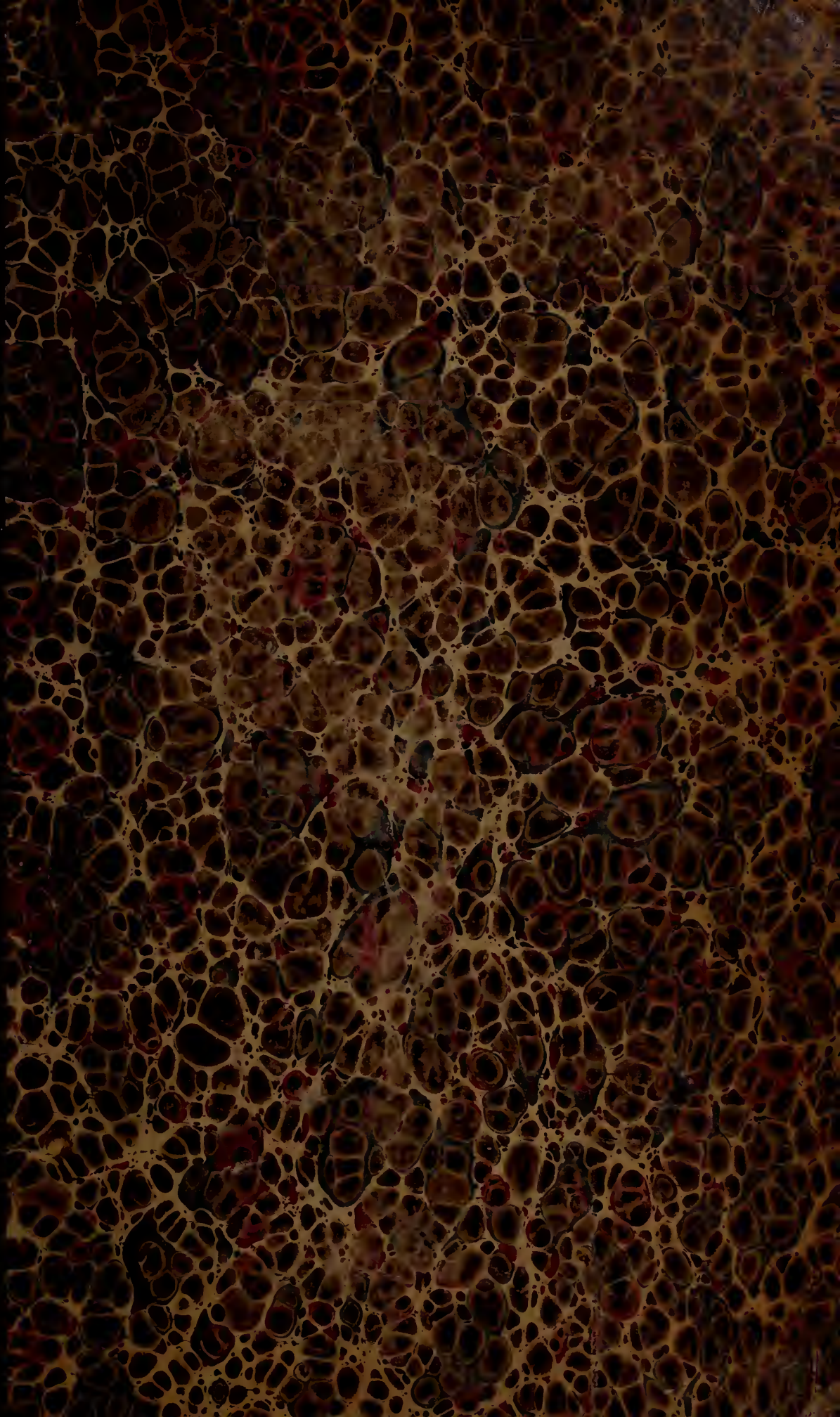

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Original Articles.

THE MEDICAL TREATMENT OF THOSE GASTRIC DISORDERS IN WHICH THE HELP OF THE SURGEON IS OFTEN DEMANDED.*

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THERE are two principles of human nature that assume importance in certain fields of medicine. One is a leaden-footed conservatism,—a strain of timidity inherited from the cave-dweller,—a spell of diffidence under which men gaze in apprehension while the patient loses his single opportunity of escape. The other is a frenzy for exploitation, for subverting nature, for engaging in hazardous enterprises without quite knowing why, without duly estimating the loss and the uncertain gain. It is a misfortune when a physician exemplifies the former and a surgeon the latter of these principles.

