate laparotomy with removal of the source of infection is the only permissible treatment.

In a certain number of cases, where the inflammation has not progressed far enough to cause permanent deformity of the tube and a still patent uterine opening allows

drainage into the uterus, the patient may recover completely on the subsidence of the acute symptoms and attain both a symptomatic and a functional cure.

Unfortunately, however, in the majority of cases, recovery from the acute stage merely marks the transition to the chronic and the patient starts on a long career of invalidism.

The subjective symptoms of chronic gonorrhoeal salpingitis, familiar to you all, are too many and varied to relate here in detail; almost always there is a chronic endometritis with its accompanying dysmenorrhoea and menorrhagia. Between menses there is dull pain in back and flanks with acute monthly exacerbations. Walking, riding, or any jarring movement causes pain. Dyspareunia is the rule. If pus is present there is fever and a certain amount of septic intoxication. A general bodily debility ensues and the patient lingers on, a burden to herself and to her family.

Examination of these patients will reveal various conditions according to the progress of the inflammation and the existing complications. Where the inflammation is chiefly confined to the tube one can feel on bi-manual examination, a thickened tender tube which feels, as it slips under your finger, like a lead pencil or larger; a more advanced lesion, such as a pyosalpinx, will reveal itself as a sausage-shaped mass, behind or lateral to the uterus it may be possible to detect fluctuation. But if there has been much localized peritonitis, the adhesions and the thickening of the broad ligament may obscure the palpation of any clear-cut tumor and there may be simply an indefinite mass or masses to each side of the uterus which is frozen in between them. With gonorrhoeal inflammation both sides are usually affected (though they may be in different stages of the disease), as opposed to puer-

peral infection, which is generally unilateral.

Pelvic abscesses vary greatly as regards ease of diagnosis. A large abscess filling the cul-de-sac, pushing forward the uterus and the posterior vaginal wall, with a dough-like, boggy, perhaps fluctuating feel, is not to be mistaken; a small lateral abscess surrounded by board-like adhesions is sometimes very difficult to make sure of. In these cases it may require several examinations on successive days to determine the true condition.

Finally we come to the consideration of the treatment of the different stages of chronic gonorrhoeal salpingitis. With the subsistence of the acute symptoms, our efforts must be directed toward bringing about resolution of the inflammation and the attainment of both a functional and symptomatic cure. What can be accomplished toward this end depends of course upon how much permanent deformity the tube has undergone. The kind of treatment indicated depends upon the presence or absence of pus in or around the tube.

If the acute infection has merged into a simple chronic inflammation without going on to suppuration, simple local measures will do much to favor resolution and should I think, always be tried before subjecting the patient to operation. So when careful examination, together without consideration of the symptoms, justifies a diagnosis of chronic non-suppurative inflammation, the physician may resort to several time-honored measures and if he is venturesome may try many new ones.

To begin with, general hygienic treatment should be instituted, every effort being made to build up the general health by rest, feeding, attention to excretions, fresh air, sunshine and tonics. Coitus must be forbidden, just as in the acute cases, because by increasing the pelvic congestion it tends to increase the inflammation, and because pregnancy—should

it occur—exerts a very bad influence upon the disease. At the menstrual period rest in bed should be enjoined.

For local treatment I rely chiefly upon douching and tamponage. The douche is important both as a means of mechanically cleansing the vagina and, through the action of heat, of contracting the congested swollen pelvic vessels, thus relieving the stasis. An alkaline solution is best for cleansing, as it dissolves the pus and disengages the mucous. Explicit instructions must be given the patient as to the method of douching: To use at least two quarts of fluid morning and night, as hot as it can be borne, from 100° to 120°, and to douche in the recumbent position, with the hips elevated, so that the hot solution will bathe the cervix and the vaginal fornices.

The tampon we use as a mechanical support and as a vehicle for medication. As a support it gives relief from pain by immobilizing the swollen pelvic organs, and also by its pressure it tends to lessen the venous stasis.

For medicinal application the usual combination of ichthyol and glycerine is, I think, the most satisfactory; the first serves both as an anodyne and antiseptic; the last, the most important constituent on account of its property of extracting water, lessens the inflammation by depleting the congested vessels, thus bringing about a sort of indirect drainage. The tampon should be of lamb's wool, to give the necessary firmness, covered by a layer of absorbent cotton to carry the medication; it should be inserted at least three times a week by the physician himself, by sight, not by touch alone, and should be fitted accurately to the posterior fornix. It should never be retained over twenty-four hours, and its removal always followed by a douche.

Other therapeutic measures used for the same purpose—to bring about resolution of

the inflammation—can receive only brief mention. Hot medicinal baths of various kinds, hot air and electric light baths, abdominal applications, pelvic massage and pressure treatment with the mercury colpeurynter. The Germans have been especially active in the use of such treatments, and some of them claim a large number of cures. Prochownick, of Hamburg, for instance, reports 160 cases treated conservatively; 55% were permanently cured by a single course of treatment, four to six weeks long; 15% by a second course; while 30% were unimproved and were operated upon.

While on the whole I am in favor of this conservative treatment, it has definite limitations which should not be overlooked. The cases should be carefully selected. It should not be employed in the presence of pelvic abscess, at least until after the evacuation of the same. It should be discontinued if followed by rise of temperature or exacerbation of symptoms, and should only be continued as long as definite improvement is noted. There are many cases where radical operation alone is indicated and these should not be allowed to grow progressively worse under non-operative treatment. It is, to my mind, very problematical whether a pyosalpinx could ever be benefitted by this treatment.

If an abscess has formed in or around the tube, incision and drainage, as is the rule in any other part of the body, must be resorted to before improvement or cure can be expected. If the abscess can be palpated through the vagina (fortunately, this is usually the case) it should be opened and drained as soon as discovered, no matter how acute the symptoms are. Early evacuation will often prevent tubal deformity. If the abscess is higher up in the abdomen, so that vaginal drainage would mean passage of instruments and pus through an un-walled off portion of the peritoneal cavity,

abdominal drainage is the treatment, but must be delayed, if the patient's condition permits, until strong adhesions and attenuated toxins lessen the danger of general peritonitis.

The length of this paper forbids much discussion of operative technique. Three points in performing vaginal section for pelvic abscess demand mention: With one finger in the cul-de-sac and the other hand making counter-pressure on the abdomen, be sure to leave no secondary pus collection unemptied; do not irrigate into the opening, for if the adhesions give way, bacteria may be disseminated throughout the free peritoneal cavity; after operating, raise the head of the bed high to facilitate drainage.

It is also not the writer's intention to discuss in this paper the radical operative treatment of diseased adnexa. It presents some of the most difficult problems of abdominal surgery and should not be attempted by other than one especially experienced in this kind of work.

The vaginal incision and drainage is an operation requiring very little special prep-

aration, can be done quickly, with few instruments, at the patient's home. And it is surprising how well most of the patients do; many times the vaginal evacuation of pus is followed by a complete cure, and not only is there renewal of health but sometimes a subsequent pregnancy occurs.*

Gonorrhoea occupies a prominent place among the scourges of the human race, and wherever it prevails—and its boundaries are world-wide—that most disastrous manifestation, gonorrhoeal salpingitis, will be found. Countless women are being sacrificed daily to the gonococcus, a large number of them through no fault of their own. If we can save some of those innocent ones, suffering for the sins of their husbands, from a childless life of invalidism, threatened with ectopic pregnancy or peritonitis, we may well believe that we have not striven in vain.

*Of eleven cases of Pelvic abscess seen by the writer in 1908, two refused operation; of the nine operated upon, two required subsequent radical operation with removal of the tube; four were entirely well two years later; three were not heard from.

THE CIRCULATION AS A FACTOR WHICH DETERMINES THE EFFECTS OF MICROBIC INVASION

Alexander Haig, London, England, finds that bacteria attack the weak, among both old and young, and that these are the persons who have a poor capillary circulation. This circulation controls all the functions, nutrition, metabolism, digestion, and the structure of every one of the body cells. It controls combustion in general and the action of the food intake. Underlying this is obstruction of the capillaries, and deficient vis a tergo, that is, weak heart. The great cause of obstruction is excess of uric acid in the blood stream. This is illustrated by what happens in a common cold, in typhoid, in the liability to ordinary infections. The author explains all of these by the weak-

ness of circulation due to excessive uric acid, caused by eating non-uric acid free foods. The use of the uric acid free diet would prevent all these evils. Life is divided by the author into four stages, two of uric acid retention and two of collemia, the stages of retention being from birth to 14 years, and from 25 to 55; the collemic from 14 to 25, and after 55 years of age. Any available uric acid is in solution in the blood of the weak and feeble; their muscles are weak, hearts are weak, and circulation is slow; they fall an easy prey to microorganisms. Chronic underfeeding is a frequent cause of this weakness.—*Medical Record*, September 3, 1910.

THE DIFFERENTIAL DIAGNOSIS OF ORGANIC AND FUNCTIONAL DISEASES OF THE STOMACH*

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Any disease of well-known pathology appears in much more simplified form than the disease of unknown pathology.

We think of diseases of known etiology and pathology as easy for treatment. But given an unknown as to cause and resulting anatomical change; the treatment is usually empirical.

It is this problem of undiscovered etiology and pathology that we meet all too frequently in functional diseases.

The difficulties presenting, in differentiating organic from functional stomach diseases would be easily cleared if it were not for the fact that the better understood organic disturbances present many symptoms common to the functional, hence it should be valuable practice to arrange the more important differentials.

All through the gradation of life forms, it is observed that (1) "The form of the alimentary canal is highly modified by the food habits and by the form of the individual animal."

As man's volition admits him to a wide variability in habits, occupations and environment, it can be expected that the anatomical function will vary sufficiently in the form to engage extra difficulties when a pathological condition is sought.

The history of functional and organic diseases gives a frequency in occurrence of 66⅔ per cent functional as against 33⅓ organic. The functional diseases are closely related to an infirm central nervous system and are found with greatest frequency in the women of the wealthier and intellectual classes.

The occurrence of organic diseases of the stomach is most common after the age of forty years, and appears equally in the sexes.

The additional differentials to be mentioned will include only salient diagnostic signs that should be most carefully weighed before proceeding to minute case analysis.

If minutiae are studied first, diagnosis in borderland cases will result in a guess to the patient and confusion for the physician.

The anamnesis should always be obtained with utmost care at the beginning, and furthermore a review of the obtained data should be had at the conclusion of case studies. The patient will frequently reverse his first told history when his memory and attention are prodded by close fitting interrogations, with the gratifying result that many baffling cases are at once made clear.

The organic gastric diseases are characterized by a local pathology that is demonstrable in a certain percentage of cases. For example: Tumor is recognized in sixty to seventy per cent of cancer cases.

Hemorrhage, according to (2) Deaver, occurs in twenty-five to thirty per cent of ulcer cases and may be taken as a sign that is well nigh pathognomonic.

Gastrectasis and gastropnoxis can be recognized very satisfactorily after a bismuth meal by the X-ray, and usually quite definite information is obtained by palpation alone.

The two symptoms of pain and vomiting are to be taken as belonging almost exclusively to the manifestations of organic disease. The notable exceptions are pain in the event of a supervening locomotor

*Read at the 45th Annual Meeting of the Michigan State Medical Society, Bay City, Sept. 28-29, 1910.

ataxia, and vomiting in the presence of severe hysteria.

The patient's statements concerning pain and vomiting are liable to show that these terms are used to describe the sensation of weight, distention, discomfort and eructations of gas, or regurgitation of mouthfuls of fluid.

The cardinal features of the functional diseases of the stomach are: A history of hereditary or acquired infirmity of the central nervous system. The presence of anatomical deformity of the chest with a sub-xiphoid angle of 70 degrees or less, and a marked variability of symptoms and a variable acidity of stomach contents.

The motility test average is that of hypertonicity in the functional diseases.

The discomforts of the functional diseases are related more closely to the mental states of depression, or irritation than to the kind, quality or quantity of food ingested.

As before stated, at least $66\frac{2}{3}$ per cent of all gastric diseases are functional, and probably of these the majority are congenital in origin. Stiller has described what he designated enteroptotic constitution, by which he meant an inherited predisposition to digestive disturbances having a direct origin, especially in an inadequate nervous system.

The anatomical signs, commonly seen in the foregoing condition, are an attached or loosely floating tenth rib having no union with the ninth rib, a subxiphoid angle of 70 degrees or less, when it should measure 100 to 140 degrees in a normal formation, a vertical diameter of the chest that exceeds the transverse which normally should be the greater. A long, flat, narrow thorax is the ocular indicative of this condition.

The effect of the foregoing abnormal anatomy seems apparent in downwardly displacid abdominal organs. (3) Hemmeter finds the stomach and right kidney

invariably displaced when there is a sub-xiphoid angle of 70 degrees or less. And "he believes every subject with these physical signs has a congenital infirmity of the central nervous system, and some neurosis of the stomach."

A very much clearer light is given to gastric diseases by some of the recent advances made in the physiology of the stomach.

It will serve the purpose of this paper advantageously to include some of the newer points relating to the innervation of the stomach.

The nervous control of the gastric movements and the pylorus is received through fibres from the vagi, and from the sympathetic nervous system. The fibres from the vagi connect with the ganglion-cells of Auerbach's plexus between the circular and longitudinal muscular coats. The sympathetic fibres come from the lower dorsal region of the spinal cord and pass by way of splanchnic nerves to their cell stations in the coeliac plexus.

From the fact the stomach possesses this double nerve supply, arises many confusing problems that may be especially related to its functional diseases. There is no question but what the movements of the stomach can be directly or reflexly inhibited by the central nervous system.

(4) Cannon found that peristalsis in cats ceased when they were excited or angry and Pawlow showed that reflex inhibition was produced by stimulation or various sensory nerves. This inhibition occurred when both vagi were cut. (5) Carnot found that the pyloric normal relaxation was inhibited by fear or anger and by painful stimulation of sensory nerves.

Aldehoff, von Mering and Cannon have found that the peristalsis of the stomach and the pyloric reflexes remained normal for months after division of both vagi and destruction of the coeliac plexus, or divi-

sion of the splanchnic nerves. If however, both muscular coats of the duodenum are cut through so as to sever Auerbach's plexus, the power of contraction is destroyed. (6) Hertz believes it is possible that likewise the motor functions of the stomach depend mainly upon reflexes which have their centre in the nerve cells of Auerbach's plexus.

The foregoing review makes plain the fact that motility, the most important of all the stomach functions, can be seriously inhibited by either organic or functional diseases.

The tests of motility give only contributory information to the subject of differential diagnosis, but when making up the symptom group a record of the food retention time taken every third day for a period of perhaps fifteen days, is indeed valuable data.

Besides the well-known test meal method of Leube is the very simple test proposed by (7) Huber who administers salol which is eliminated by the urine as salicyluric acid in twenty-four hours if motor function is normal, but when it is diminished, forty-eight hours or more are required for its elimination. The urine is tested by moistening a piece of filter paper with the urine and touching the middle of it with an iron solution.

GASTRECTASIS

It is not an easy task to determine as (9) Bradshaw puts it "where physiological distention ends and pathological dilatation begins." Therefore it is imperative that a careful observation be made of the individual form and habit in health.

There are few symptoms in this condition if ungrouped that signify. Interval attacks of vomiting of enormous quantities of frothy, or watery or brownish fluid, usually highly acid and containing sarcinae may be taken as a strongly indicative sign. This present and taken with palpation and the

skiagraphic picture, which together or separately show a boundary of pathologic proportions, will yield very definite information of dilatation.

GASTROPTOSIS

It should be remembered that the lower border of the stomach, if the patient is in the upright position, may extend normally one or two finger breadths below the umbilicus, but when the prone position is taken, the boundary is perhaps two or three finger breadths above the umbilicus. But little difficulty should be encountered in the accurate diagnosis of displacements if careful palpation is done and confirmed by the X-ray.

It is quite certain that marked displacements are causative of frequent functional disturbances. If motility is not disturbed by the gastroptosis, few if any disturbing symptoms are given.

GASTRITIS

A carefully obtained history usually suffices to prove the diagnosis of this condition.

A general tenderness over the entire stomach, rather than in one spot as in ulcer, is observed.

If emesis is early, the causative material will be frequently found in the vomitus, but if late a diarrhea is frequently present.

ULCER

(8) Graham tersely describes the symptomatology of ulcer, particularly the chronic form, as giving years of complaint in which the periods of attack and the periods of freedom alternate. Nutrition in the early stages remains good and food gives immediate relief to all symptoms, but in one to four hours there is a return of the pain, distress, gas, vomiting, sour eructations and burning stomach. He emphasizes that the differentiating point in this well-known symptom group of chronic dyspeptic troubles is symptom regularity after meals with the ready control by food, vom-

iting, irrigation, etc. This behavior continues day after day until the time of complications arrives and food ease changes to food distress and relief periods disappear. Vomiting is less often, but more copious and with only partial relief. Appetite and nutrition fail. A high acidity of hydrochloric acid is regarded by Billings as a valuable sign of ulcer.

CANCER

The early history of cancer may be that of ulcer, or it may be that of a stomach disturbance which was followed by years of freedom ending with a sudden burst of malignancy, or it may appear without previous history. There is a loss of weight, strength and appetite. Depression, silent fear, with grave apprehension and a facial expression of pallor about the mouth, eyes and nose, with a pinched look and a cachexia, are plainly depicted.

Pain in cancer is felt in the epigastrium. It is of a continuous, dull, sickening, undecipherable character, usually increased by food unless hydrochloric acid is abundant, and in this event there is short relief.

Vomiting is a common symptom which becomes more troublesome as the disease progresses. It is irregular and easily excited. The vomitus is foul from undigested food and frequently contains blood.

Gas is usually a troublesome factor because of its amount and foul odor.

Tumor is recognized in sixty to seventy per cent of cases.

The diagnosis of cancer of the stomach, if we summarize the salient points, depends upon the patient's history, the absence of free hydrochloric acid, the presence of lactic acid, Boas Oppler bacilli, a palpable tumor, occult blood, and a variable degree of motor insufficiency.

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SURGICAL SUGGESTIONS.

It should be remembered that infection of the bladder mucosa is capable of producing symptoms of retention.—*American Journal of Surgery*.

The too prolonged use of a drainage tube in an empyema wound may be the cause of a persistent sinus.—*American Journal of Surgery*.

A deep swelling in the gluteal region developing after a fall is apt to be a hydroptic bursa—there are several bursae among the glutei.—*American Journal of Surgery*.

Vesical is differentiated from urethral fistula by the fact that in the former leakage is continuous or especially before urination, and in the latter leakage occurs during urination.—*American Journal of Surgery*.

The filiform bougie is not used to good advantage if employed after the passage of a sound or large instrument, as splits of the mucous membrane are produced into which the filiform finds its way. It should be the first instrument employed.—*American Journal of Surgery*.

ACTION AND USES OF THE ADRENAL PRINCIPLE*

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One of the most notable discoveries in recent years was achieved when the active principle of the suprarenal gland was isolated. In slightly different forms and under names of similar meaning, it comes to us as epinephrin, adrenalin, adnephrin, suprarenine, suprarenalin, etc. In this age of so-called therapeutic nihilism, it is interesting to note the hold it has obtained upon the minds of many physicians who have no doubt witnessed the dramatic presentation of its effect upon blood pressure in some laboratory, for a pharmacist of my acquaintance informed me that one physician, many of whose prescriptions he compounded, had it in practically every prescription. While this is no doubt an exceptional instance, yet there is no question that many, if not most physicians, are using it in many cases where practically all pharmacologists have agreed there is absolutely no indication, or where indicated, in such a way as not to secure the desired effect. The purpose of this paper is to present some indications for its use, and somewhat of its mode of action.

The first indication we would mention is in minute hemorrhages, or in such cases as require the constriction of a certain set of blood vessels. In nasal hemorrhages, those from the stomach, or whatever be the location of the bleeding points, so long as the blood vessels are small and the solution can be brought directly in contact with the oozing vessels, its use is rational and the results satisfactory. Bruner insists

that the vaginal portions of the cervix can be safely rendered anaemic by the injection of only 10 cc. of a solution, consisting of 1 cc. of the 1:1000 solution of adrenalin chloride in 200 cc. of normal saline, and gives warning as to the necessity for extreme care in using the drug. An anonymous writer in the *Centralblatt für Gynäkologie* reports the death of two patients following the injection of adrenalin .0003 gm. into the vaginal portion of the uterus. The symptoms were simply retching following which the respiration and circulation ceased. In fifty other cases, he had no mishap.

Another indication for the use of the gland substance proper is in cases of insufficiency in the internal secretions of the gland. While not coming strictly under the title of this paper, the subject may be touched upon in this connection. The French who have made the greatest study of this condition describe the following symptoms as given by Boinet. A combination of one or more circulatory disturbances—small unstable pulse, low arterial tension, the white line that follows when a blunt instrument is drawn along the abdominal wall, tachycardia, and chilliness; digestive disturbances—*anorexia*, vomiting, diarrhea, or constipation; toxic nervous disturbances resulting from irritation of the various nerve plexuses around the capsule; and general disturbances—*anemia*, emaciation, considerable and progressive amyotrophy. Diagnosis is confirmed by the benefit received from administration of dried gland. One of the writers says that in chronic

*Read before the Wayne County Medical Society, Jan. 31, 1910.

forms, bronzing may be brought out by the application of a mustard plaster. Sажous recommends in these cases, when observation has shown the insufficiency to be chronic, the ingrafting of adrenal tissue as some apparently cured cases, have died suddenly when the ingestion of the dried gland has been stopped.

Falta working in VanNoorden's clinic, says, that the injection of adrenalin seemed to neutralize completely several times the fatal dose of strychnine. In cases of poisoning, then, in connection with the more established forms of treatment, this plan may be tried out.

One observer also reports the cure of a case of uncontrollable vomiting of pregnancy, but as this is only one of a legion of remedies recommended for this condition, much dependence cannot be placed upon this statement without considerable corroboration.

Another important indication for its use is that which follows its action upon the circulatory system. E. M. Houghton, in the year 1900, while experimenting with the thorax opened, found that a heart which had stopped beating under chloroform anesthesia could be brought back to normal action by the intra-ventricular injection of a few minims of the 1:1000 adrenalin chloride solution. Even where the cessation has been of 10 minutes duration, recovery has occurred. We have repeated this experiment, and while not successful in every instance have resuscitated the heart after about 3 minutes cessation, and had it resume its regular beat with as great efficiency as before.

Its remarkable work in raising blood pressure and thus bringing about an efficient circulation is secured whenever it is brought directly into the blood stream. In experimentation the route usually chosen is the femoral vein. In such cases even from one minim beauti-

ful results are secured. This results chiefly from the contraction of the smooth muscle of the arterioles and a digitalis action on the heart muscle as well as probably some stimulation of the vaso-motor center.

In his paper entitled "Anaemia and Resuscitation," Crile states that introducing the adrenalin into the venous circulation while easy and practical, had the following disadvantages, the adrenalin first came in contact with the vessels having the least power of influencing the blood pressure, and before a material rise could be effected by its action upon the arteries, it was necessary that the solution should pass through the right heart, the lung, and then back to the left heart on its way to the aorta, thus finally affecting the coronary arteries. In a previous research it was found that this too often caused an accumulation of solution and blood in the dilated paralyzed chambers of the heart defeating resuscitation. Centripetal arterial infusion of adrenalin has been found effective.

In a personal communication, he writes as follows:

"The artery of choice for the introduction of adrenalin would, I think, be the brachial artery. I have used this artery successfully. After the work has been finished the end of the artery may be resutured, that is to say the contiguous part of the artery could be cut away and end to end anastomosis made. In one case I bridged in the hiatus with a substitution of a section of the median nerve. The patient, however, did not recover so I did not have the opportunity of observing the end result."

As to the production of the increase in blood pressure in other ways, Cushny says it has been shown repeatedly that the characteristic effect of epinephrin cannot be elicited by its administration by the mouth or subcutaneously. Barton states that when given hypodermically the amino-

pyrocatechin on which the action depends is oxidized in the tissues and none of it reaches the general circulation. He then recounts performing before his students the following experiment:

Eight drops of a 1:1000 solution of adrenalin chloride are injected deeply into the deltoid muscle of the left arm after the blood pressure had been taken on the right arm by a mercurial manometer, absolutely no rise of blood pressure is indicated in the manometer. Repeating this experiment with three minims of the 1:1000 solution upon two students, no appreciable results were secured.

Wiggers of the Research Department of Parke, Davis & Co. as the result of his work comes to these conclusions:

"The method of introducing adrenalin determines the effect on blood pressure and hemorrhage. No results are obtained by subcutaneous administration. By continuous intra-venous injection of such solutions a slight elevation of pressure can be maintained and hemorrhage simultaneously checked. This can also be accomplished by intra-muscular injections. Adrenalin is not indicated in intestinal hemorrhages, unless the blood pressure be low." As far as pulmonary hemorrhages are concerned he says that adrenalin chloride is not a satisfactory drug to use to raise the general blood pressure.

We have worked on a series of nine dogs, using the ordinary kymograph and mercurial manometer with the attachment to the carotid, the femoral vein being used for intravenous injection, and the anesthesia used being morphine and chloretone. To tabulate the results:

In eight cases, from 1 to 3 minims adrenalin chloride intravenously produce a typical elevation of blood pressure.

From 10 minims introduced subcutaneously in six different dogs no results followed.

From 10 minims introduced intramuscularly in six different dogs, no certain effects were noted.

Instillation in the vagina of 10 minims in one instance produced no result.

Instillation of one minim in each nostril produced no result.

Thus we have never been able to show a raised blood pressure following subcutaneous injection, nor following instillation into the nostril or vagina. Nor have we been able to elicit from intramuscular injection any appreciable rise of blood pressure. We know that the action of adrenalin on the blood pressure even when injected intravenously is very transient probably averaging three minutes in duration. If such a change takes place in this short time, it seems extremely problematical to us when absorption takes at least five minutes, whether results will occur affecting blood pressure from absorption from any mucous surface, from the subcutaneous or intramuscular tissue, and in the event of its occurrence, the most likely explanation is that a small vein has been tapped in injecting.

One of the results noted after the use of adrenalin intravenously or intraperitoneally is glycosuria. This Falta explains is due to the too rapid and excessive mobilization of carbohydrates, the active agents in promoting which, in general, are the cells belonging to the chromaffin series, to which the cells lying in the medullary portion of the suprarenal belong, and from which the adrenalin is obtained.

As a result of our consideration of the drug, three principal uses may be considered rational:

1. Local application of solution in hemorrhages from small blood vessels, or local injection to cause constriction of the blood vessels of the part.
2. In cases of suprarenal insufficiency.
3. As an agent to raise blood pressure

For this purpose, it is essential that the solution be introduced directly into the circulatory system, no proof having been submitted of its being absorbed, with blood pressure raising effect, from the subcu-

taneous tissue, nor with certainty from other regions of the body.

The capable assistance of Dr. Geo. O. Pratt in all these experiments is gratefully acknowledged.

FAMILY PHYSICIAN REFRACTING AS A FACTOR IN MEDICAL PRACTICE, AND ITS PROMOTION DURING 1910*

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During the meeting of the American Medical College Association, March, 1910, Augustus S. Downing, M.A., Ph.D., LL.D., executive head of the New York State Educational System, announced the establishment of a chair of Optometry in Columbia University, to be filled with a non-medical man. Noting the surprise of a physician listener, he added: "You know that refracting is not a part of medical practice."

This position is easily comprehended when we recall that Mr. Downing's ideas on this subject originated with Mr. Charles F. Prentice, president of the New York State Optometrical Board and were transmitted by him to president Butler of Columbia University. This University conducts a medical school with a distinguished reputation of more than an hundred years; the maintenance of which demands that future graduates be adequate, for the broadest medical service of the people—a service impossible without a "working knowledge of refracting." When optometrists urged the University to establish for them a "Specialist Refraction School," we should have expected that it consult its medical faculty and make no move hostile to its existing school. Surely it would stipulate that only physicians be admitted to the

proposed school of "Specialty Refracting," and arrange that the scheme be developed as to train physicians able to manage any eye case, from the point where family physician limitation left it, with an exhaustive equipment of all known facts in literature, laboratory, hospital and operative technique. Instead of taking this logical course in the contest between physician and optician for the control of medical refracting, Columbia University threw her vast influence with the optician.

The optometrists persistently claim that they do not invade medical practice, in that they refract without the use of drugs. By persuading the people that this claim is well founded, twenty-four legislatures have legalized their refracting—so that laymen now practice medicine, in spite of medical acts.

By the same process the optometrists expect to capture all of ophthalmology. Thus in an address before the Tennessee Optical Society Mr. R. T. Hudson, an optician—(Cincinnati Lancet—Clinic, June 10, 1910, p. 102,) says: "The greater part of ophthalmology is eye diseases and their reflexes. Here is another field for exploit, and we propose to invade it, and not only to invade it but to capture it. Nor do we intend to stop here. There is still another

*Read at the Forty-fifth Annual Meeting of the Michigan State Medical Society, Bay City, Sept. 28-29, 1910.

field to invade and it shall be ours, namely ophthalmic surgery."

The facts prove that not a few doctors get their refracting done by opticians and advise their patients to do likewise—showing their belief that medical knowledge is not essential to refracting.

Few medical colleges so teach refracting that their students can practice it with satisfaction to themselves or patients. Of the forty-two state medical examining boards, only four make a working knowledge of refracting a condition for license. Nor is the spirit of college teachers and the general profession such as to inspire that enthusiasm, necessary to overcome the inherent difficulties of refracting. Considerations like these indicate that refracting is not seriously regarded as a factor in medical practice worth attention by others than ophthalmologists.

Yet the eye is a part of the human body. Without the labors of Helmholtz, Donders, Snellen, Liebreich, Von Graffe and other doctors there would be no scientific refracting. Thus, though discredited by the profession's failure to master it, refracting is an essential part of the practice of medicine; because it concerns an important organ in the human body, the eye; because doctors have worked out eye structure and function, normal and abnormal, the methods and instruments needed to determine refractive defects and make an exact correction thereof, because doctors alone can fully appreciate the disorder that refractive defects may induce in the structure and functions of organs far distant from the eye; because every treatise on *general medicine* refers to refracting as an important aid to the diagnosis, prognosis and management of many disorders; because every *text-book on the eye* gives large place to refraction, explaining its nature, methods of study and use of apparatus for diagnosis and treatment. These and allied con-

siderations establish refracting as an essential part of general medical practice and indicate that every family doctor should be as able to refract all his simple cases as he is to manage cases of simple surgery, obstetrics, internal or external disease, or other simple human disorders.

Yet the most superficial inquiry demonstrates that such family refracting is the exception. Thus of the 135,000 physicians in the United States, the most careful search fails to find above 3,000 able to refract, or one in forty-five.

Then considering refracting from the point of the people's needs, we find: 180,000,000 human eyes in the United States, each of which after forty years needs refracting, most many times. Before forty years the the myopes and hyperopes, call for refracting one or many times. Granted that half of the people needed such service before forty years, we would have 270,000,000 of human eyes needing refracting. Assuming the present number of refractionists as 3,000, each would have the job of refracting 90,000 eyes—an impossible task. But if our entire 135,000 physicians refracted their own simple cases, each would have about 2,000 refraction cases—a possible achievement.

Facing this condition, only two courses are open to the profession, viz: Either qualify all its members to do their own refracting in conjunction with ophthalmologists, or leave the matter in the hands of opticians. Since the latter course connives at the admission of laymen to medical practice without a medical education, the medical profession should reject it and accept the "Michigan idea" to qualify every physician to do simple refracting. Farther, as we have seen, submission to the rape of medical practice by opticians will greatly impair the force of existing medical laws and invite the invasion of other branches of medicine by non-medical persons. At

this juncture to protect professional interests, the Michigan State Medical Society started an educational movement to qualify all physicians for simple refracting. At last year's meeting the progress of this movement was reported briefly as follows: The Michigan State Board of Registration, had notified medical colleges that after Feb. 12, 1909, it would require for license a working knowledge of simple refraction. Many medical colleges whose graduates were likely to seek a license to practice in Michigan began qualifying their students for such requirement. Dr. Hubbell, chairman of the Ophthalmic Section, American Medical Association, presented the matter in his annual address. A section committee on this address reported that "every practitioner should be able to manage refractive defects of the eye and its infectious disorders." This report was adopted by the section of eleven hundred ophthalmologists, and a committee appointed to promote such education of the profession; the committee was: Leartus Connor, Detroit; James Thorington, Philadelphia, Pa.; and Albert R. Baker, Cleveland, O.; Reports from family physicians in Michigan were read, showing that they had mastered and were practicing refracting.

During its second year, 1910, the Michigan idea of family physician refracting found promoters in many states. Circular letters were sent to Registration Boards, to some medical journals to influential doctors, asking that State Registration Boards require simple refracting as a condition for license. Various other methods were adopted to awaken thought on the subject, by those concerned in medical registration and education, in the belief that when comprehended all would unite in promoting family physician refracting.

Time forbids more than an enumeration of the mile-stones passed by the movement during 1910.

1. Vermont, Nebraska and Utah have joined Michigan in requiring, for license to practice medicine, a working knowledge of simple refracting. It follows that the medical colleges, whose students desire to practice in those states, began to prepare their students for such examination.

2. Last fall the Kentucky State Medical Society endorsed the Michigan idea.

3. On invitation, a member of the committee read a paper before the Association of American Medical Colleges, at its meeting last March on "The Economic Value of Simple Refracting," and other members discussed it.

4. On May 3, 1910, the Detroit Ophthalmological Club invited to a conference on the "Economic Value of Family Physician Refracting," officers of the Michigan State Medical Society; officers of the Wayne County Medical Society; officers of the Michigan State Board of Registration; the Deans of the Medical Department of the University of Michigan, and Detroit College of Medicine, and family physicians doing simple refracting. After several hours of frank discussion, the movement was unanimously endorsed and fitting resolutions adopted, on motion of Dr. Don M. Campbell.

5. On June 6th, the American Academy of Medicine unanimously adopted the following:

Whereas—The refracting of human eyes is an important part of medical practice;

Whereas—The physicians now qualified therefor, are quite inadequate for the people's needs;

Whereas—The Ophthalmic Section of the American Medical Association says: "That relief from this inadequacy is possible only by training our one hundred and thirty-five thousand physicians to 'manage infectious diseases of the eye and its refractive defects;'"

Resolved—That the American Academy of Medicine:

a. Recommends medical colleges to arrange a curriculum that will equip their students with such training;

b. Approves of those State Registration Boards now requiring it for license; and

c. Advises like action by other State Registration Boards at an early date.

6. On June 6, 1910, Dr. Herrick T. Vail, Professor of Ophthalmology in Cincinnati University, read a paper on Family Physician Refracting before the National Confederation of State Medical Examining and Licensing Boards. After a full discussion, the following was unanimously adopted:

Resolved—That the National Confederation of State Medical Examining and Licensing Boards:

a. Recommend medical colleges to arrange a curriculum that will equip their students with such training;

b. Approve of those State Registration Boards now requiring it for license; and

c. Advise like action by other State Registration Boards, at an early date.

7. On June 9, 1910, the House of Delegates, American Medical Association, unanimously adopted the following:

Resolved—That the House of Delegates of the American Medical Association:

a. Requests its "Council on Medical Education" to arrange a curriculum able to equip medical students with such training as will enable them to manage infectious diseases of the eye and its refractive defects and recommends medical colleges to adopt the same;

b. Approves of the State Registration Boards now requiring it for license;

c. Advises like action by other State Registration Boards at an early date.

8. On September 22, 1910, the American Academy of Ophthalmology and Otolaryngology, at its meeting in Cincinnati, O., adopted the following:

Resolved—That every family physician should have a working knowledge of simple refracting, and be able to manage infectious eye diseases; that this knowledge should be taught in all medical colleges and required for license by all State Medical Registration Boards.

9. Not a few medical journals printed and favorably commented on the plan of the committee to encourage the requirement of a working knowledge of simple refraction for license. Among these we note an editorial in the Boston Medical and Surgical Journal of December 9, 1909, and one in the Medical Fortnightly of St. Louis, Mo., as especially forceful.

10. Among numerous letters from leaders in the profession endorsing the movement were those from Dr. William C. Gorgas and Dr. C. A. L. Reed, both ex-presidents of the American Medical Association. Dr. W. W. Grant, trustee of the Journal of the American Medical Association, writes from his Denver home, "that the action of the Michigan State Board of Registration (in requiring for license, family physician refracting) is both wise, timely and greatly to its credit."

Remembering, that two years ago, the 135,000 physicians in the United States doubted the possibility of family physician refracting; that few medical colleges tried to teach it; that no registration board required it for license; that no medical journal or society advocated it, our present condition speaks volumes for the Michigan State Medical Society's grasp of the profession's needs and its tactful energy in promoting their supply.

It is suggested that every doctor hang in his office a Snellen Test Card, and lay upon his table a copy of Jaeger's Test Types. The use of these in all cases of doubtful diagnosis will surely promote his knowledge of and confidence in the helpful power of simple refraction by family physicians.

As the art becomes easy, there will accrue an increased intellectual power; larger influence over patients and the community; more successful results in other than eye cases; broader and more correct views of general medicine; and larger financial rewards. Verily, family physician refracting is the key to a vast professional uplift. It is respectfully urged that medical colleges drop the vain attempt to teach undergraduates operations on the eyeball, which no family doctor can perform, and devote the time and energy thus saved to training each student to do family refracting with comfort to himself and satisfaction to his patient—in short, train the student in the things that he *can practice*, and omit the things he *can never hope to do*.

Finally: (1) The spectacle lens can cure many human disorders.

(2) The ability to prescribe such lenses

correctly is a part of medical practice (3) Neglected by medical schools and the profession, refracting fell into the hands of opticians.

(4) With the enactment of medical laws for physicians, opticians sought like government protection of their medical practice, on the double plea of insufficient refractive service to the people by physicians and their ability to refract without the aid of medicine.

(5) In 1908, the Michigan State Medical Society started a movement for qualifying every doctor to do his own refracting (by the aid of ophthalmologists); thus satisfying his patients before they seek an optician.

(6) The attainment of this object is beset by many obstacles, because it is a new idea projected into medical practice but its present success presages its final triumph.

EHRlich-HATA REMEDY—"606"

B. C. Corbus, Chicago (*Journal A. M. A.*, Oct. 22), makes a preliminary report from personal observation of the use of this preparation in Wechselsmann's clinic in Berlin. He states that he can testify that spirochetes begin to disappear in from 18 to 24 hours after injection of the remedy. He states that the number of different technics is surprising and confusing, as each clinician has his own. Corbus prefers Lesser's technic, which he describes as follows: Take a graduated cylinder with ground glass stopper, in which there are about one dozen glass pearls to assist in mixing. Add "606" salt; immediately add 15 c.c. hot water, shake vigorously until every particle of salt is dissolved; add 2 c.c. normal sodium hydrate (NaOH) solution; a precipitate occurs. Then continue to add sodium hydrate solution in very small quantity, shaking vigorously after each addition, until solution begins to clear; then drop by drop, until we have a clear solution. This should be neutral; if the cylinder does not contain 20 c.c. of

solution, sterile water is added up to that amount. Then 10 c.c. of this solution is injected deep into the buttocks on either side, always taking care to cleanse the parts with soap, water and iodine. Patients should be sent to the hospital for treatment, and care should be taken that they rest for one-half hour after the injection. Corbus concludes his article by saying that looking into the future, it seems hard to prophesy what we are to expect from a single injection. In order that our results may fulfil the theory of Ehrlich's "therapia sterilisans magna," the following conditions are necessary: First, one must not administer "606" in any condition that is not of spirochetal origin. Second, there must be absolute certainty of diagnosis by means of the Wassermann reaction or by examination for spirochetes. Third, the most careful and painstaking technic in preparing the substance for injection and in the injection itself must be observed.

The Journal of the Michigan State Medical Society

All communications relative to exchanges, books for review, manuscripts, advertising and subscriptions should be addressed to Wilfrid Haughey, A. M., M. D., Editor, 24 West Main Street, Battle Creek, Michigan. The Society does not hold itself responsible for opinions expressed in original papers, discussions or communications.

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NOVEMBER

EDITORIAL

Your Committee recommends, that on May first of each year the Journal of the State Society be discontinued to all subscribers and members in arrears and that such members be reported to the Secretary of the American Medical Association as "dropped for non-payment of dues."—*Report of Business Committee unanimously adopted by House of Delegates.*

"Whereas, the work of the Michigan State Board of Registration in Medicine is solely in the interest of the people and as truly a part of the safeguarding of the public health as the work of the State and other Boards of Health, in that thereby the people are guaranteed well trained physicians and the State, its cities and villages, competent health officials; therefore be it Resolved: that we, The Wayne County Medical Society, do hereby petition the members of the Michigan State Legislature to enact such amendments to the present Medical Act as shall appropriate sufficient funds for the maintenance of the Board of Registration and also for the enforcement of the Act in order that the charlatan and the obscene advertiser no longer prey upon the credulous public; and be it further resolved that we individually exert what influence we have with the legislators, the press and the public in favor of the enactment of such amendments."

THE FORTY-FIFTH ANNUAL MEETING

The Forty-fifth Annual Meeting of the Michigan State Medical Society has passed into history, and takes its place alongside the many others as a meeting full of enthusiasm, full of business, and full of scientific attainment. All the meetings and registration being on the same floor made it possible to expedite the proceedings—no time being lost in going from one hall to

another. The only disagreeable feature of the whole meeting was the dining accommodations at the hotel, where we evidently took a larger crowd than they were accustomed to handle. Outside of standing in line waiting for our dinner, no meeting has been more conducive to good fellowship and to good, honest, scientific work.

The attendance was smaller than last year. For the past several years it has been: 1910, Bay City, September, 306; 1909, Kalamazoo, September, 329; 1908, Manistee, June, 160; 1907, Saginaw, May, 325; 1906, Jackson, May, 326.

A strong sentiment developed at this meeting to return to the spring meetings, because of the difficulty of leaving one's practice in September, and especially the latter part of September, but it was voted to continue the fall meetings for another year at least, and to meet next year in Detroit in September.

Unfortunately the announced reception at the home of Regent W. L. Clements had to be cancelled at the last moment, but the Bay County Medical Society showed its resources and versatility by arranging and giving a most enjoyable and successful reception in the ball-room of the Ridotto—at which President and Mrs. Carstens led the grand march.

This meeting has served as nothing else could to unite the Bay County Medical Society more firmly together. Difficulties were encountered in some instances in getting firms to exhibit, but these were promptly and efficiently met when the members, to a man, decided to buy all their supplies, instruments, etc., of firms which recognize the Michigan State Medical Society to the extent of exhibiting at the annual meeting, or advertising in the pages of the official Journal. Such loyalty deserves our heartiest commendation.

THE MICHIGAN STATE BOARD OF REGISTRATION IN MEDICINE AND ITS TIME OF NEED

The Michigan State Board of Registration in Medicine was established in 1899, for the purpose of protecting the public against incompetency and examined and licensed about 600 physicians each year. The Board saw the need of standards of education in medicine, and took the lead in establishing them. They examined medical colleges, studied recognized standards, and used this material in their work in this state. Seeing a need for some method of recognizing physicians properly licensed in other states, they established the principle of reciprocity as in force in most of our states. This work has made our Board a power throughout the United States in the fight for better preparation for the practice of medicine.

The requirements for entrance upon the study of medicine, as well as those for entrance upon the practice of medicine have been constantly increased with the result that the new licentiates are better prepared to render intelligent service to the public, but this has lowered the number being licensed, thereby decreasing the income of the Board.

The prosecution of the work already done has cost hundreds of hours and days of work and worry to the members of the Board. It has necessitated the relinquishment of private practice by one member of the Board, its efficient secretary, and has used all the money received through the examination and license fees. As a result the Board is now practically bankrupt. It will not have a penny left in another year with which to prosecute this important work and at the same time must face the necessity of increasing its work—for the profession is already beginning to ask that the Board not only attend to the entrance upon the practice of medicine in this

state, but also become more active in enforcing our Medical Practice laws. Many feel that our Board should make complaints in cases of violation of the law, the same as the State Pharmaceutical Board.

Before asking the Board to undertake this added work, however, let us first place it upon a more secure footing. The Board is now restricted to the fees from applicants. These fees are insufficient. The Board must either quit business, or lower the standard; in either instance letting in a flood of unprepared practitioners,—or it must be properly supported.

At the annual meeting of the Michigan State Medical Society in Bay City, President Carstens suggested that the State Board of Registration in Medicine be supported out of the general fund of the state. It was pointed out that there is ample precedent for this. The State Board of Health is a Board created by the legislature for the safe-guarding of the public and it is supported by the state.

The expense of examining and admitting lawyers to the Bar is borne by the state. There seems no reason why the expense of maintaining the State Board of Registration in Medicine, a Board created by the legislature for the safe-guarding of the public, should not be met by the state.

It was unanimously voted by the House of Delegates that the Michigan State Medical Society is in favor of securing from the legislature the proper support of the Michigan State Board of Registration in Medicine.

It was urged and we do now urge that every member of the Society enlist his friends, see his legislators,—or candidates for the legislature; that he urge the necessity of prompt and sufficient support for this board and that he leave no stone unturned to secure this end.

There are only a few days left before the election of our next legislature. This next

legislature has in its keeping the future of the State Board of Registration in Medicine and through it the welfare of Michigan Medicine.

Let us all take off our coats and proceed to make ourselves felt in this campaign. It is late, but not too late to secure what we want, and that this fall, too, if we go after it altogether.

If each member of the Michigan State Medical Society will constitute himself a committee to interview the candidates to the legislature, and each such committee will do its duty and *do it now* the future of the State Board of Registration in Medicine will be cared for and Michigan Medicine will have been given a boost that will enable it to accomplish wonders.

See your candidate for the legislature and "DO IT NOW."

THE REGISTRATION

For the first time our members registering at the Annual Meeting were asked to indicate their section preference, and of the 306 registered 98 indicated no choice. 104 registered for the Medical Section, 74 for the Surgical, and 30 for the Gynecological. This was a surprise to some. The tendencies of Medicine of late years have been largely toward the surgical, but the registration shows a healthy predominance of the men interested primarily in internal medicine.

The Gynecological Section a few years ago was crowded to overflowing, but now shows the smallest registration. However, at its symposiums this year it drew heavily from the other sections.

Several of the State Societies have a "Specialties" section in place of the Gynecological. This might be a plan worth considering in this state. Papers on the subjects of the eye, ear, nose and throat have been lacking in number for several years and have been tucked off at the end

of the Surgical Program, so that every one could leave while they were being read. It would seem that this could be remedied by combining Surgery and Gynecology and forming a new Specialties Section.

Those registered this year follow, the names in italics being delegates:

Geo. W. Crile, Cleveland, O.

E. D. Gardner, Clarks, La.

Antrim County—Chas. E. Long, Elk Rapids.

Barry County—J. W. Rigterink, Freeport; F. F. Shilling, Nashville.

Bay County—Geo. E. Andrews, Bay City; Adolph Speckhard, Kawkawlin; *W. R. Ballard*, Bay City; Chas. H. Baker, Bay City; H. N. Bradley, Bay City; Thomas A. Baird, Bay City; R. W. Brown, Bay City; S. L. Ballard, Auburn; Chas V. Crane, Tawas City; Moffatt Flynn, Bay City; J. C. Grosjean, Bay City; Morton Gallagher, Bay City; Edward Goodwin, Bay City; H. W. Gale, Bay City; J. William Gustin, Bay City; S. E. Gustin, Bay City; A. W. Herrick, Bay City; J. W. Hauxhurst, Bay City; L. C. Hammond, Bay City; E. A. Hoyt, Bay City; J. M. Jones, Bay City; J. A. Keho, Bay City; Wm. Kerr, Bay City; W. G. Kelly, Bay City; J. W. Leininger, Gladwin; H. Beach Morse, Bay City; G. W. Moore, Munger; John McLurg, Bay City; G. M. McDowell, Bay City; Roy C. Perkins, Bay City; F. E. Ruggles, Bay City; Floyd H. Randall, Bay City; I. E. Randall, Bay City; D. F. Stone, Bay City; R. E. Scrafford, Bay City; A. F. Stone, Bay City; C. W. Swantek, Bay City; C. A. Stewart, Bay City; C. G. Suylandt, Gladwin; V. Tupper, Bay City; G. W. Trumble, Bay City; F. C. Thompson, East Tawas; Paul Urms-ton, Bay City; Mary A. W. Williams, Bay City; Edward C. Warren, Bay City; W. W. Williams, Bay City; Geo. A. Williams, Bay City.

Branch County—*W. H. Whitmore*, Quincy.

Benzie County—C. P. Doyle, Frankfort.

Calhoun County—A. W. Alvord, Battle Creek; S. K. Church, Marshall; E. L. Eggleston, Battle Creek; W. H. Haughey, Battle Creek; Wilfrid Haughey, Battle Creek; Eugene Miller, Battle Creek; *H. A. Powers*, Battle Creek; R. C. Stone, Battle Creek.

Cheboygan County—*C. B. Marks*, Cheboygan.

Chippewa County—C. J. Ennis, Sault Ste. Marie.

Clinton County—*James E. Taylor*, Ovid; W. A. Scott, St. Johns.

Eaton County—*Phil H. Quick*, Olivet; A. R. Stealy, Charlotte.

Emmet County—John J. Reycraft, Petoskey; Frank C. Witter, Petoskey.

Genesee County—Noah Bates, Flint; C. B. Burr, Flint; Henry Cook, Flint; George R. Goering, Flint; Benj. T. Goodfellow, Clio; D. S. Jickling, Flint; J. S. R. Manwaring, Flint; Annie S. Rundell, Flint; E. D. Rice, Flint; H. E. Randall, Flint; Amos S. Wheelock, Goodrich.

Grand Traverse County—H. B. Garner, Detroit.

Graiot County—W. M. Drake, Breckenridge; Nelson F. McClinton, Alma.

Hillsdale County—Walter H. Sawyer, Hillsdale; Bion Whelan, Hillsdale.

Houghton County—Edward T. Abrams, Dollar Bay; N. S. MacDonald, Hancock; James Rines, Mohawk.

Huron County—B. Friedlander, Sebawaing; D. J. Lackie, Grindstone City; Frank E. Luton, Sebawaing; A. E. W. Yale, Pigeon.

Ingham County—C. H. Brucker, Lansing; M. L. Cushman, Lansing; Berten M. Davey, Lansing; Cora P. Gannug, Lansing; M. L. Holm, Lansing; Chas. G. Jenkins, Lansing; Samuel Osborn, Lansing; Earl F. Shaw, Lansing; Louis W. Toles, Lansing.

Ionia County—J. F. Pinkham, Belding; E. White Little, Belding.

Isabella County—Chas. D. Pullen, Mt. Pleasant.