Ocasionally there is one who speaks not like a doctor, but like a partisan; as though all surgeons were exploiters and all exploiters were admirable—as though all physicians were hopeless myopics and obstructionists. From this teaching one would suppose that the physicians and surgeons were opponents.

It is impossible for the surgeon successfully to fence in for working the field both of the physician and himself; and when the work of the physician is slighted, it is not for the best interest of the patient. There is a tendency to classify a certain group of diseases as surgical that were formerly considered medical. They should properly be considered both medical and surgical. Any other course will leave the situation like that of a ship in which the cargo shifts either to port or starboard. Such is not the spirit displayed in one of the most readable and sensible of modern medical books, "The Surgical Aspects of Digestive Disorders," by Drs. Mumford and Stone of Boston.

There are some curious anomalies in affections of the stomach, amongst which are the following instances:

*Read before the Medical Society of the County of Kings, November 20, 1906.

Much complaint is made of the stomach when that organ is without actual disease.

Troubles remote from the stomach express themselves through stomach symptoms.

When a patient suffers from an excess of digestive activity, he complains of indigestion.

When a patient suffers from a most complete form of gastric indigestion, he often makes no complaint of the stomach whatever.

Of the patients presenting themselves at a medical clinic for stomach trouble, the majority are suffering from nerve wear, mental strain, or physical stress which results in functional gastric disturbance.

Finally, the symptoms produced by grave structural disease of the stomach may closely resemble in symptomatology a functional disturbance. Such cases, whether acute or chronic, need the study of competent internists—often the surgeon in association.

Achylia gastrica, relatively common among the more serious stomach diseases, has the following peculiarities: The appetite is usually good, the stomach has practically no digestive power, the motor activity is exaggerated and the organ is usually found empty a short time after the ingestion of food. In early or mild cases, the bowels are usually somewhat confined, and for that reason the food remains sufficiently long in the intestine to admit of fair digestion and absorption in that organ. In severe cases the patient suffers from a sort of "post prandial" diarrhea; in other words, a dejection almost invariably follows a full meal, and the stools are lienteric. It is a disease that is worthy of discussion at this time, for the reason that, in some respects, a victim of achylia gastrica bears a close resemblance to a patient in whom a gastro-enterostomy has been performed.

To begin with, we should remember the fact that in mild cases the bowels are usually confined. Even though patients complain somewhat of symptoms of auto-intoxication from this mild, constipation, it is best not to use purgatives. An enema should be employed for emptying the lower bowel, but the small intestine should be both allowed and encouraged to act slowly. The patient should be taught to practice most careful mastication for obvious reasons. He should be given hydrochloric acid, not because he can take enough to influence materially the gastric digestion, but for the reason that a certain amount of

acid passing onward into the duodenum acts favorably to stimulate the functions of that organ, as well as of the important glands whose secretions are so intimately co-related with intestinal digestion. The patient should be carefully guarded against foods likely to excite gastro-enteritis. Coarse and rich foods, game, certain of the fish, fruits and vegetables, that experience shows to be disturbing, should be excluded from the diet. Patients suffering from this affection may pass for persons in good health, and yet they are merely masqueraders. They lack resisting power, they are easily fatigued, they are not as well as ordinary individuals; sometimes they suffer from great weakness. I repeat that, according to my observation, this condition resembles that seen in patients who have experienced a gastro-enterostomy. This operation, at times imperative, at other times advisable, is never an ideal operation because it mutilates the subject and is against nature. It is far preferable to food stagnation, but drainage through the duodenum would be still better. Many patients who have undergone gastro-enterostomy should have thereafter the benefit of competent medical treatment—treatment much like that which is advised in achylia gastrica.

When there is narrowing of the pylorus from stenosing gastritis, an old cicatrix, or adhesive perigastritis, I believe that it is better to drain through the duodenum by means of some form of pyloroplasty, when possible, rather than to resort too quickly to gastro-enterostomy. Such cases should have proper medical treatment before operation. There should be a course of diet, lavage, correction of fermentation if present, the relief of gastritis if it exist, the soothing of the hyperesthesia, the overcoming of the element of spasm. I assure you that careful, thoughtful local treatment of the stomach occasionally overcomes conditions which surgeons to-day almost universally would agree as having no possible avenue of relief save by operation. It is said that these cases will recur, but I have reports reaching back between ten and fifteen years from some of these without recurrence. They are in perfect health, better than if they had had a gastro-enterostomy. You will ask, what are these cases? One was a case of hyperacidity, pyloric spasm, partly from hyperesthesia, partly from inflammation, possibly ulceration; extreme dilatation of the stomach, food stagnation, vomiting, emaciation, during three years. Second case: gastric ulcer at the pylorus with hemorrhage, eighteen years ago, no recurrence; at present great pain, hyperesthesia, marked gastrectasia, food stagnation, continuing for five years; treatment during one year. Patient well since, about twelve years. These cases are unusual, yet they do occur, and a good many could be cited. Instances of recovery from moderate food stagnation are more frequent. There are gradations in the importance of the symptoms and in the proportion of cases that can be relieved by medical treatment. It is my rule to prepare the patient's mind for operation in every instance of food stagnation, then the patient is put upon an appropriate treatment. Usually he makes moderate progress, but no more, but he is put in good condition for operation. Occasionally he makes extraordinary gain and then the operation is deferred, giving the patient an opportunity to recover without it.

It is frankly stated that, with food stagnation, obstruction of the pylorus should in the majority of cases come to some operation for drainage. Nevertheless, I must dwell upon the fact that a certain proportion of these patients, contrary to the teaching, gain surprisingly by medical treatment if it is well directed, while others, when an anastamosing operation is done while the pylorus is too patulous, may suffer from the vicious circle. With a peptic ulcer at the pylorus or in the duodenum, operation should be advised. The ulcer not infrequently can be made to heal, but it recurs and often with disastrous results. There is less danger, more comfort, and results are better by an early operation—of this I am convinced. With stenosing gastritis, pyloric hypertrophy with spasm, or spasm from hyperesthesia, and superficial, catarrhal inflammation, operation should be for a while delayed, and medical treatment tried. The principles of treatment involved are much the same in these several conditions named. The diet should be liquid or pultaceous, and unstimulating. Food should be given at rather frequent intervals. The high gastric acidity, if it exist, as it usually does, should be controlled by frequent doses of bismuth or light carbonate of magnesia, or lime water. Lavage should be practiced early in the morning. When the stomach is thoroughly cleaned, bismuth suspended in mucilage water should be introduced through the tube and allowed to remain. The patient should rest an hour after treatment without eating. Benefit is often secured by using a weak solution of resorcin in the wash water, and the stomach is often made more comfortable by the internal administration of ichthyol, from three or four drops, perhaps, diluted with a little glycerin given in a capsule. My knowledge of the use of this remedy I owe to Dr. Gallant of New York. I have also seen benefit from the preparation known as lignol, and where eructations are not disagreeable, frequently real benefit follows the internal administration of iodoform in doses of one-half to one grain. When hyperchlorhydria is absent it is best to allow the stomach to have two or three periods of rest in twenty-four hours; that is to say, not giving the meals so close together. In these intervals lavage may be practiced even more than once a day.

With a peptic ulcer near, but not involving the pylorus, the patient should have most careful attention. I advise rest in bed, a milk diet, the abundant administration of bismuth, possibly also

lime water, light magnesium carbonate, sodium bicarbonate, and the administration of hot alkaline saline waters, early every morning, to empty the digestive tract. I am not thoroughly satisfied as to the importance of external local applications, yet I do not feel prepared to condemn Leube's methods of using hot fomentations. I have never given the treatment a thorough trial. It has been begun, carried out for a while, but not strictly according to Leube's directions. Occasionally a poultice gives distinct comfort. On the other hand, ice water is more agreeable to some patients. On the whole, I repeat that I am uncertain as to the benefit to be derived by external application in this disease.