Jackson County—A. E. Bulson, Jackson; Roy Wm. Chivers, Jackson; W. L. Finton, Jackson; L. J. Harris, Jackson; Geo. S. Hawes, Jackson; R. Grace Hendrick, Jackson; Peter Hyndman, Jackson; Chas. H. Lewis, Jackson; T. S. Langford, Jackson; C. D. Munro, Jackson; C. G. Parnall, Jackson; E. N. Palmer, Brooklyn; A. J. Roberts, Jackson; Marth C. Strong, Jackson; E. C. Taylor, Jackson; N. H. Williams, Jackson; G. E. Winter, Jackson.

Kalamazoo Academy of Medicine—Ralph E. Balch, Kalamazoo; Ed. J. Bernstein, Kalamazoo; C. E. Boys, Kalamazoo; John H. Crosby, Otsego; A. W. Crane, Kalamazoo; Herman Ostrander, Kalamazoo; A. H. Rockwell, Kalamazoo; L. G. Rhodes, So. Haven; B. A. Shepard, Plainwell; A. S. Youngs, Kalamazoo; G. F. Young, So. Haven.

Kent County—T. C. H. Ableman, Grand Rapids; J. D. Brook, Grandville; W. J. DuBois, Grand Rapids; J. M. DeKraker, Grand Rapids; Robt. J. Hutchinson, Grand Rapids; T. M. Koon, Grand Rapids; Francis J. Lee, Grand Rapids; John R. Rogers, Grand Rapids; S. L. Rozema,

Grand Rapids; R. H. Spencer, Grand Rapids; Richard R. Smith, Grand Rapids; F. C. Warnshuis, Grand Rapids; J. B. Whinery, Grand Rapids.

Lapeer County—G. L. Chamberlain, Lapeer; J. P. Eggleston, Imlay City; W. J. Kay, Lapeer; M. B. McCausland, Imlay City; Peter Stewart, Hadley.

Lenawee County—Herbert R. Conklin, Tecumseh; L. G. North, Tecumseh; I. L. Spalding, Hudson.

Macomb County—G. A. Persson, Mt. Clemens; Clarence A. Traphagen, Bay City.

Manistee County—J. A. Christianson, Manistee; A. A. McLarty, Manistee.

Mason County—G. O. Switzer, Ludington.

Mecosta County—W. T. Dodge, Big Rapids; L. S. Griswold, Big Rapids.

Midland County—E. J. Dougher, Midland; G. Sjolander, Midland; F. A. Towsley, Midland.

Monroe County—Chas. Southworth, Monroe.

Montcalm County—Wm. H. Belknap, Greenville. A. J. Bower, Greenville; F. J. Fralick, Greenville; E. M. Highfield, Edmore; James Purdon, Edmore; A. E. Savage, Greenville.

Muskegon County—Frank B. Marshall, Muskegon.

Oakland County—E. W. MacKinnon, Oxford.

O. M. C. O. R. O.—Frank E. Abbott, Sterling; Joseph H. Ablett, Fairview; C. C. Curnalia, Roscommon; L. R. Ingerlight, Rose City; Stanley N. Insley, Grayling; Archie C. MacKinnon, Lewiston; C. C. Probert, Roscommon.

Osceola-Lake—U. D. Seidel, Reed City.

Ottawa County—T. A. Boot, Holland; D. G. Cook, Holland; Henry Kremers, Holland; John J. Mersen, Holland; Henry J. Poppen, Holland.

Presque Isle County—John Young, Onaway.

Saginaw County—James D. Bruce, Saginaw; D. E. Bagshaw, Saginaw; Geo. A. Bell, Saginaw; E. E. Curtis, Saginaw; Wm. L. Dickinson, Saginaw; Frank B. Florentine, Saginaw; G. H. Fuerbringer, Saginaw; Arthur Grigg, Saginaw; Leon B. Harris, Saginaw; Martha Longstreet, Saginaw; J. Neil McLean, Saginaw; Robert McGregor, Saginaw; J. C. McCormick, Saginaw; B. B. Rowe, Saginaw; C. H. Sample, Saginaw.

Sanilac County—D. D. McNaughton, Argyle.

Schoolcraft County—G. M. Livingston, Manistique.

Shiawassee County—A. L. Bailey, Chesaning; J. L. Eldred, Chesaning; H. A. Hume, Owosso; J. J. Haviland, Owosso; Arthur M. Hume, Owosso;

L. Fleckenstein, Vernon; G. P. Sackrider, Henderson; W. E. Ward, Owosso.

St. Clair County—Chas. W. Ash, St. Clair; C. B. Stockwell, Port Huron; W. G. Wight, Yale.

Tri-County—Frank Boet, Buckley; B. H. McMullen, Cadillac; *Otto L. Ricker*, Cadillac.

Tuscola County—Herbert S. Karr, Akron; B. C. Bradshaw, Mayville; H. A. Bishop, Millington; A. E. Copp, Tuscola; W. C. Garvin, Millington; *T. W. Hammond*, Akron; J. H. Hays, Cass City; G. H. Kaven, Unionville; E. A. Orr, Gilford; A. L. Seeley, Mayville; U. G. Spohn, Fairgrove; R. H. Steinback, Richville; Geo. W. Walworth, Reese.

Washtenaw County—C. D. Camp, Ann Arbor; Sober Ide, Ann Arbor; Matthew Kollig, Ann Arbor; T. Klingman, Ann Arbor; I. D. Loree, Ann Arbor; *Reuben Peterson*, Ann Arbor; Jeanne C. Solis, Ann Arbor; Frank Smithies, Ann Arbor; *H. W. Schmidt*, Chelsea; Neal N. Wood, Ann Arbor.

Wayne County—R. C. Andries, Detroit; Charles D. Aaron, Detroit; A. W. Blain, Detroit; Wm. E. Blodgett, Detroit; Clark D. Brooks, Detroit; J. N. Bell, Detroit; Andrew P. Biddle, Detroit; J. M. Burgess, Northville; Robert Beattie, Detroit; L. Connor, Detroit; Ray Connor, Detroit; Flemming Carrow, Detroit; J. H. Carstens, Detroit; *Guy L. Connor*, Detroit; F. B. Cooley, Detroit; J. Cleland, Jr., Detroit; E. A. Chapoton, Detroit; J. H. Dempster, Detroit; James E. Davis, Detroit; J. Flintermann, Detroit; L. E. Grant, Detroit; B. D. Harison, Detroit; Louis J. Hirschman, Detroit; W. A. Hackett, Detroit; Mary Haskins, Detroit; H. W. Hewitt, Detroit; *Arthur D. Holmes*, Detroit; Charles W. Hitchcock, Detroit; E. M. Houghton, Detroit; L. W. Haynes, Detroit; Vernon J. Hooper, Detroit; E. W. Haass, Detroit; William E. Keane, Detroit; *Guy L. Kiefer*, Detroit; P. J. Livingston, Detroit; Howard W. Longyear, Detroit; Angus McLean, Detroit; T. A. McGraw, Jr., Detroit; J. A. MacMillen, Detroit; James D. Matthews, Detroit; W. H. Morley, Detroit; Anna O'Dell, Detroit; C. S. Oakman, Detroit; R. W. Odell, Detroit; Walter R. Parker, Detroit; Rolland Parmeter, Detroit; Frank S. Pierce, Beaverton; F. W. Robbins, Detroit; Herbert M. Rich, Detroit; H. Lee Simpson, Detroit; E. Smith, Detroit; Benjamin R. Schenck, Detroit; Joseph Sill, Detroit; Wm. Stevens, Detroit; E. L. Shurly, Detroit; Burt R. Shurly, Detroit; *Frank B. Tibbals*, Detroit; J. W. Vaughan, Detroit; *H. R. Varney*, Detroit; *V. C. Vaughan, Jr.*, Detroit; Henry O. Walker, Detroit; Frank B. Walker, Detroit; A. B. Wickham, Detroit; J. T. Watkins, Detroit; J. V. Waite, Detroit; H. Wellington Yates, Detroit.

ARTICLES OF INCORPORATION

We would suggest that members preserve this number of the *Journal*, as it contains the Articles of Incorporation. See page 579. These Articles were filed with the Secretary of State September 17, 1910.

IN MEMORIAM

Ezra Walling (license, twenty years of practice, Mich., 1900); a practitioner in Michigan for fifty-six years; died at his home in Cooperville, September 13, aged 85.

Dr. Andrew E. Thompson, of Elkton, Michigan, a graduate of the Michigan College of Medicine and Surgery, died September 30, after an illness of three days, of pneumonia.

Peter E. Richmond, M. D., McGill University, Montreal, 1873, of Mount Pleasant, Mich., a member of the American Medical Association, and a member of the local board of pension examining surgeons, died suddenly in Saginaw, September 19, from fatty degeneration of the heart, aged 64 years.

Alexander A. Walter, M. D., Imperial University of St. Vladimir, Kiel, Russia, 1872, for fifteen years a surgeon in the Russian service, died at his home in Grand Rapids, Mich., September 19, from diabetes, aged 55.

Richard Leuschner, M. D., of Mt. Clemens, Mich., a graduate of the Michigan College of Medicine and Surgery, 1892, member of Macomb County Medical Society, Michigan State Medical Society and American Medical Association, died at his home October 14. He has been in failing health some time.

PROCEEDINGS OF THE FORTY-FIFTH ANNUAL MEETING OF THE
MICHIGAN STATE MEDICAL SOCIETY, HELD AT BAY
CITY SEPTEMBER 28 AND 29, 1910.

MINUTES OF THE MEETINGS OF THE
COUNCIL, MICHIGAN STATE MEDICAL
SOCIETY

September 27, 1910.

The Council of the Michigan State Medical Society was called to order by Chairman Dodge at the Ridotto, Bay City, at 3:30 p. m., Tuesday, Sept. 27, 1910.

Present: Chairman Dodge, Councilors Biddle, Bulson, Haughey, Rockwell, Spencer, Hume, Seeley, Baker, State Secretary Wilfrid Haughey, and others.

Absent: Councilors McMullen, Ennis and Kay.

The minutes of the previous meeting were accepted as written and approved without reading.

The secretary reported that since the January meeting of the Council the Michigan State Medical Society had become incorporated and that the Articles of Association were filed with the Secretary of State on Sept. 17, 1910.

On motion of Councilor Biddle the report of the Secretary was adopted unanimously.

The committee on publication, by its Chairman, Councilor A. P. Biddle, submitted the following report:

TO THE COUNCIL OF THE MICHIGAN STATE MEDICAL SOCIETY:

Your Committee on Publication has to report on the questions referred to it at the last meeting of the Council as follows:

1. After submitting through the Secretary of the Michigan State Medical Society identical specifications to various publishing firms, and after giving due consideration to the rates offered, to the plants, and to the ability to turn out the work properly and promptly, the contract for the publication of the *Journal* was let for the year to the Ellis Publishing Company of Battle Creek. All details as to the specifications submitted, as to answers received, and as to the terms of the contract with the Ellis Publishing Company, will be included in the report of the secretary.

2. Pursuant to the instructions of the Council, your committee has considered the advisability of publishing the *Journal* on the press of the Journal of the American Medical Association. Specifications identical with those submitted to other publishing houses were submitted to the Association. The Association figured on changing the size of our type page, lengthening it by one-half inch, and gave us a price of \$194.65 for publishing 2500 copies, 72 pages and cover, which with rebates and extras would make an average number of the *Journal* cost about \$10 to \$15 more than our present contract. In addition, there would be the expense of a considerable postage item, express, freight, and an occasional trip of the editor to Chicago.

However, owing to the fact that the Journal of the American Medical Association is not yet ready to assume the printing of any more of the State Journals, and, as we would have to eliminate from the pages of the *Journal* certain of our advertising matter to which it takes exception (but which we are under contract to publish) no further steps can now be taken by your committee.

3. The question of securing reprints from the Directory of the American Medical Association was also referred to your committee, with power to act.

We secured from the Association a maximum price of 20 cents a-piece for 3,000 copies, for the reprint of the Michigan matter in the Directory of the American Medical Association, with a statement that probably the total cost would be less than 20 cents a piece; but the Association was unable to give any closer figures, stating that it would charge us actual cost, only, but that it would be unable to take up the publication of the directory until its new building is finished. This would make a total cost to this society not to exceed \$600.00 for these reprints, to which must be added the cost of mailing to our members.

Owing to the fact that the income of the society will this year be from \$600.00 to \$700.00 less than in recent years, because the advertising

contracts on hand the first of the year totaled only about \$1,300.00 instead of \$2,000.00 as estimated; and that, in addition, there has been the expense of the removal of the *Journal* to Battle Creek, \$100.00; and there will be the additional expense of reporting the discussions at the annual meeting, \$250.00; also Councilor's expenses for two years, a total of \$600 to \$800; the committee has not felt justified in ordering any reprints at this time, and requests the Council earnestly, to consider the matter before incurring the additional expense.

Respectfully,
 ANDREW P. BIDDLE,
 R. H. SPENCER,
 ARTHUR M. HUME.

Councilor Biddle moved the adoption of the above report. Supported by Councilor Seeley and carried.

The report of the Council to the House of Delegates was read by Chairman W. T. Dodge, and after discussion by all present the various recommendations were approved as amended and the report adopted as a whole unanimously.

Councilor Biddle moved that we recommend to the House of Delegates that the plan of a Fall meeting of the State Society be abolished and that we meet early in the Spring, in May or June, as heretofore. Supported by Councilor Spencer.

After discussion the above motion was withdrawn.

The State Secretary submitted some correspondence from the postal authorities but as this was a matter for the House of Delegates the Council took no action.

The State Secretary asked the authority of the Council to purchase a file for the correspondence of the State Society in the office of the Secretary-editor. Permission granted.

Recess was taken until 2:00 P.M., Wednesday, September 28.

September 28, 1910.

The second session of the Council of the Michigan State Medical Society was called to order by Chairman Dodge, at 2:00 P.M., Wednesday, Sept. 28, at the Ridotto, Bay City.

Present: Chairman Dodge, Councilors Biddle, Bulson, Haughey, Rockwell, Spencer, Hume, Kay, Seeley, McMullen, Baker, Ennis, State Secretary Wilfrid Haughey, and others.

Absent: None.

The minutes of the previous session were read and approved.

The secretary reported that the House of Dele-

gates had referred to the Council the matter presented to it by Dr. Lewis of Jackson County referring to the right of an individual councilor to hear an appeal from an aggrieved member of any county society, and citing an instance of Councilor Bulson of the second district exercising such authority.

After listening to remarks by Councilors Bulson and Dodge, and Drs. Williams and Parnell, and other members of Jackson County Society, it was moved by Councilor McMullen, That in rendering his decision Councilor Bulson acted within the jurisdiction of his position as Councilor of the second district. Supported by Councilor Baker.

After discussion the motion was carried unanimously.

Chairman Dodge drafted a report to the House of Delegates embodying the above conclusion, which he read to the Council. See page 567.

Councilor Baker moved that it is the sense of the Council that this report as prepared by the Chairman be submitted to the House of Delegates as the voice of the Council in the matter.

Supported by Councilor McMullen and carried.

Moved by Councilor Bulson that one dollar of the dues of the Michigan State Medical Society be placed in the Medico-Legal fund. Supported and carried.

The State Secretary reported a suit having been commenced against the Society by the Langer Printing Company of Detroit.

On motion of Councilor Baker the State Secretary was instructed to lay this matter before the attorneys and act upon their advice as to procedure.

Moved by Councilor Hume that the State Secretary be authorized to expend \$25 in cash and \$25 in advertising in purchasing a filing cabinet and other furniture for his office. Supported by Councilor McMullen and carried.

Councilor McMullen moved that the State Secretary be instructed to use his own judgment in placing the soliciting of advertising matter for the *Journal* in the hands of some person who is not engaged in professional work. Supported by Councilor Biddle and carried.

Adjournment was taken until 2:00 P. M., Thursday, September 29.

September 29, 1910.

The third session of the Council of the Michigan State Medical Society was called to order by Chairman Dodge immediately following adjourn-

ment of the general session, Sept. 29, 1910, at the Ridotto, Bay City.

Present: Chairman Dodge, Councilors Biddle, Haughey, Spencer, Hume, Seeley, Baker, Ennis, and President-elect Dr. C. B. Burr.

Absent: Councilors Bulson, Rockwell, McMullen, Kay.

The minutes of the previous session were read and approved.

President-elect Burr was welcomed back to the Council by Chairman Dodge.

Moved by Councilor Baker that the State Secretary be instructed to dispose of certain merchandise received in payment for advertising at the best terms possible.

Supported by Councilor Biddle and carried.

Moved by Councilor Biddle that the Secretary cast the ballot of the Council for Councilor W. T. Dodge for Chairman for the ensuing year. Supported by Councilor Hume and carried.

Secretary cast the unanimous ballot of all present for Councilor Dodge as Chairman and declared him elected.

Moved by Councilor Ennis that Councilor Bulson be nominated for vice-chairman for the coming year, supported by Councilor Spencer and carried.

Moved by Councilor Spencer that the Secretary cast the ballot of the Council for Councilor Bulson for vice-chairman for the ensuing year. Supported and carried.

Secretary cast the unanimous ballot of all present for Councilor Bulson and he was declared elected.

Moved by Councilor Biddle that Councilor Haughey be elected Secretary for the ensuing year. Supported and carried.

Chairman Dodge announced that there would be no change in the personnel of the standing committees, and they would remain the same as appointed last year, as follows:

Committee on Finance: B. H. McMullen, Cadillac; A. L. Seeley, Mayville; C. H. Baker, Bay City.

Committee on Publication: A. P. Biddle, Detroit; Wm. J. Kay, Lapeer; R. H. Spencer, Grand Rapids; A. M. Hume, Owosso.

Committee on County Societies: W. H. Haughey, Battle Creek; A. E. Bulson, Jackson; A. H. Rockwell, Kalamazoo; C. J. Ennis, Sault Ste. Marie.

Moved by Councilor Biddle that the compensation of the secretary and stenographer of the Council be the same as in previous years. Supported by Councilor Ennis and carried.

Chairman Dodge asked the Council to consider the advisability of having the first session of the Council in the evening preceding the first day's session of the State Society, and the first session of the House of Delegates the morning of the first day's session.

Adjournment was taken until the January meeting.

W. H. HAUGHEY,
Secretary of Council.

MINUTES OF THE MEETINGS OF THE HOUSE OF DELEGATES, MICHIGAN STATE MEDICAL SOCIETY

September 27, 1910.

The meeting of the House of Delegates of the Michigan State Medical Society was called to order by President Carstens at 8.00 P. M., Tuesday, Sept. 27, 1910, at the Ridotto, Bay City.

Report of Committee on Credentials, Dr. H. R. Varney, Detroit, chairman:

MR. PRESIDENT AND MEMBERS OF THE HOUSE OF DELEGATES:

Your Committee on Credentials beg to submit the following preliminary report:

Number of delegates and alternates officially seated at the present session, 23. List submitted herewith.

Respectfully submitted,
H. R. VARNEY, *Chairman.*

On motion the report of the committee was accepted and adopted.

On roll call twenty-three members responded to their names.

The minutes of the last annual meeting were read by the State Secretary and were approved as read.

The report of the Council was read by its chairman, Dr. W. T. Dodge, of Big Rapids. See page 571.

Moved by Dr. Dodge that the report of the Council be referred to the Business Committee, to be appointed, for report at a later date. Carried.

The report of Committee on Legislation and Public Policy and on the work of the National Legislative Council was read by Dr. W. H. Sawyer, Hillsdale, chairman, and on motion was accepted and referred to the Business Committee. See page 573.

The report of the Medico-Legal Committee was made by Dr. F. B. Tibbals, Detroit, chairman, and on motion was accepted and placed on file. See page 575.

The report of Special Committee on Revision of the Constitution and By-Laws, together with several proposed amendments to the By-laws, was submitted by Dr. B. R. Schenck, Detroit, chairman:

TO THE PRESIDENT AND HOUSE OF DELEGATES OF THE MICHIGAN STATE MEDICAL SOCIETY:

Your committee has the honor to report as follows:

In April, 1910, the President, Dr. J. H. Carstens, appointed a special committee upon the Revision of the Constitution and By-Laws.

The constitution remains the same as originally adopted at the Port Huron meeting, in 1902, at which time the Society was reorganized. The By-laws, however, have been amended at nearly every session of the State Society. Most of these amendments have been of very minor importance and have been made to expedite the practical working of the Society. The only amendments of consequence have been those adopted last year which provided for medical defense.

The changes which your committee herewith recommend are suggested in order to make our By-laws harmonize with the regulations of the United States Post Office Department, in order to transfer the funds of the Medico-Legal Committee to the custody of the Treasurer of the Society, where they rightfully belong, and in order to secure brevity, clearness and harmony.

The proposed changes are as follows:

* * * * *

All of which changes we respectfully submit with the recommendation that they be adopted and that in publishing the next issue of the Constitution and By-Laws the Secretary be authorized to omit the dates of amendments which now appear in italics.

B. R. SCHENCK, *Chairman,*
 WILFRID HAUGHEY,
 W. T. DODGE,
Committee.

The report was accepted and referred to the Business Committee, the amendments laying over for one day in compliance with the Constitution.

Dr. Peterson, Washtenaw, offered the following amendment to chap. IX, sec. 9, of the By-Laws: Strike out the last paragraph of said section beginning with the words "In the event that any County Society, etc.," and substitute the following: "It shall be optional with each County Society, acting under its own Constitution

and By-Laws, to decide whether it shall avail itself of the privileges of the Medico-Legal Fund. In the event that a County Society shall elect not to avail itself of such privileges any individual member of such society, upon payment of the special assessment, shall be entitled to all the privileges of the Medico-Legal Bureau, and in case of need shall deal directly with the chairman of the Medico-Legal Committee."

Proposed amendment laid over for one day as provided by the Constitution.

Under the head of Miscellaneous Business the following names were placed in nomination for members of the Committee on Nominations:

- Dr. Guy L. Kiefer, Detroit,
- Dr. W. J. DuBois, Grand Rapids,
- Dr. F. B. Marshall, Muskegon,
- Dr. Neil MacDonald, Hancock,
- Dr. T. W. Hammond, Tuscola.

On motion the nominations were declared closed.

Moved by Dr. F. C. Warnshuis, Kent, that the Secretary be instructed to cast the ballot of the House of Delegates for the gentlemen whose names had been placed in nomination. Supported and carried.

The Secretary cast the ballot of the House, twenty-three votes, for Doctors Kiefer, DuBois, Marshall, MacDonald and Hammond as members of the Committee on Nominations, and they were declared elected.

President Carstens appointed the following Business Committee:

- Dr. Chas. T. Southworth, Monroe, Chairman,
- Dr. G. M. Livingston, Schoolcraft,
- Dr. John P. Eggleston, Lapeer,
- Dr. F. C. Warnshuis, Kent,
- Dr. E. N. Palmer, Jackson.

Dr. Peterson, Washtenaw, moved that Dr. Lewis, Jackson, be given the privilege of the floor inasmuch as he had a communication which he desired to bring before the House of Delegates.

This permission was granted and Dr. Lewis presented a communication from several members of Jackson County Medical Society regarding the right of a Councilor to hear an appeal from a doctor expelled from membership.

This matter was referred to the Council without debate.

President Carstens submitted the following resolutions which had been passed by several medical bodies and which he desired the Secretary to read:

Whereas, a concerted attempt is being made by the interests which flourish by public despolia-

tion to prevent the creation of a National Department of Public Health, to bring about the nullification of the Pure Food and Drugs Act, and other measures of public protection, be it

Resolved, that the Michigan State Medical Society earnestly commends and endorses the plan of a National Department of Public Health, and urges the State's representatives in Congress to use their efforts to this end. And be it further

Resolved, that this Society asserts its stand for absolute protection for the people under the Pure Food Law and condemns the use of artificial preservatives such as benzoate of soda and similar chemicals, as being harmful and unnecessary in the preparation of wholesome foods.

Moved by Dr. Eggleston, Lapeer, that the above resolutions be recommended to the consideration of the General Session. Supported and carried.

On motion the House of Delegates adjourned to meet Wednesday morning at 8.30 A. M.

September 28, 1910.

The second session of the House of Delegates was called to order by President Carstens at 9.00 A. M., at the Ridotto, Bay City.

On roll call a quorum was found to be present.

The minutes of the previous session were read by the Secretary and approved as read.

The Business Committee by its chairman, Dr. C. T. Southworth, Monroe, presented its report, which, on motion of Dr. DuBois, Kent, was accepted. The various recommendations of the report were acted on separately and amended to read as follows:

REPORT OF BUSINESS COMMITTEE

The Business Committee appointed by your president have the honor to report as follows: This committee approves and it recommends to the House of Delegates that the suggestion of the Council with reference to the time of holding the Annual Meetings of the County Societies be adopted.

Further, We recommend that chap. IX, sec. 6, last paragraph and sec. 9, of the By-Laws of the Society be repealed, as recommended by the Council in their annual report.

This committee further recommends that Dr. George Dock, an ex-member of the Society, be elected to honorary membership. The committee do not recommend to the House the election of other members nominated by the Council.

We endorse the action of the Council in paying expense money of the Councilor of the 12th District and recommend to the House the pay-

ment of the Councilors' expenses for the years 1909 and 1910.

We endorse and approve the recommendations of the Council with reference to re-arrangement of Councilor districts and recommend that that body be empowered to make the changes indicated in their report.

The Committee recommends that the financial report as made by the Council be adopted.

The Committee further recommends that the House of Delegates do not concur in the report of the Committee on Legislation and Public Policy, as regards the assessment of physicians for the support of the State Board of Registration in Medicine.

We endorse the report of the Special Committee on revision of the Constitution and By-Laws and recommend that it be accepted and the Secretary instructed to renumber the sections in their proper order; also the suggestion to substitute for the first sentence of the proposed change of By-Laws, chap. XI, sec. 1, the following: "The annual assessment shall be three dollars for dues and subscription to the *Journal*, or two dollars for dues."

Your Committee further recommends the appointment of a committee of three by the President to draft suitable resolutions of respect and condolence for deceased members of the Society.

Your committee recommends that on May first of each year the *Journal* of the State Society be discontinued to all subscribers and members in arrears and that such members be reported to the Secretary of the American Medical Association as "dropped for non-payment of dues."

Signed by the Committee:

CHAS. T. SOUTHWORTH, *Chairman*,
JOHN P. EGGLESTON,
G. M. LIVINGSTON,
F. C. WARSHUIS,
E. N. PALMER.

Report of Business Committee unanimously adopted.

The proposed amendments to the By-Laws were considered separately and amended to read as follows:

Page 6, chap. I, section 4, strike out the whole section and substitute: "Each member in attendance at the Annual Session shall register, indicating the component Society of which he is a member. When his right to membership has been verified he shall receive a badge which shall be evidence of his right to all the privileges of membership at that session. No member or

delegate shall take part in any of the proceedings of the Annual Session until he has complied with the provisions of this section."

Page 13, chap. VII, section 1, add a new paragraph at the end of section 1, as follows: "At least one month before the Annual Session he shall appoint a committee of five on credentials, whose report shall be the first order of business on the first session of the House of Delegates at the Annual Session."

Page 13, chap. VII, section 3, fourth and fifth lines, omit the words "except the Medico-Legal Fund."

Add two new paragraphs to the section, as follows:

"He shall keep the moneys of the Medico-Legal Fund, and a record thereof, entirely separate from the general funds and records of the Society. Such moneys shall be deposited in a bank having no connection with any other bank in which the general funds of the Society are held.

"He shall pay money out of the Medico-Legal Fund only on the written order of the Chairman of the Executive Board of the Medico-Legal Committee and the Chairman of the Council or the Secretary of the State Society."

Page 14, chap. VII, section 4, lines 7 and 8, strike out the words, "and Chairman of the Medico-Legal Committee."

Strike out the last paragraph of the section and substitute, "The salary of the Secretary shall be fixed by the Council, annually."

Page 15, chap. VIII, section 1, line 11, insert the word "vice-chairman" after "chairman."

Add a new paragraph to the section, at the end, reading "The President and Secretary of the Society shall be ex-officio members of the Council without vote."

Page 17, chap. VIII, section 6, line 16, strike out the words, "and the chairman of the Medico-Legal Committee." Line 17 substitute "his duty" for "their offices."

Page 18, chap. VIII, sec. 7, line 6, Strike out all after the words "The necessary traveling expenses" and substitute the following: "The necessary traveling and hotel expenses incurred by the Councilor in the line of duties herein enjoined and in attending the annual meeting of the Council in January shall be audited by the Council at its annual meeting and paid in the same manner as other Society expenses are paid."

Page 20, chap. IX, section 6, lines 4 and 5, strike out the words, "Not otherwise represented."

Strike out the second paragraph and substitute, "The members of the Executive Board shall be elected at the January meeting of the Council and shall immediately assume office. Members of the Medico-Legal Committee shall be elected one by each component Society at the first meeting after September 1st and shall assume office January 1st following."

Page 21, chap. IX, section 7, strike out the first seven lines and substitute, "The Council at its January meeting shall elect one of the five members of the Executive Board as chairman, whose term of office shall be for one year. He shall also act as chairman of the entire Committee."

Strike out the entire second paragraph of the section and substitute, "The salary of the chairman of the Medico-Legal Committee shall be fixed by the Council, annually."

Page 23, chap. IX, section 13, line 7, strike out the words, "Medico-Legal Committee," and substitute therefore the words, "Executive Board."

Chap. X, strike out all the chapter and substitute, "When prompt speech and action are imperative, authority to speak and act is vested in the Council."

Page 24, chap. XI, section 1, strike out all this section and substitute:

The annual assessment shall be three dollars for dues and subscription to the *Journal* or two dollars for dues. The secretary of each Society shall forward its assessment with a roster of all officers and members to the Secretary of this Society immediately after the annual meeting of the County Society.

Page 25, chap. XIV, section 1, strike out the last sentence and substitute, "A roster of its officers and members and the annual assessment and subscription to the *Journal* for each member must accompany the application."

Page 26, chap. XIV, section 5, line 1, insert "be the" after "shall." Line 6, substitute "eligible" for "entitled." Line 9, substitute "eligible" for "such."

Sec. 6, strike out the entire section and substitute, "Any physician who may feel aggrieved with the action of the Society of his county in suspending or expelling him from membership shall have the right of appeal to the Council."

Sec. 8, strike out all after the word, "state" in line 3 and substitute the words, "He shall be given, without cost, a transfer card good for the time for which his dues are paid, not exceeding one year from the 1st of January following date of issue. This card shall be void if not accepted

by a component Society before such limit expires."

Page 27, chap. XIV, section 12, strike out all after the word "necessary" in the seventh line and substitute, "He shall furnish monthly a report of collections, removals, deaths, suspensions, resignations, and such other information as may be deemed necessary, upon blanks supplied him for the purpose, together with remittance for such collections, to the State Secretary."

On roll call the proposed amendments to the By-Laws were adopted by unanimous vote of the House.

Dr. Schmidt, Washtenaw, moved that chap. VIII, sec. 7, of the By-Laws be amended by striking out the word "censor" in the second line.

This amendment was laid over for one day in compliance with the Constitution.

The secretary-editor gave notice of the following amendment to the Constitution which was laid over for one year:

Article VIII, sec. 1, strike out the words "and twelve Councilors" and substitute the words "and a Board of Councilors."

Dr. Abrams, Houghton, stated that he believed the Business Committee in reporting unfavorably on the recommendation of the Committee on Public Health and Legislation were laboring under a misapprehension, and desired to have a discussion of the matter.

Moved by Dr. Varney, Wayne, that this be made a special order of business for tomorrow morning. Supported and carried.

The report of the Committee on the Study and Prevention of Tuberculosis, in the absence of the chairman, Dr. H. J. Hartz, Detroit, was read by the Secretary. The report was accepted and ordered placed on file. See page 576.

The report of Committee to Encourage the Systematic Examination of the Eyes and Ears of School Children Throughout the State was read by Dr. Walter R. Parker, Detroit, chairman.

The report was accepted and ordered placed on file. See page 577.

The report of Committee on the Relation of the Medical Department of the University of Michigan to the Medical Profession of the State was read by Dr. E. T. Abrams, Dollar Bay, chairman.

Report was accepted and placed on file. See page 579.

Secretary-editor presented the bills of the Councilors for expenses for 1909 and 1910, which had been ordered paid.

Dr. Peterson, Washtenaw, withdrew the amendment to the By-Laws which he had introduced at the previous session as the amendments

adopted covered the point he wished to make.

On motion the House of Delegates adjourned to meet at 8.00 A. M., Thursday, Sept. 29.

September 29, 1910.

The third session of the House of Delegates was called to order by President Carstens at 9.00 A. M., Sept. 29, 1910, at the Ridotto, Bay City.

The minutes of the previous session were read by the Secretary and approved.

The Committee on Nominations submitted the following report by its chairman, Dr. Kiefer, Detroit.

TO THE HOUSE OF DELEGATES:

Your Committee on Nominations begs leave to make the following nominations:

For 1st Vice President, Dr. Chas. T. Southworth, Monroe.

For 2nd Vice President, Dr. Henry Kremers, Holland.

For 3rd Vice President, Dr. A. B. Simonson, Calumet.

For 4th Vice President, Dr. I. L. Spalding, Hudson.

For Councilor of 7th District, Dr. W. J. Kay, Lapeer.

For representatives and alternates in the House of Delegates, A. M. A., for two years:

Representatives, Dr. F. W. Robbins, Detroit; Dr. R. R. Smith, Grand Rapids.

Alternates, Dr. V. A. Chapman, Muskegon; Dr. C. G. Darling, Ann Arbor.

Place of meeting, Detroit. Time of meeting June.

Respectfully submitted:

GUY L. KIEFER, *Chairman*,
W. J. DUBOIS,
NEIL McDONALD,
F. B. MARSHALL,
T. W. HAMMOND.

Moved by Dr. Peterson, Washtenaw, that the recommendation of the Committee in regard to fixing the time of the next meeting of the State Society be amended to read: "Time of meeting—the last part of September."

The amendment was accepted by the Committee, and the report as amended, was accepted and adopted.

Moved by Dr. Whelan, Hillsdale, that the President and Secretary in the name of the Michigan State Medical Society send by telegram a message of greeting to the Kentucky State Society and the Indiana State Society who are now in session.

Motion supported and carried unanimously. Telegrams dispatched at once.

Moved by Dr. DuBois, Kent, that the President appoint a committee of three on exhibits, one to serve one year, one to serve two years and one to serve three years, that annually a new member be appointed for a term of three years; the proceeds from the advertising and exhibits to go to the local County Society to help defray the expense of entertaining the State Society.

Supported and carried.

Under the Special Order of Business the Business Committee made the following report by its chairman, Dr. Southworth, Monroe.

TO THE HOUSE OF DELEGATES:

Your Committee again reaffirms its recommendation made in its first report—that the recommendation of the Committee on Legislation and Public Policy insofar as it pertains to this Society's adopting such measures that will induce our Legislature to pass the necessary laws whereby the individual physician will be annually assessed a certain sum to support the State Board of Registration, believing that it would be an injustice to the profession of the State to demand of them the necessary funds for the support of this Board, whose activities are devoted to the interests of the people.

We do endorse and commend the recommendation of our President that this body exert its influence to induce our Legislature to pass the necessary laws appropriating sufficient funds from the State Treasury for the maintenance of this Board.

We also recommend that the County Societies, individually, take up the consideration of the question of "Expert Witnesses" and that next year a time be set for the discussion and action on this matter.

All of which is respectfully submitted:

CHAS. T. SOUTHWORTH,
JOHN H. EGGLESTON,
A. N. PALMER,
F. C. WARNSHUIS,
G. M. LIVINGSTON.

Moved by Dr. Vaughan, Wayne, that the report of the Business Committee be accepted and adopted. Supported and carried.

The amendment to chap. VIII, sec. 7, By-Laws, laid over for one day, to strike out the word "censor" in the second line was taken from the table and adopted unanimously.

The following report from the Council to the House of Delegates, in the absence of Chairman Dodge, was read by the Secretary.

TO THE HOUSE OF DELEGATES

The communication from members of Jackson County Medical Society referred to the Council relates to matters within the exclusive jurisdiction of the Council, according to chap. VIII, sec. 2, of By-Laws.

In courtesy to the House of Delegates the Council is pleased to report its action, first as to the authority of an individual Councilor to hear an appeal.

The Constitution and By-Laws adopted at the reorganization of this Society in 1902 were prepared by a committee of which Councilor Bulson was chairman. Dr. Leartus Connor was President of the Society and assisted Dr. Bulson in the preparation of the By-Laws.

Dr. Connor was the first chairman of the Council. Early in his administration he made a ruling that all appeals from actions of County Societies must be considered and passed upon by the Councilor of the District in which the Society was located. The method followed was that prescribed in chap. XIV, sec. 7, By-Laws. Under this ruling Councilor Bulson was justified in considering and deciding the appeal of Dr. Chivers. The By-Laws clearly point out that further appeal to the Council was available.

The Council has listened to a report from the committee who investigated the original charges. This committee was composed of honorable men who have long held high places in the esteem of the members of the Michigan State Medical Society, viz., Drs. N. H. Williams, W. A. Gibson, D. E. Robinson, Peter Hyndman and A. J. Roberts.

It is the opinion of these gentlemen that legal proof of the guilt of the accused was not submitted to them. It is also their opinion, as it was when they reported to the Jackson County Society, that the interests of the Medical Profession and of morality would be best served by dropping the prosecution. The Council feels that insinuations that these distinguished and honorable members of the profession would stoop to countenance criminal malpractice are absurd.

No proper appeal from the decision of Councilor Bulson having been made and none of the original evidence in the case having been submitted, the Council is unable further to pass upon the merits of the case. Appeal to the Council may still be taken.

Moved by Dr. Vaughan, Wayne, that the report of the Council be accepted.

A rising vote proved to be a tie and the president ruled that the report be accepted and placed on file.

The House of Delegates adjourned *sine die*.
WILFRID HAUGHEY, *Secretary*.

**MINUTES OF MEETINGS OF THE MICHIGAN
STATE MEDICAL SOCIETY IN
GENERAL SESSION**

September 28, 1910.

The first session of the Forty-fifth Annual Meeting of the Michigan State Medical Society was called to order by President Carstens at 11.00 A. M., Sept. 28, 1910, at the Ridotto, Bay City.

Rev. T. S. Anderson of Bay City offered prayer.

An address of welcome was made in behalf of the city of Bay City by its Mayor, Gustavus Hine, and in behalf of Bay County Medical Society by Dr. J. W. Hauxhurst, who also made several announcements regarding the plans for entertaining the Society while in Bay City.

The report from the House of Delegates was made by the Secretary and on motion of Dr. DuBois, Grand Rapids, was accepted and adopted.

The address of the President, Dr. J. H. Carstens of Detroit, was read and enthusiastically received.

Secretary Haughey moved that the recommendations embodied in this address be referred to the Business Committee. Supported and carried. They were so referred.

Under the head of miscellaneous business the following resolutions regarding the creation of a National Department of Health, etc., recommended by the House of Delegates, were submitted for consideration.

Whereas, a concerted attempt is being made by the interests which flourish by public despoliation to prevent the creation of a National Department of Public Health, to bring about the nullification of the Pure Food and Drugs Act, and other measures of public protection, be it

Resolved, That the Michigan State Medical Society earnestly commends and endorses the plan of a National Department of Public Health, and urges the State's Representatives in Congress to use their efforts to this end. And be it further

Resolved, That this Society asserts its stand for absolute protection for the people under the Pure Food Law and condemns the use of artificial preservatives such as benzoate of soda and similar chemicals, as being harmful and unnecessary in the preparation of wholesome foods.

Dr. Brooks moved the adoption of the resolutions.

Dr. Harison, Detroit, moved that we strike out the words "such as benzoate of soda and similar chemicals."

Dr. Robbins, Detroit, supported the amendment and it was carried.

The resolutions as amended were carried unanimously.

A paper on "Family Physician Refracting" was read by Dr. Leartus Connor, Detroit, and on motion was accepted and placed on file.—P. 550.

An able address, "On Cancer" was read by Dr. George W. Crile of Cleveland.—P. 521

Dr. Burr, Flint, moved that a rising vote of thanks be tendered to the accomplished author of this scholarly address who has come so far to do us so much good. Supported and carried unanimously.

Dr. Harison moved that a vote of thanks be tendered Dr. Connor for the interest he has shown in optometric affairs.

The motion was supported and carried and the thanks of the Society tendered Dr. Connor by its President.

Mr. MacDonald, representing the Michigan Retail Druggists Association, addressed the meeting, asking for our support in securing the enactment of an Itinerant Venders Bill, and also desiring our support of some measure prohibiting doctors from dispensing.

On motion of Dr. Alvord, Battle Creek, this matter was referred to our Legislative Committee.

The report of the Delegates of the Michigan State Medical Society to the A. M. A. was presented by Dr. Robbins, Detroit.

Report was accepted, adopted and placed on file.

Dr. Abrams, Dollar Bay, placed in nomination for President of this Society, the name of Dr. C. B. Burr, of Flint. The nomination was supported by several members.

On motion of Dr. Robbins the nominations were closed.

Adjournment was taken until 11.30 A. M., Thursday.

September 29, 1910.

The second session of the Michigan State Medical Society was called to order by President Carstens at 11.30 A. M., Thursday, September 29, 1910, at the Ridotto, Bay City.

The minutes of the last session were read by the Secretary and approved as corrected.

The report from the House of Delegates by the Secretary was accepted and placed on file.

Dr. Connor, Detroit, offered the following resolution: Resolved that it is unwise for any

County Society to entertain charges of a criminal nature against any member until the same has been passed on by the Courts. Supported by Dr. Carrow.

The resolution was ruled out of order under the provision that each County Society shall be the judge of its members.

Dr. Hirschman, Detroit, moved that a vote of thanks be extended to the profession of Bay County, the ladies and citizens of Bay City, the Bell Telephone Company, and all others who have contributed in any way to the entertainment of the Society while we have been meeting within the confines of this beautiful city. Supported by Dr. Biddle, Detroit, and carried unanimously.

Moved by Dr. Hitchcock, Detroit, that this Society endorse such a law as our Legislative Committee shall deem for the best in perpetuating the interests of our Medical Board. Supported by Dr. Harison, Detroit.

After considerable discussion it was moved by Dr. Abrams that Dr. Hitchcock's resolution be laid upon the table. Carried.

It was announced by the Secretary that the following telegram had just been received:

Lexington, Ky., September 29, 1910.

MICHIGAN STATE MEDICAL SOCIETY, BAY CITY, MICH.:

Kentucky State Medical Association reports the most successful meeting in its history, wishes you Godspeed in your great work.

A. T. McCORMACK, *Secretary*.

Moved by Dr. DuBois, Grand Rapids, That the Secretary be instructed to use every means within his power with the officers of each County Society to get them to take some active part in the matter of persuading the Legislature to pass a measure providing for the support of the Board of Registration by the State, and that this matter be also referred to the Legislative Committee. Supported by Dr. Hume.

Chair ruled that a vote was not necessary as the Secretary would correspond with the wishes of the Society in the matter.

Dr. DuBois, acting chairman of the Nominating Committee, reported that 216 ballots had been cast for President, of which Dr. C. B. Burr, of Flint, received 216.

The President declared Dr. Burr unanimously elected and appointed Drs. Harison and DuBois to escort him to the chair where he was introduced as President of the Michigan State Medical Society for the year 1910—1911.

Dr. Burr in a few well-chosen words expressed

his appreciation of the honor which had been conferred upon him.

Moved by Dr. DuBois, that a rising vote of thanks be extended to Dr. Carstens for the excellent way in which he had conducted the duties of his office. Carried unanimously.

On motion adjournment was taken until September, 1911.

WILFRID HAUGHEY, *Secretary*.

MINUTES OF SURGICAL SECTION

FIRST SESSION

The chairman, Dr. W. J. DuBois, of Grand Rapids, read his address. No discussion.

Dr. C. E. Boys, of Kalamazoo, read a paper on "The Administration of Anesthetics," which was discussed by Dr. Bernstein.

Dr. H. O. Walker, of Detroit, read a paper on "Tincture of Iodine as a Skin Disinfectant," and there was no discussion.

Dr. L. J. Hirschman, of Detroit, read a paper on "The truth about Incontinence Following Rectal Operations." No discussion.

Dr. J. A. MacMillan, Detroit, read a paper, "Operations under Local Anesthesia for the Radical Cure of Inguinal and Femoral Hernia," which was discussed by Drs. Reycroft, Hirschman, Belknap, and closing discussion by Dr. MacMillan.

Dr. E. J. Bernstein presented a paper on "The X-ray Photograph, as an Aid in Diagnosis of Suppurations under the Mastoid and Accessory Sinuses of the Nose," which was discussed by Dr. Crane.

THURSDAY MORNING SESSION

Dr. B. R. Shürly, Detroit, read a paper, "Indications, Contra-Indications and Results in Tonsillectomy." See page 533. No discussion.

Dr. C. D. Brooks, Detroit, read a paper, "Surgical Treatment of Goitre," which was discussed by Dr. Sill.

Dr. Angus McLean, Detroit, read a paper on "Gastro-Enterostomy," which was discussed by Drs. Loree, Balch and Brooks.

Dr. R. C. Stone, Battle Creek, read a paper on "Rupture of the Bladder with Report of a Case," which was discussed by Drs. Reycroft, Robbins, Loree, Youngs, Keane and Stone.

Dr. A. S. Youngs, Kalamazoo, read a paper on "Coccydynia," and there was no discussion.

THURSDAY AFTERNOON SESSION

Dr. N. S. McDonald read a paper on "Spina Bifida," the discussion being opened by Dr. McLean, followed by Dr. Spencer.

Dr. Walter R. Parker, of Detroit, read a paper on "Lessons Learned from Five Hundred Consecutive Cataract Extractions," which was discussed by Drs. Smith (Eugene), Carrow.

At this point the election of officers was held, resulting as follows: Dr. R. E. Balch, chairman; Dr. R. C. Stone, secretary.

Dr. Jas. D. Matthews, of Detroit, read a paper on "The Diagnosis of Surgical Diseases of the Kidneys and Ureters," which was discussed by Dr. Loree.

Dr. W. A. Hackett, of Detroit, read a paper on "The Non-Operative Treatment of Varicose Veins of the Legs." No discussion.

MINUTES OF THE GYNECOLOGICAL SECTION

FIRST SESSION, WEDNESDAY, SEPTEMBER 28

The section was called to order by the chairman, John Bell, Detroit, at 2.15 P. M.

"A Symposium on Obstetrical Anesthesia" was opened by the reading of a paper entitled, "Scopolamine and Morphine," by W. H. Morley, Detroit; followed by papers entitled: "Chloroform and Ether," N. N. Wood, Ann Arbor; "Technique of Anesthesia in Obstetrics," J. B. Whinery, Grand Rapids, and "Anesthesia in Its Relations to Postpartum Hemorrhage," John Bell, Detroit. Papers were discussed by Drs. Smith, Boys, Carstens, Peterson, Yates, Letts, Williams, Abrams, Stevens, Longyear, Schenck and Shepherd. Discussion closed by Drs. Morley, Wood, Whinery and Bell. Adjourned.

SECOND SESSION, THURSDAY, SEPTEMBER 29

The section was called to order by Chairman Bell, at 9.45 A. M.

The morning program, "A Symposium upon 'Inflammatory Diseases of the Pelvis,'" was opened by the reading of a paper entitled, "Etiology and General Consideration of Pelvic Inflammation," by Dr. B. R. Schenck, Detroit, followed by a paper entitled, "Value of Vaginal Incision in Acute Pelvic Infections," by Dr. Reuben Peterson, Ann Arbor. Papers discussed by Drs. Carstens, McGraw, Smith, Yates, Robbins, Toles, Wood, Wheelock and Hutchinson. Discussion closed by Drs. Schenck and Peterson. Adjourned.

THIRD SESSION, THURSDAY, SEPTEMBER 29

The meeting was called to order by Chairman Bell at 1.45 P. M.

The Chairman announced that the section would proceed with the election of a chairman for the ensuing year. Dr. H. W. Hewitt of Detroit placed in nomination the name of Dr. R. R.

Smith, of Grand Rapids. Moved and seconded that the nominations be closed. Carried.

It was moved and seconded that the secretary be instructed to cast the ballot of the section for Dr. Smith as Chairman for 1911. Carried. The secretary accordingly cast the ballot for Dr. Smith, whereupon the chairman announced Dr. R. R. Smith to be duly elected chairman of the section on Gynecology and Obstetrics for 1911.

A paper entitled, "Immediate Versus Deferred Operation for Intra-Abdominal Hemorrhage Due to Tubal Pregnancy," by H. W. Hewitt, was read.

Moved and seconded that the balance of the papers on the program be read before discussion took place. Carried.

The following papers were then read: "Galvanism in Gynecology," by Eugene Miller, Battle Creek; "What the Colon Tube Will and Will Not Do," by H. Wellington Yates, Detroit; "The Use of Cancer Residue," by J. W. Vaughan, Detroit. Dr. Hewitt's paper was then discussed by Drs. Smith and Bell.

No discussion on Dr. Miller's paper. Dr. Yates' paper was discussed by Drs. Hirschman, Reycraft, and Bell, Dr. Yates closing the discussion. Dr. Vaughan's paper was discussed by Drs. Hirschman and Sill, Dr. Vaughan closing the discussion.

Adjourned.

MINUTES OF THE MEDICAL SECTION

The section on General Medicine was called to order Wednesday, Sept. 28, 1910, at 1.45, by the Chairman, Dr. Frank Smithies, Ann Arbor.

Dr. Crosby acted as chairman during the presentation of the chairman's address, by Dr. Smithies.

Dr. W. E. Keane, Detroit, then read a paper entitled "Interpretation of Gross Urinary Findings in Genito-Urinary Diseases," which was not discussed.

The paper prepared jointly by Drs. Biddle and Wollenberg, Detroit, and entitled, "Use of Carbon Dioxide Snow and Demonstration of New Instrument for Moulding Snow," was then read by Dr. Biddle.

This paper was discussed by Drs. Varney, Crane, Holm and Robbins, and the discussion closed by Dr. Biddle.

The paper of Drs. Colver and Eggleston, Battle Creek, on "Pellagra" was then read by Dr. Eggleston. The paper was discussed by Drs. Flinterman, Church and Smithies. Dr. Eggleston closed the discussion.

Dr. Thos. B. Cooley, Detroit, then submitted

a paper on "Some Points in the Management of Breast Feeding." The discussion of this paper was opened by Dr. Gade, continued by Drs. Crane, Rich, Curtis, Crosby, Holm and closed by the essayist.

A paper was then read by Dr. Herbert M. Rich, Detroit, entitled "Tuberculosis in Children and Some Aspects of the Problem."

This paper was discussed by Drs. Vaughan, Dempster, Flinterman, Koon, Crosby, and the discussion closed by Dr. Rich.

The second session of the Section on General Medicine was called to order by Chairman Smithies at 10 A. M., on Thursday.

"A Business Man's Cold," was the subject of the first paper of the morning, presented by Dr. J. Vernon White, Detroit. This paper was not discussed.

Dr. Charles D. Aaron, Detroit, then read a paper entitled, "Stomach Disorders Requiring Surgical Intervention from the Viewpoint of an Internist." The paper was discussed by Drs. Burr, Rich, Shepard, Blodgett, Hitchcock, Davis, and Flinterman. Dr. Aaron closed the discussion.

Dr. Frank Smithies, Ann Arbor, then read a paper on "The Detection of Acid Fast Bacteria (particularly tubercle bacilli) in Sputum, Pus, Pathological Tissue, etc., by the so-called 'Anti-formin Method.'" No discussion.

The third session of the Section on General Medicine was called to order by the Chairman at 1.45 P. M., Thursday, Sept. 29, 1910.

Dr. Benjamin A. Shepard of Plainwell was elected chairman and Dr. John H. Crosby of Otsego, secretary.

The first two papers on the program were read and discussed together. The titles follow: "Some Phases of Psychotherapy," by Dr. Chas. W. Hitchcock, Detroit; "The Future of Psychotherapy and Its Practical Application," by Dr. Theobald Klingman, Ann Arbor. These papers were discussed by Drs. Flinterman, Hitchcock, and Dr. Klingman closed the discussion.

Dr. James E. Davis, Detroit, presented a paper entitled, "Differential Diagnosis of Organic and Functional Diseases of the Stomach." This paper was discussed by Drs. Shepard, Watkins and Manwarring. See page 543.

A paper on "The Crusade against Tuberculosis from a Practical Standpoint," was read by Dr. Victor C. Vaughan, Jr., of Detroit. The discussion of the paper was opened by Dr. Davis and closed by Dr. Vaughan.

Dr. G. A. Perrson, Mt. Clemens, submitted a

paper on "Bacterial Inoculations in the Treatment of Rheumatic Arthritis." The discussion of the paper was opened by Dr. Biddle and closed by Dr. Perrson.

A paper on "The Diagnosis of Gastric Ulcer" was read by Dr. John T. Watkins, and discussed by Dr. Davis.

REPORT OF THE COUNCIL TO THE HOUSE OF DELEGATES

The membership of this Society for 1909 showed neither loss nor gain over the previous year, being 2029. Sept. 1, 1910 subscriptions to the *Journal* had been received from 1604 members. In spite of every effort on the part of the State Secretary to push collections of subscriptions and dues, every year finds several of our large and flourishing county societies tardy in making payment. In some cases this is due to the fact that their annual meetings are held in January or later, at which time the members *begin* paying dues. Subscriptions to the *Journal* are payable January 1, of each year. All dues should be in the hands of the county secretaries before that date. It is necessary in order to comply with the postal laws that subscribers in arrears over four months shall be dropped from the subscription list.

Subscriptions to Journals and Society dues are properly payable in advance, hence all county societies in affiliation with the State Society should be required to hold annual meetings not later than November in order that the new officers shall have ample time to collect dues and be in position to settle with the State Secretary on or before January 1st. A great many of our societies do that and have always paid their *Journal* subscriptions and State dues before January 1st. There is no reason why all should not do so. It will be necessary for them to do so if the *Journal* is sent to their members without interruption.

INCORPORATION OF THE SOCIETY

The officers of this Society, learning during the year that it was not incorporated, adopted means to remedy this defect, and Articles of Incorporation were filed with the Secretary of State, Sept. 17, 1910.

MEDICAL DEFENSE

The system of defense against suits for civil mal-practice adopted one year ago by your body has met the approval of an overwhelming majority of our members. No county has legally rejected it. Dues have been paid by 1536 mem-

bers. No defense dues have been paid by Cass, Livingston, or Washtenaw. No report of action has been received from Cass, but Livingston has appointed a local member of the Medico-Legal Committee. The Washtenaw County Society, one of the leading societies in the State in point of numbers, but out of sympathy with the needs and wishes of the masses of the profession by reason of so many of its members being laboratory workers only, attempted to pass a resolution to reject defense. A majority of those present at the meeting voted to reject, but a majority of the society was not present, hence legal rejection was not made.

Jackson County also voted by less than a majority of its members to reject defense. An appeal was taken to the Council at the January meeting which decided that the action was illegal. A majority of Jackson County members have paid defense dues since that time, twenty-eight in a total membership of thirty-eight.

The provisions of the By-Laws adopted by you one year ago, namely, chap. IX, sec. 6 last paragraph, and sec. 9, second paragraph, permitting a county society to reject medical defense by a majority vote of its members was, we believe, a mistake, as that provision has been responsible for most of the disagreement that has occurred. We therefore recommend that the two paragraphs cited be repealed.

DISTRICT MEETINGS

The following Councilor Districts held meetings during the year: 11th, May 17, Greenville; 3rd, July 22, St. Joseph; 12th, Aug. 4—5, Sault Ste. Marie.

These meetings were all very successful from a scientific and business standpoint. We believe these meetings coming between the Annual Meetings of the State Society tend to keep up the interest engendered by the State Society meeting and give an opportunity to many who cannot attend the State Meeting, to meet men in other counties than their own.

HONORARY MEMBERS

We recommend the election of the following Honorary Members:

Resident—Dr. H. B. Landon, Bay City; Dr. Geo. H. Williams, Bay City; Dr. James Hueston, Ypsilanti.

Non-resident—Dr. Geo. Dock, St. Louis, Mo.

SECRETARY-EDITOR AND TREASURER]

For four years, Dr. B. R. Schenck has ably filled the position of secretary-editor to the

entire satisfaction of the Council. Last fall he announced that he would not accept re-election. The councilors whose duty it became to elect his successor agreed among themselves to maintain open minds upon the subject and to give free opportunity for presentation of candidates. At the January meeting, several candidates were presented and upon the second ballot a majority of the Council voted for Dr. Wilfrid Haughey of Battle Creek. Concerning the wisdom shown in making that choice you have had some opportunity to judge each month as you received your copy of the *Journal*. His choice led to the removal of the publication office from Detroit to Battle Creek and to the adoption of a very satisfactory publishing contract. The new publishers have issued the *Journal* promptly on the first of each month, and have produced a very presentable journal from a typographical standpoint. The members of the Society are responsible for the scientific value of its contents.

Dr. Willis S. Anderson of Detroit was appointed Treasurer last year to fill the vacancy caused by the death of Dr. Moran. Dr. Anderson declined re-election at our hands, and Dr. G. F. Inch of Kalamazoo was chosen in his stead. Dr. Anderson was drowned in the Detroit River, near Belle Isle, on July 27 last. He was a brilliant physician, engaged in special work, and is mourned by a host of friends.

While arranging matter for this report, word was received that Dr. S. S. French of Battle Creek, an honorary member of this Society, and its President in 1888, died at his home on the morning of Sept. 10. Dr. French had attained the extreme age of ninety-four years, and for long has been greatly revered by his numerous friends in the profession. His funeral was held on Monday, Sept. 12, 1910.

COUNCILORS' BILLS FOR EXPENSES

Owing to an oversight the bills of the Councilors for traveling expenses were not presented in 1909. In consequence this year the expense bills are presented to you for two years. The Chairman of the Council and State Secretary took the responsibility last year of paying the bill of the Councilor from the 12th District for the reason that this Councilor is subjected to an expense each year more than double the maximum permitted by our By-Laws, and we believed that he should receive promptly the small portion of the expense money we are permitted to return to him. We ask that this action of the Chairman and State Secretary be approved by your body.

TRANSFER OF EMMET COUNTY.

Upon request of the Emmet County Medical Society and with the approval of the Councilors from the 9th and 10th districts we recommend the transfer of the county from the 10th to the 9th district.

We further recommend that you take into consideration the advisability of creating a new Councilor District to be known as the 13th Councilor District, to include counties of Antrim, Charlevoix, Emmet, Cheboygan, Presque Isle, Alpena and Alcona; Transfer Macomb from the 1st to the 7th district; Huron from the 7th to the 8th; Isabella-Clare, Gladwin and Midland from the 8th to the 10th district; the 10th and 9th to release counties to compose new district. We submit map for your consideration showing change suggested.

FINANCES

We append the report of the State Secretary showing the condition of finances at the end of our fiscal year, Dec. 31, 1909.

SUMMARY

Received from—	
Dues.....	\$4,034.18
Medico-Legal Assessment	448.50
Advertising.....	2,073.71
Misc. Sources.....	16.94
Total.....	\$6,573.33
Disbursements—	
Journal Expenses.....	\$4,263.45
State Society Expenses..	739.62
Paid Med.-Leg. Com.....	448.50
Total.....	\$5,451.57
Net Profit for year.....	1,121.76
Bal. on hand Jan. 1, 1909.....	2,847.81
* Bal. in Treasurer's hand Jan. 1, 1909.....	\$3,969.57
(exclusive of interest)	

The following statement covers all transactions in detail, from January 1, 1909, to January 1, 1910. Cash in Treasurer's hand Jan. 1, 1909 \$2,847.81

Receipts—	
From dues.....	\$4,034.18
From Med.-Leg. Assess...	448.50
From Advertising.....	2,073.71
From Misc. Sources.....	16.94
Total.....	\$6,573.33
Debit.....	\$9,421.14

*The amount \$3,969.57, stated as in the custody of the Treasurer is exclusive of interest. If the interest of 1908, namely, \$27.68, and that received in 1909, namely, \$48.81, together with the \$1.30 which has been carried for some years by the Treasurer, be added, the total is \$4,047.16, which corresponds with the amount as stated in the Treasurer's Report.

DISBURSEMENTS

Journal—	
Printing Journal.....	\$2,870.45
Mailing (addressing and putting in envelopes)..	47.00
Postage Detroit Mem....	95.30
Postage Second Class....	75.33
Salary Editor.....	300.00
Salary Assoc. Editor....	225.00
Mailing List Additions...	46.12
Advertising Commission..	414.69
Postage.....	34.09
Office Help.....	60.00
Envelopes for Jour.....	76.85
Printing Stationery, Office supplies.....	12.70
Exchange (25%) total...	5.47
Telephone, telegram, express.....	.45
Total.....	\$4,263.45
State Society—	
Kalamazoo Meeting.....	\$ 31.50
Printing Programs.....	20.60
Postage.....	34.09
Office Help.....	60.00
Salary Secretary.....	300.00
Exchange (75% total)...	16.43
Telegraph, telephone, express.....	2.51
Printing, Stationery, Office supplies.....	25.90
Secretary of Council....	50.00
Stenographer Council....	50.00
Coun. Meeting Jan. 1909..	17.25
Councilor's Expenses....	25.00
Med.-Leg. Committee....	81.41
Secretary's Expenses to State and County meetings.....	24.93
Total.....	\$ 739.62
Total expenditures Journal and Society	5,003.07
Cash in Treasurer's hands Jan. 1, 1910	3,969.57
Cash in hands Chairman Med.-Legal Committee January 1, 1910.....	448.50
Credit.....	\$9,421.14

THE REPORT OF THE COMMITTEE ON LEGISLATION AND PUBLIC POLICY

In the first place, it seems proper for this committee to bring to your attention a matter of vital importance to the profession of this State and country, *i. e.*, the maintenance of an efficient working organization for the encouragement and enforcement of higher standards in medicine.

Medical education has been undergoing well-nigh a revolution in the United States during the past three or four years, the effects of medical education of even several years ago being practically felt at this time. There has been a general demand by the profession, not only for higher standards of preliminary and medical qualification, but also for a more exact and practical administration of legal requirements by State Medical Boards. In the past, in the great majority of states, honest and effective administration methods have been notoriously honored in the breach, and while the normal requirement of a high school diploma has been demanded in law, the quality or measure of such diploma has been subject to the vagaries or policies of medical boards, who have in the great majority of cases accepted or endorsed fifty to sixty per cent of the legal requirements. The reason for this has been due to two distinct causes:

1. The undue influence upon medical boards of colleges struggling for existence.

2. The financial necessities of boards, the fees received from graduates taking the licensing examination being inadequate to a proper and honest administration.

As proof of the above, the recent very complete report made by Abraham Flexner for the Carnegie Foundation may be quoted. Flexner inspected the methods and acts of every college and medical board in the United States and Canada. He, however, in his report exempts the leading medical colleges of this State and pays a well-deserved compliment to the Michigan Medical Board for its ideal methods and the honesty of its administration. He calls attention to the meagre clerical force employed in the office and wonders how such efficiency as disclosed can be had in consequence.

As a matter of fact, Michigan demands and obtains a minimum of at least 100 per cent of her legal requirements, and as a consequence is more largely recognized than any other state in the Union, and in addition is the only state whose credentials are recognized in foreign countries, including England, France, Russia, etc. This standing of the Michigan Medical Board is a material asset to the profession in this State and should be maintained. Instances are frequent of graduates of reputable medical colleges from other states taking the Michigan State Medical Board's examination for license in order to obtain a standing otherwise unobtainable in the United States.

As you are aware, the law in this State demands

as a minimum for entrance to reputable medical colleges, a diploma from a high school which will admit the holder thereof to matriculation in the Literary Department of the University of Michigan. The Medical Department of the University of Michigan, since a year ago, requires in addition to the recognized high school diploma, two years in a recognized Literary and Scientific Department of a recognized university. This requirement and the strict enforcement of the high school qualification has had the effect of reducing the yearly registration in our State University, from approximately one hundred twenty-five to thirty-five students, and a like reduction in the other recognized medical schools in the State. As the Board is sustained by an income derived principally from fees paid by Michigan medical graduates, it is only a matter of a year or so before the Board will face the problem of financial disaster if the present methods of administration are maintained, and if the present requirements of reciprocity are also held to. Registrations in Michigan have been reduced from 422 in 1902 to 193 in 1909.

Under the present method of reciprocity only a very small percentage of reciprocity applicants are able to qualify for license, while, on the other hand, medical men from Michigan are rarely refused in other states. It seems, therefore, to your committee that only two financial propositions are material to the profession in this State if present methods are to continue, in order to meet the necessities of the case. Either lower the State requirements and thereby admit to practice in this State several hundred more physicians, or, have the funds required to maintain present standards by the profession in the form of a small annual fee legally enacted. The druggists, in order to maintain their board, provide for an annual assessment of two dollars; other State Boards provide a similar remedy. Ontario provides for a two dollar annual due from all licentiates.

While the theory of the State providing the necessary funds is proper and just, it is not practicable in Michigan as all of the numerous boards would demand and obtain similar consideration from the State, including the Osteopathic Board, whose income was \$250.60 last year, and the recently established Optometric Board. Neither is it feasible to increase the registration fee. Whatever remedy or method is recommended by this society, action should be taken at this meeting, as effective results can only be had at the next meeting of the Legislature.

In the opinion of your committee the question is squarely up to the profession,—does it desire to maintain its present medical status, acknowledged as the first in the United States? If so, the profession must assume a part of the burden. We are proud of the Michigan standards and certainly if essential to maintain them we should not oppose a small fee for this purpose. It seems to your committee to be the only practical way of solving this problem.

We have been fortunate in having an expert in medical legislation and standards as the executive of the Board of Registration in Medicine, and should support his efforts in every way possible.

There have been during the year a number of prosecutions of offenders against the Medical Practice Act and the result in several instances has been unsatisfactory and disappointing.

This outcome has been due not so much to any defect in the wording or intent of the law, as to a sentiment among the people which does not support its enforcement. Time and a better understanding by the public of the advantage and necessity of this protection only, will remedy the evil. Progress is being made toward a righteous administration of these safeguards and we should not be disheartened by an occasional injustice.

As a member of the Committee on Medical Legislation of the American Medical Association, the chairman of this committee attended a joint conference of the Council on Medical Education and the Committee on Legislation of that body which was held in Chicago in February and March, when there was a full discussion of the question of uniform laws in the states controlling the practice of medicine. No conclusion was reached, but the work of drafting a model law was referred to a committee consisting of Dr. C. S. Bacon, Chicago; Dr. S. D. Van Meter, Denver; Dr. F. J. Lutz, Kansas City; Dr. A. R. Craig, Philadelphia; and Dr. W. H. Sawyer, Hillsdale. This committee was not prepared to report at the St. Louis meeting, but presented for discussion by the House of Delegates a model law from Dr. Van Meter.

To bring about uniform laws in the various states, no two of which have a similar law, is a tedious and difficult task; however, it is the hope of the committee that it may accomplish something toward an end that is certain to be reached by some means sooner or later.

W. H. SAWYER, *Chairman.*

REPORT OF MEDICO-LEGAL COMMITTEE

MR. PRESIDENT AND MEMBERS OF THE HOUSE OF DELEGATES:

It was my understanding that the formal report of the Medico-Legal Committee should be presented to the Council at its Annual Meeting. I therefore did not prepare a formal report and will have to ask your indulgence in listening to an informal one from this committee.

As you all know this is new work in this State, outside of Wayne County, and the committee have been doing what they could during the year in the campaign of education through correspondence and through a circular or two to the various county societies. We have had some difficulty in getting a complete list of the members of the Medico-Legal Committee from the county societies, but today that list is complete with the exception, I think, of three counties. In those three counties members of this committee have not yet been elected.

We have drafted a blank for report of threatened cases which is without question the best thing of its kind so far. It is made up from all the other blanks in use by insurance companies and by other state organizations doing this work, and seems to us at present a very complete blank and a blank which will be very useful. Those blanks are now in the hands of every member of the Medico-Legal Committee throughout the State.

I think we can fairly report much progress in the work in this present year.

The work has been misunderstood in some quarters, is still misunderstood in one or two or three counties, but the vast majority of the physicians of the State endorse this work and want it.

There has been received by the chairman of the Medico-Legal Defense Committee \$2,288.00 in this special fund, of which \$1,607.30 remain in the treasury. There has been reported to the committee since its work began seven threatened cases.

I do not need to go into detail regarding these cases, but of these seven we expect that but one will go to trial. There is one case which will probably reach trial before the close of the year.

In all, probably, we will carry over as a sinking fund practically the entire amount now in the treasury.

F. B. TIBBALS, *Chairman.*

REPORT OF THE COMMITTEE ON THE STUDY AND PREVENTION OF TUBERCULOSIS

The progress of the work against tuberculosis in this State for the last year has been satisfactory. The notification law is being gradually understood, a number of cases have been reported, although far from the existing number that should be on record.

The Association for the relief and control of tuberculosis in Michigan has been very successful in spreading the propaganda against pulmonary tuberculosis by the use of the Bureau of Publicity which enables it to reach even the rural districts by fortnightly bulletins, published in many of the newspapers in our State. This State Association (governed largely by members of this society) is a branch of the National Association for the Study and Prevention of Tuberculosis. It derives its financial support from members of the anti-tuberculosis societies, which have been organized by the State Association in nearly every city of our State. There is no part of Michigan which has not its local Anti-Tuberculosis Society, the members of which contribute donations and assist in disposing of Easter and Christmas stamps. Besides the income from the sale of stamps, half of the membership fee is allotted to the State Association, which credit belongs to the officials and members of these societies for the good work thus accomplished. In consequence of which public opinion has grown in regard to the necessity of stamping out this scourge of the human race and besides has aided considerably the efforts of our health officers in enforcing the laws against infectious diseases. The influence of the anti-tuberculosis societies has also aided in procuring money for the more practical work of providing beds for the tuberculous poor. Thus the health officers in different cities, notably in Detroit, Grand Rapids and Kalamazoo were enabled to secure larger appropriations, which they have used to construct small sanatoria. In the upper and also in the lower part of the State, counties have combined and erected beds for the poor consumptive. Several anti-tuberculosis societies have collected subscriptions from the public for the purpose of building sanatoria for the care of tuberculous subjects who can pay only a small sum, notably in Detroit. It is apparent that the undertaking is a difficult one, as the cost of construction and maintenance is considerable. The indication for the future is that the aroused

public sentiment will make it easier to have funds appropriated by Federal, State, County or Municipal authorities.

Nearly every state of the union has passed laws against the spread of tuberculosis, and last April, the 24th day, was proclaimed by President Taft as "Tuberculosis Sunday." The plan inaugurated by the National Association was briefly stated, that churches of all denominations devote a part of some service to a presentation of the problem of tuberculosis and its prevention. The mayors of all cities were requested to give full publicity through the press. In most of the states relief has been furnished by the construction of sanatoria, which at the same time become centres of education in a practical way. Our own State Institution at Howell recommends itself to the members of this society. It has accommodations for seventy or more patients and it is open for incipient cases who are in reduced financial circumstances. The cost of maintenance of patients is borne wholly by county and State appropriations, and the sanatorium is controlled by a Board of Trustees.

Considerable reaction has set in recently to the dictum of Koch that "Bovine Tuberculosis by Milk Is Rare." Recent research work of Park of New York City, shows that ten per cent of supposed human tuberculosis among children of all ages was in reality due to bovine germs derived from milk of infected cows. Dr. Ravenel of the Wisconsin University reiterates his convictions that bovine germs contained in milk are a frequent source of glandular tuberculosis in children,—holding firmly that the bovine and human germs of tuberculosis are intercommunicable. Dr. Ravenel was active in procuring proper legislation for the restriction of bovine tuberculosis in the state of Wisconsin, the salient features of which are "that all cattle, whether for the purpose of giving milk or for breeding purpose, that are offered for sale shall first be tested by the tuberculin test. All cattle coming into the State of Wisconsin for breeding or for giving milk shall first pass the tuberculin test before being allowed entrance. In the event that the test reveals tuberculosis, the animal is slaughtered and the owner is reimbursed three-quarters of the value of the animal."

Your committee would recommend that laws be enacted in our State with a view of restricting the supply of contaminated milk from tuberculous cows. At the last meeting of the National Association resolutions were passed "that the milk intended for infant feeding should be con-

sidered apart from that intended for general consumption, and should be certified milk when obtainable." And further, "that in the opinion of this association it has been proven, apparently, that a small percentage of the cases of the non-pulmonary human tuberculosis, especially tuberculosis of the lymph nodes in children under five years of age, is due to infection by tubercle bacilli of bovine origin."

The estimate made by Dr. Park of New York City is based upon autopsy examinations. He found that twenty-five per cent of the children dying of supposed human tuberculosis actually had the bovine type of germs. Those under five years were more numerous (twenty-five per cent) while those under ten years of age showed ten per cent. He believes the infection was derived from milk.

Your committee therefore urges that the members of this Society make effort to enact laws against cattle tuberculosis, and recommend certified milk, especially for infants. While Koch's statement that "the dried sputum is the main cause of human tuberculosis" is still true, his statement that "milk infection is rare," seems to be successfully contradicted by competent investigators as well as by the International Commission for the control of bovine tuberculosis.

HENRY J. HARTZ, *Chairman.*

REPORT OF COMMITTEE TO ENCOURAGE THE SYSTEMATIC EXAMINATION OF THE EYES AND EARS OF SCHOOL CHILDREN THROUGHOUT THE STATE.

TO THE PRESIDENT AND MEMBERS OF THE HOUSE OF DELEGATES OF THE MICHIGAN STATE MEDICAL SOCIETY:

Your committee, appointed to encourage the systematic examination of the eyes and ears of school children throughout the State, has the honor to make the following report:

At the meeting of the House of Delegates held last year, it was determined to abandon the idea of trying to secure any legislation regarding the systematic examination of the eyes and ears of school children throughout the state, and to continue an active campaign along educational lines. One committeeman was to be appointed for each county, who should be instructed to bring the subject before his society once every year, and to look after the work in his county. Where there was no member of the society who had already interested himself in the work, a letter was sent to the secretary of the County Society, asking him to suggest a member who

would be willing to do the work, and the name suggested was added to the committee, and a copy of the following letter was sent him.

"As chairman of the committee appointed by the State Medical Society to encourage the systematic examination of the eyes and ears of school children throughout the State, I have the honor to notify you that you have been made a member of this committee for the county of _____. The original committee, which consisted of three members, is to be increased by a County Committee so that we shall have a member in each county whose duty it shall be to look after the work in his county.

"I am sending you herewith a sample copy of the card recommended by the American Medical Association to be used in the examination of school children. The plan is to have each member of the committee interest the school authorities, and through them the teachers who are to make all of the examinations. This can be done in one of two ways: Either have one teacher appointed to examine all of the scholars in the school or what is better, have each teacher examine the scholars in her own room. Those who fail to pass are to be given a card of warning as noted on the examination card, which card of warning is to be signed by the superintendent of the school, and not in any case by the member of the committee. All we, as committeemen, can do is to urge the importance of the examination and to explain in detail the methods of examination and then follow the matter up and see that the examinations are made and that the card of warning is heeded.

"The records are best kept in a card index, where the results of the examinations can be recorded year after year."

In conformity to these replies, the following named members have been added to the committee:

- Antrim County Dr. F. S. Hoag .. Alden, Mich.
- Barry " Geo. W. Lowry
- Bay, Arenac & Iosco, M. D. Hastings
- Benzie County F. C. Thompson .. East Tawas
- Berrien " G. O. Edmunds .. Honor
- Calhoun " H. C. Hill Benton Harbor
- Cass " W. Haughey Battle Creek
- Cheboygan County... J. G. Bonine Cassopolis
- Chippewa, Luce & Mackinac Counties... C. B. Tweedale .. Cheboygan
- Clinton County..... F. Dunn, M. D. St. Johns
- Delta " M. P. Fenelon .. Escanaba
- Eaton " F. J. Knight ... Charlotte
- Emmet " Dr. G. Reycraft ..
- Gogebic " Dr. J. W. White-
- Gladwin " Dr. C. G. Suy-
- Grand Traverse & Leelanaw Counties Dr. J. M. Wilhelm .. Traverse City
- Grand Traverse & Leelanaw Counties Dr. E. A. Bagley .. Alma

5. Does the pupil complain of ear-ache in either ear?

6. Does matter (pus) or a foul odor proceed from either ear?

7. Does the pupil fail to hear an ordinary voice at twenty feet in a quiet room?

8. Each ear should be tested by having the pupil hold his hand over first one ear, and then the other. The pupil should close his eyes during the test.

9. Is the pupil frequently subject to "colds in the head" and discharges from the nose and throat?

10. Is the pupil an habitual "mouth breather?"

If any defect is found, the following Card of Warning is to be signed by the superintendent of the school and sent to the parents or guardian:

After due consideration it is believed that your child has some eye, ear, nose and throat disease, for which your family physician or some specialist should be at once consulted. It is earnestly requested that this matter be not neglected.

Respectfully,

School

The visual charts used in the examination can be obtained from F. A. Hardy & Co., Chicago, Ill., for the nominal sum of seven cents each, in quantities of more than ten and less than 100, and for five cents each, in quantities of more than 100 and less than 500. As we have no money at our disposal, it is necessary for each school to obtain its own cards.

In addition to the suggestion given in the letter of notification of appointment as member of this committee, we would urge each County member to present the subject before each school board and superintendent in his County, and whenever possible to give a lecture before the teachers, either in their conventions or in small meetings. The work is done well, just in proportion as a thorough understanding of its importance is acquired.

For the present, at least, each member of the committee will have to bear the expense of postage and stationery, looking only to the great benefit that will certainly come to these unfortunate scholars, for his reward.

The work has progressed rapidly since our last report and by another year every teacher in the State will have had his duty toward these sub-normal scholars plainly laid before him.

WALTER R. PARKER,
CHAS. H. BAKER,
WILFRID HAUGHEY.

REPORT OF THE COMMITTEE ON THE RELATION OF THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF MICHIGAN TO THE MEDICAL PROFESSION OF THE STATE

MEMBERS OF THE MICHIGAN STATE MEDICAL SOCIETY:

Your committee appointed at the last meeting to report on the relation of the Medical Department of the University of Michigan to the Profession of the State met at Ann Arbor with the Medical Committee of the Board of Regents and the Clinical Faculty of the Department of Medicine and Surgery.

It was unanimously agreed that the Board of Regents be asked to admit patients to the University Hospitals under the following conditions:

1. Those whose admission is provided for by special statute.

2. Emergency cases.

3. All students in actual attendance at the University.

4. All persons bringing letters recommending their admission from their usual medical attendant.

5. Any person applying for admission to the University Hospitals and not coming under any of the classes mentioned above must make affidavit that he or she is financially unable to pay the usual minimum fees of the profession for such treatment as he or she may require.

Your committee feel that you are to be congratulated because of the action of the Board of Regents in June confirming the above request regarding the classes of patients to be admitted to the University Hospitals. There can no longer go abroad the feeling that any can demand unlimited and free treatment at the University Hospital.

Committee: Dr. Robbins, Dr. Dodge, Dr. Peterson, Dr. Stockwell, Dr. Abrams, *Chairman*.

ARTICLES OF ASSOCIATION OF THE MICHIGAN STATE MEDICAL SOCIETY

We, the undersigned, being of full age, and desiring to become incorporated under the provisions of Act Number 171, of the Public Acts of Michigan for 1903, entitled "An Act for the incorporation of associations not for pecuniary profit," do hereby make, execute and adopt the following articles of association, to wit:

ARTICLE I.

The name or title by which said corporation

is to be known in law, is the *Michigan State Medical Society*.

ARTICLE II.

The purpose or purposes for which it is formed, are as follows: To federate and to bring into the compact organization the entire medical profession of the State of Michigan and to unite with similar societies in other states to form the American Medical Association; with a view to the extension of medical knowledge, and to the advancement of medical science; to the elevation of the standard of medical education, and to the enactment and enforcement of just medical laws; to the promotion of friendly intercourse among physicians, and to the guarding and fostering of their material interests; and to the enlightenment and direction of public opinion in regard to the great problems of state medicine, so that the profession shall become more capable and honorable within itself, and more useful to the public in the prevention and cure of disease and in prolonging and adding comfort to life.

ARTICLE III.

The principal office or place of business shall be at Battle Creek, County of Calhoun, Michigan.

ARTICLE IV.

The term of existence of this proposed corporation is thirty years.

ARTICLE V.

The number of trustees or directors shall be nineteen.

ARTICLE VI.

The names of the trustees or directors selected for the first year of its existence are as follows:

J. Henry Carstens, Virgil L. Tupper, Emil H. Webster, James F. Breakey, Rosingrave M. Eccles, Wilfrid Haughey, George F. Inch, Andrew P. Biddle, Albert E. Bulson, William H. Haughey, Alvin H. Rockwell, Ralph H. Spencer, Arthur M. Hume, William J. Kay, Arthur L. Seeley, Bartlett H. McMullen, Charles H. Baker, William T. Dodge, Charles J. Ennis.

ARTICLE VII.

The qualifications required of officers and members are as follows: All members in good standing of the Component County Medical Societies shall be considered *ipso facto* members of this Society; physicians in good standing may also be elected to this Society in such manner as may be provided by its constitution and by-laws.

In Witness Whereof, We, the parties hereby associating, have hereunto subscribed our names this day of June, A.D., Nineteen hundred and ten.

J. HENRY CARSTENS,
VIRGIL L. TUPPER,

EMIL H. WEBSTER,
JAMES F. BREAKEY,
ROSLINGRAVE M. ECCLES,
WILFRID HAUGHEY,
GEORGE F. INCH,
ANDREW P. BIDDLE,
ALBERT E. BULSON,
WILLIAM H. HAUGHEY,
ALVIN H. ROCKWELL,
RALPH H. SPENCER,
ARTHUR M. HUME,
WILLIAM J. KAY,
ARTHUR L. SEELEY,
BARTLETT H. MCMULLEN,
CHARLES H. BAKER,
WILLIAM T. DODGE,
CHARLES J. ENNIS.

(Filed and recorded in the office of the Secretary of State September 17, 1910.)

The Practical Medicine Series comprising ten volumes on the year's progress in medicine and surgery. Under the general editorial charge of Gustavus P. Head, M. D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School, and Charles L. Mix, A. M., M. D., Professor of Physical Diagnosis in the Northwestern University Medical School. Volume V and VI Obstetrics edited by Jos. B. De Lee, A. M., M. D., and General Medicine edited by Frank Billings, M. S. M. D. and J. H. Salisbury, A. M., M. D. Series 1910. Chicago. The Year Book Publishers, 40 Dearborn Street.

Volumes V and VI of Practical Medicine Series for 1910 are now out. They fully uphold the enviable reputation this series has attained. Volume V by De Lee, on obstetrics, and volume VI by Billings and Salisbury on General Medicine are arranged as the preceding volumes especially for the general practitioner and contain all that is new and of interest in the subjects of which they treat and possess the special advantages of having been edited by men capable of sifting the chaff from the straw and only presenting to the busy doctor that which is and will be truly helpful to him; *e. g.*, in volume V under Anesthesia in Labor a warning is sounded against chloroform and the conclusion is backed that ether is far safer for the mother than chloroform. The advantages and disadvantages of scopolamin-morphine are explained.

In volume VI under Typhoid Fever the course of professional opinions regarding the proper diet with the view of covering or partially covering the nitrogen loss is thoroughly discussed, tables given, authors quoted and all new ideas brought out. In fact the value of these books lies in the wonderful amount of information drawn from so many sources and recorded in condensed and comprehensive form with citations and explanations. The busy practitioner will find them of wonderful help and the specialist who uses them for reference will derive much assistance from them in looking up more extensive treatises.

COUNTY SOCIETY NEWS

GRAND TRAVERSE

The regular monthly meeting of the Grand Traverse County Medical Society was held Oct. 3, in Dr. Holliday's office. Ten members were present. The minutes of the last meeting were read and approved.

Dr. G. W. Fralick of Maple City was admitted to membership.

Dr. H. Thurtell read a very interesting and instructive paper entitled "The Progress of Surgery." He gave the history of surgery from the earliest period to the present time, speaking particularly of the more important advances in surgery, such as anesthesia and antiseptics. Several of the physicians told of advances which have been made in surgery in our own county. Dr. M. S. Gregory read a very interesting paper on "Eye Strain Due to the Extrinsic Muscles." The doctor made out several charts and explained the contents of his paper very thoroughly. The reading of this paper was followed by a general discussion, after which the society adjourned.

R. E. WELLS, *Secretary*.

EYE STRAIN DUE TO THE EXTRINSIC MUSCLES

M. S. GREGORY, M. D., Traverse City.

In the average person who is free from symptoms of eye strain we find a certain definite fusion strength of each of the extrinsic muscles. For example, the interni should have a fusion power of at least twenty-four degrees, that is, be able to fuse the images produced by twenty-four degree prisms with bases out; the externi should be able to fuse eight degree prisms bases in; the inferior and superior recti should be able to fuse two to three degree prisms, bases either up or down; that is, when the superior and inferior recti have a power of fusion of two to three degrees, and the ratio of the externi to the interni is 8—24 there is no resulting eye strain from these muscles.

At this time it may be well to give the terminology of eye strains resulting from the extrinsic muscles. Orthophoria is that condition of perfectly balanced muscles as already described. While heterophoria is the general term covering all unbalanced conditions of these muscles. Under

heterophoria we have esophoria, a tendency for the visual axes to converge; exophoria, a tendency for the visual axes to diverge; hyperphoria, a tendency for the visual axis of one eye to go above that of the other eye, and cyclophoria, a tendency for the vertical axes to lose parallelism with the median plane of the head.

When we consider the symptoms of heterophoria we must first of all concede that there are many cases of heterophoria which give no distressing symptoms to the individuals, but this is owing to the fact that these individuals have strong, stable, rugged, nervous systems and are rarely seen either by the family physician or the oculist. The symptoms are, however, many and varied. Among them are headaches, pain on top of the head, pain in the back of the neck, and nausea and vomiting. Also neurasthenia is often precipitated by heterophoria.

One of the most important conditions is that of esophoria, which has already been defined as a tendency of the visual axes to converge. Esophoria may be divided into true esophoria and pseudo-esophoria. True esophoria depends upon an abnormal amount of strength shown by the interni and usually a subnormal amount of strength shown by the externi, while pseudo-esophoria is a reflex condition depending either upon an existing hyperopia or hyperopic astigmatism. True esophoria may be due to abnormally strong or short interni, or to externi which are too long or too weak. No matter from what source it may come, there are always extra stimuli going to the externi in order to maintain binocular single vision. Of course it is possible that an esophoric condition may depend upon an abnormally developed nerve centre controlling convergence, necessitating constant over stimulating of the externi to maintain single vision. The result is true esophoria and must be reckoned with accordingly. A moment ago we spoke of an esophoria due to hyperopia. By careful calculation and by actual experiment it is shown that one diopter of hyperopia produces two degrees of convergence, so that an eye with one diopter of hyperopia would have a pseudo-esophoria of two degrees. This law holds good up to six diopters.

This pseudo-esophoria diminishes the amount

of trouble produced by an exophoria and may prove a positive benefit to the patient while in true esophoria it increases the gross amount.

All tests for esophoria should be carried out before any cycloplegic has been used, because just as soon as the eyes begin to blur the centre for accommodation begins to act vigorously in an effort to maintain clear definition and reflexly, the interni are stimulated to a new work.

The general law that, "No Midriatic or cycloplegic should be used in muscular examination," will hold true for all heterophorias.

We have in the trial case "Maddox rod," and "Maddox double prism." The rod converts the flame of the candle or light into a long streak while one double prism converts the single candle into two distinct candles. The difficulty with using the rod is that there is still some parts of the two images in common thereby stimulating some effort to fusion while with the double prism the images are so far apart that there is no tendency to fusion. By putting the double prism over the right eye and a red glass over the left eye an existing esophoria will be shown by the red or middle light traveling to the left, that is, the image appears opposite to the turning of the eye or what is the same thing, the image goes to the side of the weak muscle. Then from the trial case we take prisms and place them in the trial frame base outward until all three candles are in line. The prism necessary to produce this is the measure of the esophoria.

The symptoms of esophoria are those referred to under the general head of heterophorias; namely, headaches, neckache, pain in top of the head and sometimes nausea and vomiting.

When we begin to talk of treatment of esophoria we soon get onto debatable ground. Nevertheless there are three general methods of attack: 1, Rhythmic exercise; 2, Resting prism; and 3, Operation. This of course presupposes that the general health and nervous system have been properly cared for from a medical point of view. In the average case of esophoria we find the externi showing a strength of three to four degrees and the interni a strength of thirty to fifty degrees.

The externi are the muscles to be exercised and so we begin by practising with a one, two or three degree prism, base in, while looking at a candle flame, door knob or other bright object fifteen to twenty feet away. This throws extra effort upon the weak externi. Hold the prism in position until the images become fused, then remove for a few seconds, then repeat. This

exercise should be continued ten minutes daily for two or three weeks, increasing the strength of the prism until eight degrees can be easily overcome. The trouble is that the patient will rarely carry this method out according to direction, but if he does, good is sure to result. If we fail in the exercise or if the manifest esophoria is great then we will prescribe resting prisms. Supposing a patient has very weak externi, powerful interni and an esophoria of eight degrees; we will prescribe at once, at least one-half of the esophoria, or four degrees, base out, and later increase the prism. If the prisms have been skillfully prescribed they will bring relief. Sometimes, however, we are forced either to do a tenotomy upon the short, thick, stout muscle, or a shortening of the long thin one. I have prescribed prisms many times and I believe fairly satisfactorily. When prisms fail we usually find a cyclophoria which probably is resulting from a too high or a too low attachment of the lateral recti muscles.

Exophoria is that condition where the visual axes wish to diverge, and depends upon a variety of causes altogether similar to those of esophoria: short or strong externi, longer weak interni, or weak centre controlling the interni.

The symptoms are those of esophoria,—headache, pain in the back of the neck, and sometimes nausea and vomiting.

The treatment is also similar to that of esophoria, namely: 1, Exercise; 2, Resting prisms; and, 3, Operation. The exercise treatment should commence with a weak prism, say, three to five degrees, base *out*, the apex always over the muscle to be exercised, and the prism gradually increased until the interni have a power of at least twenty-five degrees. When this is done the symptoms have usually disappeared. Here, as in esophoria, we find cases which do not result entirely satisfactorily, and we must resort to resting prisms, or if the externi are very strong and interni very weak with from four to six degrees of exophoria we will prescribe resting prisms at once. We usually prescribe one-half the manifest exophoria, bases *in*. In those cases with a very high degree of exophoria we are compelled to resort to either shortening of the interni or a tenotomy of the powerful externi. The tests for exophoria are carried out similarly to those for esophoria.

The next condition of which we will speak is hyperphoria, one visual axis having a tendency to go above that of the other. All that has been said of causes, symptoms, and treatment of es-

ophoria and exophoria may be applied to hyperphoria, excepting that we more often prescribe resting prisms at once. In carrying out the tests for hyperphoria we are compelled to use the "Maddox rod" instead of the double prism. The rod is placed vertically over the right eye and a red glass over the left eye. The rod converts the candle flame into a long horizontal streak, passing below the candle if there is right hyperphoria and passing above the candle if there is left hyperphoria. We usually correct at least two-thirds of the hyperphoria at once.

The last, but one of the most important conditions of which we will speak is cyclophoria, or a torting of the upper ends of the vertical axes either inward or outward; if inward, a minus cyclophoria; if outward, a plus cyclophoria. This torting is due either to a strong or weak superior oblique, a strong or weak inferior oblique, too high or too low attachments of the lateral recti, or to a compensating rotation due to an uncorrected oblique astigmatism. In every case of an oblique astigmatism the image is displaced toward the meridian of greatest curvature and in order to maintain single binocular vision there must be a torting of one or both eyes *unless* the meridians of greatest curvatures of both eyes are equal and parallel one with the other.

The tests for cyclophoria are carried out as follows: The double prism is placed over the right eye. The line of bases horizontal and the eye is left uncovered. In looking at a horizontal line say four feet long, the right eye sees two parallel lines, the left eye sees one line. If orthophoria exists the three lines will be parallel, if cyclophoria exists the middle line, which is seen by the left eye, will dip to the right in plus cyclophoria, or to the left in minus cyclophoria. The symptoms of cyclophoria are those of all other "phorias," especially nausea and vomiting. The treatment is essentially that of adjusting cylinders. We may exercise the oblique muscles by revolving a plus cylinder before the eye under treatment, thus exercise comes from the efforts of the oblique muscles to overcome the displacement of the image due to the cylinder. By rotating the axis of a plus cylinder through the upper nasal arc we exercise the superior oblique; by rotating it through the upper temporal arc we exercise the inferior oblique. However, we can relieve the distressing symptoms of a cyclophoria by adjusting cylinders as follows; For plus cyclophoria we give plus cylinders with the axes in the upper temporal quadrant, and for minu-

cyclophoria we give plus cylinders with the axes in the upper nasal quadrant. In emmetropic eyes we sacrifice clear vision in order to relieve symptoms.

In conclusion let us state:

1. No examination of the eyes is ever complete until all the muscles are examined and their fusion strengths are measured.

2. No muscle test should be made after a cycloplegic has been used.

3. All refractive errors should be fully corrected excepting when hyperopia complicates exophoria. Take care of the exophoria and slowly correct the hyperopia.

4. Remember that not every case of heterophoria absolutely demands either prisms or exercises, but that in writing prescriptions for focal errors, esophoria and exophoria must be intelligently considered.

HURON

The annual supper and election of officers of the Huron County Medical Society were held in Bad Axe, October 10, 1910. The following officers were elected: Dr. Frank E. Luton of Kilmanagh, President; Dr. A. E. W. Yale of Pigeon, Vice-President; Dr. D. Conboy of Bad Axe, Secretary-Treasurer; Dr. B. Friedlaender of Sebawaing, delegate to State Medical Society; Dr. Duncan J. Monroe of Elkton, Alternate; Dr. D. Conboy, member of Medico-Legal Committee. Dr. Friedlaender read an interesting paper on "Post-operative Treatment" and Dr. Louis J. Hirschman, of Detroit, read one on "Diagnosis of Rectal Disease," and operated on a case of hemorrhoids at the hospital to demonstrate local anesthesia. Drs. Luton, Friedlaender and Sellars were appointed to meet our representatives in the State Legislature in behalf of the State Board of Registration in Medicine. There were twenty members present and all "agreed."

D. CONBOY, *Secretary.*

LAPEER

Lapeer County Medical Society met at the Hotel Graham, Lapeer, October 12, with twelve members and three guests, Dr. L. A. Traphagan, of North Branch, Dr. C. H. Judd, of Detroit and Dr. Wilfrid Haughey, of Battle Creek, present.

During the Business Meeting, communications were read from the State Secretary relative to the changes in the By-Laws and the necessity for prompt payment of our annual assessments in future; also relative to the Michigan State Board of Registration in Medicine. Various members of the

Society promised to act upon the suggestion and secure the support of the Legislators from this district.

Dr. C. H. Judd read an interesting paper upon the Use and Benefits of Pelvimetry. He urged the routine determination of the external diameters of the pelvis and the digital examination thus forwarding the physician in case pelvic deformity should be present. This measurement is simple and would take only a few moments after one had done it a few times.

The doctor called attention to the larger percentage of contracted pelves found especially in larger cities, and exhibited a specimen.

The discussion brought out the fact that in rural practice in which most of our members are engaged contracted pelves are uncommon, in fact rare, and several reported only one or two in their whole experience. Also in country practice there are many cases in which the doctor first sees the patient when he is called to deliver her.

Dr. Haughey's paper was upon the Enucleation of the Tonsil, and emphasized the importance of a thorough Enucleation in cases of infected tonsils that have been producing systemic symptoms.

The discussion brought out reports of several cases of endocarditis, rheumatism and nephritis traceable directly to the tonsil, some of which completely recovered after removal of tonsil,—others died of the heart complications.

The same officers were re-elected for the ensuing year.

Dr. Traphagan was elected to membership, and many paid their 1911 dues.

Dr. Haughey gave an interesting talk on the problems the State Society has to meet, in regard to defense, publishing a Journal, etc. He called especial attention to the fact that the advertisers in the JOURNAL help to support the JOURNAL and are deserving of our patronage, while many who approach us periodically asking us to buy their goods will not reciprocate by returning some small part of their advertising appropriation to us through the JOURNAL.

C. A. WISNER, *Secretary*.

MUSKEGON-OCEANA

Regular meeting of the Muskegon-Oceana County Medical Society was held at the residence of Dr. J. M. VanderVen at New Era, Friday afternoon, Sept. 23, 1910, at 4:30.

Members present: Drs. R. G. Olson, W. P. Gamber, W. E. Dockry, J. M. VanderVen, Geo. S. Williams, A. A. Smith, F. B. Marshall, L. W. Keyes, P. A. Quick, G. F. Lamb, J. T. Cramer

Jacob Oosting, W. A. Campbell, I. M. J. Hotvedt J. F. Denslow and V. A. Chapman.

Minutes of last meeting read and approved as read.

Dr. Campbell brought up the matter of Dr. Swaby's unethical methods of practice in Muskegon County. Dr. Marshall moved, and Dr. Hotvedt seconded that the secretary be instructed to write to Dr. B. D. Harison, secretary of the Michigan State Board of Registration, to learn what may be done to regulate this matter. Carried.

Dr. VanderVen read a paper upon "Auto-toxemia," which was generally discussed.

Moved by Dr. Campbell and seconded by Dr. Olson that our delegate be instructed to invite the State Society to come to Muskegon for its 1911 meeting.

Meeting adjourned to the dining room where Dr. VanderVen treated the society to a splendid dinner of young roosters which were raised to perfection in the doctor's own poultry establishment.

V. A. CHAPMAN, *Secretary*.

OTTAWA

The Annual Meeting of the Ottawa County Medical Society was held October 11, at the Council Rooms, Holland, Mich. The Society elected the following officers for the years 1910-11.

President.—D. G. Cook, Holland.

First Vice-President.—J. F. Pepler, Byron Center.

Second Vice-President.—Wm. DeKlein, Grand Haven.

Secretary and Treasurer.—G. H. Thomas, Holland.

A delegate to the State Convention and Member of Medico-Legal Committee were omitted through an error and will be elected at our next meeting.

Board of Directors.—Chairman H. J. Poppen H. Leenhouts, T. G. Huizenga, and the President and Secretary ex-officio.

Committee on Program and Scientific Work.—D. G. Cook, J. F. Pepler, Wm. DeKlein, G. H. Thomas.

Committee on Public Health and Legislation.—T. A. Boot, R. J. Walker, C. P. Brown.

Finance Committee.—B. B. Godfrey, J. J. Mersen.

The following papers were read:

"The Benefits of a United Profession," H. Kremer, Holland.

"What Can Be Done to Improve the Attendance at Our Meetings?" C. P. Brown, Spring Lake

"Does a Medical Society Improve the Ethics of Its Members?" B. B. Godfrey, Holland.

Dr. J. F. Peppler presented a patient with right-sided paralysis and aphasia due to apoplexy. Dr. Cook reported two cases of simulated paralysis in two hysterical patients. Dr. Brown reported a case of Myelitis. Other cases reported were Hysterical Hemiplegia, Dr. Kremer; Paralysis following Typhoid, due to a Thrombus, Dr. Poppen; Violent Delirium, due to a shock and injury in a foot ball game, Dr. Godfrey.

The following resolutions were passed:

"That no application for membership be acted upon unless accompanied by one year's dues in advance."

"Referring to the Committee on Public Health and Legislation the communication from the State Secretary relative to legislation in favor of the State Board of Registration."

"Informing Dr. E. Hofma of Grand Haven that it is the desire of the Society to be his guests on the occasion of the opening of the new bank, in Grand Haven, of which he is the president."

The meeting then adjourned.

GEORGE H. THOMAS, *Secretary*.

WAYNE COUNTY

On Monday, Sept. 20, Dr. M. R. Edwards of Harvard University gave a lecture to the society on "Chinese Medical Conditions" in a clear and interesting manner. His lecture was illustrated with a series of lantern slides, which he had personally obtained while studying these conditions. China, he said, has a population of 400,000,000, a number equal to one-quarter of the earth's population. Medical and hygienic conditions among this vast number of human beings are appalling. To become a physician it is only necessary to "hang out a shingle." Anybody can do this in China, as education is not essential to the practice of medicine. The Chinese are very superstitious and the medical ideas are mostly based on superstition. To cite an incident, he mentioned witnessing their endeavor to wipe out an epidemic of dysentery. With pomp and clamor they joined in a parade and invited the "evil spirit" to follow them. After enticing him to follow them to a bridge they placed him on a gaudily decorated boat, set it adrift and on fire. In this way they felt certain of wiping out the epidemic. The Chinese spend almost one-quarter of their income in appeasing the evil spirit.

Elephantiasis is very common. Lack of surgery is evident in the enormous sizes that the tumors attain. Comparatively there are an

unusual great number of pedunculated tumors. Several of this variety were shown on the screen. Tuberculosis is found in every household. Syphilis is seen in its most horrible aspects. Thousands succumb to cholera and plague and many cities are "veritable hell-holes" of these diseases. They have absolutely no idea of hygiene. Even in the construction of their houses air and light are excluded. Everything seemingly to favor the spread of disease. But a new era for China has come and these conditions of ignorance are gradually changing.

The attendance at the meeting October 3 was an unusually large one and demonstrated better than any thing else the urgent need of an auditorium for our meetings. Dr. Wickham of Paris gave a very interesting and exceedingly instructive lecture with lantern slide demonstrations on radium therapy. Time did not permit him to enter the details of the different methods of application of this agent but from what he said a good idea of the kind of cases suitable for this treatment could be gained and moreover those who intend using this method of treating diseases could, in Dr. Wickham's lecture, find ample basic facts for their future studies.

Dr. Wickham first explained the different varieties of radium rays, *i. e.*, the A, B, and C rays. The last named has an exceedingly high penetrating power, being able to penetrate 7 to 8 centimeters of lead.