Of late years I have used the stomach tube in all necessary cases and without hesitation. A soft large tube is selected, no unnecessary manipulation is attempted, and only a dextrous person should employ it. As we all know, there is the utmost difference in the manner of practicing lavage. When really serious gastrorrhagia occurs, I think the best plan is to introduce the stomach tube, irrigate the stomach rapidly to remove the accumulated blood, and then allow to flow in a weak solution of adrenalin. As soon as the hemorrhage has ceased the stomach may be irrigated, and any excess of adrenalin removed. We must remember that this substance must not be used indiscriminately. I usually mix about one-half a teaspoonful of the 1-1000 adrenalin solution in a glassful of tepid water, allow this to pass through the tube, to remain for a minute or two, and then to run out. Following this a much weaker solution, perhaps one-half a teaspoonful in a quart of water is used for the purpose of irrigating the stomach. It is very gratifying to see the hemorrhage promptly controlled by this measure. Recently Ewald* has advised ice water or gelatin water used through the stomach tube. I think it is a safe plan to leave gelatin water in the stomach after the hemorrhage has been controlled by adrenalin.

It seems to me that we should educate all our patients who suffer from gastric ulcer. They should be taught the possibility of hemorrhage and perforation, and should know what to do under the circumstances. That is to say, they should consent to long-continued treatment for hemorrhage, and should be prepared for immediate operation for perforation. This recommendation may seem unnecessary, perhaps a little ridiculous; it does not seem so to me. I have seen patients unwilling to undergo proper treatment for hemorrhage, and I have had patients stubbornly refuse operation after perforation until it was too late, and septic peritionitis was well under way.

For the relief of shock and the agonizing pain which usually succeed the perforation the prompt use of morphin hypodermically is advisable. It has, however, this disadvantage: The patient, made comfortable by morphin, is unwilling to believe that he has experienced a perforation; and it is well, in dealing with an ignorant person, to secure his consent to the operation before the pain is relieved. Aside from creating this tactical embarrassment, morphin is invaluable and should be promptly used both in perforation and in hemorrhage, and in the case of the latter drug should be continued in sufficient amount to produce a calming effect both on body and mind. The stomach should be kept perfectly at rest, alimentation should be rectal, and not too much fluid should be used at any one time until two or three days after the hemorrhage has ceased. More than once I have seen a recurrence of an alarming hemorrhage following the unnecessary introduction of large normal saline enemata given with a view of restoring the force of the circulation. Severe gastrorrhagia can be successfully controlled by irrigation with adrenalin and gelatin water as described above, together with complete rest in bed, morphin hypodermically and careful rectal alimentation. Where the hemorrhage recurs in spite of these methods, it is wiser to resort to surgery without further delay. I think this point is one on which we should have further evidence before we can be perfectly sure of our course. Operation at this late hour, I am informed, is not altogether satisfactory. On the other hand an early operation for hemorrhage has not given as good results as was expected. As matters stand one feels like using medical measures and the stomach tube carefully, but thoroughly, and if these fail, then have immediate recourse to surgical aid.

When the hemorrhage is at the pylorus or in the duodenum I advise the earliest operation practicable, considering the condition of the patient. Occasionally severe and obstinate gastrorrhagia occurs, and upon exploration no ulcer is to be found—nothing more than a universal oozing from a turgescent gastric mucosa. These cases are as embarrassing to the surgeon as the physician.

When the question is one of simple open ulcer, giving rise to the usual symptoms of pain, tenderness, vomiting, distress after eating, I feel that the wise plan is to give the patient a milk diet, large doses of bismuth and sufficient alkalies to lessen the acidity. After some improvement there should be added to the diet uncooked eggs, scraped beef and some of the finer farinaceous foods, like arrowroot and other well boiled gruels. When further improvement is seen, the diet may be enlarged; the object being, of course, to lower the gastric acidity and so to arrange that the food absorbs the excess of gastric juice.

One great embarrassment of the medical treatment of gastric ulcer is in keeping the patient for a sufficiently long time at rest. As soon as he is relieved he wishes to resume his activities, and the physician sometimes forgets that the

*Wien. Klin. Woch., 1906, No. 12.

patient should have a long period of quiet even after the symptoms have entirely subsided.