There are three different actions of radium:

1. A selective action without any irritation or inflammation, causing merely a constriction of the underlying blood vessels.
2. A destructive action, destroying only the pathologic cells, producing at the same time a slight irritation of the skin.
3. A caustic action which causes a complete destruction of all the cells with which the rays come in contact.

These actions are dependent on four factors:

1. Radio-activity, which varies immensely with the quality of the metal.
2. The thickness of the screens or rather the amount of filtration.
3. The method of application.
4. The nature and sensitiveness of the tissues through which the rays pass.

Dermatological diseases he said, should receive radium treatment only when other remedial agents have failed to bring about a cure.

Dr. Wickham spoke at length on the relation of radium therapy to surgery. For inoperable malignant diseases radium should be considered.

Where only partial excision is possible surgery

should excise the maximum amount of the growth and radium could be used to destroy the remainder. In other cases exposure to the radium rays could be used to diminish the virulence of the malignant tissue cells; for histological studies have demonstrated that radium has the power to alter the appearance of carcinomatous cells concentrating them into bundles of fibrous tissue. He cited a case of carcinoma of the pylorus in which a gastro-enterostomy had been performed following which the cancerous mass around the pylorus had been subject to the radium rays. This was done over a year ago and the patient is now enjoying excellent health. Of course here as well as elsewhere the rays must be directed to the exact point and not, as it were, at random.

The pictures shown by Dr. Wickham of patients, before and after treatment as well, showed the wide range of usefulness of this agent. Among the cases treated were: ichthyosis and eczema, which would not yield to any other known remedy, pigmentary moles, angiomas, keloids, epitheliomas of the breasts, lips, cheeks, neck, shoulder, jaw, etc.

Dr. Wickham did not claim absolute cure by radium treatment, but he said that we must grant that it plays an interesting and very useful part in medicine.

Dr. Stevens, Dr. Holmes of Chatham, Dr. Aikins of Toronto, and Dr. Biddle took part in the discussion.

Dr. Duffield moved that a vote of thanks be given Dr. Wickham for his visit to Detroit and for his interesting lecture.

Dr. Tibbals brought up the question of the Michigan State Board or Registration which at the recent State Society meeting was the cause of a lively discussion. The Board claimed that the fees from students are becoming less on account of the diminished numbers, due to the increased standard of medical education; at present these fees are not sufficient to pay the expenses of the Board which amounts to between six and eight thousand dollars a year. They therefore proposed to tax each physician in the State two dollars.

The general opinion at the State Society meeting was not in accord with this proposition. It was thought that the State should furnish money to support this Board which is for the good of the people. In view of the opinion expressed in this meeting Dr. Tibbals proposed the following resolutions which were adopted.

"Whereas the work of the Michigan Board of Registration in Medicine is solely in the interest

of the people and as truly a part of the safeguarding of the public health as the work of the State and other Boards of Health, in that thereby the people are guaranteed well-trained physicians and the State, its cities and villages, competent health officials; therefore be it resolved: that we, The Wayne County Medical Society, do hereby petition the members of the Michigan State Legislature to enact such amendments to the present Medical Act as shall appropriate sufficient funds for the maintenance of the Board of Registration and also for the enforcement of the Act in order that the charlatan and the obscene advertiser no longer prey upon the credulous public; and be it further resolved, that we, individually, exert what influence we have with the legislators, the press and the public in favor of the enactment of such amendments."

THE LIBRARY

The Library Commissioners of the city have turned over the medical books now in the central building. Many of these were formerly the property of the Detroit Medical and Library Society, and in the collection are a number of exceedingly valuable files. Some of these are complete; others will have to be filled in. This will form our nucleus.

In developing this library, the policy will be to give particular attention to current periodicals. The journals of which we already have files, will be started at once. All others will start with the new year or with the volume next to begin. If the members will stand back of the library committee, as is expected, we will have by January, between eighty and one hundred of the best journals on file. They will be bound at the end of the year and in five years we will have a working library of great value.

Many valuable gifts have already been tendered. From time to time, acknowledgement of these will be made in the Bulletin.

It is the endeavor of the committee to start this library as it should be. An accession book will be carefully kept; every book will have a book plate with a record of the donor; every volume will be catalogued according to the Dewey system, and a complete "shelf list" will be maintained.

Miss White has been engaged as librarian. She has had two years of experience in a small library (17,000 volumes) and is therefore somewhat conversant with library work. With a year's training among medical books, she will be competent to aid our members in compiling references and looking up subjects.

R. C. ANDRIES, *Reporter.*

NEWS

On Saturday, October 1, Dr. H. N. Hewitt, of Detroit, was married to Miss Sila Merrill Hovey.

Drs. W. J. Herrington and Chas. B. Morden of Bad Axe returned October 12 from a six weeks' vacation trip through England and Scotland.

Dr. A. W. Chase of Adrian, secretary of the Lenawee County Medical Society, while driving his automobile across the D. T. & I. tracks in Adrian was struck by a train. The machine was demolished and the doctor's leg broken and face and head injured.

The main building of the new tuberculosis sanitarium on Twelfth Street Detroit, three blocks from the city limits, is nearly finished and two cottages are practically ready for occupancy.

Good progress is being made on the Marquette County Tuberculosis Hospital at Morgan. Work on the building will be continued throughout the fall and winter and the institution is expected to be ready for occupancy by May 1, next.

Medical inspection of the East Side public schools of Saginaw has been inaugurated and the following medical inspectors have been appointed: Drs. G. Harry Ferguson, J. Neil McLean, Fred W. Edelman, H. Roy Wilson, David E. Bagshaw and John M. Campbell.

A milk contest was held in Detroit, September 26 and 27. President Larned, of the Board of Commerce, introduced the speakers, who were Health Officer Guy L. Kiefer and J. C. Weld, chief of the Market Milk Bureau of the U. S. Department of Agriculture. Prizes were awarded and more than 1,600 persons visited the exhibit.

Dr. Neal L. Hoskins, Detroit, has been appointed an ad interim member of the Local Board of Pension Examining Surgeons, vice Dr. John F. Bennett, deceased.

Dr. Brett Nottingham, Lansing, has been appointed a member of the State Board of Registration in Medicine.

The recent annual ball at Houghton realized more than \$650 for the Houghton County Antituberculosis Society.

BOOK NOTICES

A Manual of Obstetrics. By A. F. A. King, M. D., Professor of Obstetrics and Diseases of Women in the Medical Department of the George Washington University, Washington D. C., and in the Medical Department of the University of Vermont, etc. Eleventh edition, enlarged and thoroughly revised, 12mo., 713 pages, with 341 illustrations and three colored plates. Cloth, \$2.75, net. Lea & Febiger, Philadelphia and New York, 1910.

To those familiar with Dr. King's works it is enough to say that the book contains all the material of his former works revised and brought down to date, also new methods that have been proven useful are given space.

To others, if such there be, we wish to say that in this work the entire field is covered. The anatomy of the parts and foetal head, the generative organs, healthy and diseased, pregnancy, mechanism of labor, the different presentations, operative midwifery, pelvic deformities, premature labor; in short the contents are complete and well classified.

It is with great satisfaction that the reviewer notes that Dr. King favors the Abdominal Binder after delivery and devotes an entire page to description of the proper method of applying it.

Through the entire section of the work devoted to the diagnosis of pregnancy and the conduct of labor, both normal and abnormal, clear cut diagrams and engravings, accompanied with a comprehensible text clearly describing each step and maneuver, is a feature of the valuable book.

The book is fittingly closed by chapters on Lactation and Weaning, and Jurisprudence of Midwifery.

Anatomy, Descriptive and Applied. By Henry Gray, F. R. S., Late Lecturer on Anatomy at St. George's Hospital, London. New (18th) edition, thoroughly revised, by Edward Anthony Spitzka, M. D., Professor of Anatomy in the Jefferson Medical College of Philadelphia. Imperial octavo, 1496 pages, with 1208 large and elaborate engravings. Price, with illustrations in colors, cloth, \$6.00, net; leather, \$7.00, net. Lea & Febiger, Publishers, Philadelphia and New York, 1910.

In the September *Journal* we announced a new edition of Gray's Anatomy. It is before us now, and we are more than pleased with it. The type is distinct, the paper and binding good, the illustrations accurate, many in colors, all labeled. The arrangement follows former editions of Gray. New advancements to our anatomical knowledge are added—"Surgical Anatomy" as formerly considered under the various headings is changed to "Applied Anatomy."

The scientific names are according to the new nomenclature, as well as that still in common use. A review of this work is impossible in a limited

space. Suffice it, that with all Dr. Spitzka's new material and new and original illustrations, it is still the never-to-be-forgotten Gray,—the Gray to which we all turn many times in the course of our routine work,—the Gray without which our library would be incomplete.

The Surgery of Childhood, including Orthopedic Surgery by De Forest Willard, A. M., M. D. (Univ. of Pa.), Ph. D. Professor of Orthopedic Surgery University of Pennsylvania. With 712 illustrations—including 17 in colors. Philadelphia and London, J. B. Lippincott Company. Net \$7.00.

Man is the noblest work of God; the child is father of the man. By far the most important and valuable gift that can be bestowed upon man by his progenitors is a sound body and healthy brain,—such an heritage is beyond price. The value of it can only be understood by the unfortunate being who comes into this world the victim of deforming accident or of underlying disease which predisposes to bodily malformation or mental insufficiency, handicapped in the struggle for existence and barred from the competition for excellency in those things which make for human good and happiness.

Contemplation of these facts urges upon our mind with an overwhelming force the duty of the strong to make smoother the pathway of the weak.

The Period of Childhood, the springtime of life, the growing season when impressions are more easily made and often retained, should not be allowed to pass by without diligent efforts to remove defects of birth or accident, be they great or small, with which the individual is afflicted.

To accomplish this in the fullest measure, requires first of all the intelligent advice of the conscientious physician, learned in all things that tend to produce the condition or to minimize the effects.

A saddening spectacle is a child with well-ormed body and perhaps healthy brain, yet with some single defect, as talipes, hernia, bone deformity, exstrophy of viscera, etc. It is like starting in a foot race with a ball and chain attached to the ankle.

Directly bearing on these and allied conditions and refreshing one's knowledge on all known things that will aid us in relieving them, is a new work on *The Surgery of Childhood*, including Orthopedic Surgery by De Forest Willard. This work is complete. It covers the subject and every page bears the stamp of the Master. The seeker after information on these subjects will find it in this book.

A Text-Book of Pharmacology and Therapeutics. or Action of Drugs in Health and Disease. By Arthur R. Cushny, M.A., M.D., F.R.S., Professor of Pharmacology in the University of London; Examiner in the Universities of London, Manchester, Oxford and Leeds; formerly Professor of Materia Medica and Therapeutics in the University of Michigan. Octavo, 744 pages, with 61 engravings. Cloth \$3.75 net. Lea & Febiger, Publishers, Philadelphia and New York. 1910.

This edition of Cushny's Pharmacology is thoroughly revised, many remedies have been discarded altogether, others treated more briefly, but several remedies have been handled more exhaustively than ever before, following the result of recent research. To our Michigan profession who knew Dr. Cushny so well while he was at Ann Arbor, we need only to commend this book as better than his former edition. The style is clear and the arrangement of the subject matter logical.

The Practice of Medicine. A Guide to the Nature, Discrimination and Management of Disease. By A. O. J. Kelly, M. D., Assistant Professor of Medicine, University of Pennsylvania; Professor of Medicine, University of Vermont. Octavo, 949 pages, illustrated. Cloth, \$4.75, net. Lea & Febiger, Publishers, Philadelphia and New York, 1910.

Practice of medicine today and practice of medicine two or three decades ago, outside of the fact that the doctor then, and the doctor now, made and makes the best use possible of the knowledge he possessed or possesses, bears little resemblance one to the other. Then empiricism represented our knowledge in most disorders. Today the veil has been partially raised and empiricism plays a minor role. Then many diseases were supposed to originate *de novo*. Today science admits of no such hypothesis. Then disease was considered a condition, today a thing. Then men were speaking of a germ theory, today the germ origin of disease is an accepted fact. Then text books reflected individual opinions and experiences, today they must teach known and accepted scientific truths. Then the medical author needed to be a close observer, a logical thinker, and an entertaining writer. Things he could develop within himself. Today he must add to the above a thorough scientific knowledge of etiology, pathology, treatment, etc., then undreamed of. Then the popularity of the author determined the success and sales of the text book. Today the scientific elucidation of known truths, regardless of the author's reputation, controls the acceptance or rejection of the work.

For more than a score of years Dr. A. O. J. Kelly has been preparing himself to write the great work covering the modern practice of medicine that he is now offering to the profession. Through meritorious work during a long and extensive

general practice he won a distinguished professorship in the University of Pennsylvania, being also chief pathologist to one of the foremost hospitals of America and having had an extensive experience as a medical editor,—guarantee of the scientific accuracy of any work from his pen.

Dr. Kelly has accomplished the seeming impossible and produced a text book that should be at once the delight of the student and the inspiration of the Junior Practitioner. The essentials are set forth without excess of detail. The arrangement is logical; black faced headings mark minor divisions and make citations quick and easy. The brief sections on anatomical lessons and pathological physiology are essential to a correct understanding of morbid phenomena. The reader who masters the knowledge so rationally presented in this authoritative book should have no difficulty in passing his collegiate and State examinations and in proving himself a successful practitioner.

The Principles of Pathology. Volume I, General Pathology. By J. George Adami, M. A., M. D., L.L.D., F. R. S., Professor of Pathology in McGill University, Montreal, New (2d) edition, thoroughly revised. Octavo, 1027 pages, with 329 engravings and 18 plates. Cloth, \$6.00, net. Lea & Febiger, Publishers, Philadelphia and New York, 1910.

Professor Adami in this second edition of his pathology has given us a remarkable text book. It covers the complete subject of general pathology from tumors to ultra microscopic organisms. The chapters on immunity are particularly interesting, showing how this whole subject has grown and developed since Pasteur first studied an epidemic of chicken cholera, Ehrlich's almost ungraspable theory, the work upon immunization, the development of serum therapy, precipitins, opsonins, etc., to the late work of Rosenau and Anderson, Vaughan and Wheeler and others upon Anaphylaxis.

This volume is one of the most complete we have seen and cannot fail to be of vast benefit to students or practitioners.

A Treatise on Diseases of the Eye. By John E. Weeks, M. D., Professor of Ophthalmology in the University and Bellevue Hospital Medical College, New York. In one octavo volume of 944 pages, with 528 illustrations and 25 full-page plates. Cloth, \$6.00, net. Lea & Febiger, Publishers, Philadelphia and New York, 1910.

Dr. Weeks in this volume has covered the whole field of Ophthalmology, beginning with the Embryology which is given in sufficient minutiae for most purposes. The chapter on anatomy is full and lucid, well illustrated in black and white and in colors.

All the way through the book the general prin-

ciples are well developed, theory being avoided, except where well founded. The book will meet all the needs of the student and general practitioner, together with the ordinary needs of the specialist. It is properly illustrated, the arrangement logical and the parts dealing with optics and fitting of lenses very clear and complete.

International Clinics, a Quarterly of illustrated clinical lectures and especially prepared original articles. Edited by Henry W. Cattell, A. M., M. D., Philadelphia, U. S. A., Volume III. Twentieth Series, 1910. Philadelphia and London, J. B. Lippincott Company.

This volume contains a very interesting and instructive paper on the ideographic cerebral centre, with three figures and sixteen drawings made by a patient whose case is reported.

There is an especially valuable article by Dr. Daniel M. Hoyt on "What Vivisection has done for Medicine," showing that notwithstanding fights against vivisection for centuries, the history of vivisection is practically the history of progress in Medicine.

The many other monographs in this volume are of equal value, the style clear and easy and the subjects fully handled.

A Manual of Hygiene and Sanitation. By Seneca Egbert, M. D., Dean and Professor of Hygiene in the Medico-Chirurgical College, Philadelphia. New (5th) edition, thoroughly revised, 12mo, 508 pages with 97 illustrations. Cloth, \$2 25, net. Lea & Febiger, Philadelphia and New York, 1910.

This is a valuable little book giving in a clear compact way the essentials of Bacteriology, Food, Sewage Disposal, Physiology, etc., in their relation to sanitation. The chapter on "water" contains a free discussion of various municipal water supplies with the dangers of contamination and methods of avoiding them. Methods of filtration are freely illustrated. "School Sanitation" receives a chapter. Personal hygiene is especially emphasized, and a long chapter devoted to its consideration. We cheerfully recommend the book to students of sanitation and hygiene, and others interested in this work.

Lippincott's New Medical Dictionary, a vocabulary of the terms used in Medicine and the allied sciences. By Henry W. Cattell, A. M. (Laf.), M. D. (U. of P.) Editor of International Clinics, Fellow of the College of Physicians of Philadelphia, etc. Freely illustrated with figures in the text. Philadelphia & London, J. B. Lippincott Company. Net \$5.00.

Cattell's new dictionary is the best we have seen, thumb indexed, flexible leather covered, and a fit addition to any library. The words are printed in bold face, divided into syllables and accented. The definitions are full and concise. Illustrations are good and of sufficient number. We cannot too highly commend this dictionary.

The Essentials of Histology, Descriptive and Practical. For the use of Students. By Edward A. Schäfer, F. R. S., Professor of Physiology in the University of Edinburgh. New (8th) edition, thoroughly revised. Octavo, 571 pages, with 645 illustrations. Cloth, \$3.50, net. Lea & Febiger, Publishers, Philadelphia and New York, 1910.

Professor Schäfer has again revised and enlarged his Essentials of Histology. Many new and colored illustrations are added and the arrangement is such that the book makes an excellent text book and laboratory manual for beginning students of Histology, while the more advanced students could study its pages with decided advantage. The style is clear and the histological structure of tissues so presented that the practitioner would find it a valuable reference. It is thoroughly up to date.

Symptomatic and Regional Therapeutics by George Howard Hoxie, A. M., M. D., Professor of Internal Medicine and Dean of the Clinical Department in the School of Medicine of the University of Kansas; member of the American Medical Association, etc.; President 1909-1910, of Association of American Medical Colleges. With fifty-eight illustrations in text. New York and London, D. Appleton & Company, 1910.

This valuable book is a veritable "Multum in Parvo" and covers about all that can be done locally for the relief of any pathological condition or distressing symptom such as pains, itching, vomiting, hiccough, hyperemia, inflammation, bunions, frost bites, cuts, disorders of the nose, mouth, stomach, liver, heart and a thousand other conditions not to be mentioned here. The author is logical in his treatment, using heat, cold, electricity, bath, massage, as well as drugs, and explains the reasons for, and effects sought and obtained by each as well as methods of application. Considerable space is devoted to Materia Medica. This consists of a short, concise, but comprehensive description of most drugs recognized by the National Formulary and includes many mineral waters of which the official analysis is given, also comments thereon.

The book is put out by D. Appleton & Company. Retail at \$4.00 cloth, and seems to the reviewer worth the money.

SURGICAL SUGGESTIONS

Bilateral, large, smooth swellings of the tonsils should arouse the suspicion of Hodgkin's disease.—*American Journal of Surgery*.

For wiring bones iron wire is stronger than silver, and can be had at any hardware store.—*American Journal of Surgery*.

In the presence of a swollen, ulcerated tonsil or of swellings in the pharynx of some duration, look for evidences of leukemia.—*American Journal of Surgery*.

BOOKS RECEIVED

Medical Education in the United States and Canada. Bulletin No. 4. A report to the Carnegie Foundation for the Advancement of Teaching, by Abraham Flexner, with an introduction by Henry S. Pritchett, President of the Foundation, New York City, 1910. Sent to any address upon receipt of postage, 17 cents.

Mortality Statistics, 1908, Ninth Annual Report, Bureau of the Census, Department of Commerce and Labor, Washington, 1910.

First Annual Report of the Department of Labor of the State of Michigan, R. H. Fletcher, Commissioner of Labor, Lansing, 1910.

Founder's Week Memorial Volume, Philadelphia, 1683-1908. Containing an account of the 225th anniversary of the city of Philadelphia and Histories of its principal Scientific Institutions, Medical Colleges, Hospitals, etc. Edited by Frederick P. Henry, A. M., M. D., Philadelphia, 1909.

Transactions of the Florida Medical Association for the year 1910 held at Jacksonville Florida, April 6, 7, and 8, 1910.

Second Annual Report of the Michigan Association for the Prevention and Relief of Tuberculosis for 1909-10.

Medical Communications of the Massachusetts Medical Society. Volume XXI, No. III, 1910.

The occurrence of Infantile Paralysis in Massachusetts in 1908. Reported for the Massachusetts State Board of Health by Robert W. Lovett, M. D., of Boston, and Herbert C. Emerson, M. D., of Springfield, Mass.

Infantile Paralysis in Massachusetts in 1909 Reprinted from the Monthly Bulletin of the Massachusetts State Board of Health for June, 1910.

Fifth Annual Report of the Associated Committees of the Massachusetts Medical Society for the Prevention and Control of Tuberculosis.

The city council of Hancock has appropriated \$200 for maintenance in the city of a clinic for indigent sufferers from tuberculosis, and the Houghton County Antituberculosis Society is making preparations for the opening of a building for the clinic in Hancock.

GYNECOLOGY AND OBSTETRICS

Conducted by

B. R. SCHENCK, M. D., Detroit, Mich.

The Separation of the Abdominal Wound Following Laparotomy.—Smith, of Grand Rapids, read a paper with this title at a recent meeting of the Clinical Society of the University of Michigan. According to the author the subject receives scant attention in the ordinary textbooks, although there are so many cases on record that the accident is not a particularly rare one, and one which may occur under a great variety of circumstances. Furthermore, its absolute prevention, even in the most experienced hands, seems quite impossible. Smith has seen seven cases, three on consultation and four in his own practice. Five of these instances occurred after hysterectomy, one after a gastro-enterostomy for carcinoma of the stomach and one after a salpingectomy. All were discovered immediately after the accident had happened, were repaired at once and all survived the secondary operation. One of the cases of hysterectomy, done for cancer, died, however, on the fifth day, from the disease, and another of the hysterectomy cases died on the twenty-ninth day. All of the wounds were primarily sutured with cat-gut, together with tension sutures of non-absorbable material.

Smith reviews Madalung's conclusions as follows: The accident may occur at almost any stage of convalescence, even years afterwards, through a hernial scar. It has followed all the commonly known methods of suturing with every variety of suturing material. Patients with very thin abdominal walls seem prone to it. Cachexia favors the accident. The majority of cases have occurred in clean wounds. Vomiting is the commonest active factor.

The following suggestions in prophylaxis are made: Attention to cat-gut or other suture material, to see that it is of sufficient strength and durability. The use of relaxation sutures that will divide the stress with less dependable cat-gut. Particular attention to the fascia to see that it is secure. Occasional deviation from routine methods in order to strengthen "weak points," for example, the over-lapping of fascia or placing of a chromacized cat-gut. In cachetic pa-

tients a later removal of relaxation sutures than has been customary, say on the tenth or fourteenth day.—*Physician and Surgeon*, First Number, 1910.

Myoma and Conception.—In the Greifswald clinic there were 1500 gynecologic patients during the past two years. Of these 8.1 per cent had myoma. Of the 105 married women with small myomata, 13.6 per cent were sterile, 17.4 per cent of those with myomata up to size of child's head, and 50 per cent of patients with large tumors.

Submucous fibroids come almost exclusively in women who have had children. They interfere, when small, very seldom with conception. Prognosis of this variety is poorer than in other forms.

Conservative myomectomy increases the chances of conception. If this cannot be done, a woman in the fourth decade has scarcely any chance of becoming pregnant. Goetze, *Zeit. fur Geb. u. Gyn.*, XLVI, No. 2, 1910.

Blood Pressure in Pregnancy.—The value of blood pressure determinations as a sign of toxemia in pregnancy is shown by some recent work reported by Hirst. In order to establish a normal standard for non-pregnant women, the blood pressure of one hundred individuals showing no signs of kidney or heart affection was taken with the Faught instrument and the average was found to be 112 mm. of mercury. The average of one hundred normal pregnant women who had no albumen in the urine, proved to be 118 mm. After seven and one-half months there is a gradual increase, the average in the middle of the last month being 124 mm.

The findings are quite different in pregnant women showing symptoms of toxemia. The pressure in thirty-nine cases of eclampsia and eighteen who had no symptoms of eclampsia, but who had considerable albumen in the urine, was, at its lowest, 142 mm. and at its highest 192 mm. In one eclamptic the pressure was over 320 mm., or higher than could be recorded with the instrument.—*N. Y. Med. Jour.*, June 11, 1910.

SURGERY

Conducted by

R. E. BALCH, M. D., Kalamazoo, Mich.

A Method of Reinforcing the Sutures of the Renal Pelvis.—In the September number of *Surgery, Gynecology and Obstetrics*, Howard Kelly, of Baltimore, advises the suturing of the lamella of Gerote's capsule to strengthen the line of sutures in the pelvis of the kidney, following the incision for the removal of a calculus or for exploration. The tissues of the pelvis itself give but a very poor hold for sutures but when reinforced by this layer, a firm closure can be obtained. With this end in view when exposing the pelvis of the kidney, he takes care to avoid displacing this layer more than is necessary; consequently when ready to close the incision this relatively strong fascia is ready at hand.

He also advises the use of this fascia in plication of the pelvis in cases of hydronephrosis. His article is well illustrated by drawings showing the methods of closure and plication.

An Osteo-sarcoma of the Lower Jaw Treated by Partial Operation Followed by Mixed Toxins.

—Dr. Wm. B. Cooley reported a case of a boy seventeen years old; family and past history negative. When first seen Jan. 10, 1910, he stated that he had been in good health until the preceding November when he noticed an enlargement on his lower jaw near the symphysis. Present examination shows a tumor four and one half by two and one half inches in size occupying the entire lower portion of the jaw and extending back nearly to the angle on either side. There was also a mass on the floor of the mouth continuous with the jaw. The skin was normal and there was no evidence of ulceration. Owing to the extent of the growth a radical operation seemed then advisable, consequently the following operation was carried out:

The lower lip and soft parts were separated from the tumor and by means of a chisel the larger part of the external portion of the tumor was removed. Enough of the alveolar process was left to hold the teeth firmly. The tumor in the lower part of the mouth was not disturbed. A microscopical examination of the tissues showed it to be a giant cell osteo-sarcoma. Two days after the operation the patient was put upon small doses of mixed toxins given in the pectoral region. These injections were continued about four times a week during his five weeks stay in the hospital. Three of these were made directly into the tumor in the floor of the mouth. After his return home the injections were continued three times a week, the largest dose being five minims. There was a marked diminution in the size of the growth after the fourth injection. At the present the tumor has practically disappeared and there is absolutely no deformity remaining.—*Annals of Surgery for September.*

The Injection of Blood for an Old Ununited Fracture.—Dr. Henry M. Lyle presented a man forty-six years old, who had sustained a compound fracture of both tibia and fibulae. He had been operated upon three different times and orthopedic braces had been used in an attempt to obtain union. All had proved unsuccessful. A year after the first operation the examination showed an ununited fracture of the right tibia and fibula and weak fibrous union between the left tibia and fibula. 20 c. c. of the patient's own blood were now injected between the fragments. Four injections were given and at the end of six weeks the patient could bear his weight upon his legs.—*Annals of Surgery for September.*

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ORIGINAL ARTICLES

THE USE OF CANCER RESIDUE*

J. WALTER VAUGHAN, M. D.
Detroit, Mich.

When a foreign proteid gains entrance into the human body without having first been split up into simpler chemical components, that proteid must be disassociated into less complex radicals by means of the tissue cells. Thus, if one were to drink a given amount of horse serum, the digestive ferments would split up this complex proteid into simpler chemical groups before actual entrance into the body was gained. The resulting albumoses, peptones, peptids and amido-acids, when absorbed by the lymphatic channels, are easily converted into human proteids through the action of enzymes normally present for this synthetic function. However, if the horse serum should enter the body tissues without first having passed through this process of reduction, the situation is entirely different. Here a complex foreign proteid has gained entrance into the body tissues as such. In this form it is of no nutritive value, since the body tissues have not the power to convert it to such a purpose in its present complex state, and its reduction into less complex radicals must be accom-

plished before it can be either used by, or excreted from, the body. In order to bring about this destruction, certain cells of the body must react with the foreign proteid chemically before its reduction can occur. This process is one that takes an appreciable time to perform, and one which seems to vary somewhat with the nature of the foreign proteid as well as with the tissue activity of the host. In many instances ten days or two weeks must elapse before all of the foreign proteid is removed. In accomplishing this result, nature forms a larger percentage of the specific enzyme than is needed for the removal of the amount of proteid given, so that if a second injection of the same proteid be given,—let us say three weeks after the first introduction has been made,—a certain definite amount of this new ferment is present, which is immediately available for the splitting up and removal of the foreign substance.

Since every proteid contains a toxic radical; this is a source of danger to the individual who receives the second injection, for if the amount of foreign proteid entering the body is sufficiently large,

*Read at the Forty-fifth Annual Meeting of the Michigan State Medical Society, Bay City, Sept. 28-29, 1910.

and if there is enough active enzyme present to liberate a fatal amount of the toxic group, the amount of poison suddenly thrown upon the host may be large enough to be fatal.

That the new enzyme formed for the removal of the foreign proteid is formed chiefly by elements in the blood stream and not through chemical reaction with the cells that the proteid first comes into contact with, is shown in two ways: First, the introduction of any foreign proteid into the body primarily causes a lessening of the number of white blood cells in the circulating stream. Second, the destruction of the foreign proteid after its second entrance into the body, when the specific enzyme for this purpose has been formed, is carried out with equal rapidity regardless of whether the second injection is made in the immediate neighborhood of the first or at a point far remote from it.

Thus it can be reasoned that the leucocytes are the essential cells in the formation of these specific ferments, although the formed ferment is in all probability present in the serum as well,—a fact that has been demonstrated with regard to cancer, through the work of the late Dr. Hodenpyl, since he ascertained that ascitic fluid from a recovered case was of benefit when injected into other individuals suffering from cancer.

Viewing the subject in this manner, it was natural to attempt to find the proof with regard to the formation of a specific ferment through the injection of the non-toxic proteid of the cancer cell, through a study of the various blood elements, particularly the leucocytes, and some interesting findings have been recorded.

Daily differential counts have been made of the leucocytes in some forty cases, and while the change in the percent-

age of the different forms of white cell has not always been marked, yet it is sufficiently uniform to be of significance.

In connection with a study of the blood changes following injections of cancer residue, it is important to compare the clinical course of each case with the blood changes found. Only in this way can reliable data be obtained. For this reason I will present a few selected cases from my series, some of whom have been much benefited by this method of treatment, and others who derived but little or no benefit.

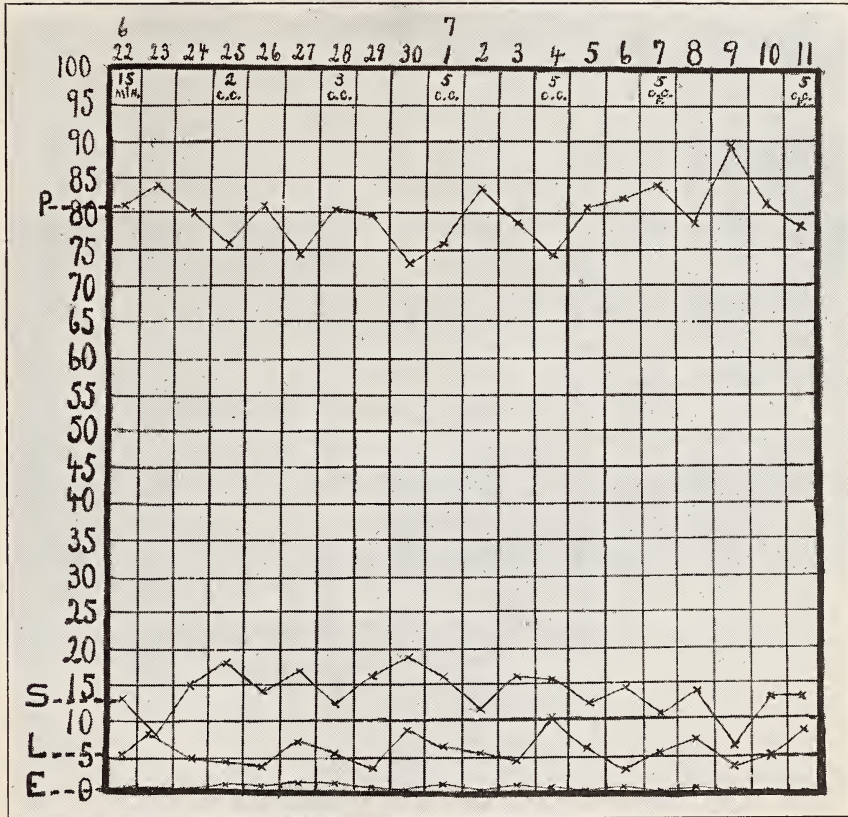
In work of this nature, after it has been established that the treatment instituted is of benefit, the questions of size and frequency of dosage are next in importance. Unfortunately these facts cannot be accurately estimated by animal experimentation alone, but must be determined by the administration of varying amounts at different periods of time to those who are the victims of some form of this disease. Thus, in order that conclusions concerning these points may be drawn from the observations recorded, I submit the following cases. Necessarily these cases all belong to the inoperable group, since no reliable conclusions could be deducted from cases which show no evidence of tumor present.

Owing to the shortness of time permitted, the number of cases that can be reported is limited, and so for the interest of this section I have chosen cases of uterine, ovarian and breast carcinoma. For the same reason I will make note only of important details in the history of each case.

CASE 24. Mrs. D., age 33. Referred by Dr. Wiggins, East St. Louis, Ill. In October, 1909, radical operation was performed for cancer of the right breast. In the latter part of May, 1910, the left eye was enucleated because of tumor growth. This also proved to be carcin-

oma. The patient was first seen by me June 22, 1910. At that time she complained of failing sight in the right eye. Several enlarged glands were present in the left axilla, and one nodule in the skin of the chest, on the right side, below the line of previous breast exision. Scars were present where small tumors had been excised from the right arm, right

breast from a case previously operated upon. For the first week the patient seemed to improve rapidly. Her appetite became good and her cough almost disappeared. However, at the end of this time improvement was less rapid, and then the malignant process seemed to grow with renewed vigor. Her sight became very poor and it was not safe



CASE 24B (CARCINOMA BREAST.)

Residue used first: two and one-half per cent Case 27A. Second, one-half per cent Case 28.
 P: Polymorphonuclear leucocytes. E: Eosinophiles.
 S: Small mononuclear leucocytes. L: Large mononuclear leucocytes.

abdomen and left arm. The clinical picture was one of general carcinoma-tosis.

The accompanying chart will show the blood changes observed and the time and amount of injections. The first injections were made with a 2% residue prepared from an adenocarcinoma of the

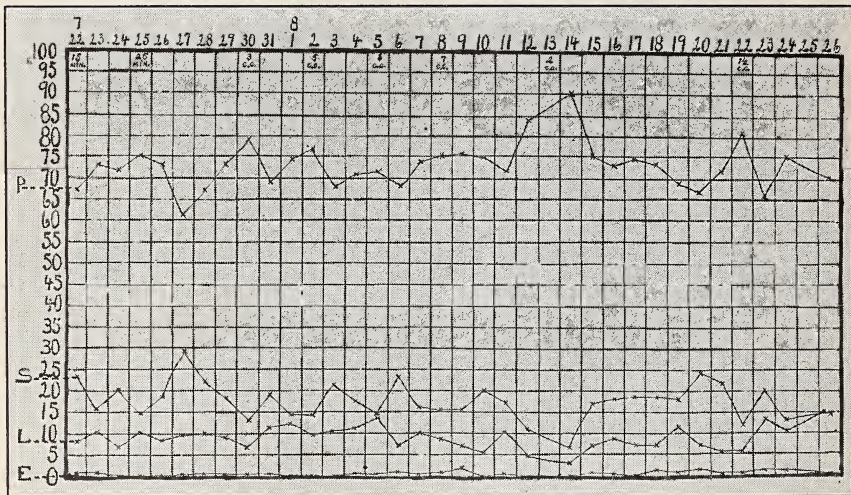
for her to be upon the streets alone. My last letter from her attending physician shows that the decline has been as rapid as her first gain.

A comparison between the clinical benefit which, outside of the first ten days, was negative, and the accompanying blood chart, will show that the two follow each

other closely. No marked blood change was noted and the patient was not benefited. In this case it will be noticed that the dosage was increased after the first small injection each succeeding time until large injections were being made. Clinically the first small injection was the only one of benefit.

CASE 31. Treated in consultation with Dr. Flinterman. Mrs. T., age 47. The patient showed clinically an advanced carcinoma of the left breast of nine months' duration. Secondary involvement of the liver was manifested by jaundice and

was complete. The progress of the disease seemed to be retarded but in nowise stopped. A glance at the accompanying blood chart shows that there was but little change in the relative percentage of the different forms of white blood cells, and that, as in the case noted above, the dosage was increased in each instance until quite large doses were being given. The erroneous supposition that if a small amount would benefit, a larger amount would benefit more, was still held by me. However, towards the end, smaller injections were given and the corresponding bet-



CASE 31B (CARCINOMA BREAST.)

Residue used: one-half per cent Case 28

P: Polymorphonuclear leucocytes.
S: Small mononuclear leucocytes.

L: Large mononuclear leucocyte ;
E: Eosinophiles.

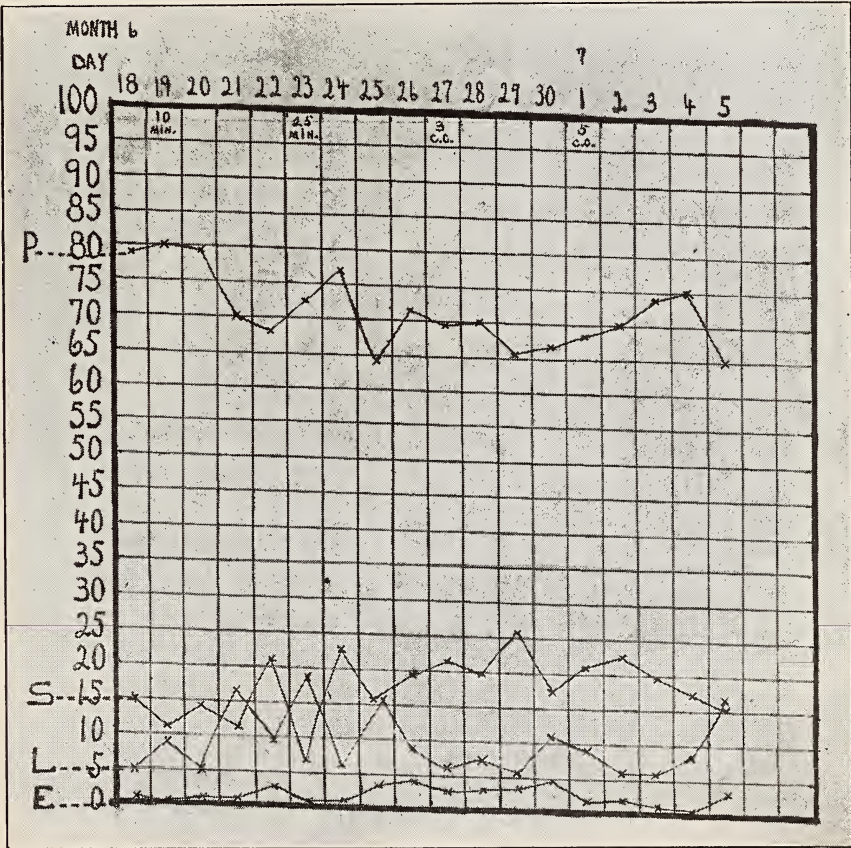
ascites. The breast had been treated with electricity and salves. This was an advanced and rapid growing tumor, and no hope of benefit was given to the patient. During the progress of treatment it was found necessary to tap the abdomen, and a portion of the fluid was withdrawn, about two gallons in amount. The amount present was so great that the withdrawal of this caused severe shock. The patient lived for fifty-four days after beginning injections, and the relief from pain, which had been severe before,

ter reaction is well shown upon the chart.

CASE 28. Mrs. F., age 55. Referred by Dr. Manton. The patient was operated upon June 16, 1910. The findings at operation were of extreme interest, inasmuch as the tumor was entirely retroperitoneal. No ovaries could be found, and the tubes seemed to run blindly, ending behind the peritoneum. The tumor tissue was composed of a large semi-solid mass which was scooped out with the operator's hands. Complete removal was absolutely out of the question. About one

quart of the tissue was removed and not quite an equal amount left. Sections of the tissue were made, and showed it to be an adenocarcinoma, which must have been of ovarian origin. The tissue obtained was split up and a residue of ½% prepared. Injections of the autogenous preparation were made, as shown

diarrhoea accompanied with nausea. Her condition then became rapidly worse. Upon the 11th she complained of severe abdominal pains, the abdomen became much distended, and the percentage of polymorphonuclear cells jumped to 86. The patient's appearance suggested intestinal perforation, but her condition



CASE 28 (OVARIAN ADENOCARCINOMA.)

Residue used: One-half per cent autogenous.

P: Polymorphonuclear leucocytes.
S: Small mononuclear.

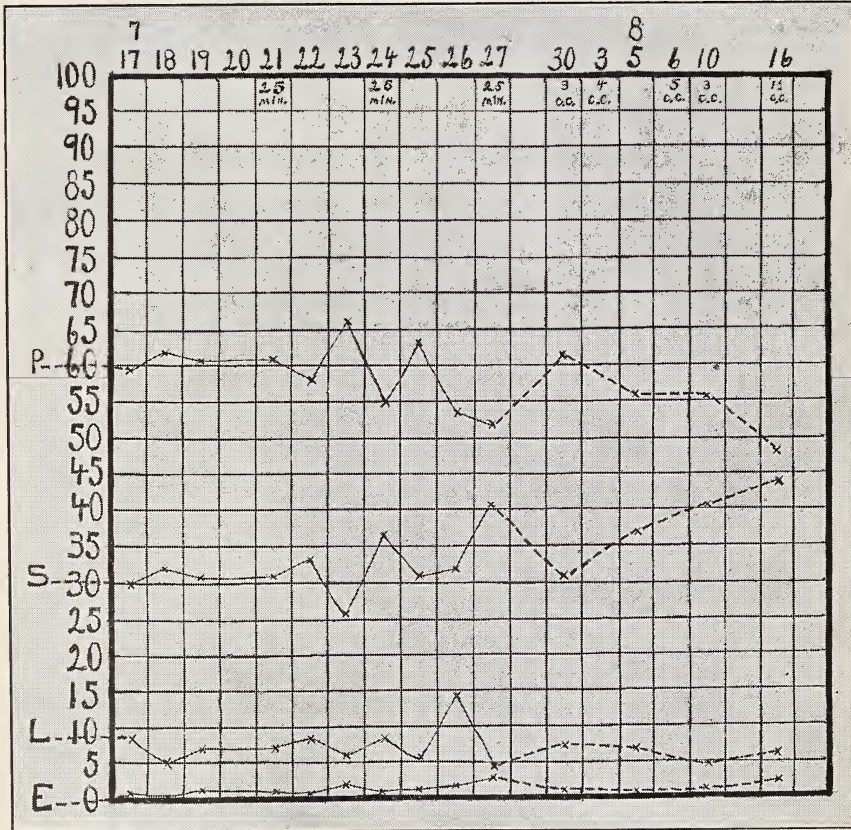
L: Large mononuclear leucocytes.
E: Eosinophiles.

by the accompanying chart. The condition of this patient was exceedingly critical for a period of three weeks following operation. At the end of that time marked improvement was shown. She was able to sit up in a chair and seemed to be gaining rapidly. August 1st the patient began to complain of constant

was such that only expectant treatment could be adopted. The patient died August 18, 1910. Permission for limited post-mortem was obtained, and it was found that the small intestine had become firmly adherent to the posterior peritoneum at the point where incision had been made to enucleate the tumor. The

intestine at this point had gradually become constricted until its lumen was entirely obliterated. This was followed by a large perforation and localized peritonitis. No secondary cancerous involvement was found, and the material left was no greater than could be scooped out with two hands. This was removed for microscopical purposes. This patient

by Dr. Manton, who had performed a radical operation for cancer of the right breast, April 19, 1910. The growth had been rapid, and sections proved it to be an adenocarcinoma. Upon July 7, 1910, a second operation was performed for the removal of a recurrent nodule in the upper third of the scar. This tissue was split up and a 1% residue



CASE 30 (CARCINOMA BREAST.)

Residue used: Autogenous, one-half per cent.

S: Small mononuclear leucocytes.
L: Large mononuclear leucocytes.

P: Polymorphonuclear leucocytes.
E: Eosinophiles.

had received relatively small injections of her autogenous residue, and seemed to be much benefited by its use up to the time that the unavoidable obstruction occurred. The obstruction itself was in no manner a malignant process.

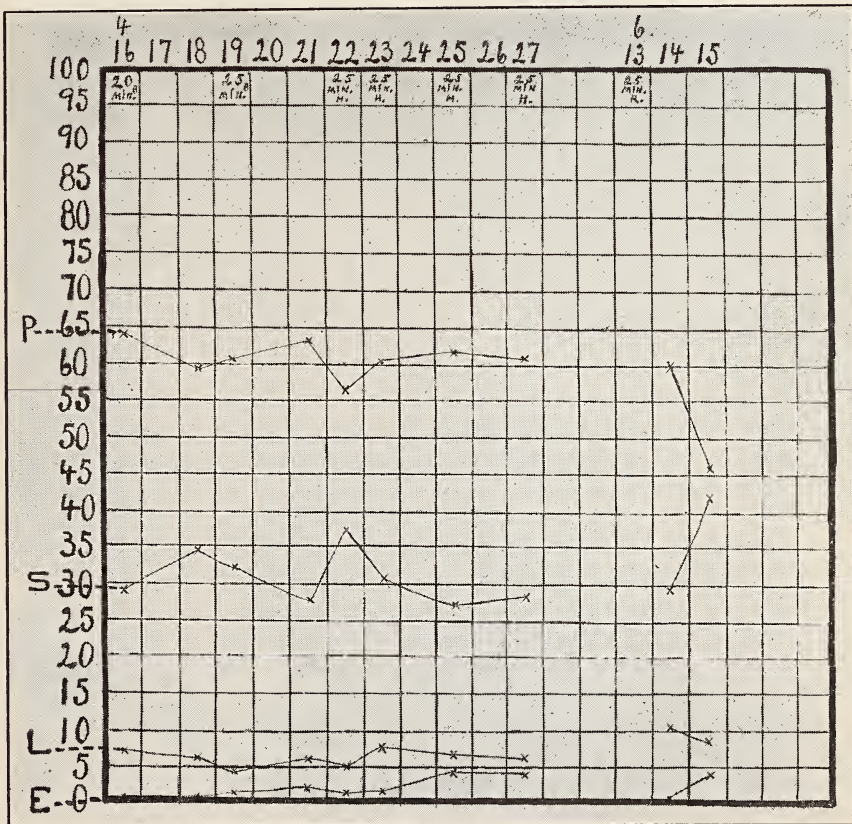
CASE 30. Mrs. H., age 45. Referred

prepared. Injections of this were given as recorded on her chart. At the end of one month the wound was entirely healed and the patient has gained eight and one half pounds in weight. The relatively high percentage of mononuclear cells following injections of the residue in this case,

accompanied by the rapid clinical betterment of the patient, should point to a favorable prognosis.

CASE 17. Mrs. K., referred by Dr. Hirschman, was operated upon four years ago because of carcinoma of the uterus. Vaginal hysterectomy with removal of both tubes and ovaries was performed.

tions of residue were used without much apparent benefit or change in proportion of white cells, as the accompanying chart shows. About the first of May she consulted a prominent Detroit surgeon, who stated that the treatment would probably be of no benefit to her. Thoroughly discouraged, she consulted



CASE 17 (CARCINOMA UTERUS.)

Residues used: First two injections, one-half per cent carcinoma of breast. Next four injections, three per cent epithelioma vulvae. Last injection, one-half per cent carcinoma rectum.

P: Polymorphonuclear leucocytes.
S: Small mononuclear leucocytes.

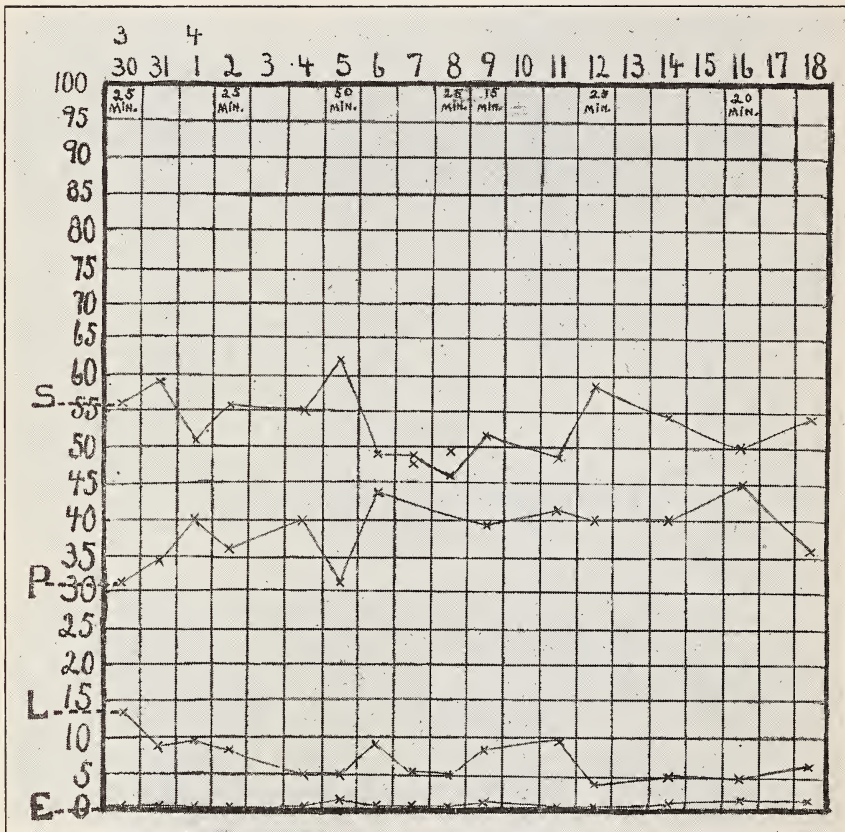
E: Eosinophiles.
L: Large mononuclear leucocytes.

She was sent to me for treatment April 16, 1910. At this time she complained of severe pains in the rectum and of a persistent bearing down pressure, as if she constantly desired to pass stool. She was unable to sleep and extremely nervous about her condition. Various prepara-

other western surgeons, who informed her that no relief could be given her. May 19th the patient reappeared for treatment. A residue recently prepared from a large lip cancer was used, and relief of pain seemed to be almost immediate. One blood count, that of June

15th, is added to the previous chart, to show that the increase in mononuclear leucocytes was an accompaniment of the improvement in clinical symptoms. The hard, infiltrated mass that was formerly felt by the examining finger in the rectum has disappeared, only a soft, boggy resistance being noticed. The patient has

was used for severe hemorrhage from the ulcerated cervix. The patient had been in bed for six weeks. She had had repeated hemorrhages, almost daily, which were controlled by packing. Examination showed a rather soft, tender mass, half the size of a child's head, which was absolutely immovable. The



CASE 12 (CARCINOMA UTERI.)

Residue used: one-half per cent adenocarcinoma of breast.

S: Small mononuclear leucocytes.

P: Polymorphonuclear leucocytes.

L: Large mononuclear leucocytes.

E: Eosinophiles.

gained over ten pounds, and states that her night's rest is unbroken and that her appetite was never better.

CASE 12. Mrs. S., age 47. Referred by Dr. Hoffman. Was first seen by me March 30, 1910. Curettings made two years previous had shown signs of malignancy. One year later the actual cautery

cervix was represented by a thin shell, which was ulcerated in its entire circumference. The examining finger could be inserted to full length in the ulcerated cavity. Examination caused severe hemorrhage, which was controlled by packing. The blood findings in this case were unique, as is shown by the accompany-

ing chart. The exceedingly high percentage of mononuclear cells showed, in my opinion, a considerable degree of resistance to the progress of the disease, in spite of the fact that the patient was in such an extreme condition. In this case small injections of a $\frac{1}{2}\%$ breast adenocarcinoma residue were given. Improvement was rapid and marked. But one severe hemorrhage occurred after the first injection, and she has been free from any recurrence since. At the present writing the patient goes to dances, makes frequent trips out of the city, and states that her health is as good as it ever was. She has gained thirty pounds in weight during the past four months.

From a study of the cases cited, and their blood findings, certain definite conclusions can be drawn. Especially is this true since the clinical course of the disease seems to progress either favorably or unfavorably in direct ratio to the changes in percentage of the white blood cells that injections of cancer residue produce. Thus, if the percentage of mononuclear cells increases markedly following a residue injection, a more favorable prognosis can be given than if no such reaction is obtained.

Next, small injections are more beneficial than larger doses. The explanation of this, I believe, is as follows: If a large injection of complex proteid be given, it takes a much longer time for the body to split this up and dispose of it than of the smaller amount; consequently a larger proportion of the specific ferment formed is used for the removal of the dead proteid injected, than for the destruction of the living cancer cells. Thus, after the first formation of the specific enzyme, if but a few drops of the residue solution have been given, there are more specially sensitized leuco-

cytes present to attack the cancer cells of the patient. This brings us to the next consideration of when to give a second injection. The splitting up of the cancer cells will, in all probability, form more of the specific ferment, and, if a second injection be given too early, it would appear that so doing would be detrimental rather than beneficial, since the ferment present would simply be used for the removal of the proteid injected. If this reasoning is correct, we may assume that the second injection should be given only after the active ferment produced by the introduction of the first, and the following destruction of cancer cells has been completely exhausted, or at least is present in sufficiently small amount so that the introduction of the second dose will cause the formation of a larger amount of enzyme than is made use of in its destruction. Just how to ascertain the correct time when this period is present it is impossible to state, but at present it is my practice to repeat the injection when the percentage of polymorphonuclear cells shows a decided increase.

It is customary for the surgeon to divide cancer cases into two classes, according to whether it is possible to remove all cancer tissue or not. In the latter instance the case is called inoperable, and in the former operable. How often a truly operable case is seen can only be surmised, for when we stop to consider that over 60% of these operable cases succumb, either from local recurrence or from metastasis in some vital portion of the anatomy within the limit of five years, we are forced to admit that operation *per se* does not effect a cure. A more correct division would be, first, that of inoperable cancer, and second, apparently operable cancer. The inoperable case is first, one in which

it is manifestly impossible to remove all macroscopic cancer from the patient without injury to some vital organ; or second, one in which the deformity caused by operative measures could not be remedied; or lastly, a case in which the primary growth might be easily removed, but which shows definite symptoms of secondary involvement in some other portion of the body. The "apparently operable cases" are those in which the macroscopical evidence leads the operator to believe that all cancer cells can be removed. Were macroscopical evidence sufficient, such a division would be correct, but unfortunately such is not the case. Frequently operations are performed for the removal of the primary cancer and its associated glands which do not take into consideration the microscopical lymph channels connecting these structures, which in themselves must be plugged with numerous active cancer cells. As an example may be mentioned the excision of an epithelioma of the lip by the "V" method and a small incision below for the removal of the glands. In such cases we should really expect a local recurrence, and the fact that many of these cases do not recur locally must be taken as a sign that the body itself disposes of the relatively few cancer cells left. Next, it is absolutely impossible to ascertain by any known diagnostic means whether a small cancer nodule is present in the liver or lungs of any given case. A secondary growth must attain considerable size before diagnostic evidence is present and while metastasis is more apt to occur from a large growth, yet it not infrequently is noted in the early months of the disease, a fact that signifies that secondary involvement must have occurred very soon after primary growth began. From these facts it can easily be seen that many

cases in which, to the examining eye, it appears that all cancer cells can be removed, are in reality inoperable cases, and evidence of this truth is only too frequently shown shortly after operative treatment has been applied.

Such cases, however, are the ideal ones in which to apply the use of cancer residue, since the number of cancer cells remaining in the host after removal of the tumor is sufficiently small so that their total destruction should be assured. During four and one-half years of trial there has not been a known recurrence in cases belonging to this group. With inoperable cancer, to which group all cases reported here belong, the amount of cancer tissue may be so large that a too rapid splitting up of the malignant cells may be a menace to the patient. I have had several cases which, after prolonged treatment and large injections, have shown gastro-intestinal disturbances such as diarrhoea and vomiting, together with rapid pulse rate and slightly sub-normal temperature. However, since a study of the above cases and others shows that large doses do not cause the tumor cells to disappear with the rapidity that small injections do, I am more prone to attribute these untoward symptoms to the size of the injection. Nevertheless, since every proteid contains a toxic group, it can easily be imagined that too rapid destruction of a large amount of cancer tissue would be of danger to the patient. For this reason, in many instances I have removed as much malignant tissue as possible before beginning residue treatment. In every case that this has been done, the skin incision has healed by primary union, regardless of whether cancer tissue was macroscopically left or not; consequently I can see no logical reason why such a procedure should not be adopted.

In conclusion I wish to impress the following facts:

1. The injections should always be small in amount, preferably 5 to 10 minims of a $\frac{1}{2}$ to 1% solution.

2. Injections, according to present knowledge, should be controlled by daily differential leucocyte counts.

3. Injections should only be made when the percentage of mononuclear cells is on the decrease.

4. A good blood reaction, by which I mean an increase of from 10% up of mononuclear cells following residue injection, tends towards a favorable prognosis.

5. If the blood count does not respond, smaller doses should first be tried. If this fails to produce the desired change, different residues should be used until one is found which brings about this result.

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DISCUSSION

DR. LOUIS J. HIRSCHMAN, Detroit.—If Dr. Vaughan has done nothing else with this work of his, which I consider is going to be monumental, he has accomplished the relief of pain. In these inoperable cases, even where the condition is not improved, his residue has undoubtedly acted as a marvelous anodyne, saved patients from becoming drug fiends, and relieved the pain with which cancer patients are cursed. He has accomplished this in several cases of rectal cancer, which I have referred to him for treatment.

Another thing is his prophylactic use of this residue by administering post-operative injections without waiting for signs of recurrence. I wish to personally congratulate not so much Dr. Vaughan as this Section in having such a paper read before it.

DR. JOSEPH SILL, Detroit.—It has so happened that I have had much opportunity of observing Dr. Vaughan's work, and I want to congratulate him on what he has accomplished. I am not a clinician; I have been doing laboratory work purely for the last ten years, therefore of the clinical aspects I cannot speak from personal experience. But the theoretical side of it is extremely interesting to me. A large number of Dr. Vaughan's blood counts have been made in my laboratory at Harper Hospital, and the changes have been very interesting to watch.

One point that is of interest to me, but which Dr. Vaughan did not bring out, as it is outside the scope of his paper, is the reason for administering this residue. We do it for exactly the same purpose as when we give a vaccine for an acute bacterial infection. We are introducing a foreign product into the body in the one case as in the other for the purpose of enabling the body to produce substances which will destroy the cancer cell in the one case and the invading bacterial cell in the other.

The principle of the two is, I believe, exactly the same. Dr. Vaughan's work is of great value, and has certainly been of extreme interest to me.

DR. VAUGHAN (closing the discussion).—I want it distinctly understood that at present I do not claim in any way that the use of this residue is a cure for cancer. I do not want that mistaken impression to go out, as it evidently did when some of my former papers on this subject were published. I am sure we have something that will benefit cancer. It relieves the pain, and some patients seem to improve greatly. We have first to learn how to use it, and then find if it does any permanent good. To do this will require at least five years, since a patient must be alive and well from five to ten years after treatment before we can claim to have done anything in the line of a cure.

A GENERAL CONSIDERATION OF THE SUBJECT OF PELVIC INFECTIONS, BASED UPON THE STUDY OF ONE HUNDRED CONSECUTIVE OPERATIONS*

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The knowledge possessed by many physicians concerning pelvic infections is in a somewhat chaotic condition. This is the natural result of the usual teaching of the text-books which lay so much stress upon the different pathologic lesions and which describe endometritis, salpingitis, pyosalpinx, tubo-ovarian abscess, pelvic peritonitis, etc., so minutely that the student loses sight of the subject in its broader aspects and naturally finds himself attempting to diagnosticate and treat a particular lesion, instead of aiding nature to take care of an infection which has invaded the pelvis.

The term pelvic infection is a broad one, yet it refers to a class of cases presenting a fairly definite clinical entity. A similar term, equally broad in its application, is pelvic inflammatory disease. The first, however, is the proper term, for at the present time we look upon inflammation, not as a disease, but as a reparative and curative process. The infection is the real disease, the inflammation being but the reaction of the tissues to the invasion of the infection. Moreover, it must be looked upon as a desirable reaction. Given an infection, unless we can combat it early and directly by opsonic or other treatment, we are glad to see a well-marked inflammation result, for we know that of two cases in which the virulence and the amount of infection are the same, the one presenting the great-

est amount of inflammation and the grossest lesions resulting therefrom is the one in which the prognosis is the better.

In attempting to present some of the general considerations of the subject, I have used for statistical study a tabulation of my last one hundred consecutive operations done for infection, together with a number of case-histories of non-operated cases selected to illustrate a particular phase of the topic.

The subject of infection of the internal pelvic organs is the most important as well as the most difficult one in gynecology. It is the most important, because of the very frequency of the cases. Fully forty per cent. of the patients who are seen by the gynecologist, as well as a large proportion of the gynecologic patients treated by the family physician, suffer from active infection or from the results of infection. Moreover, the impairment of health is often extreme and the effects of improper treatment are frequently grave. It is the most difficult subject in gynecology, because there is none requiring for proper treatment a greater experience or better judgment on the part of both physician and surgeon. In cases of displacement, of fibroids, of ovarian tumor and of cancer, the treatment is along well-established and scientifically proven lines. Such is not the case, however, in infections. There are well-established principles of treatment, yet the application of them to an individual case is often beset with the greatest diffi-

*Part of a symposium upon Inflammatory Diseases of the Pelvis, read at the Forty-fifth Annual Meeting of the Michigan State Medical Society, Bay City, September 28, 29, 1910.

culties. One circumstance which contributes to this difficulty is the low average age of the patients. The average in my series of one hundred operated cases was twenty-nine, and as a large proportion of the patients not operated upon were young women, the average of all my cases would be considerably less than this figure. Of these one hundred patients, forty were twenty-five years of age or under. This low age average makes the question of when to be radical and when to be conservative a difficult one to decide. An unnecessarily radical operation is often more to be deplored than a timid conservatism, yet an unwarranted mortality may follow the failure to resort to operation when clearly indicated. Had we not practically always to consider the preservation of most important organs, the treatment would be much simplified.

As before stated, in most text-books the subject of pelvic infection is divided and considered under numerous captions, such as salpingitis, pyosalpinx, oöphoritis, etc. This is done in order to emphasize the predominant lesion, yet one must never lose sight of the fact that although one organ, such as the tube, is often the principal seat of the infection, rare indeed is the case in which the neighboring structures escape. The symptoms of infection of any or all the internal organs, especially in the acute stage, are very similar. Moreover, the examination often reveals no more than a thickening of the tissues, with immobility of the organs and tenderness on pressure. It is well, therefore, to consider infection as an entity, differentiating and refining the diagnosis whenever possible.

The proportion of the various lesions encountered at the operating table are, I think, fairly represented in my series of one hundred cases. There were thirty-

one of adherent appendages, or perisalpingo-oöphoritis, nineteen of pyosalpinx, fourteen of tubo-ovarian abscess, three of combined tubo-ovarian abscess and pyosalpinx, fourteen of pelvic abscess, eight of salpingitis, six of pelvic peritonitis, five of hydrosalpinx. In fifty instances, or exactly one-half of the cases, pus was encountered. These figures represent only the predominant features of the respective cases. In nearly all there were additional and associated lesions. A certain amount of pelvic peritonitis existed, of course, in all. Small myomata were present in nine instances, old extra-uterine pregnancy, proven by microscopical examination, in two instances, and inflammation of the appendix in twelve cases. Appendicitis may also have existed in some of the seventeen cases which were treated by vaginal incision and drainage.

Etiology.—It is possible to classify pelvic infections in various ways. Perhaps the most satisfactory, from a scientific standpoint, is the bacteriologic, but this is not altogether practical. Certain difficulties beset the bacteriologic study. In non-operative cases, one is not always sure that the culture obtained is uncontaminated, while in many of the operative cases the cultures remain sterile, either because the organisms have died out or more frequently because suitable media and suitable methods are not employed. The most frequent organisms, as we shall see, are the gonococcus and the tubercle bacillus, neither of which grow on the media usually at hand. In addition, some cases of infection are due to anaerobes, and growth does not appear in the culture tubes as usually incubated. Moreover, secondary infection, especially from the intestine, often obscures the primary etiologic agent. On account of these uncertainties, bacteriologic study gives disappointing results.

It is, however, of interest to know the comparative frequency of the various bacteria. Among the many studies of the subject is that of Menge, who found micro-organisms in 47 of 122 cases of salpingitis. Of these forty-seven cases, there were forty-four pure and three mixed cultures. In twenty-eight instances, the gonococcus was found alone and in nine the tubercle bacillus alone. In Andrew's statistics, tuberculosis is not included. Of 684 cases collected from various sources, his findings are: Sterile, 55 per cent.; gonococcus, 22.5 per cent.; streptococcus and staphylococcus, 12 per cent.; colon, 2.5 per cent.; pneumococcus, 2 per cent.; saprophytes, 6 per cent.

I regret to say that cultures were made only in forty-two of my cases. Twenty-six of these were sterile, and in sixteen there was a growth on the media, the colon bacillus appearing seven times, streptococcus seven times, staphylococcus once, and an unidentified bacillus once. These observations are too few in number to be of value. Undoubtedly a very large percentage of the cases in which the cultures were sterile were due to the gonococcus, so that it is evident that this organism plays the most important rôle in the etiology of pelvic infections. Next in frequency is the tubercle bacillus. This is a fact which is not generally recognized. I make this statement because I find in consultation work that tuberculosis is rarely considered by the practitioner in making a diagnosis of pelvic inflammation.

Even though the bacteriologic study is at times unsatisfactory, it should always be made when possible, for an absolute knowledge of the organism present will frequently greatly aid in the method of treatment.

The importance, also, of a most careful history, especially as to the mode of onset, cannot be overestimated. If, in taking up a case of pelvic infection, the following

points are always kept in mind, a fairly correct diagnosis of the variety of the infection can be made.

1. Do the symptoms date from a confinement or a miscarriage?

2. If non-*puerperal*, what are the probabilities of gonorrhœa? Here caution is required, but there are usually suspicious circumstances pointing to its possibility. In the acute or subacute stages, there is generally sufficient discharge from the cervical glands or from Skene's ducts in the urethra, to serve for microscopic examination, but if not, the early symptoms of gonorrhœa are sufficiently characteristic, as a rule, to point to the disease.

3. If both *puerperal* and gonorrhœal infection are excluded, the case is one either of tuberculosis or one of the rarer cases of infection secondary to some other pathologic condition. A skin test for tuberculosis should then be made.

From a practical viewpoint, therefore, it is well to classify these cases into four clinical groups, in the order of their frequency: (1) gonorrhœal, (2) *puerperal*, (3) tuberculous, (4) a miscellaneous group which may be subdivided into a number of smaller groups.

There are of course certain symptoms and certain conditions found on examination, which, while not pathognomonic, are yet of importance in the differentiation of the variety of infection. My point is that, instead of putting the emphasis on the exact lesion, the attention is fixed upon the question of whether the infection is from the gonococcus or from the streptococcus (as is likely in *puerperal* infection), or from the tubercle bacillus, the treatment can be more rationally carried out.

The proportion of cases belonging in the gonorrhœal group will vary greatly according to the class of patients seen. While the disease occurs in every walk of life, it will undoubtedly be more frequently encoun-

tered among dispensary patients than in private practice. In my tabulation of one hundred cases, forty-three are put down in this group. If I included my non-operative cases, the percentage would be as high as sixty, for it is now my practice not to operate on gonorrheal pus tubes until every non-operative measure has been exhausted and the persisting symptoms demand relief.

In the second group of cases, that of puerperal infections, I have included all cases, regardless of the variety of organism, in which the symptoms have followed a confinement or miscarriage. There are twenty-one of these cases, thirteen following confinement and eight following miscarriage. In three of the latter there had been a criminal abortion, and it was suspected, but not proven, in a fourth case.

There were fourteen instances of tuberculosis, or fourteen per cent. A point which should be emphasized is that tuberculosis of the tubes cannot with certainty be diagnosed nor excluded except by a histologic examination. Many cases, of course, can be positively differentiated at the operating table. These are the cases in which the peritoneal covering of a thickened tube is studded with tubercles. Other cases of twisted, thickened and hardened tubes may appear suspicious. In another variety, the diagnosis can only be made by finding microscopic tubercles with typical giant cells. I once compared the diagnosis as made at the operating table with that made in the laboratory of eighty cases of tubal inflammation. Twenty-nine per cent. of the cases of tuberculosis were not suspected until the microscopic examination was made, whereas in twenty per cent. of the cases in which the clinical diagnosis was tuberculosis, the microscope proved such diagnosis in error. There is, then, an error of about twenty-five per cent. in

the operating table diagnosis of these cases. This variety of infection should always be thought of, for it is more frequent than usually considered.

In the miscellaneous group are to be found the cases, especially of adherent appendages, the cause of which cannot be readily ascertained. Two of my cases were infected extra-uterine pregnancies, nine were associated with small fibroids, and one with a small ovarian cyst. Dermoid cysts of the ovary are particularly prone to become infected, and lead to extensive pelvic inflammation. In a small number of cases the primary infection may be in the appendix, but such instances are far more rare than a primary infection in the tube and secondary involvement of the appendix. As before stated, the appendix was involved in twelve of my cases. In only one was it probable that the infection originated in that organ.

General Considerations Concerning Treatment.—The question of the treatment of pelvic infection has probably caused more discussion and brought out greater differences of opinion than any other subject in gynecology. There are no hard and fast rules. There are only general principles to guide one, and he who has the best understanding of the differences in the virulence of the bacteria concerned and the resistance of the infected organs to these bacteria, will be the most successful in his treatment. For this reason, it is important to divide the cases into the groups I have mentioned, for even the chronic case resulting from puerperal infection must be approached surgically with far greater circumspection than the one resulting from gonorrhoea. A streptococcal infection is rarely to be treated surgically, a gonorrhoeal more frequently, and a tuberculous practically always.

Anything like a full discussion of the subject, my time forbids. In giving an out-

line of the treatment, it is to be understood that there are numerous exceptions to the following points:

Gonorrhœal Infections.—Vigorous treatment of an acute gonorrhœa in women would greatly lessen the number of cases of infection of the internal organs. Unfortunately, unless the attack is a severe one, many women do not consult the physician until too late to prevent extension. Unfortunately, too, they are not given the attention they deserve when they do appear. The method of procedure to be followed is admirably set forth by Bierhoff.* When the tubes become infected the utmost conservatism should prevail. Rest in bed, the constant application of the ice-bag, a daily cleansing douche of saline, the administration of diuretics and of urotropin, constitute the proper treatment. Even if pyosalpinx results, refrain from operating, for frequently large pus tubes in six months' time cannot be palpated. If a pelvic abscess results, it should be opened and drained through the vagina. Except for intestinal obstruction, which is rare, the abdomen should never be opened, although it can be done with impunity. Thousands of organs have been sacrificed needlessly by removal in the acute and subacute stages of gonorrhœal pyosalpinx. If the disease become chronic, with occasional exacerbations, then a radical operation should be done. Removing the tubes alone seldom gives the expected relief, although occasionally the results are excellent.

Puerperal Infections.—The infections in this group are of two varieties. The first, or putrid type, results from retained material in the uterine cavity, and when this is removed the symptoms usually promptly subside. The serious type is practically always due to the streptococcus. When

one considers the observations of Bumm, to the effect that this organism makes its way through the uterine tissues at great rapidity (as rapidly as an inch in six hours), the futility of a curettage is evident. One may understand from this fact also why hysterectomy in the acute stage has not met with the success predicted by its advocates. Antistreptococcus serum is useless. We hope for good results from opsonic treatment. My experience with it is limited to three cases; the three patients recovered, and one, I think, would have died without the treatment. An autogenous vaccine should be used, if possible; if not, a stock vaccine can be obtained anywhere in Michigan within twenty-four hours, and should be used. The liberal use of ice-caps over the abdomen and saline by the drop method are most important therapeutic measures. Abscesses, collections of serous fluid and indurated parametric masses should be opened through the vagina or occasionally above Poupart's ligament, and packed with gauze. Some surgeons advocate the opening of the cul-de-sac through the vagina in every case. I see no great objection to this, as it relieves any possible tension, and may thus prevent, to some extent, absorption. Abdominal surgery plays no rôle in these cases, until they become chronic. Even after the lapse of months, live streptococci may be present, and if released from the walls of inflammatory tissue within which nature has imprisoned them they may cause a fatal peritonitis. I lost one such case two years after the confinement at which the original infection occurred. Cultures from the few drops of pus within a much thickened tube showed streptococci. The patient developed a severe peritonitis within twenty-four hours, and died on the third day.

Tuberculosis.—A tuberculous infection is usually insidious in its onset and rarely seen or recognized in an acute stage. Mayo

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has stated that in sixty-five to seventy-five per cent. of the cases of peritoneal tuberculosis in women the infection is primary in the tubes, and that if these foci are removed the results are excellent. Twelve of my fourteen patients in this group are known to be living; two I have lost track of.

The cases of tuberculosis should always be operated upon, either the tubes alone being resected or all the organs removed, according to the circumstances.

Of these one hundred operated cases,

thirty-one were acute or subacute, and sixty-nine chronic. Hysterectomy was done in thirty-seven; some conservative abdominal operation in forty-one; puncture through the vagina in seventeen, and incision and drainage above Poupart's ligament in five instances. There were two deaths. One of the fatal cases has been mentioned, and the other was a streptococcic pelvic abscess which was drained through the vagina.

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THE VALUE OF VAGINAL INCISION IN ACUTE PELVIC INFECTIONS*

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Necessarily in a fifteen-minute paper my part in the discussion of this most important subject must be strictly limited. Therefore, I shall confine my remarks to cases where the inflammatory process has resulted in the formation of pus in some portion of the pelvis. While rarely, usually in puerperal cases, there may be abscess formation in the walls of the uterus, in the true pelvic tissue, or in pockets enclosed by peritoneum, in the vast majority of cases the purulent collection is within the walls of the tubes. In a certain percentage of cases the ovaries become infected and the seat of true abscess formation. Such ovarian abscesses, much less common than pyosalpinx, may exist alone, or, what is far more common, may be joined to the tubes, forming a tubo-ovarian abscess.

Whatever may be the bacteriologic cause of the inflammation, whether due to the streptococcus, staphylococcus, gonococcus

or tubercle bacillus, the resulting reaction is the same in character, though not always the same in degree. No matter how much pus may be produced within the tube, the latter is almost invariably shut off from the surrounding peritoneum by plastic lymph thrown out as a result of the action of the bacteria upon the surrounding tissues. The more intense and virulent the inflammation, the greater the deposit of lymph. Cases then will vary in intensity from those where the fimbriated extremity of the tube is merely closed, while its walls are only slightly adherent to the surrounding peritoneum, to those cases where so much lymph has been thrown out that the entire pelvis is like a plaster-of-Paris cast. In the latter case the indurated mass is made up of inflamed tubes, ovaries, uterus, intestines and omentum, the induration at times reaching upward nearly to the umbilicus.

The position of the tubal abscess will depend somewhat upon the position of the uterus at the onset of the inflammatory pro-

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cess. If it be retroverted with appendages resting upon the floor of the pelvis, it will be anchored there by the surrounding lymph. If the position of the uterus and appendages be normal at the beginning of the inflammatory attack, there is a natural tendency for the heavy inflamed tube to sink downward, roll up in the broad ligament, and rest upon the pelvic floor. Rarely the tube is anchored high up in the pelvis, with intestinal coils below and nearer the vaginal wall than is the abscess sac.

The clinical course of purulent collections within the tubes and ovaries where no treatment has been instituted varies according to the amount of the pus, its location, and the amount of accompanying inflammation. Just as in other parts of the body, purulent collections within the pelvis seek paths of least resistance. Most commonly the pus will escape through the adherent vaginal wall, high up in the vaginal fornix behind the cervix. Again it will pass out through an opening in the rectum, bladder, or rarely will rupture through the abdominal wall. Only exceptionally does the abscess rupture into the abdominal cavity and give rise to general peritonitis.

But the spontaneous rupture of a pus tube in any of the ways outlined above does not necessarily mean emptying of the pus sac and cure. Nature is a good conservative surgeon up to a certain point. The general peritoneal cavity is usually quite well guarded by the inflammatory deposit of lymph. Nature, however, is far from being a modern surgeon, in that the opening through which the pus escapes is very apt to be minute, closing up quickly after a certain amount of the purulent collection has passed through. It may not be at the most dependent portion of the abscess cavity, so that very poor drainage is established. There may be more than one pocket to the pus tube, and these different loculi may be

entirely separated from one another. Thus one pocket may be drained while the septic process is continued by the retention of pus within another pocket.

The above rather elementary review of the pathology of purulent pelvic collections has seemed necessary for a proper understanding of the treatment of the condition. For in the past many lives have been sacrificed by treatment which, on the one hand, was not radical enough, or, on the other, was far too radical. I am convinced that even now, with the experience which has been accumulating for twenty years, this important subject is not understood in all its aspects, with the result that the patient often is more harmed than benefited by treatment.

Thirty years ago purulent collections within the pelvis were treated with incorrect ideas of the pathology of pelvic inflammation. Not the tubes nor the ovaries were thought to be the seat of the purulent process, but the pelvic cellular tissue was considered to be at fault. The induration around the infected appendages, due to plastic lymph, was supposed to be an acute inflammation of the cellular tissue, which finally broke down and formed an abscess. Such abscesses were attacked gingerly through the posterior cul-de-sac. An aspirating needle was thrust up behind the cervix, as much pus as possible withdrawn, the opening carefully dilated, and a small drainage tube inserted a short distance. As a hospital interne, twenty odd years ago, it fell to my lot to wash out such pus cavities through the drainage tubes. Some patients, where there was one large pus sac and where the opening had been made low down, recovered fairly quickly. The majority, however, were weeks in the hospital, ran a septic temperature, and were not cured when they were discharged.

In the late eighties came the laparoto-

mists, inspired by the teachings of Lawson Tait and his pupils. They recognized the true pathology of purulent collections within the pelvis, claiming that the only scientific method of treatment was to clean out the pelvis by ablating the diseased appendages. Such treatment was a great step in advance. It was founded upon a correct conception of pelvic pathology. It shortened up the period of convalescence, for when it did cure, it cured rapidly. Again, twenty years ago such radical treatment of acute pelvic infections was almost necessary, in order that the greatest good could result to the greatest number. For it was absolutely necessary that the abdominal surgeon should pass through this evolutionary period, in order to acquire a thorough experience and knowledge of pelvic conditions.

Thoughtful surgeons, however, soon found that the abdominal excision of pelvic pus sacs was not the ideal procedure it was first thought to be. Not taking into consideration the accidents incident to such work, such as suppuration of the abdominal incision, with subsequent fistulæ, at times connected with the bowel, persistent intestinal adhesions, et cetera, the primary mortality of such operations was high. This was the more surprising since it was taught that the pus from a pyosalpinx was sterile and would not give rise to general peritonitis. The primary mortality of abdominal excision of pus tubes at all stages of the infections was at least ten or fifteen per cent. Death usually resulted from either general peritonitis, or shock, or both. As a result of careful routine bacteriologic examination of the contents of the tubal abscesses it was found that, while true that such pus was usually sterile, it was not uncommon for a mixed infection to exist. This mixture of the gonococcal with streptococcal infective organisms accounted for the cases of rapidly

fatal general suppurative peritonitis which only too frequently followed radical excision of pus tubes by the abdominal route. Such accidents occasionally followed, even when the disease was treated in its subacute or chronic stages, where apparently every opportunity had been given the pus to become sterile.

Again, many patients with pelvic inflammatory disease were in poor physical condition to withstand an abdominal operation, on account of degenerative changes in the heart muscle and in the kidneys resulting from septic absorption. Thus a certain percentage of these pus patients died from shock, or shock and peritonitis combined.

In order to overcome the dangers just described, and especially to avoid the shock of an abdominal operation, enucleation of the uterus and pus sacs was attempted from below by the French school of surgeons. However, the accidents resulting from this disadvantageous route for the radical treatment of purulent collections within the pelvis led to the gradual abandonment of the method. Injuries to bladder, ureters and intestines were too frequent and too unavoidable by this method to make for it a permanent place in the surgery of purulent pelvic collections. However, it did show the quick subsidence of symptoms when dependent drainage was established, and paved the way for the safest and most rational method of treating pus tubes, viz., their evacuation by vaginal incision.

The technic of the modern vaginal section for pus in the pelvis is simple in the extreme, but is equally effective. With the patient in the lithotomy position, with buttocks well drawn down over the table, and the posterior vaginal wall depressed, the posterior cervical lip is drawn sharply upward with a volsellum forceps, thus rendering the posterior vaginal wall tense. The mucosa of the latter is cut through

transversely for about two inches. The index finger is then forced upward, care being taken to stick close to the posterior wall of the uterus so as to avoid the rectum. The operator in most cases is able to outline the pus pockets and open them with the finger without the aid of instruments. Occasionally, when the adhesions are particularly tough, it may be necessary to pass the sharp pointed scissors upward along the finger as a guide. The pus sacs at either side of the uterus should be opened thoroughly, the openings being made as large as is found compatible with the conditions present. Usually the peritoneal cavity is not opened in this simple operation. If it is, the danger of peritoneal infection is reduced to a minimum, since only a small portion of the pelvic peritoneum is contaminated, and dependent drainage is at once established.

It is best not to irrigate the cavity after the evacuation of the pus, for fear of carrying the infection upward. Nor is it necessary. Good results can be obtained by packing the cavity lightly with gauze, the end of the strand leading out into the vagina.

The entire operation need not take more than ten or fifteen minutes. Even the weakest patients are not shocked except from the anesthetic. The gauze is allowed to remain for a number of days, or until the odor becomes offensive. It is then removed at once, or in two successive days, a small strand of gauze being reinserted in order to prevent closure of the mucosal incision. If necessary the cavity can be irrigated daily until it collapses.

It is surprising how few patients after this simple operation will be obliged to re-

turn for further treatment. Examination months after the operation often fails to reveal any sign of previous inflammation. In a certain proportion of cases, patients may afterward require the radical abdominal operation in order to be restored to health, but these operations are more like the interval operations for appendicitis and should be free from mortality.

In order to fortify my statements regarding the two methods of treating pus in the pelvis, I have looked up the records of 144 cases of pus in the pelvis treated in the gynecologic clinic of the University Hospital during the past nine years.

The following is a summary of these cases:

Number of cases of pus in the pelvis.	144
Abdominal sections (primary).....	80
Deaths after primary laparotomies...	6
Mortality percentage.....	7.5
Abdominal sections after colpotomies	6
Mortality secondary laparotomies...	0
Posterior colpotomies.....	59
Deaths after vaginal drainage.....	0
Deaths after primary sections due to shock.....	3
Deaths after primary sections due to peritonitis.....	2
Death after primary sections due to pneumonia.....	1

In explanation it may be said that the evolution from the abdominal to the vaginal route for the treatment of pus in the pelvis has been gradual. Nine years ago cases were treated from above, where now vaginal incision would be employed. In the next nine years the operative statistics for this class of cases ought to be much better.

DISCUSSION ON PAPERS OF DRs. SCHENCK AND PETERSON

DR. J. H. CARSTENS, Detroit.—This is at all times an interesting question, because we have these cases always with us. It seems to me that we move around in cycles, and, like Halley's

Comet, swing way around and finally come to the same old place. If you will read the text-books that have been written by some of the first gynecologists, for instance Thomas, note what

Tait and Joe Price have said, and then listen to the papers which have been read this morning, you will see that we are coming around to the same old base. So far as the pathology is concerned, it is wonderful how the old writers recognized the trouble without knowing the exact microbic origin of these various infections. For instance, Thomas in his work beautifully described these pelvic inflammations, called attention to two different varieties, and then laid down the law how to make a differential diagnosis between the condition which they called pelvic peritonitis and pelvic cellulitis. And to-day we come around to that same thing when we look at the question right,—we now recognize two distinct conditions of the pelvis: The one is infection of the uterus, going up into the tubes, producing an inflammation of the pelvic peritoneum, with pus in the tubes, surrounding the tubes and in the adhesions. And there is another kind of pelvic inflammation,—that in the pelvic cellular tissue,—which has absolutely nothing whatever to do with the peritoneum except that the inflammation extends from within the loose cellular tissue to the peritoneum, when you have there a kind of peritonitis which will cause adhesions; but when you open up an abdomen like that, you find that the tubes are intact, the pelvis is free from pus, there is nothing the trouble with the uterus and tubes, but the infection has traveled by the lymph channels through a tear in the uterus or the vagina and has involved the lymphatics and the cellular tissue of the pelvis. These conditions we know are generally of puerperal origin. Those cases we used to have. I operated on them forty years ago, opened and drained them, just like the doctor says. In fact, I invented an instrument to keep them open, because they always closed too quickly, just as he says they close too quickly, when we have a reinfection. I had an instrument made with a spring and a little hook that I put in and kept it open, for if it closed too quickly I would have to do the operation over again. I think I still have that instrument. I do not use it any more now, because I am not quite so timid.

I make the opening good and large, as Dr. Peterson advocates. That is one kind of pelvic inflammation.

Tubercular and other infections located outside the peritoneum will burrow all around, and I have seen them where they have opened in Poupart's ligament, around the crest of the ilium, and at other points. If the patient lived long enough and did not have proper treatment the

pus moved in the direction of least resistance and broke externally.

Another kind of infection is called pus tubes. This condition Tait taught us to recognize, and he had wonderful results in its treatment. Why did he have wonderful results? Because he treated old pus tubes. The patients had been running around in Birmingham for years and years with a gonorrhoeal infection which finally became sterile; they would rupture once in a while and the woman get a little local peritonitis and be laid up a few weeks, then be up again. And so she would go on, year after year. He operated on some of these cases, then on some more and some more. But these women had developed an opsonic index which caused the peritoneum to have a power of resistance to the infection; besides, these cases were nearly all sterile. Consequently Tait operated on them successfully; he showed the results to his contemporaries, and they jumped on him and said he lied. But he told the truth. His pupils kept on getting a little more courage and a little more courage, until finally they operated also on acute cases, operating on every case of pus tube that came to them, whether of gonorrhoeal or other origin, and they would spill the pus all over the peritoneal cavity; they did not care much where they spilled it. It would run around and get up on the liver, and if it did not go there in the first instance, they would put in two gallons of water and wash it all over the peritoneal cavity, causing inflammation of the peritoneum, of the stomach, gall-bladder, liver, etc., and the result was great mortality.

Then came Richelieu and other men in Paris, who said, "We will do vaginal drainage;" but they had the same trouble, not draining sufficiently. Then they concluded they would take out the vagina, which they did, when they would have a big opening and the patient would get well, although they sometimes injured the bladder. But, all around, that is a good kind of operation.

When there is a pus tube, I perfectly agree with Dr. Peterson that one could open that pus tube. If we will just think how these things come about, we can see that if we have the chronic cases we can operate on them by abdominal section, but in the acute cases we should simply drain them per vagina. That is about the way I treat these cases. If I have an acute case, the patient suffering and going to be in bed six or eight weeks, and probably eventually recover (as most of them do), what do I do? They will have the pus tube anyhow, and it will rupture or leak, and we will have the

same old trouble. So I just drain through the vagina, as Dr. Peterson says. I generally take scissors and cut into it, take a uterine dilator and tear it open, making it wide, not being afraid to open it too much. I find that most practitioners are timid; they are afraid of hemorrhage or something. Open it up good and wide and then the pus will come out without trouble. Sometimes when opening it you will find it loose, and I have sometimes peeled out the whole tube through the opening, then tied it off or put on a clamp, and it was cured. If not cured, then I would operate later. Sometimes but half the tube is involved. In half of the tube the mucous membrane and the submucous tissues are more or less destroyed, and the tube will contract at that point, but the other end of the tube is still involved and septic, and by and by that will develop also.

Sometimes the entire mucous membrane of the tube from one end to the other is destroyed; the epithelium is destroyed, the mucous membrane sloughs, and beneath there is nothing but a muscular and cellular loose tissue that will all contract and close up. Sometimes we get a tube obliterated just as we do an appendix obliterated, when the patient is cured and will have no trouble in the future. That very often happens. Sometimes when there is only limited involvement of the tube, the opsonins and phagocytes will take care of it, and the patient absolutely recover, even if a little infection is left. But as a rule we should open the posterior cul-de-sac and drain. Sometimes in acute cases I continue this treatment for a week or ten days; then when the patient is all right, the temperature normal, the discharge stopped, I make an abdominal section and remove the tube. In cases where the patient is forty-odd years old, and has a retroverted uterus, a good-for-nothing uterus which will never be of any value, the woman near the menopause, and having a double pus tube, what do I do? The original French operation, vaginal hysterectomy,—take out the uterus, tubes, and everything through the vagina at once. There is very little shock in these cases. It is wonderful how one of these patients, weak and debilitated, will in two or three weeks gain in weight after this operation.

Q I do not pack the opening with gauze. Why should we use gauze? It does not drain more than twenty-four hours at most, after which it simply walls in the discharge. I put in a rubber tube with cross-piece, and let it go at that, and I put it in so the hole will not close up again. I

never wash it out, but simply open and give nature a chance.

DR. THEODORE A. MCGRAW, JR., Detroit.—I was very much interested in Dr. Schenck's paper, and especially in his remarks concerning the prevention of the extension of gonorrheal infection into the tubes by means of vigorous and correct treatment of the primary condition. We know that acute pelvic infections of gonorrheal origin generally, or at least in many cases, follow an urethritis or an infection of the gland of Bartholin or its duct. These cases often do not come under the care of the gynecologist until the extension has occurred, for the family physician generally attends them in the primary stage. I think in a certain number of cases in this stage, the family physician himself unwittingly and carelessly assists in the extension of the infection from the lower to the upper genito-urinary tract by unwarranted manipulations, such as examination of the vagina by finger or speculum, or by the indiscriminate ordering of vaginal douches. If when the infection is confined to the urethra or to the ducts of Bartholin or Skene, treatment is limited to those areas, and the vagina, cervix and uterus left alone, I think a great many cases of extension of the infection might be avoided.

In regard to pelvic abscess, the subject of Dr. Peterson's paper, I think it should be impressed upon all of us that we should recognize and evacuate all the abscesses. There are often two or three distinct collections of pus; after opening the first abscess, careful bimanual examination with the vaginal finger in the opening must determine for us whether we have to deal with a single abscess or not.

I agree with Dr. Carstens that the drainage tube is better than gauze. I always use it, and never have any trouble from it. We must not, however, use too stiff a tube, because it might ulcerate the bowel.

DR. R. R. SMITH, Grand Rapids.—I am glad to note after all these years of discussion how near together men are coming in the handling of these cases. The terms "radicalism" and "conservatism" have long since had no place in any argument on the subject, but should be used simply to describe technique. Rather, we should argue the matter from the standpoint of actual experience with the various diseases affecting the internal organs of the pelvis, upon a knowledge of the course of these diseases, and what we can accomplish for our patient. In such an argument mere words have but little place.

In the handling of tubal infections, one must

consider in every individual case a great many different factors. In the first place, we must consider and carefully weigh the duration, the nature and the extent of the lesion. These are all very important things, but not all. Into consideration comes also other matters. First, the matter of age. The younger the woman the more reason, of course, for conservatism; the older the woman the more reason for radicalism. These are not merely minor arguments, for the matter of age is very important indeed. We will strive very strenuously to save organs in a woman of twenty-five or thereabouts, whereas in the case of a woman of forty or forty-five years it is only fitting that these organs should be saved if the inflammatory condition is not a serious one.

Then comes the matter of sentiment. I do not think we should overlook this. It is a matter that requires perhaps as careful consideration as anything—the way the woman may feel about the loss of her organs. We know there is a great difference in women in this matter. Some care very little, others are extremely loth to sacrifice even a tube or ovary. I believe that a woman has *some* right to say what she shall or shall not lose. I believe she has a right to say whether she is willing to run a certain danger of continued ill health for the sake of saving say the uterus, or whether she will sacrifice her organs in order to make the cure a sure and complete one.

Then comes the matter of secretion of the ovaries. We do not like to cut short the function of these organs and bring on an early climacteric. We will attach to this factor only as much importance as our actual experience has shown us to be warranted. It has been often exaggerated.

So we must consider all these factors and resort to a great variety of procedure in the handling of these cases. One woman requires perhaps simply removal of one tube, another the removal of an appendage, while others may require the removal of everything.

It is interesting to note in Dr. Schenck's statistics, (my own statistics I am sure corresponding very closely to them) it is interesting to note the number of hysterectomies in that one hundred cases,—thirty-seven, and the report includes one hundred cases of all kinds of infection. Certainly in gonorrheal cases Dr. Schenck believes that most women requiring an operation are not going to be well until everything is radically removed. This is, it seems to me, important to note, because there is even to-day a great deal

of conservative work done that should not be done.

DR. H. W. YATES, Detroit.—One of the most important things we have had offered this morning is that early in his paper Dr. Schenck calls our attention to the growing recognition of the frequency of tuberculosis in these organs. I am sure that this has been overlooked by many clinicians of the past, and it is surprising to note the number of tuberculous infections in this group of cases. This is perhaps one of the most important things that we must recognize, and coupled with that fact is the equally important one that almost every case of tuberculous infection calls for radical operation. On the other hand, in the acute stages of gonorrheal infection operation should almost always be deferred. If anything is necessary to be done at this time it should be simple drainage, as has been brought out.

Cases of acute puerperal origin are of a different type. Many of these demand free drainage, as outlined by Dr. Peterson, and whether that drainage be maintained by the use of a large tube or that of fluffy gauze is a choice which should be made for each case. I suppose that the late Dr. Pryor has called our attention most vividly to this last maneuver, and we must accept his results with the wide opening in the cul-de-sac and a very free use of gauze, as constituting a new era in the treatment of this condition. To him we owe a great deal in the management of acute cases of puerperal fever.

DR. F. W. ROBBINS, Detroit.—It is very interesting to listen to the arguments pro and con as to what a person shall do in face of any important operative procedure, or what procedure should be adopted under certain conditions. There is one argument which does not in all respects seem quite scientific, but it is a balance. We often say that in a certain condition, for this reason and for this reason and this reason, we will do so and so, and for that reason and that reason we will do otherwise. I like to apply in cases in which I am considering the condition of an old man and his prostate, the question, What would I advise in this special condition if this man were my father? And so in the conditions of the uterus that have been mentioned, it seems to me a valuable argument to add to the others that have been brought out, What would I advise if this were my mother or sister?

DR. L. W. TOLES, Lansing.—I wish to speak on just one point that has not, I believe, been touched upon this morning, but which impresses me as being important. We are all, I take it,

quite agreed at the present time that the best treatment for *acute* pelvic inflammation is vaginal drainage. But I have seen quite a number of cases in which the individual patient has been treated in that manner, and been led to believe that this would be the end of her troubles, when she would drag through a period of perhaps years of invalidism without the knowledge that her condition could be bettered.

I feel that when employing this treatment we should impress upon the minds of our patients that the chances are we are not through with them, but may be compelled to resort to more radical means later. Of course the necessity for such procedure will be largely obviated as we become more proficient in the art of vaginal drainage, and some of the speakers here have given us valuable information in this direction. In spite of the best of drainage, however, many of our cases will need care in the future, and the point I wish to emphasize is that they should be warned of that possibility, that they may avail themselves of the chance of a complete cure.

DR. N. N. WOOD, Ann Arbor.—It seems to me that the question of the use of gauze or tube or both may be very profitably studied in connection with two things. First, the pathology of each case as found at operation when the vaginal incision is made, and, second, the post-operative course of these cases in which either form of drainage or both forms have been employed. When this is done it will, I think, be found that there are some cases which do admirably with only tube drainage. In the cases where there is not one large cavity, perhaps quite regular in form, but instead there are a number of pus foci, communicating often by devious routes, the tube does not drain the lateral, deviously placed cavities, which often collapse, and consequently the pus reforms and secondary abscesses either rupture themselves in time or remain unruptured, when the condition persists with septic temperature and the abscesses have to be opened. A loose gauze packing in these cases prevents this and does what the tube will not do. Of course, when there is free drainage of pus the tube acts well, but it is not designed to keep open the whole surface of an irregular pus cavity.

DR. A. S. WHELOCK, Goodrich.—A lesson I have learned from my own radical views in earlier years has been with reference to these patients becoming pregnant. In many cases that seemed just as severe as any that we have

drained and thought necessary to drain, operation being refused, the destruction has proved not so serious as we had believed it to be, and many of these patients have gone on to perfect recovery and subsequent pregnancy, and in after years absolutely no trace of the former trouble could be found. This fact has impressed itself upon my mind because of my mistake in telling these patients of the troubles that might come to them in after years.

DR. ROBERT J. HUTCHINSON, Grand Rapids.—I desire to say a word in regard to drainage. Every person seems to have trouble with the openings closing before the diseased tissues in the pelvis have become repaired. The transverse incision is, of course, the correct one to make, but in making that incision and taking measures to prevent its closing, we must bear in mind that the healthy vaginal mucous membrane and tissues immediately underlying it are the ones that close over and keep in the septic material. By making a T-shaped incision, getting the finger in the cavity and making one incision at right angles to the other, we prevent the two edges coming together. It is almost impossible for the center of that incision to heal before drainage is established.

DR. SCHENCK (closing the discussion).—There is one phase of this topic in regard to which I am rather disappointed we have not had more discussion. Had Dr. Ballin been here to read his paper, I imagine we might have had a somewhat different view of the whole subject and more discussion would have taken place along that line. Dr. Smith has summed the matter up most excellently. One class of cases, however, has not been mentioned, a class which I think is one of the most difficult in the whole group of these troubles, and that is the pus tube, or pelvic abscess if you please, which is situated high up. It is almost impossible to drain it through the vagina without making an abdominal incision, and in several of my cases I have opened the abdomen expecting to do a radical operation, and have found so much pus that I did not dare do it, particularly if it were a puerperal case. Having one hand in the abdomen as a guide, I have punctured through the vagina and closed the abdominal incision. Such cases almost always do well if one is careful with them.

Dr. McGraw spoke of the danger of manipulations causing an extension of infection in acute gonorrhoea. I quite agree with this view. One of the best expositions of acute gonorrhoea in women is, I think, one by Bierhoff, published

last year in the "New York Medical Journal." Every one interested in the subject should read that article. He treats the condition conservatively but very thoroughly, and lays stress on the point Dr. McGraw has made.

I desire to reaffirm my belief that the difficulty, if we have difficulty in the treatment of these cases, lies in the fact that we are trying to treat a particular lesion, salpingitis or inflammation of the ovary, instead of aiming to divide the cases according to the character of the infection and treating each one just as we would treat an abscess of any other part of the body. This to my mind constitutes the important point in the treatment of these cases.

DR. PETERSON (closing the discussion).—In the discussion of a subject so vast as that of pelvic inflammations, there are many points which cannot be covered in a short paper. But one point in particular has been brought out in the discussion which it seems to me is highly important, the one emphasized by Dr. Smith and especially by Dr. Wheelock. Following abdominal and especially vaginal operations in these conditions, we have found that many patients whom we thought never could become pregnant again have later become so and been delivered at term. This is especially true after vaginal work, that is, opening the cul-de-sac, and for that reason this method should be employed first wherever possible. Although every patient upon whom I have operated by the vaginal route, as Dr. Toles intimates should be done, has been warned that she may be obliged to have a subsequent abdominal operation, it is simply remarkable how many of these women never have to have a subsequent operation, quite a large proportion of them afterwards conceiving and being delivered at term. It seems to me that this is why we should always do the vaginal work first, and not only from that standpoint, but from that brought out in my paper,—because it is a much safer procedure. This fact ought to be constantly emphasized, when so many men are operating as at the present time, namely, that where there is pus in the pelvic radical abdominal work is not the best procedure. If we could get statistics from all over the country, we would find that the percentage of deaths resulting from this work is not ten per cent., but beyond twenty-five per cent. In some sections everything is being treated by the abdominal route, consequently the percentage is high. Of course, where one uses the vaginal incision in the presence of tubercular infection there is great danger that the abdominal work

will subsequently have to be done, but then it is a different procedure from opening the abdomen where the disease is acute. Later on it can be done as easily and the results will be as good as in ordinary chronic appendiceal work.

Years ago, following Williams' report of cases of unsuspected tuberculosis discovered at the Johns Hopkins clinic, I reported upon my own work. A careful pathologic examination of all the specimens removed showed that in many cases in which tuberculosis was not suspected this was the real cause of the disease.

As regards the use of gauze or drainage tube, this is to me simply a detail. Sometimes a tube will be the best, sometimes gauze. I usually use gauze, because I think it works well in these cases, but I have no objection to the tube. If on removing the gauze I find a considerable discharge, I use the drainage tube.

Dr. Schenck brought out a very important phase of the subject, the proper treatment of pus tubes when situated high up. His position is entirely correct. If we are obliged to open the abdomen and find the pus tube high up, it is better surgery to close the abdomen, and open from below, where we can have the advantage of palpation from above. When the operator opens the abdomen and unexpectedly comes upon a pus tube, it is far better surgery, in my opinion, and I am coming more and more to practise this, to put the hand in the abdomen and, after locating the tube, make the incision in the posterior cul-de-sac, so that the pelvic peritoneum is not infected. I think that, working along this line, we will get far better results than if we remove the tube when we discover it to be full of pus.