When gastroectasia depends upon pyloric obstruction, the latter should be relieved by operation. The dilatation that is secondary to atony is not a condition for which surgical relief should be invited. Undoubtedly there is often misconception as to the importance of this type of gastroectasia, and frequently the case turns out to be one of ptosis rather than dilatation. This is probably the most common error. Perhaps the next in frequency is in attributing symptoms to dilatation when in fact they depend upon causes which underlie dilatation and not upon the dilatation itself.

After all it is not so much a question of the size of the stomach as it is of its motor activity, hence the use of Einhorn's term "ischochymia," which practically means food stagnation. If from atony there result a motor insufficiency we have the condition which we usually attribute to dilatation of the stomach. This group of symptoms sometimes occurs when the stomach is not very large, and on the other hand is absent when the stomach is beyond the usual size.

As for the treatment of atonic dilatation, resort should be had to systemic measures, medical gymnastics, dietetics, hydrotherapy, psychotherapy—these accomplish more than surgery in this type of dilatation. The general health, general innervation should be improved, and muscular strength developed. Considerable benefit results from irrigating the stomach with alternating streams of hot and cold water. I believe that electricity is of benefit, and there is no doubt of the usefulness of the cold spinal douche, the alternating hot and cold needle bath and affusion to the abdomen.

The dietetic question is a troublesome one. We are prone to prescribe a soft or liquid diet and drop the matter there. This is treating the patient as though he were an inanimate filter. It is necessary to consider the psychology of dietetics which is quite as important as the question of calories. How often we find one succeeding in feeding a patient with whom a neighbor has made a complete failure. The success depends upon the understanding of human nature. The patient must be converted into a willing and cheerful eater. When that is accomplished, the question of what to eat is of far less importance. I am afraid that in my time I have preached a good deal of nonsense on the subject of diet, especially in those suffering from laziness, lassitude and neurasthenia, with the consequent enfeeblement of function which often is the beginning of gastric atony, which in turn may go on to dilatation. At present it is my aim to find the diet that suits the patient quite as much as one that suits the disease.

Hourglass contraction of the stomach is a condition which interests the diagnostician who formerly sometimes mistook it for dilatation of the esophagus in cardio-spasmus and sometimes for diverticulum. The diagnosis can be made quite positively, and when that end is reached the patient should be put into the hands of the surgeon as soon as practicable. In my judgment it is a condition demanding surgical intervention and only palliation can come through medical means.

As to cardio-spasms and idiopathic dilatation of the esophagus, I know of no treatment so successful as that devised by Sippy of Chicago. Of the various operations suggested for this troublesome affection, all are difficult and the results somewhat uncertain. Temporary benefit may be had from the skillful use of the stomach tube in emptying the sacculation and, when an electrode can be passed through the constricted portion, electrolysis is of real service. But the results of slow dilatation as reported by Sippy would seem to warrant the general adoption of his method.

The stomach is sometimes greatly disturbed as the result of adhesions which have been excited by a cholecystitis and succeeding peritonitis. The existence of such adhesions are probable when the symptoms are periodic—that is, when a patient is several days without disturbance and then developes for a period the usual symptoms of partial food stagnation, pain, tension or vomiting. Sometimes the symptoms are very acute, suggesting obstruction, then they unexpectedly subside and the patient seems quite well, until another time the attack occurs. In many instances, we have merely pain as the indication of an adhesion, in other cases only a sense of traction or distress. Whenever there is a history of unusual symptoms, it is well to inquire carefully as to the possibility of a foregoing attack of cholecystitis. When the history shows this, the case is a proper one for exploration with a view to surgical relief. Perigastritis and resulting adhesions arise from other sources than the gall-bladder, and a comparatively slight adhesion to the stomach may excite important symptoms. The pylorus itself is a seat of inflammation, often intense in character. This not only leads to induration and stenosis, but even when these results are inconspicuous, there may be excited a perigastritis, and a source of chronic irritation of the peritoneum. Thus may be explained many cases of so-called chronic dyspepsia and at a certain stage in their history these cases can be cured by prolonged rest in bed, careful diet and by hydrotherapy. The element of rest is not fully appreciated, and this means mental as well as physical rest.

Occasionally, it requires study to distinguish between these manifestations of chronic irritation and adhesions, and the symptoms arising in certain neurotic cases. Unfortunately, these nervous manifestations often associate themselves with definite gastric lesions, and do not always disappear even when the case has been repaired by surgery. Under such circumstances

not only rest, but psychotherapy and other appropriate treatment must be instituted.