DR. TOLES.—In cases of pus tube of chronic nature, where the symptoms have pretty much subsided, would you select vaginal drainage?

DR. PETERSON.—Yes, because I cannot tell whether or not it is one of those cases in which apparently we ought to find sterile pus, but really we have an infective organism, which, spread around in the abdomen, would lead to death.

DR. TOLES.—How about the large percentage of tubercular cases where there is pus?

DR. PETERSON.—Whenever I locate pus I get at it through the vagina if possible.

DR. W. R. BALLARD, Bay City.—When in cases of this kind pregnancy follows, do you think it is likely to be ectopic pregnancy?

DR. PETERSON.—A certain number of ectopic pregnancies result, but I do not think we should hesitate on that account to operate through the vagina and drain rather than remove the pus tube.

SOME POINTS IN THE MANAGEMENT OF BREAST FEEDING*

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I think I scarcely need say here that successful breast feeding is not so common as all of us should like to see it; nor need I say that, no matter what progress the pediatricists have made and may still make in the science of artificial feeding, the bottle is not, and never will be, a perfectly satisfactory substitute for the breast.

A great deal of attention has been given to this subject during the past few years by pediatricists and by sanitarians. The pediatricists have determined to their own satisfaction that a far greater percentage of the babies could be successfully nursed, at least during the critical first months, than are so fed at present. In fact, it is believed that at least ninety per cent. of all mothers are capable, under proper supervision, of nursing their babies during this period.

The sanitarians, realizing that the mortality among infants is still high, in spite of improvements in producing, handling, and feeding cow's milk, have taken up the subject with a good deal of energy, and there is at present a wide-spread movement on the part of public health authorities to educate the public, and especially the poor, to the possibility and desirability of more general breast feeding.

So far, however, the general practitioner, to whom falls the management of a very large proportion of the babies, has not participated especially in this movement; and I think I may say safely, and I hope without offence, that the average practitioner gives very little study or thought to this really important subject, and conse-

quently, when confronted with any but the most simple and straightforward case, is only too ready, at the first sign of trouble, to give it up and take to some proprietary food.

It is a common experience of pediatricists, enquiring into the history of difficult feeding cases, to find that the child was ordered weaned by the attending physician some time during the first few months, because of colic, temporary failure to gain, or perhaps merely because the mother thought her milk was giving out, or was afraid it was not good for the baby, without any really intelligent attempt having first been made to adjust the difficulty. Sometimes, even, the child is given the bottle from birth, with no attempt at nursing, perhaps because a former child did not thrive on the breast, or for any one of a number of equally valid reasons.

Now if breast feeding is to be as common as it should be, it is the general practitioner who must accomplish it, and he ought, I think, to give the subject more attention, and to be better prepared to meet the more common difficulties.

My idea in preparing this paper has been not to write a treatise covering the whole subject of breast feeding, but to speak briefly of the more common difficulties and how to handle them.

CONTRAINDICATIONS TO NURSING

Under this head I wish to say that one hears some curious things. I have seen a baby put on the bottle at birth by a physician of considerable local standing, because (he said) the mother was nervous, and therefore would give milk which would be

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bad for the child. It is not at all uncommon for a second child to be put on the bottle because nursing, for some reason or another, was a failure with the first.

There are, in general, two contraindications to nursing. First, definite risk of transmitting a serious infection from mother to child, or vice versa; second, illness or weakness of the mother so marked that nursing would be a dangerous drain upon her. If neither of these exists, nursing should be attempted. In regard to the second, it is too often assumed with regard to mothers who are perhaps only temporarily exhausted, and who, with care, might bear the nursing all right.

Another contraindication is, of course, total absence of milk. This, however, is rare, and should not be assumed too soon. If milk does not appear for several days, it is better, with a healthy child, to wait, giving only boiled water with a little milk sugar, rather than give an artificial food so early.

HYGIENE AND DIET OF THE NURSING MOTHER

This is a field calling for the exercise of common sense more than science. The mother should lead a life which fits her to produce good milk. Obvious as this may seem, it is a point often given little attention. Normal exercise, not household drudgery, nor physical exhaustion, is important, and still more important is the avoidance of mental excitement or worry. A bovine placidity is a great asset to a nursing mother. I sometimes think that among the better classes the tendency nowadays is to prolong the period of rest after confinement too much, and that it would be better for the child and just as well for the mother if she resumed her normal life, a voiding, of course, anything like hard work, somewhat sooner. As for diet, it also should be normal and simple, with such additions when necessary as may tend to

increase the milk supply. There are some common and rather foolish superstitions concerning what the nursing woman may eat. For instance, it is usual to find acids and fruits forbidden because of a supposed effect upon the milk. There are a very few foods containing substances which are excreted in the milk, such as the volatile oils of the garlic family. Aside from these, foods affect the milk injuriously only as they disturb the mother's digestion, and I believe it to be better that the mother should be allowed to eat, within reason, what she likes, provided the diet be well balanced and her digestion good, rather than to risk disturbing her nutrition, as is often done, by eliminating things to which she is accustomed, and which are a stimulus to appetite. In other words, the diet should be agreeable to her. As to the use of gruels, cocoa, and the other things given to promote milk formation, they should be given not so much as a routine as when they are needed. When they are used, it should be borne in mind that if they are pushed to the point of being disagreeable, their effect is likely to be lost, and the mother's digestion may be upset. This is especially true of milk, which many women do not take well in quantity. As to the choice of these articles, it is not of so great importance. The point is to get a well-balanced food, with plenty of fluid at the same time, and it is because of these qualities rather than because it is milk, that milk is of value. Of gruels, that made from corn meal is probably the best. Cocoa made with milk has the advantage of being often better taken than plain milk. The malt drinks are often objected to as producing milk of poor quality. Inasmuch, however, as the milk, when insufficient in quantity, is very likely to be somewhat overrich, these preparations meet the indications in many cases very nicely, provided always that they are agreeable to the mother, and do not disturb her digestion.

THE FEEDING INTERVAL

Nothing, in my opinion, has more to do with the various disturbances in the course of breast feeding than too frequent nursing. The current practice seems still to be to feed the child every two hours during the first six weeks, then every two and one-half hours, and so on. Just how this practice originated I do not know, but I am convinced that it is pernicious, and am glad to say that the number of specialists who have adopted a longer interval is constantly growing. The child who is fed every two hours has almost never, during the day at least, an empty stomach. The stomach gets no normal rest, and a mild gastritis not uncommonly follows. This is especially likely if the milk is somewhat overrich, fat being always slow to leave the stomach, so that often portions remain from one feeding to the next. Spitting, colic, the false hunger resulting from an irritated stomach, and sometimes more serious conditions, are likely to result. Not all of us follow Czerny and Keller in recommending a four-hour interval from the start, but I think that a large proportion of the more progressive men are now urging that the feeding be never less than three hours apart, and about four hours after the first few weeks.

Another point in regard to the feeding interval. One meets many physicians and more nurses who insist on absolute regularity in the interval. On the stroke of the clock the child is to be put to the breast, hungry or not hungry, sleeping or waking. Now doubtless a reasonable regularity works for the convenience and comfort of the mother, but I cannot believe that the child will digest so well if urged to eat before he is hungry or when wakened from a sound sleep to feed. Certainly I feel that I get better results from my own method. I usually order, during the first two or three weeks, that the child be nursed not oftener

than every three hours, nor more than seven times in twenty-four hours. After this period about every four hours, and not more than six (better five) times in twenty-four hours. With these restrictions he is to be fed when he is hungry. I make an exception of the last evening feeding. If the child is asleep at the mother's bedtime, it is usually best to waken him. I adopted this system very tentatively, feeling not at all sure how it would work, but have found it invariably easy to manage, with much more comfort for both mother and child. Babies fed in this way almost always sleep better, cry less, and need less attention.

COLIC

Of all the disturbances incident to breast feeding, none is more common nor more annoying than colic. In fact, many people seem to regard it as a matter of course—inevitable and irremediable. It is more frequent during the early weeks, is likely to be accompanied by stools containing soft white curds, and is, I think, almost always the result of fat indigestion, of which the white curds are an indication. Many women, and especially young mothers, secrete during early lactation, and particularly in the time when they are still in bed or not getting a normal amount of exercise, a milk somewhat overrich in fat, and some, especially if their diet is injudicious, continue to do so for months. Fat fermentation, and colic, are quite natural results of this condition; but it is remarkable how much less one sees of them with the longer feeding interval. The lengthened interval is not, however, always sufficient to do away with the colic, and then it may be necessary to attempt to make the milk less rich, by diet, the taking of fluids, exercise, etc. Sometimes, in addition, one may dilute the milk in the baby's stomach by giving a little boiled water or soda water before the nursing. An occasional clearing out of the fermenting matter with cas-

tor oil is of considerable value. It must be said, however, that there are babies who continue to be colicky in spite of all one can do for them. If they do well otherwise, it is not wise to wean them for this alone. Colic seems also not infrequently to be caused by too much milk, and in this case cutting short the nursing is usually all that is needed.

VARIATIONS IN QUANTITY AND QUALITY OF MILK

These are common, depending upon the mother's diet, her physical condition, nervous states, the appearance of menstruation, etc. Variations in quantity may be detected by a method which ought to be more commonly used than is; viz., weighing the child before and after feeding, the difference in weighings showing the quantity obtained. The information obtained in this way is very valuable, and almost indispensable, when the question arises whether the supply is sufficient for full breast feeding, or whether mixed feeding or weaning is necessary. It is common for the mother to think from the child's behavior that the supply is insufficient, when the fact is that he is getting too much. Variations in quality may of course be detected by analysis of the milk, and for this purpose the fat determination is usually sufficient. Analysis, however, is not always necessary, and is often misleading. It is well known that different infants thrive on milks varying widely in fat content, and in most cases the child's behavior and the character of the stools are as good a guide as an analysis, or better. If the milk is too rich for the individual child, he is likely to be colicky, to spit up fat curds some time after nursing, and to have stools which smell sour and look greasy, or contain soft white fat curds, often with mucus. A milk which is distinctly deficient in fat looks watery to the eye, and the child, while usually manifesting no especial di-

gestive disturbances, does not gain in weight and is hungry.

Variations in the quantity of milk can often be corrected by giving the mother more or less fluid, regulating her exercise, and so far as possible preventing nervous disturbances. There is a good deal of doubt as to the effect of drugs in increasing milk secretion. I am inclined to believe that thyroid at times does have some effect. It is to be carefully watched.

Overrich milk may usually be to a considerable extent corrected by more exercise, more fluids, and less proteids and fats in the diet. If the milk is only slightly poor, an attempt may be made to increase the fat content by the reverse of this régime. When the milk is distinctly low in fat it is almost invariably an indication for weaning.

It is quite possible to do too much in the way of weighing, milk analysis, and changes of diet. I have seen more than one mother, perhaps already overanxious about her ability to nurse the baby, so worried over slight abnormalities in the stools, analyses of the milk, and attempts to correct trivial variations, as to lose her milk altogether. If the baby is doing fairly well, it is best not to fuss too much.

ABNORMALITIES IN THE STOOL

Some of the most important of these have been mentioned. Moderate frequency, fat curds, lack of smoothness and homogeneity, and even small amounts of mucus, are less important in breast feeding than in bottle feeding, and usually one need not pay much attention to them unless as an indication of the cause when there is definite digestive disturbance. If mucus, frothy stools, or gas, are common, an occasional dose of oil (not calomel), to remove fermenting material, may head off trouble. Fermentative disturbance and bowel infection occur in breast as well as in bottle feeding, and may necessitate temporary

withdrawal of food, in which case care must be taken to empty the breasts regularly in order that the supply may be preserved.

MIXED FEEDING

Sooner or later, the time will come with most women when the supply of milk is insufficient, and at this time mixed feeding, from breast and bottle, is usually resorted to. The common way is to replace one or more breast feedings by bottles. When this is done, the stimulus to the mammary gland offered by regular nursing is partly withdrawn, and as a result the supply diminishes more rapidly still, and soon another and another bottle feeding must be added, until in a short time the child is weaned. From the sixth month on this may be all right, but at three or four months it is not to be desired. It certainly seems more sensible, and has worked much better in my experience, to supplement each nursing by a small bottle feeding, rather than to discontinue any of the nursings. Moreover, as the breast milk when it diminishes in quantity is often overrich, this fault can be corrected if it is mixed in the stomach with rather dilute cow's milk. Mixed feeding managed in this way can often be successfully carried over a period of months.

WEANING

If breast feeding, or mixed feeding, has gone satisfactorily, the time of preference for weaning is at nine or ten months, and it is easily managed through mixed feeding by shortening the time at the breast and giving more from the bottle until the feeding is all artificial. In this way one has a chance to bring the child easily to a proper milk modification, and soon to whole milk.

Earlier weaning may be indicated by persistent failure to gain in weight on the breast or mixed feeding, or by digestive disturbance of importance which cannot be remedied by any changes in diet, nursing interval, etc. Sudden weaning may at any time be necessitated by illness of the mother, or complete cessation of lactation. It is important here to begin the artificial feeding with a more dilute mixture than a child of the same age and weight would take if already accustomed to cow's milk.

Unnecessary weaning, because of slight digestive disturbances, colic, green stools, etc., is altogether too common. One hears that the doctor told the mother her milk was "poisoning the baby," when really a little patience would have brought things out all right. It is always to be remembered that it is a great handicap to a baby to be put on artificial food during the first three or four months, and that the conditions leading one to do this should be really serious.

CONCLUSION

In conclusion, I want to say that what tendency there is to a change in methods of managing breast feeding is not the result of following out anybody's preconceived theories.

It appears to me that there is here something of a "back to nature" movement,—an inclination to follow, so far as possible in an artificial civilization, the methods of the animal and the aborigine; and surely it is reasonable that such a normal, physiological process should be led as much as may be in the normal, natural way.

DISCUSSION

DR. H. McLAREN GALE, Bay City, Mich.—I feel that I ought to rise to endorse the writer's paper. I think it an excellent one, and corresponds to my idea of handling the feeding of children.

First of all, he emphasized the regular and liberal feeding of the mother with plain food, and then insisted on three to four hour feeding in place of two hours, which is unnatural and cannot but be injurious. In my experience

those two things are particularly worth paying attention to, not forgetting the importance of one long interval between feeding during the night of six or eight hours. For colic in children you will find that care in the diet is the main thing, as the cause of colic is mainly too frequent feeding. By understanding the time required between feedings, you will do a great deal in checking any trouble. So far as my experience goes, I think the whole paper was an excellent one.

DR. HERBERT M. RICH, Detroit.—I would like to emphasize the importance of this paper. It seems to me that so far as the practice with children is concerned there is no more important subject to be considered. Too often it is taken for granted that nature's method will handle the case, when, as a matter of fact, very slight directions and little attentions on the part of the doctor will often go a great way in enabling the nursing to be carried on successfully. I am sure we will all agree with Dr. Cooley's directions in that respect.

There is one point upon which I am also sure he will agree with me, but his paper was so short he hardly had time to mention it, and that was the use of wet nursing in substitute feeding. It seems to me that it can hardly be denied that, in a very young child, if you can give it mother's milk that is the thing to do. We have not in this country employed this method to any such extent as they do abroad, but we might very well as a profession encourage the practice of wet nursing. It is often disagreeable, and makes considerable trouble. A professor in Harvard had an experience some years ago which we probably all have had. He said that the "ordinary wet nurse is nine parts cow and one part devil," and I am sure he has our sympathy. At the same time it is worth considering. They have recently introduced in Boston a directory of wet nurses, very much as we have our directory for trained nurses, and these women are paid usually not by the week, as has been customary heretofore, but according to the amount of milk which they furnish. I am told that that one change in the payment of nurses has very largely changed the aspect of the problem. The difficulty in making these women observe sanitary precautions and regulations which the doctor prescribed is obviated by reason of the fact that they get more pay if they have more milk. They pay them four cents an ounce for the milk which the child gets, the child being weighed before and after each nurs-

ing. They say it is a very successful plan, and it would be well to consider it.

DR. E. E. CURTIS, Saginaw.—In regard to wet nursing I would like to offer suggestions that I have found of considerable value, and I think I have in this way been enabled to save a number of babies' lives, and that is by procuring for the baby two or three wet nursings a day. It is very difficult in our town to secure a wet nurse to devote her whole time to the baby. I have found in bottle-fed babies a month or two old, where they were failing, that in some cases the parents would have a relative who would give the baby one or two nursings a day possibly, or perhaps, if they had no relatives to do this, some woman in the neighborhood might be willing to give the baby one or two nursings a day, so that the baby's life has been saved, I think, by this method.

DR. JOHN H. CROSBY, Otsego.—I feel that to the general practitioner this matter of breast feeding is of the utmost importance. Recently I have taken occasion, whenever I have taken a case of confinement, immediately to give some definite instructions as to the care and proper feeding of the baby. I have found that the results have been uniformly good when I have taken these pains.

I believe that there are very few contraindications to breast feeding. Of course we know that there are certain women who have absolutely no milk at all, and they must be ruled out, as Dr. Cooley has pointed out, but in most cases of so-called contraindications it is simply mismanagement of the feeding. If in these cases we pay attention to the management of the proper interval, and the proper length of time of nursing, much will be accomplished in saving the breast to the child, and every day that the baby takes breast milk its chances are so much better for life.

I had an opportunity not long ago to observe the methods of feeding in some of the clinics in Berlin, and I found that in the hospitals four-hour intervals are followed in every case for the first six weeks. The baby was fed six times in twenty-four hours, and after six weeks, in the normal child it was fed five times from six o'clock in the morning until ten o'clock in the evening, and nothing from then until six o'clock. The results were uniformly good.

A point that we should bear in mind in this matter of breast feeding is that in diarrhoea there is usually indicated too much milk, while constipation indicates too little milk, while the

opposite is the rule in the artificial feeding of children. We often have a complaint of diarrhoea in a breast fed child, and if we will simply cut down the amount of food the child is getting we can usually correct the trouble. Very often in constipation, by increasing the amount of milk the child is getting, we correct the constipation. These are some of the principal points, it seems to me, in the matter of infant feeding. Another thing that should be borne in mind is that the child, when it gets to be eight or nine months old, requires something besides mother's milk, because some of the salts of the mother's milk are insufficient for the developing needs of the child. The child is born with about enough iron to last it eight or nine months, and the mother's milk contains very little iron salt, so that very often the child should be given a supplementary feeding of vegetable soups, vegetable gruels, and stewed fruit, not raw fruits, in order to supplement the salts and other constituents that are lacking in the mother's milk.

DR. M. L. HOLM, Lansing.—I would like to add a few words to Dr. Cooley's very excellent paper merely from a laboratory standpoint. As a general thing, if the mother's milk is sufficient in quantity and the child is not doing well, the physicians will send the milk to some laboratory for analysis. I find that about two-thirds of the samples received at our laboratory consist of the first portion of the milk, and those who send it are usually surprised to find that the fat contents amount to about one and one-half or two per cent.

Invariably when milk is taken for analysis, the entire quantity from one breast should be taken. If less than this is collected, it will be low in fat if the sample represents the first portion and high in fat if it represents the last portion. I believe the fat contents is a good indication of the general quality of the milk, but the entire milk of at least one breast should be collected and the whole amount, or a portion of the whole amount, presented for analysis.

DR. COOLEY (closing the discussion).—In regard to the question of proteid indigestion, in my experience this is very rare in a child at the breast except in case of overfeeding. If a child is overfed all around, and there is too much milk, you get very often a general indigestion, but otherwise to have proteid indigestion with breast milk is a pretty rare experience.

In regard to wet nursing I believe that it is not anything like so common as it ought to be

in this country. It is one of the greatest helps in managing babies, and I think you will agree with me that the general practitioner appears to be too confident of the success of bottle feeding.

The more we have to do with child feeding the more we understand that we can do a whole lot better with the breast every time. We should not be in a rush to adopt the bottle unless we are driven to it. The wet nurse ought always to be thought of, when a child has to be weaned during the early months. If a wet nurse is possible the child ought to have it. There is no question at all about that.

With regard to the statement of Dr. Holm in regard to the collection of samples, it is often not possible to get all the milk with the breast pump.

With a great many women it is barely possible to get enough for analysis. In those cases what I do, and I find it works pretty well, is to get about half as much as you think will be necessary for analysis, and you can usually get that drawn. Then let the baby nurse a while. That starts up the milk, and then you get the other half from the strippings. You get a pretty good average sample then, a sample which you cannot always get from a woman in any other way.

I have a little story in regard to the possibility of maintaining the breast milk in some cases. Physicians are too ready to give up trying to get a supply of breast milk. A couple of years ago I had a patient brought to me from another town. The child was born, we will say, in December. I saw the patient about the first of May.

The child was then on the bottle, and was a case of decidedly difficult feeding. I fussed with it a short time, and then got a wet nurse. Something happened to her, and I got a second one. She proved to be no good, and so I got a third. The mother came to me about the beginning of July and said there was still a slight watery secretion, and asked me if I thought it possible to get her breast milk back. I said that I did not think so, but thought it would be worth trying. I told her to take the wet nurse's healthy baby and put it at her breast. Two weeks later the wet nurse came down with typhoid. The mother at that time was able to take the baby and nurse it from then on with perfect satisfaction. The child went from eight and one-half to twenty pounds at the end of the year.

THE OPERATIVE TREATMENT OF CONVERGENT STRABISMUS*

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There are few ocular disabilities about which there is so much bad advice given as squint. How many mothers have been recommended to let their children outgrow a marked deviation of the visual axes when they consulted their family physician. Even among specialists, a considerable diversity of advice is sometimes obtained by the anxious mother who consults a number of oculists in the hope of getting similar advice from several independent sources. That the question is far from settled, I am quite ready to admit, but certain points already exist about which we can come to an agreement.

The deformity of cross eyes, being such a disfiguring one, must have come early to the attention of the medical fraternity. In the latter part of the eighteenth century, that celebrated charlatan, Chevalier Taylor, advertised he could cure these unfortunates. What operation he did, if any, remained unrevealed to the world. Strohmeier, of Hanover, in 1838, was led to advise a trial of dividing the adductor in cases of convergent strabismus, in consequence of his attention having been directed to the cure of deformities of the limbs by the cutting of contracted muscles and tendons. Based on this false analogy, he proceeded to do the operation on the cadaver. Pauli, of Landau, first attempted it in the living, but the eye was unsteady: he divided the conjunctiva, but failed to divide the muscle or tendon. However, in 1839, Diffenbach succeeded in doing a myotomy of the internal rectus for converging squint. Macken-

zie, in his classical work (1854), describes an open operation through a half-inch vertical incision. If the distortion was slight, the tendon was cut near its insertion. If great, the muscle was dissected toward the caruncle and divided at a distance from its tendon, sometimes a portion of the muscle being excised. Elliot, of Edinburgh, made the important suggestion that the other adductor be cut, instead of confining operative interference to one eye, when the deviation was great.

As early as 1853, Walton found the literature of the subject enormous and the pages of authors filled with most dissimilar principles and results. He himself held it questionable whether permanent squint was ever relieved except by operation. The attempts to cure squinting by goggles, side glasses, side reading, by binding up one eye, by patches of black sticking-plaster on the point of the nose, etc., were in his opinion unsuccessful. He held one eye to be sound, and the other eye as affected and hence to be operated upon.

Wilde, of Dublin, in 1844, reported a case of squint in which double tenotomy of the internal recti had to be combined with a guy suture through the stump and anchored to the malar bone by adhesive plaster. Walton reports cases which were operated on by others subconjunctivally in which the vitreous was evacuated in one and two went on to suppuration. He also quotes from Desmarres (about 1847) a case of double squint operated on in which both eyes became prominent and turned outwards. After a number of operations on the external recti without benefit, the

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muscle was searched for, discovered far back adherent to the sclerotica, and detached. The position of the internal rectus was in like manner sought for through dense cicatrices of consecutive vegetations; after a dissection, which is described as something desperate, it was found drawn within its sheath and the orifice obstructed. The sheath was opened, the muscle was drawn out and applied against the sclerotica. Now was to be fulfilled the important indication of maintaining the eye inwards, to favor the insertion of the muscle and the fascia, at a point sufficiently anterior to prevent the former evil. A waxed thread was passed with a sewing-needle through the fascia near to the cornea, and the eye thus secured was turned inwards about a centimetre, and so maintained by attaching both ends of the thread to the back of the nose by a plaster. In the afternoon of the next day, the thread became loose, and, says the author, almost incredible to relate, the inward movement of the eye was re-established, but not the outer. This is the earliest account of an advancement I have been able to find.

Robert Brudenell Carter (1875) had a clear conception of the binocular character of internal strabismus. He maintained that a perfect result could seldom be obtained by an operation on one eye alone, and the effect should be divided as nearly as possible between the two internal recti, thus giving equal prominence to the eyes and equal sinking of the caruncles and equal power of convergence in both eyes. Liebreich aimed to prevent the sinking of the caruncle by completely dissecting the conjunctiva from the subjacent parts, and thus curing a very large deviation by operating on one eye alone. This may give a good distant result, but badly cripples the eye in depriving it of the power of convergence. Carter advocated practically a subconjunctival operation

instead of the older open one for tenotomy. He describes an advancement operation, which is advised for divergent strabismus, and in which the sutures were attached to the conjunctiva above and below the cornea.

Dr. J. F. Noyes, of Detroit (1874), described a very simple method of advancing the external rectus in cases of convergent strabismus either with or without a tenotomy of the internal rectus. The external rectus is exposed by a horizontal incision and the tendon is lifted out on a blunt hook. The tendon is then divided near its insertion on the ball, leaving enough end or stump so that the other end of the divided tendon can be carried under it, lapped and secured by sutures. The amount of the shortening thus effected must by actual measurement equal the deviation to be corrected. If it be found necessary to do so, a portion from the end of the tendon may be cut off before carrying it under and lapping as above described.

H. Knapp, in Norris and Oliver's System (1898), says: "In comitant strabismus, the single simple tenotomy, strictly limited to the tendon of one eye, is the operation for low degrees of convergence, be the strabismus constant or alternating. Under the proper precautions, the operation is perfectly safe and should not leave any unpleasant consequences. In medium and higher degrees, the double simple tenotomy, i. e., the unextended division of the tendon of each internal rectus, is indicated, and will produce just as perfect results as the single tenotomy in the low degrees. Of late the advantages of advancement have been so much and so justly dwelt upon by Landolt, Wecker, and others, that this operation has now come into greater favor than, in my opinion, it deserves. During the last twelve years I have made many advancements in comitant convergent strabismus, always with tenotomy of the antagonist, yet grad-

ually I have returned, in the majority of cases, to the double tenotomy."

Advancements were introduced by Jules Guérin and the technique of the operation was improved by Critchett. Landolt as early as 1878 strongly advocated advancements done on appropriate cases, without tenotomy of the opposing muscle. He held that cases of strabismus were entitled to ordinary treatment for a certain time. When, however, the strabismus dates from long ago, when mydriatics do not modify it and when it is concerned with a very amblyopic eye, one can proceed to operation without hesitation. He believed that tenotomy often fails to correct the strabismus, that the internal squint is often transformed in later years to a divergent strabismus, and even when this does not occur, weakness of convergence has been established. He therefore advocated advancement of the external recti, and as concomitant strabismus is a binocular affection, the same operation should be performed on both eyes at the outset. He has never found occasion to regret the overcorrection which occurs only too frequently after tenotomy. Tenotomy in addition to advancement, to increase the effect, is only necessary in the highest degrees of strabismus and especially in paralytic strabismus. It is best not to do both advancement and tenotomy at the same time, but to await the result of the advancement before proceeding to a tenotomy. Binocular bandaging is peculiarly important after the operation for convergent strabismus. Darkness, inactivity, the absence of any object that might provoke an effort of convergence, become in this case, with atropinization, powerful orthoptic therapeutic agents. If the effect of the operation should seem excessive, atropine may be suppressed; but one is not to be frightened by even a marked divergence after advancement. It is formidable only

when the internal rectus has been tenotomized. It is best to continue orthoptic treatment for a long time to complete the cure of the case. According as the tendency to convergent strabismus is more or less abolished, and according to the age of the patient, we make him wear convex lenses correcting the manifest hyperopia either constantly or for near work only. We do away with them entirely if there is any tendency to divergence. We should resume, on the contrary, all the treatment of strabismus—atropinization, correcting lenses, and repose of the eyes—if the convergence reappears.

Wootton more recently (1901) has been a strong advocate of advancements. He holds that tenotomies, as primary operations, particularly in convergent cases, are at best hazardous procedures. Apparent parallelism, for the time being, is frequently obtained, but almost always with great sacrifice of the power of convergence. In general, however, even this parallelism is merely apparent, binocular fixation is not really present, and in the few cases in which binocular single vision is found to exist, it is frequently subsequently lost. The reason for this is not difficult to understand. The convergence having been rendered insufficient by the operation, the patient suffers from asthenopia at near work, in consequence of which he gradually abandons binocular fixation, at first for near objects, later for those at a distance, and the eye with the poor vision diverges. In fact, the case, at first one of convergent strabismus, has become one of insufficiency of convergence, and later one of divergent squint. The operation, one might almost say, has attempted to cure the causative factor, the hypermetropia, by superadding a pathological condition, a relative insufficiency of convergence, ignoring the fact that an excess of converging power is a normal condition with an uncorrected

hypermetropia. Advancements in such cases produce no insufficiency of the associated functions of the eyes, and seek merely to restore the status *quo ante*. Furthermore, the mobility of the eyes, the extent of their lateral rotations, is not limited by such operations, and any one who will take the trouble to map out the fields of fixation in these cases can assure himself that the advancement of one of the straight muscles of the eye does not restrict the action of its so-called antagonist.

Bettremieux has recently remarked upon the surprising differences of opinion at the present day concerning essential points in the treatment of strabismus. As regards the age most suitable for operations, opinions vary between five and eighteen years. Priestley Smith believes in early operation. Javal came to hold similar views, sacrificing every other consideration to the fundamental aphorism that binocular vision can be the more readily re-established the nearer the period to the commencement of the deviation. Bettremieux advises operation upon children in whom six months or a year's medical treatment has failed.

Baker prefers advancement to tenotomy or a combination of both, but seldom finds it necessary to operate under ten years.

Edward Jackson has recently advocated and practised tenotomy of the internal rectus combined with tenotomy of the inner portions of the superior and inferior recti.

These few quotations from the immense mass of literature are enough to emphasize the great differences of opinion which have always and still continue to exist as to the treatment of this condition. It suggests that some facts are as yet to be discovered upon which can be based a system of treatment which will appeal to us all. There is no question but that tenotomy is a simple, easily performed operation,

which would be the operation of choice were the results certain and permanent. Advancements must show a marked superiority in final results to justify their difficulties and the necessity for laying up the patient for a week or more. That the double advancement of the external recti leaves the eye with a more normal convergence and a more normal amplitude of movement, I am satisfied from the study of my own cases as well as others. There is also practically no danger of an over-effect. That it is sufficient in all cases, I am not prepared to assert, as paralytic and extreme degrees of deviation may require a tenotomy as well and there may also be good and sufficient reasons for confining the operation to one eye.

Most of the cases presenting themselves to a clinic are of many years' standing, with a marked deviation and an amblyopic eye. Many even of these can be relieved by non-operative means, as we have all repeatedly seen. Let me quote two from a number I might mention. In May, 1905, a lad of nine years presented himself for treatment with a deviation of 20 degrees which he had had for five years. On examination he was found to have a high degree of compound hyperopic astigmatia, the correction of which reduced his squint so much that it ceased to be a deformity. In another child of six years the deviation amounted to 32 degrees, and had existed for four years, but was practically cured by the correction of a high compound hyperopic astigmatia. Just why some of these with very similar refraction and history show such different results to optical corrections is very hard to determine. Two things, however, seem to act favorably in this respect; first a short duration of the squint, and, second, a high degree of hyperopia which can be corrected.

My first case of double advancement was done something over seven years ago, on a

lad of twelve years, and while he still has his amblyopic eye, the cosmetic result is excellent and one would not know to look at him that he had ever been operated upon.

About five years ago, a lad of seven years came for treatment. One eye was down to 3-200 vision and the deviation was 44 degrees. There was no central fixation in the right eye and the patient had already been treated by a colleague for from three to four months. He had a high hyperopia, complicated by some astigmatism in the better eye, but the correction of his ametropia made no improvement in his squint. As the deviation was so extreme and there was no hope of binocular vision, I limited the operation to the visually defective eye, and did a tenotomy of the internal rectus combined with Worth's advancement of the external rectus. This secured a good cosmetic result, while a simple advancement would have failed to give enough effect to have achieved this result.

In a girl of seven with 36 degrees of convergence and a high amount of compound hyperopic astigmatism, I did a double tenotomy and secured a slight undercorrection. In another girl of four and one-half years, with a squint of 28 degrees, a partial relief was obtained by refraction and then an internal tenotomy of one rectus gave a slight undercorrection.

Nearly six years ago a boy of five years was brought to me with a convergence of 36 degrees and vision reduced to 4-200 in the squinting eye. He had a high degree of hyperopia, complicated by a marked astigmatism in the defective eye. The squint was of two years' duration, but showed considerable improvement in the six months he was kept under treatment. His right external rectus was first advanced after Worth's method. The immediate result of this was good, but the stitch pulled out before the muscle could become ad-

herent to the sclera, and there was still convergence. A month later, the left external rectus was advanced. The immediate effect was a slight divergence, but this was not permanent, and a few weeks later, the right external rectus was dissected free again and at operation was found to have dropped back after the first operation nearly to its original insertion. A tenotomy was later made under cocaine on the right internal rectus, and the patient discharged with straight eyes, which were still straight some years later.

The sister of this last patient, a little girl of seven years, consulted me about the same time, suffering from a similar condition which had followed an attack of whooping-cough two years before. She had 32 degrees of convergence and only 3-200 vision in the right eye, in which central fixation had been lost. The retinoscope showed a high degree of hyperopia, the correction of which reduced the squint to 20 degrees. After several months' treatment failed to show any continued diminution in the squint, a double advancement of the external recti was done, which resulted in an overeffect temporarily and subsequently straight eyes, which remained so when heard from some years later.

In a case of alternating strabismus seven years of age, the squint had existed ever since babyhood and was 28 degrees in amount. In spite of the fact that there was a high degree of compound hyperopic astigmatism present, the correction of the refraction made practically no improvement, and after a year and a half, I advanced both external recti, getting a marked improvement. This was done four months ago, and although still improved at present, he still shows some convergence and cannot be said to be even cosmetically cured.

A lad of eight years was brought to me about a year ago with the history that his eyes had turned in since he was six months

old. He had a moderate compound hyperopic astigmatism and a convergence of 30 degrees without his lenses and 24 with them. He had been refracted by a colleague without material improvement. A double advancement was done on the external recti with excellent results, and when seen a few weeks ago the eyes were practically straight, with perhaps a little convergence near by.

In April, 1908, I saw a little girl with a 40-degree convergence and a high compound hyperopic astigmatism. The squint was of three years' duration. The optical correction reduced the squint to 30 degrees, and at times the eyes were straight, according to the parents. This condition did not improve, however, and last August I did a double advancement and got a temporary overcorrection, which soon passed away leaving the eyes straight with glasses and convergent without them.

The only overeffect I have ever seen was in a young man of twenty-two years, who had squinted since childhood. He had a convergence of 28 degrees and a high compound hyperopic astigmatism. The glasses improved the squint somewhat. Two years ago, a colleague did a tenotomy of the right internal rectus, without, however, very much effect. Both external recti were advanced and great divergence obtained, as they were powerful muscles. Some diplopia occurred immediately after bandaging was discontinued, and this

returned on the use of the strong lenses needed to correct his hyperopia. I attribute this to the previous tenotomy, which has left his internal rectus at a disadvantage. Muscle exercises and treatment have overcome this tendency, and he is no longer troubled with diplopia except in the extreme right portion of his field of fixation.

The problems of convergent strabismus are not by any means solved. It is, however, established that the earlier the treatment is instituted, the better the chance of success. The child is never too young to be treated. When, however, treatment fails to show any further improvement in the deviation, operative interference must be considered. While advancements are much more difficult of performance and, considering the size of the organ on which they are performed, are operations of some magnitude, still the results are such as to recommend their use in the majority of cases which require operation. It must be remembered, however, that an operation in these cases is only part of the treatment and not the whole, and should be followed up with exercises calculated to develop the fusion sense and do the finer work of adjustment. They have the great advantage of leaving the power of convergence uncrippled. Since they have almost no danger of causing an overeffect, one can proceed to their use earlier in the treatment than one would care to do were he limited to tenotomies.

DISCUSSION

DR. WALTER R. PARKER.—It is very difficult to give in a few sentences the operative treatment of convergent strabismus, as the conditions are so variable that each case must be carefully studied before an opinion can be given. I believe, however, that the operation of tenotomy still has a field of usefulness and should not be abandoned, in spite of all that has been written in favor of advancement. In cases with fifteen to twenty degrees of convergence, not due to par-

alysis, I believe a single tenotomy, to be followed from three to six months later by tenotomy of the muscle on the opposite side, if need be, will often lead to good results. In the exaggerated cases I believe that a tenotomy combined with an advancement on the same eye, after the method of Worth, gives the most satisfactory results. Many cases, once thought to be suitable for operative procedures, are now cured by careful refraction, enforced use of the squinting eye, and

by the use of the amblyoscope. Every case should be studied for a long time, over a period of months, before it is subjected to any operative interference.

DR. H. H. SANDERSON.—It has been a pleasure to listen to Dr. Connor's paper, bringing up to date this difficult subject,—the treatment of squint. The historical part of the paper was of great interest, placing before us the gradual progress in the study of squint, since ancient times.

There are many problems still unsolved, but we have learned much in the management of such cases, and particularly the time of life at which non-operative treatment is effective.

The studies of Worth have made much possible by way of development of the fusion sense in those cases that come to us before the sixth year, but more than all have they helped us to apply a scientific method of investigation to our cases, without which no treatment operative or non-operative should be pursued.

This, it seemed to me, is the most important point in the management of a case of squint,—the thorough investigation of the case as to the time, the character, the angle of the squint, the fusion sense and particularly the objective refraction. The method of correction by operative means, as the paper states, has been used for centuries, and the simplicity of an ordinary tenotomy has led many to attempt it who are wholly incompetent, although immediate results often give great promise. This old and simple method has its proper field to-day, especially when combined with advancement, and in many cases, selected by careful preliminary examination, a single or double tenotomy suffices.

Worth's advancement operation has certainly proved a very rational procedure. The hold it has taken on the eye surgeon during the short time it has been done amply proves its usefulness.

With the double advancement brought out by the paper, I have had no experience, but was glad to know of the favorable results obtained.

DR. LEARTUS CONNOR.—Years ago Landolt said, "An operation for strabismus, not based on a thorough study of refraction and muscular motility, is a crude and barbarous affair." The results of Dr. Ray Connor's strabismus operations show that he added to Landolt's requirements a development of the fusion sense, both before and after operation. Since his cases were mainly in young children, we can appreciate the difficulties under which he worked. The perfection of his technique is shown by

the frequency with which he secured a parallelism of the visual axes. Doubtless this was due to his general use of an advancement (often double) in lieu of one or more tenotomies,—an added proof that overcorrection is rarely if ever obtained by advancement of the external recti, while it is a frequent result of tenotomies.

Tenotomies will always have a place among strabismus operations, but only as aids to advancements. "Tendon tucking" operations are ineffective attempts to avoid the difficulties of advancements while gaining their advantages.

The paper's historical sketch of strabismus operations shows their evolution from a simple technique to a very complex, from uncertain results to certain, and stable ones. But these results are possible only to such operators as master the technique of advancement and direct it by an exhaustive study of refraction, muscular motility, and fusion sense.

DR. J. E. GLEASON.—I have never done the advancement of both external recti for the correction of internal strabismus, but in the light of Dr. Connor's experience I would be inclined hereafter to try that procedure. I have always preferred to do a tenotomy combined with an advancement if a simple tenotomy was insufficient, thereby confining the operative procedure to the squinting eye. I think a divergence following a tenotomy is more common than we realize, for the reason that patients with that unfortunate occurrence rarely return to the original operator. I have corrected two such cases within the last year, divergence following the original operation after intervals of five and sixteen years respectively.

DR. EUGENE SMITH.—I believe in the thorough trial of atropin and orthoptic treatment between the ages of two and six years. If, however, after some weeks' or months' trial there is no improvement, then operative measures must be adopted. Atropin and correction of the refracting error is most successful in alternating squint. In cases where the squinting eye has a high degree of hyperopia and the fellow eye a low degree, fusion is manifestly impossible with glasses which correct the defect in each eye, and an operation is necessary for the cosmetic effect, the same as in the higher degree of amblyopia.

In amblyopia exanopsia, I have seen many cases recover sharp vision in the amblyopic eye by proper treatment or use of the eye individually. I believe, of course, in immediate correction of the error of refraction. Regarding operative procedure, I prefer simple tenotomy.

Years ago I was accustomed to operate on both eyes at the same sitting; this I have abandoned, and now tenotomize the non-fixing eye and wait two or three months before deciding to tenotomize the fellow eye. The operation is more simple and the recovery is quicker.

Advancement I prefer in divergent cases, in paralytic cases, and in very high degrees of amblyopia. In the higher degrees of squint I favor Panas stitching previous to tenotomy. I

always make the subjunctival operation, cutting the attachment of the caruncle to prevent sinking.

DR. P. J. LIVINGSTONE.—I have very much enjoyed this paper, particularly the splendid sketch the doctor has given of the History of Surgery of Squint. I am strongly in favor of treating amblyopic squinting eyes after operation by Worth stereoscopic practice. Much depends upon persistence and intelligence of the patient in this practice.

COCCYODYNIA. ERRORS IN DIAGNOSIS AND TREATMENT.*

A. S. YOUNGS, M. D.
Kalamazoo, Mich.

I wish to call your attention to an affection which is rarely alluded to in our systematic works at the present day, and a subject upon which medical literature is very meager.

While coccydynia is not met with in everyday practice, it does occur sufficiently frequent that it behooves every physician and surgeon to be alert to the most common as well as the remote symptoms.

I have been prompted to discuss the subject from the fact that it has been brought to my attention on several occasions, and particularly so, from the fact that this affection is so frequently overlooked and the patient treated for any one or more of several conditions; namely, the multitudinous diseases of uterus and appendages, with their complex symptoms, rectal diseases, cystic diseases, neuralgia, and rheumatism.

Perhaps this subject has been unintentionally overlooked in the broad field of medical and surgical science.

Dr. J. C. Mott, of Alabama, was first to suggest and perform the operation. This was in 1844.

Coccydynia or coxalgia is a painful affection situated at the end of the spinal column, and consists of a peculiar condition of the coccyx or the muscles attached to it, rendering their contraction and movements of the bone very painful.

The coccyx, you will remember, resembles a cuckoo's beak. It is formed of four smaller rudimentary vertebræ, and articulates with the sacrum, has attached to it the sphincter ani, gluteus maximus, and coccygeus muscles.

In Virchow's Archives of Pathology, an account is given of the discovery of a small reddish-yellow ovoid body, approximately the size of a hemp-seed, situated on the anterior surface of the end of the coccygeal bone, and embedded in fatty areolar tissue, connected by filaments from the ganglion impar of the sympathetic nerve, and with small branches of the arteria sacrales media, lying between the levator ani and the sphincter externis, and is known as the coccygeal gland or Luschka's gland, bearing the name of the discoverer and great anatomist.

This gland is rich in nerves, derived from the terminal branches of the sympathetic, which form a microscopic net-

*Read at the 45th Annual Meeting of the Michigan State Medical Society, Bay City, Sept. 28, 29, 1910.

work perforating the stroma, and occasionally seen connected with ganglion cells. The function of this gland is unknown, but is of great interest to the pathologist, because it is not only the seat of the so-called coccydynia, but also of the hygromate cystic perinealea, and known as the "glandula-coccygea of man." So far anatomists do not refer to this gland in women.

Simpson of Edinburgh says that he has never observed this condition in man, and my observations, also enquiries among my colleagues, support the statement of the great surgeon. In confirmation of this it might be well to quote Grant, who said, "The explaining, connecting and confirming the observations of our predecessors is more useful, and as honorable as hunting after new discoveries."

Men may have inflammation or necrosis of the coccyx from purely traumatic causes, which is analogous to coccydynia; but the disease under consideration comes from other causes than direct injury, and in many cases there is not the least indication of either inflammation or any form of disease of the bone substance. It is an affection more common in women than men, being more prevalent in those women who have borne children.

The pathology of coccydynia is, so far as I am able to determine, an unsolved problem, for the name does not define the pathology of the affection, simply meaning pain in the coccyx, same as we speak of myalgia, etc., to designate pain in the muscles wherever located.

It is a truth familiar to every one who meets with this condition, that these unfortunates suffer greater pain and inconvenience than from many other troubles. Coccydynia is not necessarily (as supposed by many) a spinal disorder, and is not infrequent; but this disorder consists of a peculiar complex condition

of the coccyx, or the muscles attached to it, thus rendering the contraction of the muscles and certain movements of the body highly painful.

It is an established law that whenever any chronic irritation is brought to bear upon a muscle, there follows a tendency to spasmodic contraction, and, as a result, acute pain is produced whenever an effort is made to elongate the contending muscles.

Before we proceed further, let us pass in review some of the common causes and pathologic conditions which are accountable for this pain.

Only a cursory consideration of the numerous causes can be given in this brief paper, and some causes I have intentionally passed in silence, as my remarks concern those types which are met with most commonly, leaving rare and anomalous types to those who desire to delve more deeply into the subject.

1. Osteo-necrosis, osteitis, cortical osteitis, following instrumental and normal delivery.
2. Bone abscess, due either to tuberculosis or syphilis.
3. Coccygeal dermal fistula (Morris).
4. Morbid condition of tendons of muscles attached to coccyx, also of surrounding fibrous tissues, and of nerve fibrils, and, lastly, morbid condition of glandula coccygea.

Pain is also produced as a consequence of habitual constipation, and where hardened feces are allowed to accumulate and press upon the affected coccyx.

Any point of irritation bearing on sensitive parts about rectum, vagina and bladder, such as fissure of anus and hemorrhoids, urethral caruncle, etc., would excite spasmodic and painful contractions of the sphincter muscles connected with the coccyx.

In some cases the coccyx is displaced

by fracture, or drawn to one side and possibly forward by irregular contraction of the various muscles attached to it; while in others there is no bone displacement, and ankylosis is present, leaving the coccyx entirely motionless. This last fact removes one surmise from the pathology, at least in the cases where the pain of coccydynia is produced by the pressure or friction of the end of the coccyx on a nerve.

The pain of coccydynia is usually of a decided sharp character, definitely localized, increased and greatly aggravated at first on arising, by walking, going up and down stairs, sitting on hard seats, by assuming erect position, riding in any vehicle, coughing, sneezing, vomiting, and urination; while defecation is attended with extreme suffering. These pains are at all times brought on and aggravated by any movement of body or lower extremities which bring into action any one or more of the muscles attached to the coccyx, as the sacro-sciatic ligament, the gluteal and coccygeal muscles, the sphincter and levator ani muscles. Menstruation is usually painful, and the distress is usually referred to the rectum.

It is true that these patients suffer almost constantly from pain and tenderness involving all the pelvic viscera.

Attitude alone is many times diagnostic of the existing condition.

Some patients sit on one hip or with one side resting upon a chair, and the dread of causing pain to the sensitive part makes them awkward and miserable. They are unable to sit or stand, and finally become bedridden. They are oftentimes compelled to support their persons with cushions, so that no pressure is allowed to injure the painful parts.

Another valuable diagnostic sign is the extreme mobility, especially when patient is under the influence of an an-

esthetic, and of the immobility of the supersensitive portion of the bone drawn forward by muscular action when not anesthetized.

Again there are cases where pain is not so aggravated; some will have pain with every step, while walking, and others can walk without any painful sensations.

Occasionally we find pain in this region with the young and unmarried, and with those who have never borne children, which is traceable to a direct injury inflicted by blow, kick, or fall, and certain forms of exercise, as bicycle and horseback riding.

The one most convincing proof that the pain of this disease is due to the action of muscles attached to the coccyx, and the only reason given hitherto for this affection being peculiar to the one sex, is, that in women there is greater development of the gluteal and other muscles attached to the coccyx, and this development is a necessary consequence of the greater size of the female pelvis.

I made the statement that error of diagnosis and treatment was common. And why?

As coccydynia has many symptoms in common with uterine, cystic, and rectal disease, it is not at all infrequent that an error of diagnosis is made, consequently an error of treatment.

The average practitioner who is busy, and who infers that all pain within the female pelvis must necessarily be uterine, tubal or ovarian, will find that he is laboring under an erroneous idea, particularly if he attributes the sacral suffering to the so-called sympathetic pains of these parts; and if, after a hurried and careless examination (possibly no examination at all), makes the proverbial so-called, offhand diagnosis.

We should make it a routine practice in the examination of every pelvis to

carry the examining finger or fingers posteriorly, and palpate the coccygeal region. Should this effort prove not to be satisfactory by the vaginal route, don't hesitate to make a careful rectal examination (not instrumentally but digitally), and by conjoined manipulation you can readily determine any pathological state of the coccyx, and thereby clearly differentiate coccydynia from all other disorders to which this region is subject.

For a number of years I have not allowed a case, complaining of pelvic pain, to escape from the table without a most careful examination of the rectum, and many times, to my great surprise, I have been rewarded by finding sufficient pathology to pay for the extra effort a hundred fold.

Don't neglect this procedure in those neurasthenic cases that are the bane of practice; many times you will be able to locate a trivial ailment that has been overlooked by your fellow associate.

I alluded to the analogy between the disease under consideration, fissure of anus and vaginismus.

In the latter affections irritation in the region of the muscles causes painful contractions, so the characteristic pain of coccydynia is in some cases produced in the same way.

For instance, an anesthetic overcomes the spasmodic contraction of vaginismus and fissure of the anus. Again, there is no pain in vaginismus or in fissure of anus when parts are at perfect rest, neither is there in coccydynia, but owing to the great number of muscles attached to the coccyx, a slight movement of body produces pain, because the movement involves their action, which facts are conclusive proofs that coccydynia is not a true neuralgia of coccyx.

From the time of Galen the laity have entertained, and many physicians have

fostered the idea, that surgery should only be considered after every other known or supposed method of treatment had proved futile, and somehow or other the majority of patients seem to have an overwhelming confidence in the recuperative power of nature and in drug action; and only after long weeks of suffering, endeavoring through the agency of local treatments, external applications, blisters, electricity, osteopathy, Christian Science, the quack advertiser, etc., meeting with disappointment at every turn, do they finally despair of being cured, and hope upon hope that the menopause will end their chronic discomfort.

Until recent years, people failed to recognize the salient fact that certain diseases and conditions were only curable, or at least permanently destroyed, by means of surgery.

Even to-day the majority are prejudiced against the surgical art, mostly because of fear and dread of the early hours of pain, and lastly from the financial consideration.

In the treatment of these cases don't resort to liniments, anodynes, either orally, by rectum, or per vagina; neither endermic injection of morphia nor any of the alkaloids of opium, for they afford only temporary relief and are very prone to create a drug habitué.

Don't leave the disease to nature, or think perhaps the climacteric will work some wonderful change, for you will certainly be deceived, as these patients gradually become worn out with pain, and the vigor of their constitutions which they formerly possessed gives way by reason of their inability to take exercise.

However, there remains to-day, from a medical standpoint, but one remedy which affords any possible hope of recognition in the treatment of this affection, and that is the injection of alcohol.

I suggest this as worthy of trial while temporizing or at least preparing your patient for the surgical work, which will undoubtedly become necessary in order to give relief.

Removal of whole of coccyx seems to me preferable to subcutaneous division of the attachments, because the former procedure removes all possible chance of the return of the disease, and but slightly increases the gravity of the operation.

By carefully separating the bone from all soft muscular and fibrous attachments, carrying the knife or scissors in close proximity to the bone, from above downward, and with volsella forcep lifting the lower segment upward and away from the bowel, dissect away all the remaining muscular attachments underneath upward as far as the coruna of the coccyx. This may be done with a curved blunt-pointed scissors; then disarticulate at junction with coccyx. There is seldom hemorrhage of any importance, as no vessels are encountered of sufficient size to require ligating. With removal of coccyx all muscular tension is relieved, and your patient experiences for the first time that long-looked-for absence from pain, and in a word says, she is well again.

So far as I know, removal of the coccyx is never followed by any unpleasant consequences.

Great care should be exercised, however, on the part of the operator else he might injure the bowel.

Every case has made an uninterrupted recovery, with marked improvement in general health, and entire cure of the coccyodynia.

In conclusion I ask you to recall the fact that medical literature is not replete on the subject of coccyodynia, that this paper relates to a subject difficult of investigation; hence I solicit your indulgence in criticism, and sincerely hope that a secret consciousness of error will inspire physicians to further their pursuit of knowledge along the study of this subject.

And it is to be hoped that the period is approaching when the wisdom of the medical profession will awaken to the fact of carefulness in diagnosis, and to this end should each and every one aspire, rather than allow the patient to drift aimlessly about, and exhibit the cheerless picture of a little wasted energy and time, on the part of the physician, to the end of correct diagnosis.

SURGICAL SUGGESTIONS

When acne of the back does not respond to treatment, try a few applications of long strokes with the Paquelin cautery. The results are often excellent.—*American Journal of Surgery*.

If a patient with acute gonorrhoea is kept in bed on a restricted diet, the saving of time in the cure will amply repay him for the confinement.—*American Journal of Surgery*.

An intractable tuberculous cystitis that is not improved by silver nitrate most probably is associated with tuberculosis of the kidney, which causes reinfection.—*American Journal of Surgery*.

No operation for hemorrhoids should be done without a thorough examination of the heart and abdomen to discover etiologic obstructive conditions.—*American Journal of Surgery*.

The Journal of the Michigan State Medical Society

All communications relative to exchanges, books for review, manuscripts, advertising and subscriptions should be addressed to Wilfrid Haughey, A. M., M. D., Editor, 24 West Main Street, Battle Creek, Michigan. The Society does not hold itself responsible for opinions expressed in original papers, discussions or communications.

Subscription Price \$2.00 per Year, in Advance.

DECEMBER

EDITORIAL

Your Committee recommends, that on May first of each year the Journal of the State Society be discontinued to all subscribers and members in arrears and that such members be reported to the Secretary of the American Medical Association as "dropped for non-payment of dues."—*Report of Business Committee unanimously adopted by House of Delegates.*

A CENTURY MARK

This is the one hundredth number of the JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY.

The JOURNAL was first published in September, 1902, taking the place of the Volume of Transactions, and has appeared every month since then without a break in the record.

At the reorganization of the Michigan State Medical Society, in 1902, it was felt that the objects and aims of the enlarged and rejuvenated Society would be best attained by establishing an official means of intercommunication that could present our transactions the same as had been done before, and could also keep us in touch with our brother practitioners throughout the State, every month, instead of once a year. It was thought that the news of the various County Societies would be an aid in perfecting the organization of other County Societies, and in cementing more strongly together those already organized.

Illinois had already established an official Journal, which was meeting with

marked success. Michigan followed as the second State Medical Society to own its JOURNAL, and the success and popularity of the plan is well illustrated by the fact that there are now twenty-three State Society Journals, and another about to be established.

The membership of the Michigan State Medical Society has increased from less than seven hundred in 1902 to over twenty-one hundred in 1910, and the influence of the JOURNAL has been no small factor in this increase.

OUR PRESIDENTS

As a sort of celebration of our one hundredth birthday, so to speak, and as an inspiration for our members, we are reproducing in this number the likenesses of many of our ex-presidents. It has not been feasible to get them all, but there is not a member of the Society who will not recognize a friend and an inspiration in one or more of those we have secured. We had intended to give short biographical sketches of these men whom the Michigan State Medical Society has so signally honored, but owing to the few which we obtained, it has been decided to use only the pictures.

These men chosen year after year to preside over our councils, have come from all parts of the State, from all branches of practice, and have been men of more than average worth, beloved by their associates.

MICHIGAN STATE BOARD OF REGISTRATION IN MEDICINE

It is gratifying to note how many of our County Medical Societies have taken action favorable to the plan of the Michigan State Medical Society for the relief of the Michigan State Board of Registration in Medicine. Many have adopted resolutions favoring the plan and have appointed committees to wait upon their representatives and senators, and hundreds of members

have promised to interview these officials personally.

The Legislative Committee is hard at work preparing the amendments to the law to carry our plan into effect, and will have their work ready to present to the Council at its January meeting,—so that it can go to Lansing with the full backing of the Michigan State Medical Society, and fulfilling all our by-law requirements.

In the meantime it behooves us to see that all our County Societies take action on this measure, and also that all the representatives and senators are interviewed not once, but many times, in its favor. Let the Legislature know that the whole medical profession is in favor of this, and let them know it in no uncertain way, and the chances all are that success will be ours.

SMALLPOX IN SAGINAW

On October 17th and 18th, smallpox broke out in Saginaw. On those two days forty-five cases were reported in forty-five different families in different parts of the city. Up to November 7, one hundred and two cases had been reported, with twenty-six deaths.

Nearly all of the first forty-five cases were of the hemorrhagic and confluent type, and nearly all of the twenty-six deaths were from among these forty-five. Most of the cases reported since the first two days have been of the discrete type.

The source of the infection is unknown, but the occurrence of so many cases in such a short space of time and so widely distributed would seem to indicate that exposure occurred in some public place. All schools, theatres, churches, lodge halls and other places where people congregate are closed, and the strictest quarantine is enforced. Saginaw has a modern up-to-date Detention Hospital, built three years ago, at a cost of ten thousand dollars, and capable of accommodating thirty patients. In or-

dinary epidemics this would suffice, but in this one it has been necessary to quarantine many in their homes.

General vaccination has been ordered and has met with popular favor, forty thousand being vaccinated during the three weeks. Members of the families where the first forty-five cases occurred were immediately vaccinated and quarantined, and while some have contracted the disease, it has always been of the mild, discrete type.

Briefly, the points of especial interest are:

I. There have been no severe cases among patients who had been vaccinated in the past ten years.

II. Few cases in new families after quarantine was established.

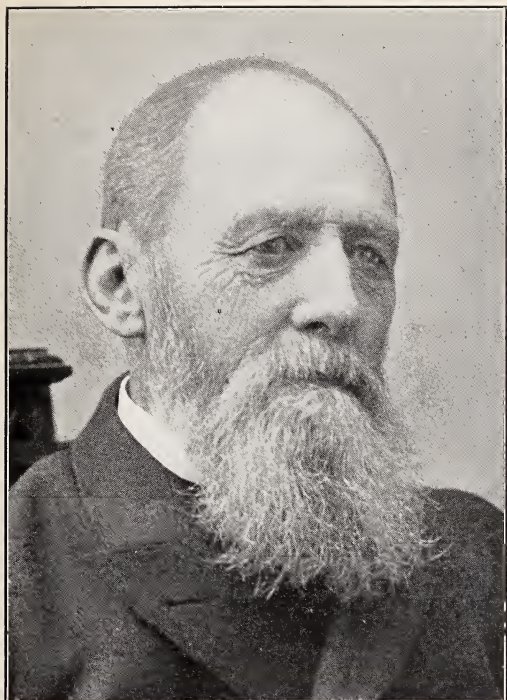
III. Readiness with which the people responded to the call for general vaccination.

IV. Vaccination "worked" on people who had smallpox previously.

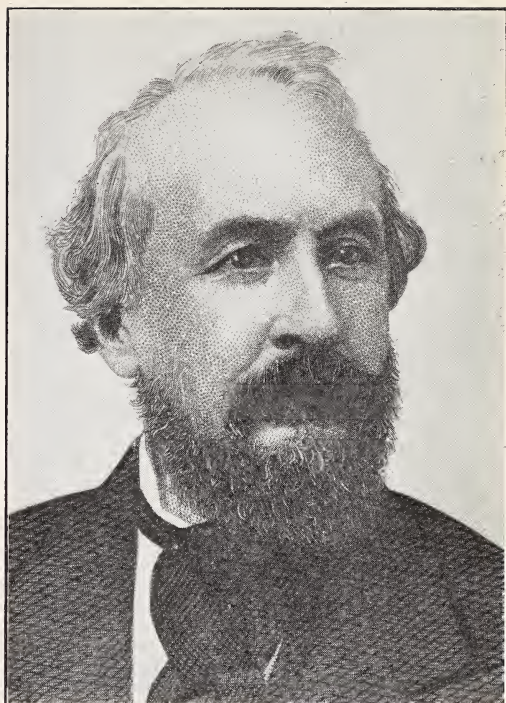
(This last fact shows a mistaken diagnosis, or that smallpox may not always produce immunity, or that immunity to smallpox does not mean also immunity to vaccina.)

Not since 1892 have we had a severe epidemic of confluent or hemorrhagic smallpox. Since then our smallpox epidemics have been so mild that the people have begun to doubt the danger or severity of smallpox, and to distrust, to an extent, the precautions sanitarians have taken to prevent it. This feeling will receive a severe shaking up from the present epidemic in Saginaw, for once again have we been visited with genuine old-time smallpox, with a mortality of about 50% among the cases reported the first couple of days, and of 25% during the first three weeks of the epidemic,—the period covered by the report of our correspondent from which our data was taken.

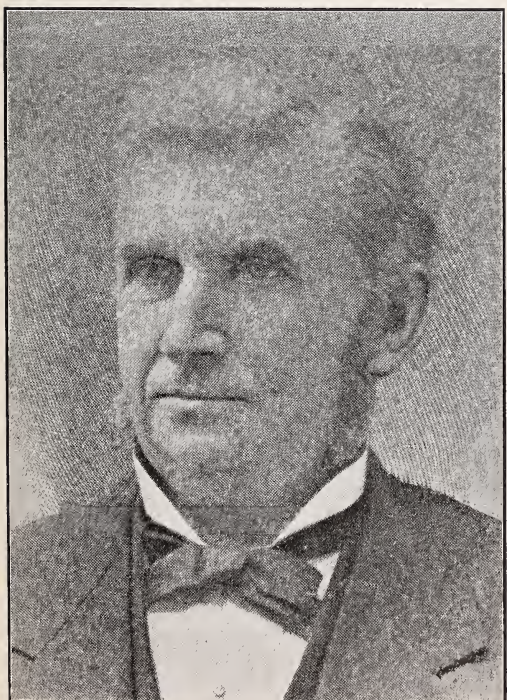
Saginaw is to be congratulated upon its general vaccination, for this will tend to



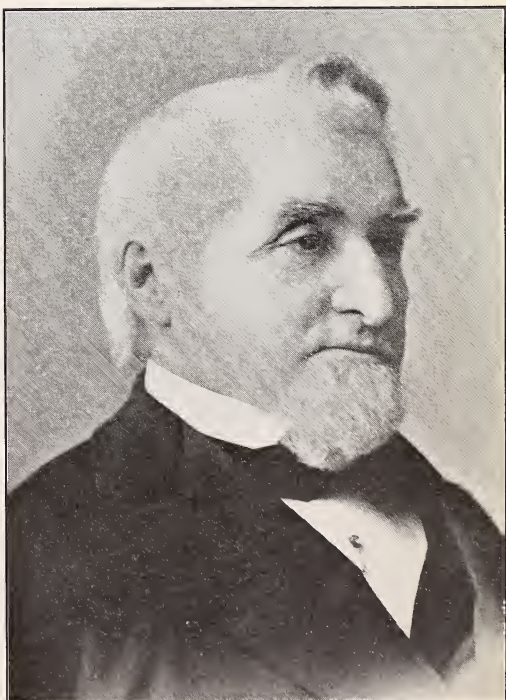
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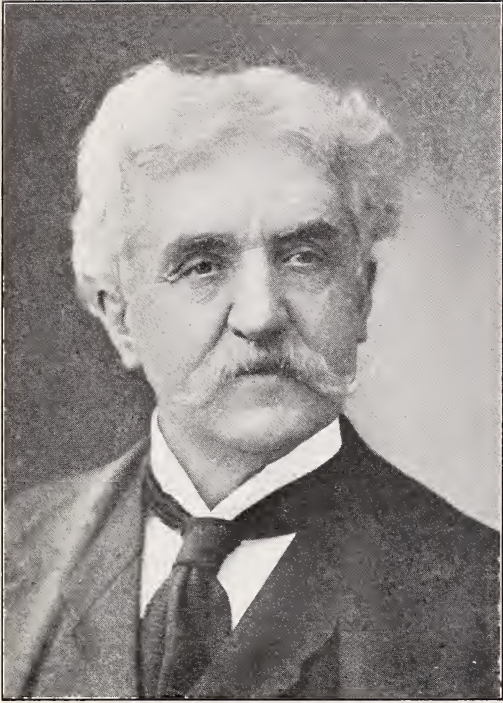
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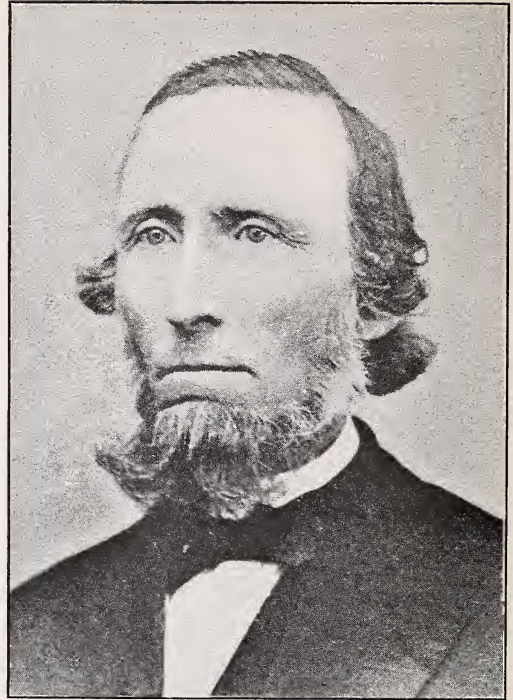
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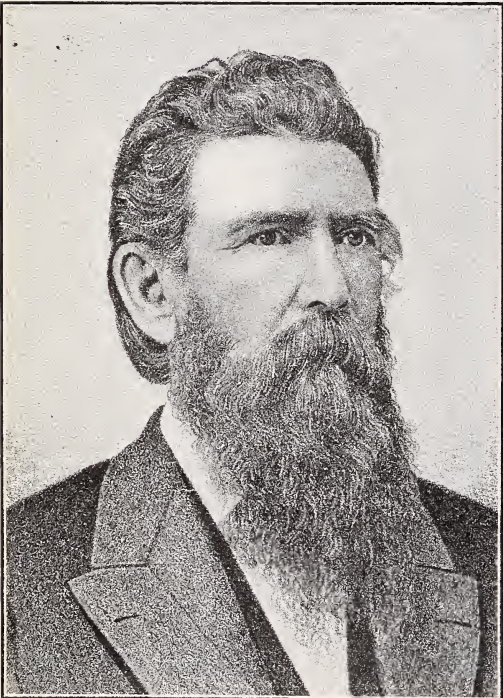
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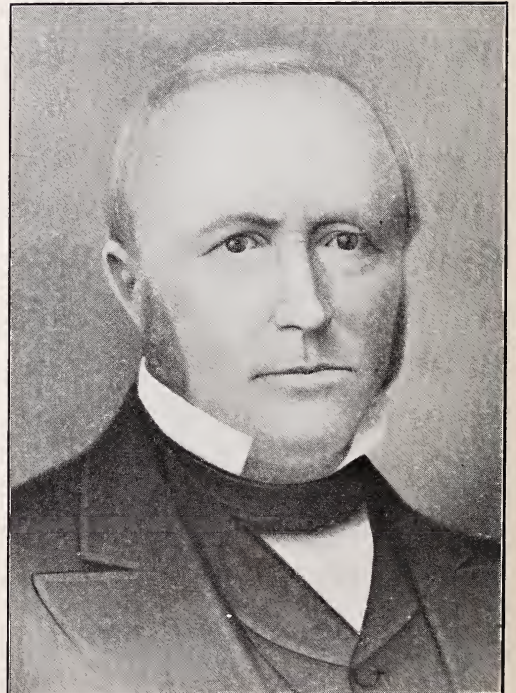
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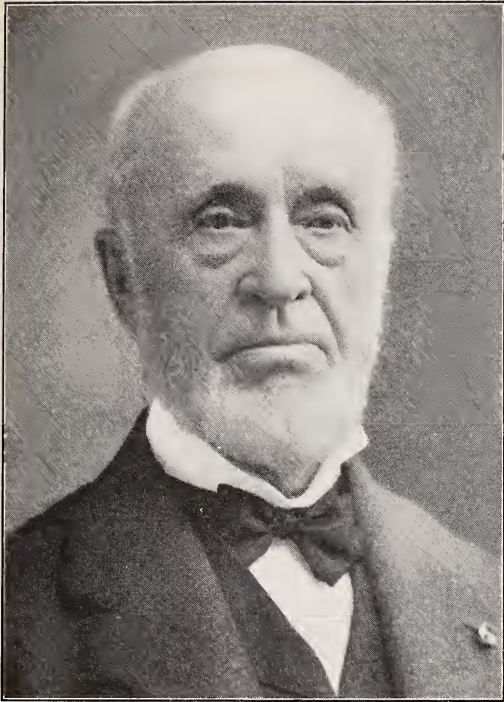
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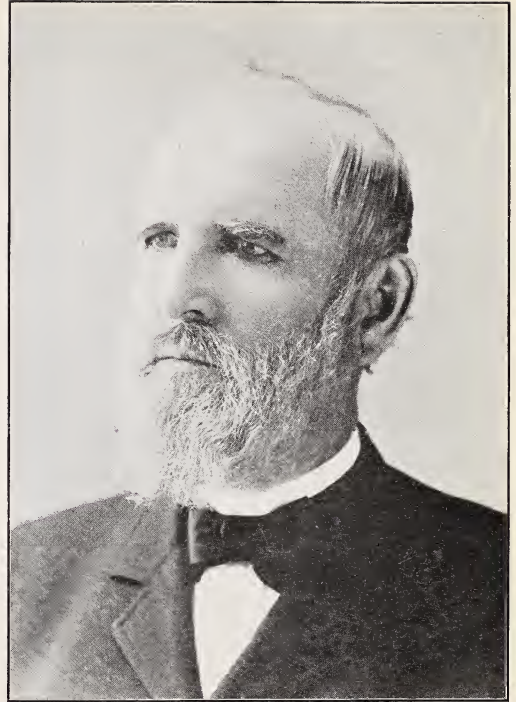
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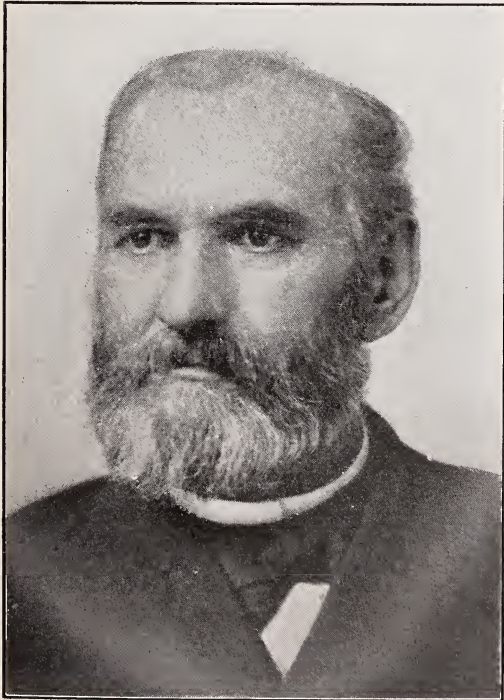
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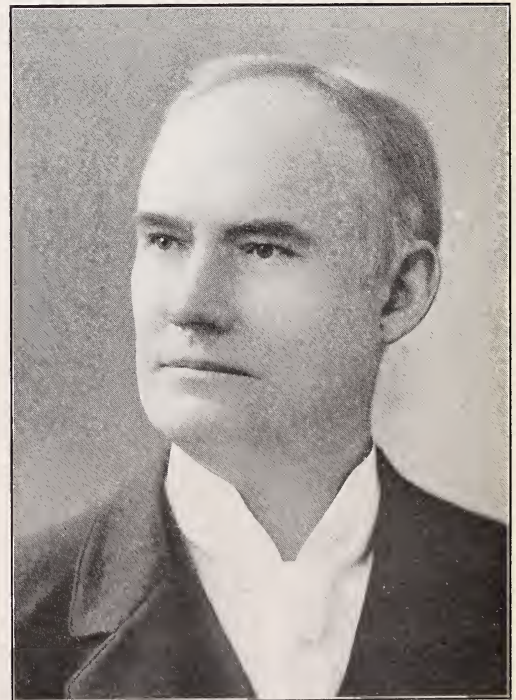
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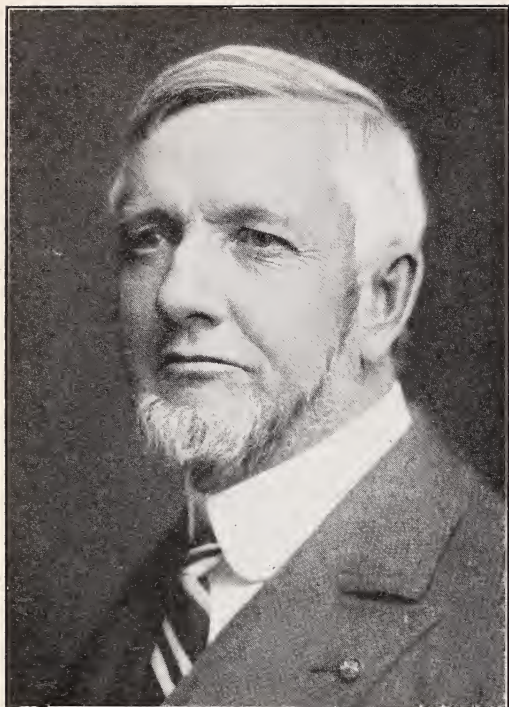
DR. G. W. TOPPING, De Witt
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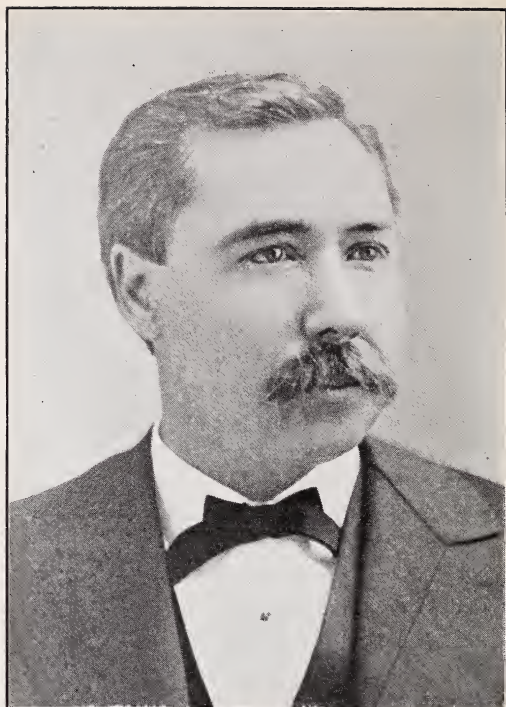
DR. A. F. WHELAN, Hillsdale
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DR. DONALD MACLEAN, Detroit
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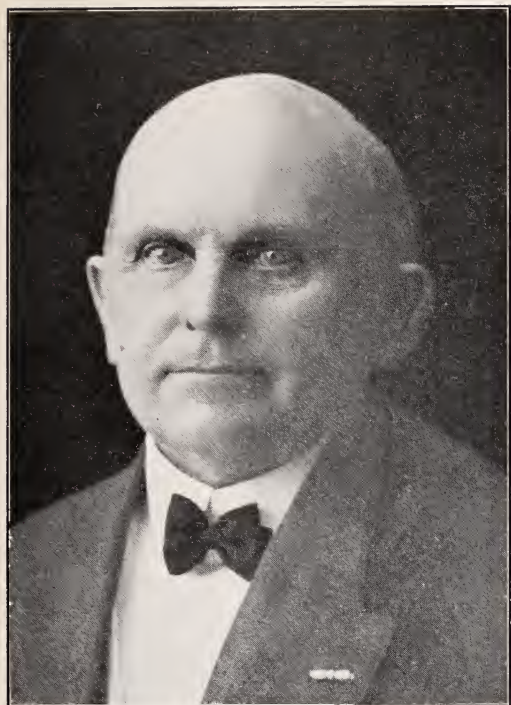
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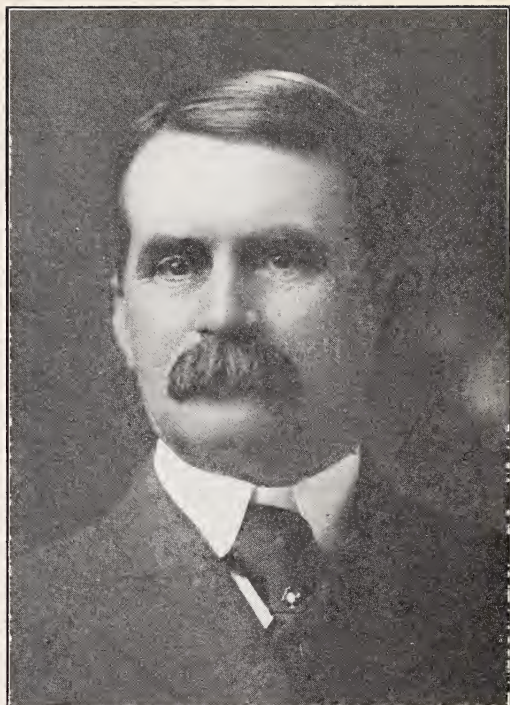
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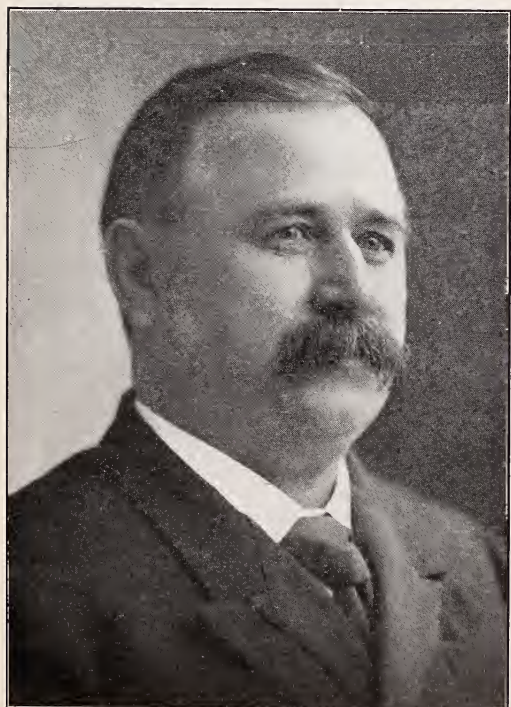
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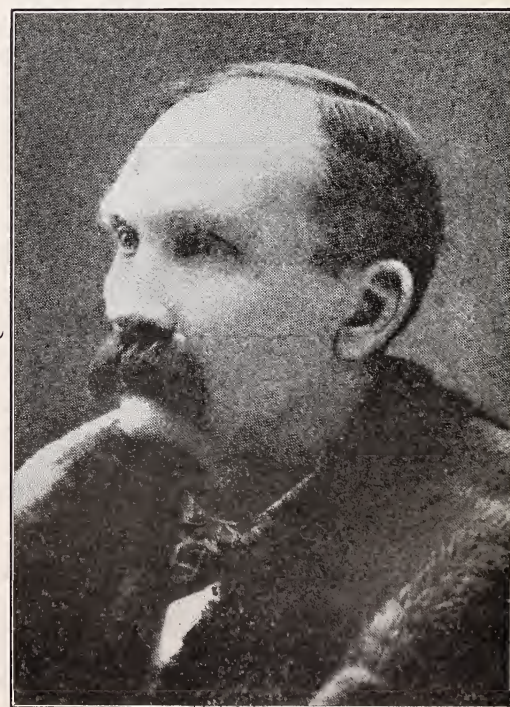
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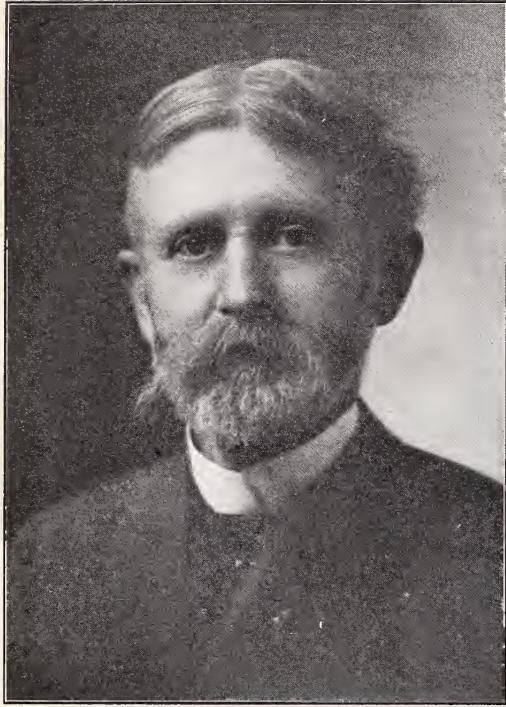
DR. EUGENE BOISE, Grand Rapids
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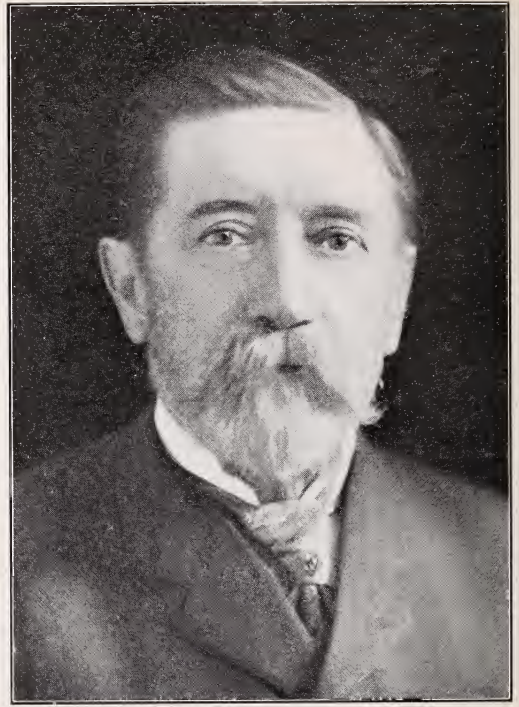
DR. VICTOR C. VAUGHAN, Ann Arbor.
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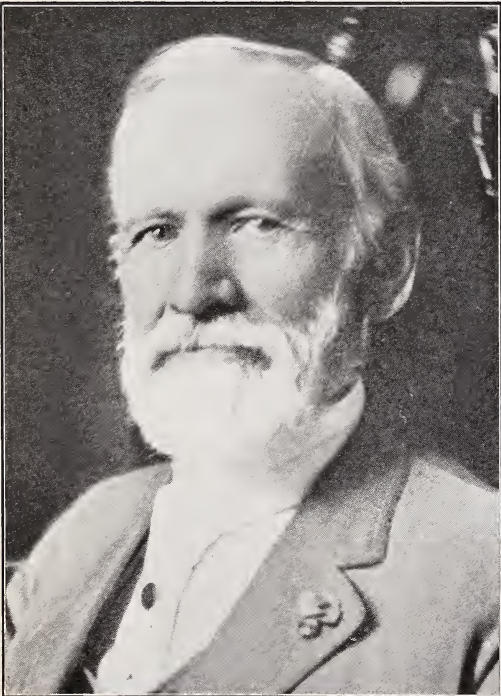
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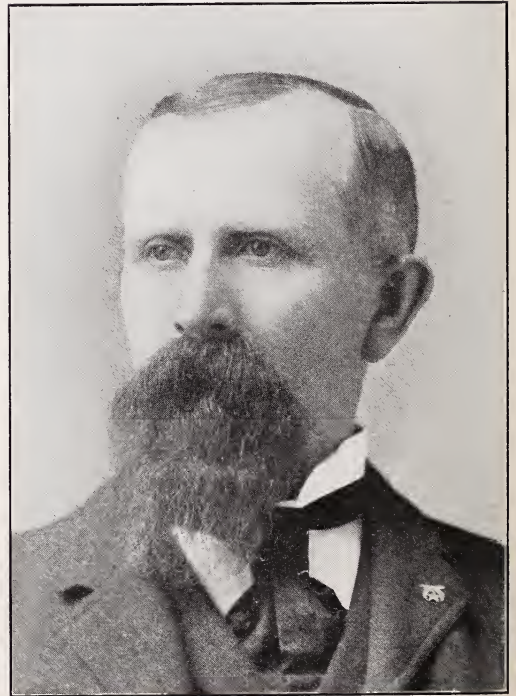
DR. J. B. GRISWOLD, Grand Rapids
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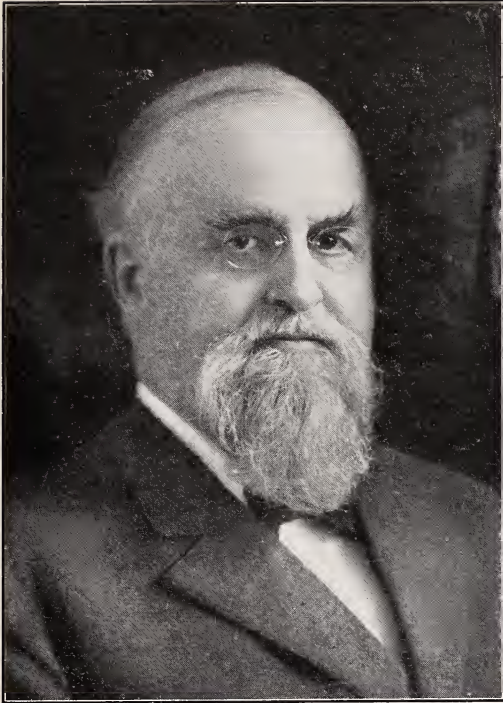
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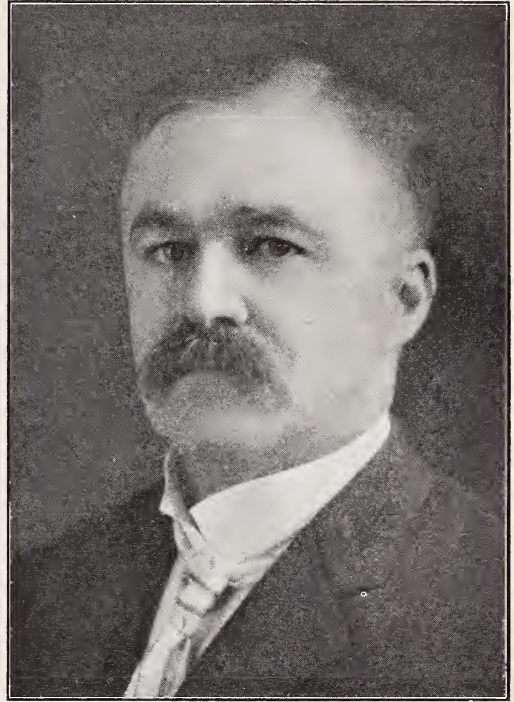
DR. A. W. ALVORD, Battle Creek
President, 1899



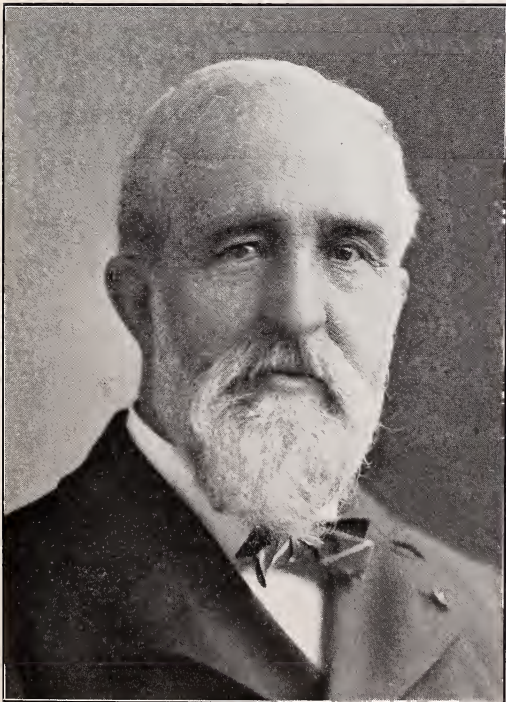
DR. P. D. PATTERSON, Charlotte
President, 1900



DR. LEARTUS CONNOR, Detroit
President, 1901



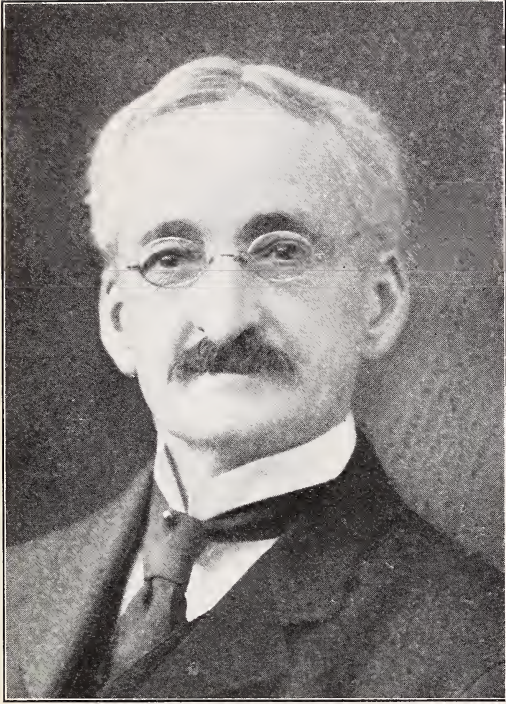
DR. A. E. BULSON, Jackson
President, 1902



DR. W. F. BREAKEY, Ann Arbor
President, 1903



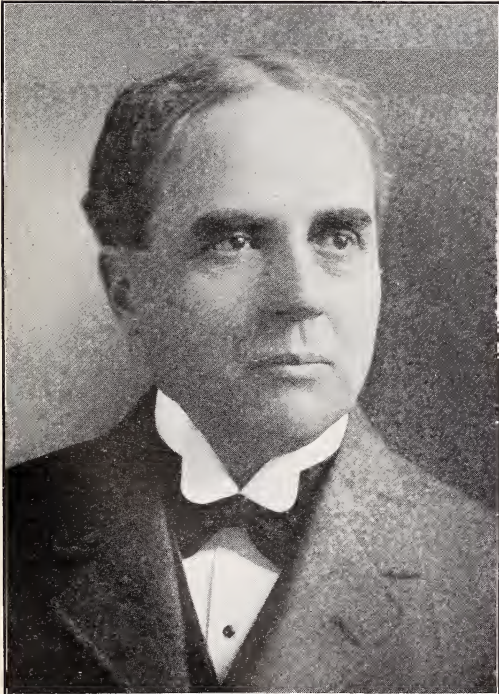
DR. B. D. HARISON, Sault Ste. Marie
President, 1904



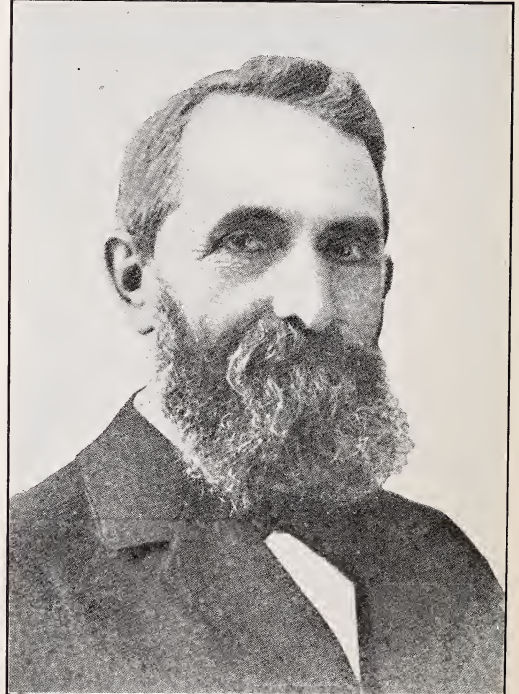
DR. DAVID INGLIS, Detroit
President, 1905



DR. C. B. STOCKWELL, Port Huron
President, 1906



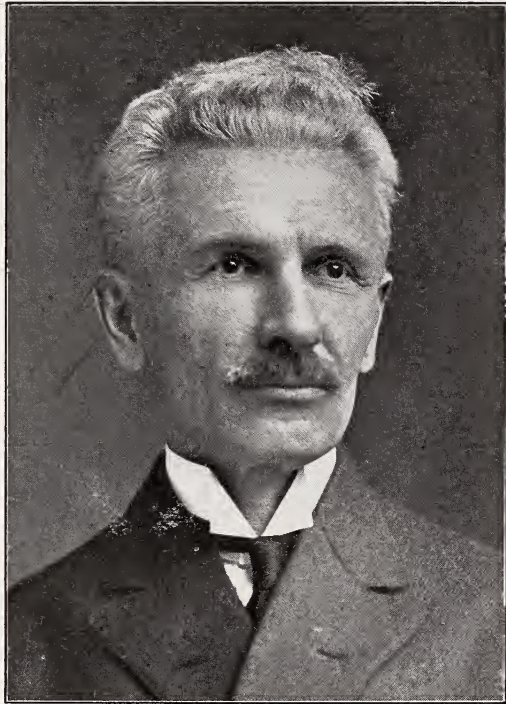
DR. HERMAN OSTRANDER, Kalamazoo
President, 1907



DR. A. I. LAWBAUGH, Calumet
President, 1908



DR. J. H. CARSTENS, Detroit
President 1909



DR. C. B. BURR, Flint
President, 1910

preclude another outbreak from cases of delayed incubation, as sometimes occurs.

(Forty-three deaths reported up to November sixteenth.)

COUNTY SOCIETY REPORTS

The Department of County Society News is one of the most important in the JOURNAL. Through this department do we learn what is being done by the organized profession in its various Branches.

This department should be made even more valuable than it is. There are many papers read before County Societies that contain some thought worth expressing to the whole State. Papers of merit should be sent to the JOURNAL for publication, and the report of the County Society meeting would be of more scientific interest if the leading topics of the papers were presented in a few well-chosen words. New ideas brought out by the discussion are also valuable material for this department.

Early in the year we promised to make a summary in the December number of all the counties represented in the department of County Society News during the year. As will be seen by this summary, which follows, 43 of our 57 counties were so represented with a total of 108 reports; 78 original articles have been published from 19 counties.

	Co. Soc. Reports	Orig. Art.
Huron.....	4	1
Ingham.....	3	3
Ionia.....	3	0
Isabella.....	1	0
Jackson.....	0	1
Kalamazoo.....	5	4
Kent.....	3	8
Lapeer.....	1	0
Lenawee.....	1	0
Livingston.....	0	0
Macomb.....	0	0
Manistee.....	1	0
Marquette.....	3	0
Mason.....	1	0
Mecosta.....	1	3
Menominee.....	1	0
Midland.....	0	0
Monroe.....	1	0
Montcalm.....	5	0
Muskegon.....	9	3
Newaygo.....	1	0
Oakland.....	2	0
O. M. C. O. R. O.....	2	1
Ontonagon.....	1	0
Osceola.....	1	0
Ottawa.....	8	0
Presque Isle.....	0	0
Saginaw.....	0	0
Sanilac.....	1	0
Schoolcraft.....	1	1
Shiawassee.....	2	0
St. Clair.....	2	0
St. Joseph.....	3	2
Tri-County.....	1	0
Tuscola.....	2	0
Washtenaw.....	0	6
Wayne.....	5	31
	<hr/>	<hr/>
	108	78

IN MEMORIAM

Leroy Lewis, M. D., Jefferson Medical College, Philadelphia, 1878; a member of the American Medical Association; for twenty years surgeon in charge of Lewis Hospital, Bay City, Mich.; died at his home in South Bend, Ind., October 27, from cancer of the neck, aged 55.

Edgar R. Knapp, M. D., University of Michigan, 1856; surgeon in the Federal service during the Civil War; died at his home in Saginaw, Mich., October 19, from epilepsy, aged 76.

David Rogers (license, Michigan, under years practice, 1900); for over forty years a practitioner of Millington, Mich.; died October 28, from cancer, aged 77.

	Co. Soc. Reports.	Orig. Art.
Alpena.....	0	0
Antrim.....	1	0
Barry.....	0	0
Bay.....	2	0
Benzie.....	0	0
Berrien.....	1	0
Branch.....	2	1
Calhoun.....	3	3
Cass.....	0	0
Cheboygan.....	0	0
Chippewa.....	4	0
Clinton.....	1	0
Delta.....	1	0
Dickinson.....	0	1
Eaton.....	2	0
Emmett.....	0	0
Genesee.....	1	1
Gogebic.....	0	0
Grand Traverse.....	10	3
Hillsdale.....	2	1
Houghton.....	3	4

COUNTY SOCIETY NEWS

BRANCH

The regular quarterly meeting of the Branch County Medical Society was held at Coldwater on Tuesday, October 18, 1910, in the Court-house, President Hancock presiding. Eleven members were present.

Minutes of the last meeting were read and approved. Communications from the State Secretary were read. The one relating to the lack of funds with which to carry on the work of the Board of Registration required action. A committee consisting of Drs. Griffith and Howe was appointed by the chairman to interview our State Senator and Representative, and urge the passage of suggested bill. The President also urged each member to work and use his influence for the passage of such a bill.

Dr. Frank C. Kinsey, of Grand Rapids, was the guest of the day, and read a very interesting and practical paper on "Cause and Relief of the Gall Stone Pain." The Society extended a vote of thanks to Dr. Kinsey for his excellent paper.

Dr. Ray Whitmore gave a very exhaustive paper on "Blood Pressure."

Dr. A. G. Holbrook read a paper on "Poliomyelitis," and presented a case showing the extent of paralysis after recovery of acute attack.

Every paper was thoroughly discussed by the members present.

A motion to hold the next meeting at Coldwater was carried.

S. SCHULTZ, *Secretary.*

CHIPPEWA

The regular monthly meeting of the Chippewa County Medical Society was held at the Park Hotel November 1, President C. J. Ennis presiding. Dr. Fred Townsend read a paper on "Gastric Symptoms Produced by Surgical Conditions," and there was a general discussion relative to the position the State should occupy towards the Board of Registration. When the law creating the board was enacted by the Legislature it was the intention and belief that the fees would be sufficient to maintain the board. For the first few years this was the case. All the old physicians in the State were applying for registration as well as the graduates from colleges, and as a

result there was plenty of money on hand to meet the current expenses and prosecute offenders. But there has been a gradual falling off in the applicants, until whereas there were formerly as many as 600 to register in a year, now there is rarely to exceed 150. The matter has been subject for discussion among the medical societies all over the State, and doctors are in favor of having the State bear the expense of maintaining the board without having to depend alone on the fees collected for registration. The local Society went on record as favoring the change.

The next meeting of the Society will be held the first Tuesday in December, when officers for the ensuing year will be elected.

CLINTON

At its annual meeting at St. Johns the Clinton County Medical Society elected the following officers:

President, W. A. Scott, St. Johns.

Vice President, E. L. Martin, Maple Rapids.

Secretary, J. E. Taylor, Ovid.

Dr. M. Weller was elected delegate to the State Society, Dr. F. C. Dunn, alternate.

JAMES E. TAYLOR, *Secretary.*

GENESEE

At the annual meeting of the Genesee County Medical Society, held October 25th, the following officers were elected:

President, Dr. Noah Bates.

Vice President, Dr. M. S. Knapp.

Secretary and Treasurer, Dr. C. P. Clark.

Ass't Secretary and Treasurer, Dr. F. B. Miner.

Delegate State Medical Society, Dr. H. E. Randall.

Alternate, Dr. J. W. Handy.

Member of Medico-Legal Committee, Dr. H. R. Niles.

Member of Board of Directors, Dr. Abraham Goodfellow.

At the conclusion of the business meeting Dr. H. E. Randall read a very interesting paper on "Diseases of the Thyroid Gland." Dr. E. D. Rice presented a case of Exophthalmic Goitre, and the discussion was led by Dr. J. R. Manwaring.

The Society voted to send a letter to the

Senator and Representative of Genesee County District, requesting them to further and support the bill, now under preparation by the Legislative Committee, asking for an appropriation for the maintenance of the Michigan State Board of Registration in Medicine.

C. P. CLARK, *Secretary*.

GRAND TRAVERSE

The annual meeting of the Grand Traverse-Leelanaw County Medical Society was held Tuesday, November 1, at Dr. Miner's office. The election of officers for the ensuing year was held with the following result:

President, Dr. Miner.

Vice President, Dr. Holdsworth.

Secretary and Treasurer, Dr. Wells.

The Treasurer's report was read and approved. Two letters from the State Secretary were read, one regarding dues, the other regarding the present condition of the State Board of Registration.

It was moved and seconded that a committee of two, with the Secretary, draft resolutions regarding the State Board of Registration, and send same to the prospective candidate for the State Legislature. Carried. Dr. Chase and Dr. Holdsworth were appointed on this committee.

Dr. Miner read a very interesting paper on "Radiotherapy," citing cases in his practice that had been cured or benefited by the X-rays. A general discussion followed.

It was decided to meet at Dr. M. S. Gregory's office next time.

Dr. W. D. Mueller, the retiring President, then invited the members to the Elks Club, where an Italian supper was served.

R. E. WELLS, *Secretary*.

HILLSDALE

The annual meeting of the Hillsdale County Medical Society was held at the Court-house, Hillsdale, October 28.

Dr. F. C. Martindale was elected President, and B. F. Green re-elected Secretary.

Several clinical cases were presented, one of a swelling on the angle of the lower jaw, for diagnosis, and three of infantile paralysis.

Dr. H. C. Miller read a paper on "Infantile Paralysis," reviewing the history of the disease and the literature and reporting several cases. The first cases to occur around Hillsdale were in young adults, and were very severe,—taking the victim off in three or four days. Since then the attacks have not been so severe, and have occurred in all ages, the oldest being a lady of

seventy years. Dr. Miller presented a little girl just regaining the use of her legs, so that she can with difficulty take a few steps, also two boys, brothers, who walk with a slight halt.

The discussion brought out the fact that this disease has recently been quite prevalent in Hillsdale, but rare in other parts of the State.

Dr. Green read a paper on "Intestinal Infection of Infants," advocating close attention to the diet of infants and outlining the care that should be given to the milk. Practically all cases of intestinal infection of infants occur in bottle babies.

Dr. A. E. Bulson, of Jackson, advocated medical inspection of schools, and told what had actually been done in this direction.

Dr. Willard Chaney, of Detroit, gave an entertaining talk on the "Uses of Carbon Dioxide in Medicine," and spoke of the Nauheim baths, the carbon dioxide baths, and carbon dioxide snow.

Dr. Wilfrid Haughey, State Secretary, Battle Creek, spoke on Organization Matters and the *Journal*.

Two new members were elected.

B. F. GREEN, *Secretary*.

IONIA

The Ionia County Medical Society held its eighth annual convention in Ionia, on Thursday, October 27, with the following as the program. Banquet at Hotel Bailey at 12.30, smoker, speeches, official reports, miscellaneous business, election of officers, presentation of paper by Dr. S. C. Graves, of Grand Rapids, entitled "Genu Valgum," with some observations on corrective osteotomy.

Dr. Graves' paper was listened to with great attention, and upon conclusion of the reading was most thoroughly discussed. A vote of thanks was accorded the visiting speaker, and the Secretary was instructed to forward the paper to the State Medical *Journal* for publication.

The election of officers resulted in the choice of the following named:

President, Dr. W. J. Wilkinson, of Orleans.

First Vice President, Dr. T. R. Allen, Ionia.

Second Vice President, Dr. J. J. McCann, Ionia.

Third Vice President, Dr. F. M. Martin, Portland.

Forth Vice President, Dr. F. A. Hargrave, Palo.

Secretary-Treasurer, Dr. C. S. Cope, Ionia.

Censors, Drs. C. B. Gauss, Palo, E. F. Beckwith, Ionia, and Geo. A. Stanton, Belding.

Delegate to State Society, Dr. Cope; alternate, Dr. McCann.

Member of Medico-Legal Committee, Dr. W. L. Barnes, Ionia. C. S. COPE, *Secretary*.

KENT

Kent County Medical Society met Wednesday evening, October 12th, President R. R. Smith in the chair.

Dr. Collins H. Johnston reported a case of gonorrheal arthritis treated with vaccine with rapid recovery. He reported two cases of epidemic cerebro-spinal meningitis, diagnosis confirmed bacteriologically, treated with Flexner's serum, one case showing clinical cure inside of twenty-four hours, the other improving less rapidly under its influence.

Dr. A. J. Baker read a paper on "Hemorrhagic Disease of the Newborn," citing three cases, one starting with gastric hemorrhage, one with hematoma under scalp. He showed the difference between hemophilia, which is rare in the first year of life. Burnham's experiments with dogs were quoted, in which clotting time was reduced from four minutes to one with saline extract of the aorta. The probable cause of the disease was stated as imperfect coagulability, due to lack of blood vessel wall secretion. Rational treatment would be, therefore, to introduce fresh blood serum and so supply blood containing coagulable ferments.

Dr. Baker reported cases of Welsh and Lambert, of New York, treated successfully by direct transfusion; also one of his own cases treated with 10cc horse serum with recovery.

Dr. J. D. Hastie reported two cases of Schwartz and Auchenberg treated unsuccessfully with horse serum, but yielding to direct transfusion.

Dr. J. B. Whinery mentioned the low platelet count, which has been known to fall below six thousand, improvement following transfusion.

Dr. A. M. Campbell read a paper on "Spinal Anesthesia," remarks based on personal experience and on observations at Bier's clinic. He frankly admitted a 10 percentage of failures; but urged its use where inhalation anesthesia is contraindicated. Due credit was given to Dr. Leonard Corning of New York, as the originator of the method in 1885, although Bier and Jonnesco may be said to have popularized it. Dr. Campbell advises tropacocaine solution. Dr. Rowe, in discussion, cited twenty-three cases.

Dr. Dingman quoted McCardie's mortality estimate one in eight hundred and twenty-six, as based on twenty-four thousand cases collected in the literature. Fear was stated as the chief contraindication.

Kent County Medical Society met Wednesday, October 26, Vice-president Brooks in the chair.

Dr. R. J. Hutchinson presented a paper "Remarks on Imperforate Anus," reporting two cases. This defect occurs ten times in 73,000 cases, according to statistics, at which rate Grand Rapids might be expected to show one case in five years. Examination reveals the defect; its chief symptom is vomiting,—appearing more or less rapidly according to the height of obstruction. Surgical treatment in both cases. One patient well after four years. One patient died after two weeks, post mortem not obtainable.

Dr. Wenger reported a case where the stomach ended in a blind pouch, vomiting occurring within ten hours.

Dr. DuBois cited two cases.

Dr. Reuben Peterson, of Ann Arbor, before presenting his paper, took occasion to praise the bulletin idea as a valuable aid in maintaining a wide-spread interest in society meetings.

In opening his subject, "The Present Status of the Cure of Cancer of the Uterus by Radical Abdominal Hysterectomy," he referred briefly to the old Freund operation, originated in the late '70s, in which hysterectomy was done without removal of parametrium and glands. Later followed vaginal hysterectomy and its enthusiastic reception, although statistics have shown a scant 4% of cures, a cure being practical if five years elapse without recurrence. Then appeared Halstead's brilliant teachings of removing glands, muscle and everything involved in breast cancer. Finally, in 1895, Emil Reis advised removal of parametrium and pelvic glands, as well as uterus, for uterine cancer. It must be here remarked that Dr. Eugene Boise suggested the logic of such a procedure some two or three years previously at a Michigan State Medical Society meeting, 1892. Although fifteen years have elapsed since Reis' first paper, Jacobson, of Toledo, could collect only some three hundred cases in America. The distinct disfavor is due (a) to the high primary mortality; (b) to the lack of experience with this operation; and (c) to the lack of teaching the laity regarding cancer, as is done in Germany, by public campaign, and consequently the late appearance of cancerous patients to surgeons for treatment.

Jacobson estimates that thirty-five per cent. of those cases presenting themselves to American surgeons are operable, whereas in Germany the percentage is estimated at sixty-five. Exploratory incision is often required to determine if operation is indicated, because, for instance, of obesity, old inflammatory adhesions, or broad ligament involvement.

The dangers of the operation lie in tying the uterine artery external to the ureter, freeing and lifting the ureter from its bed, excising the vaginal wall partially, tediousness of the operation, especially in removing glands, advanced age, and septic or debilitated condition of patient.

These causes mean a high primary mortality. Wertheim in over four hundred cases reports ten per cent. mortality. But in contrast reports six hundred and twenty-seven cured. Peterson lost six of his first fourteen cases, but only four of the succeeding twenty-nine cases. Only twelve were operated on over five years ago, five died, four are now well, three show recurrence, due, Peterson believes, to faulty technique as indicated by the recurrence in the vaginal scar.

It is almost impossible to remove the high pelvic glands. Peterson found metastasis in only four of twenty-one cases. Wertheim removes only those which are enlarged, Reis tries to remove all.

Contraindications are (a) obesity because of cardiac changes and pressure on the diaphragm when patient is in Trendelenburg position; (b) marked degrees of anæmia or sepsis.

Causes of death are shock, hemorrhage, peritonitis, and embolism.

Lantern slides of exceptional merit—the work of Dr. E. P. Billings—completed the paper.

Discussion followed by Drs. Bigham, Veenboer, Parkhurst, Boise, Rowe, Fuller, and Peterson.

H. W. DINGMAN, *Correspondent*.

MASON

By invitation of the Mason County Medical Society, the Muskegon-Oceana and Manistee County Societies met with them in Ludington, Tuesday afternoon, October 11.

Dr. B. H. McMullen, councilor for the ninth district, and Dr. Munson, of the Northern Michigan Asylum, were present as guests of honor, and gave some very interesting papers.

A banquet was served in the Steams Hotel, to which some thirty-five sat down. After the banquet a short business session was held by the Mason County members, and the following officers elected for the ensuing year:

President, Dr. W. H. Heysett, Ludington.

Secretary and Treasurer, T. J. Foster, Scottville.

W. C. MARTIN, *Secretary*.

MONROE

The fifteenth annual meeting of the Monroe County Medical Society was held in Monroe, on October 20. Dr. Ballin, of Detroit, gave a most

interesting talk on "Surgery of the Thyroid," and Dr. Acker, of Monroe, a paper on "Puerperal Eclampsia."

Election of Officers resulted as follows:

President, P. S. Root, of Monroe.

Vice President, E. M. Cooper, Carleton.

Secretary-Treasurer, Chas. T. Southworth, of Monroe.

The President was instructed to confer with the candidates for Legislature and Senate to ascertain their feeling towards support of Board of Registration, and to notify all physicians in this District of their standing in this matter. Our meetings are growing better every year. There are still many physicians in the county who will not attend meetings, but we hope to get them interested before long. It is their loss, not ours.

CHAS. T. SOUTHWORTH, *Secretary*.

MONTCALM

Our annual meeting, of October 13, was a hummer, nearly all of our members being present and some visitors.

Dr. H. A. Freund, of Detroit, read a very carefully prepared paper on "The Diagnosis and Treatment of Cardiac Affections."

Dr. J. B. Whinery, of Grand Rapids, read a paper of much interest on the "Influence of Heredity on Disease."

Dr. Richard R. Smith, of Grand Rapids, presented a paper on "Subinvolution of the Uterus, its Pathology and Treatment." This was illustrated with lantern slides. These papers were well discussed.

The following officers were elected for the ensuing year:

President, Dr. J. Odell Nelson, Howard City.

First Vice President, Dr. E. M. Highfield, Edmore.

Second Vice President, Dr. W. H. Belknap, Greenville.

Third Vice President, Dr. W. A. Lee, Sheridan.

Fourth Vice President, Dr. L. E. Kelsey, Lakeview.

Secretary and Treasurer, Dr. H. L. Bower, Greenville.

At the close of the meeting all repaired to Hotel Phelps, where a fine lunch was served.

H. L. BOWER, *Secretary*.

MUSKEGON-OCEANA

Regular meeting of the Muskegon-Oceana County Medical Society was held at the residence of Dr. W. L. Griffin, Shelby, Michigan, October 7

1910, at 4 P. M. Members present: Doctors W. L. Griffin, J. D. Buskirk, W. E. Dockry, J. H. Nicholson, L. W. Keyes, J. M. VanderVen, J. F. Denslow, R. G. Olson, I. M. J. Hotvedt, F. Garber, C. P. Donelson, A. A. Smith, W. P. Gamber, Jacob Oosting, F. B. Marshall and J. T. Cramer. Dr. Stone, of Ferry, and Dr. Reetz, of Shelby, were present as guests of the Society. Minutes of previous meeting were read and approved as read.

Report of Dr. Marshall, as delegate to the State meeting at Bay City, was given. He announced that the next State meeting would be at Detroit, but thought Muskegon would get it in 1912. On motion of Dr. Olson, the Secretary was instructed to invite Dr. Peterson, of Ann Arbor, to address this Society in the near future. Seconded and carried. Dr. Griffin presented three clinical cases previous to the reading of his paper on "Exophthalmic Goitre." The discussion of the paper was opened by Dr. Marshall, followed by several other members. A recess was taken, during which time a bounteous supper was served followed by music. Vaccine Therapy was taken up and discussed by Drs. Marshall and Griffin. Meeting adjourned.

J. T. CRAMER, *Secretary pro tem.*

Regular meeting of the Muskegon-Oceana County Medical Society was held at the residence of Dr. L. W. Keyes, at Whitehall, Friday evening, October 21, 1910, at 7.30 o'clock, following dinner at the Cottage Grove Hotel. Members present: Doctors J. F. Denslow, Jacob Oosting, P. A. Quick, W. L. Griffin, C. P. Donelson, R. G. Olson, W. P. Gamber, J. M. VanderVen, J. D. Buskirk, I. M. J. Hotvedt, G. J. Hartman, Chas. F. Smith, L. W. Keyes and V. A. Chapman. Minutes of last meeting read and approved as read. Dr. Keyes reported two cases upon which he wished aid in the diagnosis. Dr. Keyes read a paper upon "Pneumonia." The discussion was opened by Dr. Griffin, followed by Doctors Hotvedt, Donelson and Gamber. Dr. Chas. F. Smith reported case of gangrene of extremities, followed at seven months by death from cerebral complications. Also a case of snakebite, which recovered.

V. A. CHAPMAN, *Secretary.*

WAYNE

On the evening of October 10, 1910, the second meeting of the Surgical Section of the Wayne County Medical Society assembled in the Society's new home to listen to a paper by Dr.

William Blodgett relative to the use of absorbable animal-membrane in the repair of ankylosed joints.

This paper, illustrative of a surgical procedure hitherto practically unemployed by the surgeons of Detroit, was replete with interest and food for future consideration.

A recently operated case with a supplementary radiograph and photographs, was displayed in evidence of the value and practicability of the operation under discussion.

Dr. Blodgett described the operation minutely, explaining how, after the bony ankylosis had been overcome by the use of mallet and chisel, and after the joint-surfaces had been rendered smooth and the joint cleaned out, the animal-membrane was carefully sutured in situ over all joint surfaces where bony opposition had previously existed.

The animal-membrane of his selection is taken from pig's bladder, is cumolized and chromized after the manner of ligature material.

To render the membrane suitably pliable for the operation, it is soaked for about five minutes in salt solution before suturing into position.

The operation was said to be applicable to all joints that are completely ankylosed but especially if such ankylosis has rendered a limb of absolute hindrance rather than of possible assistance to the patient, as was exemplified by the illustrative case presented in which the ankylosis of the knee-joint had been at right angles before operation, thus rendering the limb absolutely useless and an impediment to locomotion.

This operation, said Dr. Blodgett, is the only one which may be used with any degree of safety in ankylosis resulting from a tubercular condition.

After the operation, passive-motion, though painful, should be begun as early as the fifth or sixth day, in order to obtain the most satisfactory results.

Other and older methods were mentioned in which non-absorbable materials, such as celluloid and zinc, had been used but without much success.

That the doctor's paper was of more than ordinary interest to those present was evinced by the general and thorough discussion which it called forth.

At the general meeting of the Wayne County Medical Society, October 17, 1910, the first number on the program was an announcement by Dr. McClintock to the effect that the supposed newly discovered organism of smallpox had proved, much to his disappointment, to be an artifact.

Dr. Woodward, of the Public Health and Marine Hospital Service,—stationed in Detroit,—then presented an excellent paper disclosing the methods of that service in the handling of quarantinable diseases.

His discourse showed the measures adopted at foreign seaports, the measures adopted in our home ports, and the measures pursued when disease had already entered this country.

In illustration of the first topic he described his means of handling the emigrants when he was stationed at the Rotterdam Port, briefly, as follows:

The emigrants were met at the depots daily, and conducted to the quarantine stations, where all were given a bath, the hair was washed, and cut if necessary.

The temperature of each emigrant was then taken, the eyes examined for trachoma, the skin inspected for any eruption, the gait observed, and if aught of suspicion was detected the emigrant was detained for more thorough inspection.

All of the baggage was sterilized by steam or some other agent not destructive to it, and was then sent aboard the steamship.

The doctor then related in detail the procedure resorted to in the handling of emigrants in our American ports of entry. Every precaution is most rigidly observed, as stated above, and all suspects are held for a required period at the quarantine station.

He dealt briefly with the control of Bubonic Plague at San Francisco, stating that no case has existed there since 1908.

On Monday evening, October 24, Dr. R. S. Rowland read, before the Medical Section, a paper on "Epidemic Poliomyelitis."

The essayist contended that this disease occupies the same position in the current literature that cerebro-spinal meningitis occupied two or three years ago. The first epidemic was noticed about fifteen years ago, and its prevalence has been increasing since that time. During the past year its infectious nature has been established. It has been found that the virus is contained in the brain and spinal cord, the mucous membrane of the naso-pharynx, infected lymph nodes, salivary glands and in the acute stage in the cerebro-spinal fluid and blood. It would appear that the virus might enter through the respiratory or digestive tract, the knowledge of which has an important bearing on the prophylaxis. Its virulence is impaired by a temperature of 42 to

50 degrees C and destroyed by 1 per cent solution of hydrogen peroxide. It is conceded that one attack confers immunity. Pathologically it is now considered a vascular inflammation of the anterior horn and posterior horn of spinal cord, the white substance, and of the meninges. The medulla and pons may be involved. The various types were described. A report based upon personal interviews with physicians would indicate that since January, 1910, 130 cases have occurred in Detroit and vicinity. The majority of the cases were reported from June to October, and more females than males contracted the disease. The period of incubation is not definitely known. Diagnosis rarely made in early stages because of lack of characteristic symptoms. Suspicious early symptoms are profuse sweating, hyperesthesia of body, and pain in moving neck and back. Efficient treatment depends on early diagnosis. Since there is no specific, the treatment should be symptomatic. Try elimination by bowel, and rest, even when pain and sensitiveness do not demand it. Sedatives and analgesics are indicated in early stages of severe cases, especially those presenting delirium. Internal antiseptics are in the trial stage, although urotropin, cystogen and formin are considered of value. Nerve stimulants are never indicated. Salicylates may be found useful, as may also the application of ice to the spine. A bed frame will be found useful in second stage. Gentle massage is difficult to apply on account of pain, but may give some relief if carefully used. In the third stage two special demands are of the utmost importance, namely the prevention of deformity and the regaining of nerve and muscle power. It is necessary that suitable apparatus be employed to prevent deformity. For the nerve and muscle power, electricity, high heat, physical therapy and muscle training are indicated.

LIBRARY NOTES

The books which came from the city library and which form the nucleus of our collection are now arranged on the shelves and are being catalogued as rapidly as possible.

If you have not visited the "stack" room on the third floor, ask the librarian for the key and look it over.

There are some very valuable files of journals up there. Among them are complete sets of the London "Lancet," from 1823, of the "Journal of the American Medical Sciences," from 1821, and nearly complete sets of the "Boston Medical and

Surgical Journal," from 1829, of the "New York Medical Journal," the "Medical News," and the "Medical Record."

The Society is indebted to the publishers of a number of medical journals for free copies. The list thus far obtained includes the following: "Journal of the American Medical Association," "Therapeutic Gazette," "Archives of Internal Medicine," "International Journal of Surgery," "Military Surgeon," "Medical Review of Reviews," "Interstate Medical Journal," "Buffalo Medical-Journal," "Cleveland Medical Journal," "St. Paul Medical Journal," "Physician and Surgeon," "Old Dominion Medical Journal," and the following State publications: Michigan, California and New York.

FIFTH COUNCILOR DISTRICT

The Fifth Councilor District of the Michigan State Medical Society held its annual meeting and banquet at the Hotel Pantlind, Grand Rapids, Thursday, October 20, Dr. Ralph H. Spencer presiding.

Dr. Carl A. Hamann, of Cleveland, Ohio, gave very practical remarks on "Differential Diagnosis of Certain Abdominal Affections." The leading thought was that we cannot make close differential diagnoses of these conditions,—that this can only be done, in many instances, after opening the abdomen. Many of our leading clinicians now do not attempt to make a differential diagnosis, but only locate the seat of trouble as gall bladder, uterus, ovary, appendix, etc.

Dr. Lawrence C. Grosh, of Toledo, Ohio, spoke on "Abdominal Pain." Much investigation has been made to determine the cause of abdominal pain, but we know very little as yet. Investigators have failed to find sensory nerve end organs in the mucosa of the intestine, and the visceral peritoneum is insensitive, but we have pain in these parts. A diagnosis of intra-abdominal conditions should not be made from pain, without some other contributing factors.

Dr. Victor C. Vaughan, Jr., of Detroit, spoke on "Sensitization in Tuberculosis," and told his method of testing for tuberculosis. He instills a dilute solution of Koch's T. R. in the eye under sterile conditions. A reaction means the presence of tuberculosis. No reaction means either that the patient has no tuberculosis, or is not able to form anti-bodies to resist it. He makes a second instillation of tuberculin,—more dilute,—ten days later, in the cases negative to the first instillation. A positive reaction now means that

the patient has no tuberculosis, but has been sensitized at the first treatment. A negative test is of no diagnostic value. Vaughan has used this test over fifteen hundred times with no ill effects.

Discussion was general and spirited. Dr. S. C. Graves made a worthy contribution to medical phraseology in referring to the contents of a bladder above an hour-glass contraction as "Hysterical Scared Urine."

Eighty-eight attended the banquet, Dr. Burton R. Corbus acting as toastmaster.

Dr. Long, of Ionia, gave some practical points in his toast on "Expert Witnesses." Toasts were responded to by the President and Secretary of the State Society, on organization work, and by several others. Dr. Riggerink's views of "Ideals" were interesting and encouraging.

THE DETROIT OPHTHALMOLOGICAL AND OTOLOGICAL CLUB

At the meeting, October 4, Dr. Ray Connor read a paper on the "Operation for Convergent Squint," published, together with the discussion, in this issue of the *Journal*, page 690.

DR. EUGENE SMITH.—I wish to report a case of severe perichondritis of the entire left auricle, following a furunculosis of the auditory canal. The boil had been treated locally and poultices applied for several weeks before I was consulted. Instead of the usual procedure of free opening and scraping of the cartilage, I thoroughly syringed through the sinus with antiseptic lotions, with little success, and I finally forced in through the sinus and opening at the lower margin of the meatus a quantity of Beck's bismuth paste, one part bismuth and two parts petrolatum. The discharge ceased almost at once, and the patient made a rapid recovery, with but little deformity.

GLIOMA OF THE RETINA

Last April I presented to the Club an eye removed for glioma. It can not be told by the microscopic examination which layer the glioma developed from, as it implicated the entire retina and filled the entire vitreous chamber. The nerve was stretched and cut off as far back as possible, but was evidently gliomatous, no individual nerve fibres being discernible with the microscope. Prognosis was of course bad. Patient was eighteen months old. The wound healed without complication, and remained well till April 18 (eye was removed March 10, 1910), when a "white lump" was seen in the orbit. Patient died June 16, and I show you

the "white lump," as the parents called it. It is a gliomatous mass which undoubtedly sprang from the optic nerve. It is about three by four inches in size, after hardening in alcohol several months.

Dr. Parker exhibited a case of vernal catarrh, showing the typical cobblestone appearance of the conjunctiva. Patient male, age eighteen. History of having had two previous attacks, first, lasting three months, second, six months.

The only treatment that seems to have been of any benefit is the actual cautery and excision of the hypertrophic areas.

Dr. Parker again exhibited a Schiotz tenometer, an instrument used to measure accurately the tension of the eyeball.

J. E. GLEASON, *Secretary.*

NEWS

Dr. A. W. Abbott, formerly of Ludington, has travelled extensively during the past year, and has now located permanently at 266 Putnam Ave., Detroit, Michigan.

Dr. Herbert R. Allen was married October 12th to Miss Edith L. Nye, both of Bedford, Michigan.

The State Board of Health has decided that the four children of Aurelius Jensen, a Calumet resident afflicted with leprosy, may attend the public schools without being a menace to public health. They will be kept away from their parents during the school term.

Dr. Lucius A. Farnham, of Calumet, was married in London, England, September 20, to Miss Eugenia Gray McIntosh.

Dr. A. Clarence Schoch, formerly associated with Dr. W. A. Griffith, of Coldwater, Michigan, has removed to 1039 North Clark St., Chicago, Ill., where he will resume the practice of General Surgery.

Dr. C. C. Probert, formerly of Roscommon, has removed to West Branch, where he will take up the practice of Dr. J. H. Pettis.

Students and colleagues of the late Dr. Albert B. Prescott, once Dean of the School of Pharmacy and Director of the Chemical Laboratory of the University of Michigan, propose to place a bronze

tablet in his memory in the new Chemistry Building of the University. Dr. Prescott for many years advocated before the Regents the building of a new chemical laboratory, adequate to the needs of the growing University; and although he did not live to see the realization of his plans last year it is felt that the new Chemistry Building is largely due to his efforts. Therefore, it has been considered fitting that the building should in some sense be a memorial of him, and should bear some sort of inscription dedicated to his memory.

Dr. A. M. Wilkinson, of Charlevoix, has gone to Porto Rico for three months to assist Dr. C. E. Ruth, of Ponce, in his dispensing and surgical practice.

THE USES OF SOLID CARBON DIOXIDE AND AN INSTRUMENT FOR COLLECTING AND MOULDING THE SNOW.

ANDREW P. BIDDLE, M. D., and R. A. C. WOLLENBERG, M. D., Detroit, Mich.

DISCUSSION

(Paper in November Number, page 528.)

DR. H. R. VARNEY, Detroit.—I am sure we have listened with interest to the paper and demonstration given by Dr. Biddle of this very interesting and new agent. The points I would like to take up will be brief, and only touching my own personal experience with regard to the application of this agent in some of the conditions he has mentioned. It is without doubt, when properly applied to many of the small benign growths, naevi, especially of certain depth, lupus erythematosus and lupus vulgaris, a treatment that is excelled by no other means of medication or operation in selected cases. However, when we destroy the pathological tissue, for instance, as a wart, mole, rodent ulcer, or epithelioma, and in destruction of the pathological tissues, go through into the true skin with the destruction, we must expect, as we do in applying similar destructive agents, some discomfort, some pitting, some scarring, from destruction of true skin, so that to promise our patient that there will be no scarring or traces following the application of the snow is to my mind a little bit far-reaching, and I am afraid the end result will be a slight disappointment to the patient. There is no pathological condition, such as a mole or wart, that cannot be improved or completely removed in the application of the snow, if we avoid the

healthy surrounding tissue. If one is careful this can be avoided in a great measure, and the scar shaded into the healthy skin. The personal equation enters so greatly into the destruction of tissue in different patients, that you cannot always estimate the depth of the destruction, even though the time and pressure be carefully measured, so that I feel that while the Doctor has demonstrated excellent results in epithelioma or rodent ulcer as here shown, I should look for recurrence in this character of lesion. When we think for just a moment of the condition which exists in a patient afflicted with rodent ulcer, we know that in many cases the condition is due to lowered vitality in the cell structure of the skin. This specific deviation in cell structure has often been brought about by chilling or other

external irritants. You will often get a history of freezing or frost-bite in the tip of the nose, or the cheek bones, or forehead, in early childhood or adult life, in the aged patients who present themselves with the pigmented scaly patch, ulcer, or epithelioma of the face. If such conditions are due to lowered vitality in that area affected, we should use in our application of the snow to such lesions (if it is used) in order to get more uniform and perfect healing and lessen liability to recurrence, stimulants of varying nature, after having destroyed the pathological condition. A certain percentage of these conditions will recur if stimulants are not employed to feed and stimulate the surrounding healthy cell, to reproduce and to replace the area in which you have destroyed the pathological condition.

**MICHIGAN STATE BOARD OF REGISTRATION IN MEDICINE
ADDITIONAL CERTIFICATES ISSUED THROUGH RECIPROCITY**

		Reciprocity		Date of License
		Qual. I	Qual. II	
Strauss, David C., Lake Harbor, Mich.	Rush Med. Coll. Illinois, 1907	Illinois		8-22-10
Gordon, Joseph J., Detroit, Mich.	Med. Dept. Wooster Univ., Cleveland, Ohio, 1888		Ohio	9- 7-10
Hopper, Thomas B., Grand Rapids, Mich.	Bellevue Hosp. Med. Coll., New York, 1891	New Jersey		9-12-10
Mann, Clayton M., Half Way, Mich.	Med. Dept., Western Reserve Univ., Ohio, 1892		Ohio	9-13-10
Oden, Rudolph J. E., Cadillac, Mich.	University Med Coll., Kansas City, Mo., 1906	Iowa		9-24-10
Jamieson, John K., Paw Paw, Mich.	Bennett Med. Coll., Ill., 1900, Coll. P. & S. Univ., Ill., 1907	Illinois		9-24-10
Ayling, Gilbert H., Muskegon, Mich.	Northwestern Univ. Med. School, Chicago, Ill., 1909	Illinois		9-24-10
Davis, Charles R., Detroit, Mich.	Cornell Univ. Med. Coll., 1908	New York		10- 7-10
Hacker, Chas. W. L., Detroit, Mich.	Albany Med. Coll., N. Y., 1905	New York		10- 7-10
Bryan, Kathryn M., Wellston, Mich.	Hering Med. Coll. and Hosp., 1904	Illinois		10-27-10
Crozier, Wm. J., Kalamazoo, Mich.	Missouri Med. Coll., St. Louis, Mo., 1881		Missouri	10-27-10
Miller, Ralph F., Adrian, Mich.	Hahnemann Med. Coll., Illinois, 1909	Illinois		10-31-10

RESULTS OF OCTOBER, 1910, EXAMINATION AT LANSING, MICH.

Bryant, Albert E.,	Newberry, Mich.,	Detroit College of Med., 1910
Daum, Ignatz I.,	Detroit, Mich.,	Med. Dept., Univ. of Paris
Grey, William E.,	Battle Creek, Mich.,	Amer. Med. Miss. Coll., 1910
James, Henry H.,	Detroit, Mich.,	Detroit Homeo. Coll., 1910
Joyce, Thomas M.,	Missoula, Mont.,	Dept. of Med. & S., U. of M., '10
Kidner, Fred'k C.,	Boston, Mass.,	Harvard Med. School, 1904
Leiman, Richard,	Detroit, Mich.,	Detroit Homeo. Coll., 1910
Meck, Henry L.,	Bucyrus, O.,	Detroit Coll. of Med., 1910
Saueremann, W. Oscar,	Battle Creek, Mich.,	Dept. M. & S., U. of M., 1893
Tryon, Geneva,	Pontiac, Mich.,	Tufts Coll. Med. School, Mass., '07
Allen, Norman, McL.,	Detroit, Mich.,	Detroit Coll. of Med., 1910
Hall, James A. J.,	Detroit, Mich.,	Dept. M. & S., U. of M., 1910

One failure, graduate of Detroit Homeopathic College, 1908.

I mention these points because I feel that with this agent we must employ other means, or we will have many recurrences with a condition far larger than when we first applied the snow. Personally I do not apply CO₂ in such condition of the aged because of the above-mentioned contraindications, but find it a most valuable and safe agent in small elevated benign growths in the young and middle-aged. No therapeutic means has been so satisfactory in the treatment of lupus erythematosus as CO₂ not only in its cure but in the appearance of the remaining scar.

DR. A. W. CRANE, Kalamazoo.—The demonstration given by Dr. Biddle is of very great value and interest.

The phase of this subject which I wish to speak of is the comparison of this method with results accomplished by the X-ray. Carbon dioxide snow is a destructive agent. It does what an operation would do, as I understand it. It destroys the pathological lesion and a certain amount of tissue, and recovery occurs as a process of healing, with the pathological tissue in place. If it be possible that there are some products absorbed into the system producing a reaction of immunity, then and then only would it rival the X-ray. The X-ray treatment of a skin lesion is in the long run a blood reaction. It is not essentially a process of local destruction. The skin lesion will heal in some cases even without local inflammation. In a case of lupus, for instance, if the blood be examined for the opsonic index, after every X-ray treatment the index will be found to rise just as though a vaccine of tubercular substance were injected. In some way or other, by the use of the X-ray, we have introduced a vaccine into the circulation. It is not necessary to treat the whole surface in lupus in order to get healing of the whole surface. In tuberculosis of the glands of the neck, it is not necessary to treat all the glands of the neck in order that all may disappear. In other words, we achieve blood immunity and a true cure, and not simple destruction of tissue. In this respect I have my doubts if the carbon dioxide treatment can rival the X-ray as a mode of cure.

DR. M. L. HOLM, Lansing.—I would like to mention a certain case which was treated with both X-ray and carbon dioxide snow. The patient was a man about thirty years of age. The lesion involved the skin over the upper part of the nose, and was spreading quite rapidly. A diagnosis of lupus had been made. The man had been treated for nearly three months with the

X-ray without any apparent improvement. He was referred to Dr. Biddle about three weeks ago, who has treated him, using carbon dioxide snow. At the present time the lesion is practically healed, and I have never seen the case look better since the disease first started, over a year since.

While no conclusions should be drawn as to the value of a given treatment from a single instance, and we are unable to say whether or not in this case there will be a recurrence, the lesion certainly looks well, and illustrates that at least in some cases as satisfactory clinical results may be obtained with carbon dioxide snow as by the use of the X-ray.

DR. F. W. ROBBINS, Detroit.—I simply rise to say that we must not take too much into account the fact that the tissue has been destroyed. Those who have had experience in the removal of epitheliomata by the application of caustic paste, before anything was known of carbonic snow or the X-ray, remember that the resulting cicatricial scar is very small compared with the size of growth removed, practically no deforming scar resulting from removal of growth an inch in diameter.

DR. BIDDLE, in closing the discussion, said:—I wish to state emphatically that the use of the carbon dioxide snow, in the cases cited, is not suggested as a cure-all. But those of you who have, for instance, watched the development of the X-ray as a therapeutic agent know that its use, in diseases of the skin at least, is limited to selected cases, and that its general use has been disappointing. Besides, the apparatus is costly and its working should, admittedly, be confined to the expert.

We all know that some of the uses for which the carbon dioxide snow has been advised can be done better by surgery; but we also know that many of our patients will not submit to the knife. And so we, the writers, have simply presented to you a method within reach of you all which, to our mind, from clinical experiences, offers a solution of the problem of dealing with this class of skin lesions. The possibility of recurrence is the same here as with other methods.

We know as well as any one of you the possibility of a recurrence of the epithelioma in the woman here presented. All we claim is that we can get as good a clinical result in very much less time than by the use of the X-ray, in a patient who refuses to submit to the knife. In regard to the scar, it is not more disfiguring than obtained after other means, and in most instances is insignificant.

All any one of us can expect in a case of lupus erythematosus or lupus vulgaris is an apparently clinical cure, but we can get here as good clinical results with less amount of destruction of tissue, less danger, and in less time, than we can with the use of the X-ray. Of course the technique is developed by experience, and its perfection depends on the individual.

To remove warts, in the treatment of folliculitis and pus-infected areas, the carbon dioxide snow is ideal.

THE DIFFERENTIAL DIAGNOSIS OF ORGANIC AND FUNCTIONAL DISEASES OF THE STOMACH

JAMES E. DAVIS, M. D., Detroit, Mich.

DISCUSSION

(Paper in November Number, page 543.)

DR. BENJ. A. SHEPARD, Plainwell.—I heartily agree with what Dr. Davis said with regard to the ages of the patients afflicted with gastric troubles. I also concur with him in regard to the class of people who are afflicted with gastric disturbances from a nervous origin. I think we often find it among those doing intellectual work, especially students and the higher intellectual pursuits.

A case comes to my mind of a young lady about to finish her course in high school, a rather nervous person, very conscientious in her work. She was out riding one day, and a team ran away, catching the sleigh in which she was riding. It did not injure her but simply jarred her. Right immediately following, this young lady began to have gastric trouble, deficient secretions, and so forth, and my diagnosis was a neurotic inhibition of the secretions. I told the family that I thought I could do nothing until school was out; in fact I did nothing except prescribe as much rest as possible, and immediately after school was out a recovery took place, simply showing a neurotic tendency.

As to the hydrochloric acid test indicating ulcer, I would disagree with the speaker. It seems to me that it does not indicate ulcer in the majority of cases. It seems to me that it indicates, if anything, motor insufficiency—simply a collection of hydrochloric acid in excess. As to the method of testing motor activity, of course the ideal way, the natural and absolutely accurate way, is the stomach tube, removing the meal. The next most accurate test, I think, is to ascertain the length of time between the ingestion of salol and its occurrence in the urine. That seems to me to be more accurate than trying to find when it will disappear in the urine.

DR. JOHN T. WATKINS, Detroit.—There are two things I would like to call attention to that I do not think Dr. Davis mentioned. We are all conscious of the fact that functional diseases of the stomach are being gradually lessened in number, and we are finding a more definite pathological basis for them. In the last few years there have been a great many functional diseases of the stomach that have been cleared up by the finding of gall stones, or chronic appendicitis, or perhaps a chronic cholecystitis, and in those cases it hardly seems to me that we can attribute the stomach symptoms to the nervous system. It strikes me that 66% of all is a little too high for functional diseases of the stomach, but I may have misunderstood Dr. Davis on that point.

There was a statement made that the early history of cancer was often very similar to that of ulcer. I believe that is usually for a very short time only, because cancer, as a rule, advances with considerable rapidity, and the location of it may obscure the symptoms for some time. If we have a cancer that is anywhere near the pylorus I think the symptoms will develop very early, such as anaemia, loss of appetite, and that sort of thing.

Dr. Shepard mentions the point that the hydrochloric acid might be increased in cancer with retention. The fact is that the hydrochloric acid is more than apt to be reduced when there is motor insufficiency. With evidence of stagnation we practically always find a reduction of hydrochloric acid.

DR. J. G. R. MANWARING, Flint.—I would like to emphasize a point brought out by the last speaker, and I do so by saying that functional diseases are simply diseases in which the patient is possessed of a devil. A few hundred years ago practically all diseases were functional, because we did not know their true cause. All patients were possessed of devils, and since then we have been casting them out, so that at the present time we consider that there are few so possessed. I think 60% a little high, although some famous surgeons give that, and we know they are apt to call stomach conditions organic if there is a chance.

The statement has been made and not approved of, that the hypersecretion of hydrochloric acid is evidence of ulcer. I think with a little modification this is true, that is, recurring attacks of marked hyperchlorhydria are always due, practically, to ulcer.

The question of malignancy has also been brought up in ulcer cases. A malignant develop-

ment in ulcer of the duodenum is very rare. A development of malignancy in ulcer of the stomach is not so rare. You can usually diagnose ulcer of the duodenum and assure the patient that the probabilities are that he never will have cancer there. You cannot so assure him if the trouble is in front of the pylorus.

The physiology of the gastro-intestinal tract is advancing materially now, and that conditions far removed from the stomach would seem to give us symptoms directly pertaining to that organ, as has just been mentioned, is a very important thing, and it seems to me we will find more of these cases to be traced to distant conditions. I recall now a particular case of "achylia gastrica nervosa," which was very interesting to me. I was finally persuaded to explore the man, and removed a gall bladder full of stones, with a cure. He never had a symptom that I could trace to the gall bladder directly.

DR. DAVIS (in closing the discussion).—As to functional diseases, one might well question the high percentage of cases I mentioned in the paper, but it seems to me that rather than face the fact that we are apt to find fewer functional cases in the future than we have been finding, I think we will find the condition of society at the present time is such as to develop more neurasthenic diseases, and notwithstanding the fact that our methods of diagnosis will perhaps be more accurate and we will be able to diagnose some functional cases as truly belonging to organic classes, however, I think the gain will be on the side of functional diseases. As to picking out any one symptom, and relying on the differential diagnosis, from one symptom, we would certainly be in error. We cannot rely upon the mere presence of hydrochloric acid, or any other one symptom.

In the early diagnosis of cancer we have a difficult problem before us. In ulcer we have a difficult diagnosis before us, in perhaps all of the border line cases. It is only by grouping all the symptoms and then forming our conclusions that we will be able to make a correct diagnosis.

AN ORDINANCE TO PROVIDE FOR A MILK COMMISSION AND FOR THE SALE OF CERTIFIED MILK WITHIN THE CITY OF LANSING, AND TO ESTABLISH RULES, REGULATIONS AND PENALTIES IN RELATION THERETO

Be it ordained by the Common Council of the City of Lansing:

SECTION I. That within thirty days after the passage of this ordinance, it shall be the duty of

the mayor to appoint five physicians of the City of Lansing duly authorized to practise medicine under the laws of this State, upon the recommendation of the Physicians Clinical club of Lansing, as milk commissioners for the City of Lansing, who shall each hold his office for two years and until his successor is appointed and qualified, who collectively shall be known as the "Lansing Medical Milk Commission." It shall be the duty of this Commission to supervise the production of milk intended for sick-room purposes, infant feeding, and for use in hospitals within said City of Lansing.

SECTION II. Such Commission upon appointment shall each take and subscribe the constitutional oath required of all appointive officers of said city and file the same with the city clerk. Such milk commissioners shall have authority to organize themselves into a board for the purpose of carrying out the intention of this ordinance, and to that end shall have the power from time to time to make, alter and amend by-laws, rules and regulations (not inconsistent with the Constitution and Laws of the United States and of the State of Michigan), fixing or altering the number of its medical directors and managers, and to do such other thing or things as shall in their judgment tend to promote or advance any purpose or purposes of such Commission, and to prescribe their respective duties; and for the regulating of the conditions under which milk shall be produced by any dairyman or dairymen, sold within such city as certified milk. Such Milk Commission shall have power to certify to any milk produced under their supervision which shall meet the requirements hereinafter mentioned.

SECTION III. The members of such Medical Milk Commission shall perform their services without pay, and no member thereof shall receive directly or indirectly from any dairyman or dairymen, producing milk which is to be sold in said city as certified milk, any commission, salary, emolument or any compensation of any kind or character for any services rendered under the provisions of this ordinance, or for anything whatever in connection with his duty as a member of said Commission.

SECTION IV. Every such Commission shall have power to enter into an agreement in writing with any dairyman or dairymen for the production of milk under the supervision of such Commission for the purposes enumerated in Section I hereof, and to prescribe in such agreement the conditions under which milk shall be produced, which conditions, however, shall not be below the standard of purity and quality for "Certified Milk" as fixed by the "American Association of Medical Milk Commissions," and the standards for milk now fixed or that may hereafter be fixed by any law of the United States or the law of the State of Michigan. In any agreement so entered into by any such Commission with any dairyman or dairymen on behalf of said Commission, it may be provided that such Milk Commission may designate any analysts, chemists, bacteriologists, veterinarians, medical inspectors, or other persons who in its judgment may be necessary for the proper carrying out of the purposes of such Commission, for employment by such dairy-

man or dairymen, and to prescribe and to define their powers and duties, and that such persons so employed by such dairyman or dairymen may be discharged from employment whenever such Medical Milk Commission may request such discharge or removal in writing, provided that no such agreement shall become operative until the same has been reported to the Common Council of the City of Lansing and duly approved by resolution of said council. Provided further, that no liability of said City of Lansing shall be incurred to any person or persons in consequence of such agreement.

SECTION V. Any dairyman or dairymen who may be willing to comply with the requirements provided by said Commission shall be entitled to have his milk certified by said commissioners, but not otherwise, and any such dairyman or dairymen who may have entered into an agreement with said Commission to furnish certified milk as aforesaid shall, upon the prescription of any practising physician of the City of Lansing, furnish promptly and without delay the amount of certified milk so prescribed to any person or persons in said City holding such prescription, at the price which may from time to time be fixed by said Commission. Provided further, that nothing herein contained shall prohibit the sale of such certified milk by such dairyman or dairymen to any person or persons within the City of Lansing and for a less price than that provided by said Commission.

SECTION VI. All containers of any kind or character used in the carrying or distribution of milk produced by any dairyman or dairymen under contract with such Milk Commission, shall have attached thereto or placed thereon a certificate or seal bearing the name of the "Medical Milk Commission" of the City of Lansing with which such dairyman or dairymen producing such milk shall be under contract, which certificate shall have printed, stamped or written thereon the day or date of the production of the milk contained in any such container and the words "Certified Milk" in plain and legible form.

SECTION VII. The work and methods of such Milk Commission and dairies upon which milk is produced under contract with such Commission, shall at all times be subject to investigation by the Board of Health of the City of Lansing and the Board of Health of the State of Michigan.

SECTION VIII. No person, firm or corporation shall sell or exchange or offer or expose for sale or exchange as and for certified milk, any milk which is not produced in conformity with the methods and regulations prescribed by said Milk Commission and which does not bear the certification of such Milk Commission for the purposes specified in Section I hereof, and which is not produced in conformity with the methods and regulations for the production of certified milk from time to time adopted by the American Association of Medical Milk Commissions or any laws of the State of Michigan or rules and regulations adopted in pursuance of any laws of such State, and any such person or persons violating the provisions of this ordinance shall be subject

to forfeit and pay to the City of Lansing \$100 to be recovered in an action of debt in addition to a penalty prescribed in Section IX.

SECTION IX. Any person or persons violating any of the provisions of this ordinance, shall, upon conviction thereof, be punished by a fine not exceeding \$100, and in default of the payment thereof such person shall be imprisoned in the city penitentiary until such fine is paid, not exceeding the term of ninety days.

BOOK NOTICES

Pediatrics. Volume VII, of the Practical Medicine Series of 1910. Edited by Isaac A. Abt, M. D., Clinical Professor of Pediatrics, Northwestern University Medical School, with the Collaboration of May Michael, M. D. Orthopedic Surgery edited by John Ridlon, A. M., M. D., Professor of Orthopedic Surgery, Rush Medical College, with the Collaboration of Charles A. Parker, M. D.

Volume VII of "The Practical Medicine Series," devoted to pediatrics and orthopedic surgery, in every way proclaims and maintains the reputation established by the six preceding volumes. As in the other volumes, this one treats of that which is new in the field it covers and gives references. Some space is given to experiences of C. K. Millard in feeding infants with "dried milk." (A continuous stream of fresh milk is fed on revolving cylinders heated to 250 degrees Far. The resultant powder in air-tight packages will keep almost indefinitely.) This preparation has been used for eighteen months with very satisfactory results. Practical suggestions in pediatrics abound in this book, both for infant and invalid feeding.

In cerebro-spinal meningitis recent experience with lumbar puncture and the injection of Flexner's Serum is given, as is also indications and technic for lateral ventricular puncture through the anterior fontanell or incision in the skull. The last sixty or seventy pages are devoted to orthopedic surgery.

A Treatise on Orthopedic Surgery by Royal Whitman, M. D., Assistant Professor of Orthopedic Surgery in the College of Physicians and Surgeons of Columbia University, New York; Professor of Orthopedic Surgery in the New York Polyclinic Medical School and Hospital; Associate Surgeon to the hospital for ruptured and crippled, etc. Fourth edition, revised and enlarged. Illustrated with six hundred and one engravings. Lea & Febiger, Philadelphia and New York.

The fourth edition of "Whitman's Orthopedic Surgery" is just off the press. This edition is thoroughly revised and considerably enlarged. The etiological grouping of deformities under tuberculosis, syphilis, injuries, rachitis and the numerous subdivisions, assist greatly to our understanding of these conditions. In the devices for treating deformities, such as apparatus,

exercise, manipulations, etc., the author has shown a wonderful fertility of invention and resource. The exercises for lateral curvature of the spine and appliances used in correction of these deformities are plainly illustrated and lucidly described, as also are those for other deformities of the body. The operative measures receive full attention both in the text and illustrations. The Lorenz bloodless operations are fully described and shown, nor is the after-treatment neglected. The malign effect of the popular shoe of to-day is well and clearly shown, as producing the pedal deformities so common among our people. Deformities due to the nervous system, paralysis, etc., are treated with the same clearness and precision that marks the entire work and lends the charm of individuality that makes the reading at once instructive and pleasurable.

An Epitome of Hygiene and Public Health. By George M. Price, M. D., formerly inspector New York State Tenement Commission, Medical Sanitary Inspector, New York Department of Health. 12mo. 255 pages. Cloth, \$1.00, net. Lea & Febiger, Publishers, Philadelphia and New York, 1910.

This is another of the Pederson Medical Epitome Series, printed and bound in the well-known style, and is a concise presentation of the subject of Hygiene and Public Health, giving the facts in a nut-shell. A series of questions follows each chapter, for the convenience of the student.

It is too brief for a careful study of the subject, but a valuable reminder in reviewing a subject already studied, in which capacity the student and general practitioner will find it useful.

Applied Anatomy. The construction of the Human Body considered in Relation to its functions, diseases and injuries. By Gwilym G. Davis, Associate Professor of Applied Anatomy, University of Pennsylvania. With Six Hundred and Thirty Illustrations, mostly from original dissections and many in color, by Erwin E. Faber, 1910. Philadelphia and London. J. B. Lippincott Company. Net \$6.00.

Dr. Davis teaches Anatomy in this book in its relations to normal and pathological conditions, and mentions plain anatomical facts only so far as necessary to correlate and unify them in their relation to functional or regional conditions. The drawings are mostly original, are works of art as well as accuracy, and show the relations excellently. The colorings are a great aid in the use of the illustrations.

Under the heading "The Abdomen," for instance, shadow drawings are given showing relation of the various viscera to the exterior markings, and regions. The muscles with the directions of their fibers are shown, with the distribution of veins, arteries and nerves. The

various incisions are indicated in another drawing, with the bony outlines shown in shadow as a guide.

Under each region of the body, after considering the anatomical conditions and relations, the chief operations affecting that region are discussed, showing the relation of the operation to the anatomical arrangement. These operations are often illustrated, showing steps in operations, and the relations.

We have no hesitancy in recommending this book.

Progressive Medicine. A quarterly digest of advances, discoveries and improvements in the medical and surgical sciences. Edited by Hobart Amory Hare, M. D., assisted by Leighton F. Appleman, M. D. September 1, 1910. Lea & Febiger, Philadelphia and New York. \$6.00 per annum.

This number of "Progressive Medicine" contains the latest work upon "Diseases of the Thorax and its Viscera," edited by Wm. Ewart; "Obstetrics," by Edward P. Davis; "Dermatology and Syphilis," by William S. Gottheil; "Diseases of the Nervous System," by Wm. G. Spiller.

These monographs are exhaustive studies in their field, and bring together in a form easily used the mass of investigations that has been reported in the last twelve months.

Materia Medica and Therapeutics for Nurses. John Foote, M. D. Assistant Professor of Therapeutics and Materia Medica, Georgetown University School of Medicine. Philadelphia and London. J. B. Lippincott Company. 1910.

Dr. Foote has limited the number of drugs studied, has briefly stated the forms, physiological action, and therapeutic action of them, together with a study of the poisonous effects, and antidotes.

Details and minutiae are not at all considered. After each chapter is a list of questions pertaining to the subject matter just considered. The last half of the book is devoted to an alphabetical list of commonly used drugs, with their physical properties, uses and doses. The book is written in a style not at all "over the heads" of the average novice in the study of nursing, and should prove very useful in such teaching.

Preparatory to, and following, operations upon the brain or spinal cord hexamethylenamine ("urotropin") should be administered in liberal doses; Crowe has shown that formaldehyde then appears in the cerebrospinal fluid, and thereby minimizes the danger of infection.—*American Journal of Surgery.*

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