Finally, as to the question of cancer, I see no approaching promise of satisfactory results either from medicine or surgery. A reliable diagnosis of gastric cancer cannot be made, save in exceptional cases, before it is too late for hopeful operation. Those microscopic and chemical data, which formerly were regarded as of value in recognizing cancer at an early stage, have been proven, upon more extended observation, to be fallacious. The medical treatment is entirely empirical and is limited to palliative measures. Many operations done in advanced cases of cancer are indefensible. When there is definite food stagnation present, drainage, of course, is necessary, but in cases where the disease is extensive, obstruction is the only excuse for operation.

CERTAIN SURGICAL ASPECTS OF CHRONIC GASTRIC DISEASE.*

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THE surgeons have struggled now for several years with the problems of stomach surgery, and in some fashion their struggles have borne fruit. Among those wise in such matters a reasonably definite concensus of opinion has developed; and reasonable rules of procedure have been adopted to guide us in typical cases. Matters of technique have been brought to some manner of perfection; volumes of statistics have been published; and agonies of endeavor have been expended in showing how little we know before the abdomen is opened.

These are matters familiar to you all, yet to those of us who are active in this surgical field, often the amazing thing is that the profession at large seems to have been so little impressed. But there should be no cause for amazement. The profession at large is composed of hard-headed general practitioners, — men accustomed to deal daily with a multitude of things; men who have learned justly to trust to the healing forces of nature; who are not driven into hysterics by stories of nauseas, heartburns, stomach aches and borborigmi. With starvation and rest these symptoms pass away, and a knowledge of such passing away breeds skepticism; tried experience shrugs when gastro-enterostomy is proclaimed the panacea for chronic dyspepsia.

Among my friends is a valued consultant in wide general practice. For ten years I have operated on his patients, and I pride myself on retaining his professional confidence. Some five years ago I became aroused to the possibilities of gastric surgery; and in season and out, I fear, I urged upon my friend the importance of this field of work, and the probable frequency of the cases. He has smiled upon me with indulgent acquiescence, but never has he called upon me to explore for him a rebellious stomach. He must have had patients whom I should regard as proper cases for gastric surgery. I firmly believe that such surgery would restore to health *many* of his *chronic* patients; but I have not seen them, and no knife has searched that virgin field.

Such skepticism shows the common condition of the professional mind,—at any rate in my community. The fault does not lie with the surgeons, who are unwearied in their marshaling of figures; nor yet with the general practitioners, who are too weary to grapple with statistics. The fault lies with *time;* and time, as usual, slowly is bringing the remedy. Those of us whose work lies in the great hospitals have abundant clinics from which we have gradually collected cases to illustrate our claims. Gradually, too, I believe, the profession at large is coming to perceive that our contention is founded on truth and fact.

In another writing I have said, "Dyspeptic symptoms are common enough, though one may have accustomed oneself to think of them as transient, trifling and easily treated.

"The patient who complains of morning headache, of occasional eructations, of some palpitation, and of constipation may be the victim of gastric cicatrices and beginning pyloric stenosis.

"The man who tells you that he is troubled with distress several hours after taking food, and with occasional stamach ache, may be suffering from gastrectasis or gall-stones.

"The child with a poor appetite, pallor, lassitude, and constipation alternating with diarrhea, may have a chronic appendicitis.

"The rather frail, neurasthenic young girl, or the tired mother of many children; the sufferer from dysmenorrhœa, or the elderly widow with heartburn, may be affected with displacements of the stomach, the kidneys, and the uterus."

Part of this may be wide of the mark. I propose to speak to-night of certain types of chronic dyspepsia due to *stomach* lesions, and to illustrate my points by relating certain typical cases selected from my list. Some eighteen years ago a young house physician in the Brooklyn Hospital found himself, at the end of his service, to be breaking down from overwork. Perhaps he was neurasthenic. His cases worried him unduly; he passed wakeful nights; his appetite failed; he experienced heartburn, flatulence, an occasional sense of distress in the epigastrium, and felt himself to be worn out mentally and physically. The picture is one which every physician sees daily. The advisors of our subject believed the young

*Read before the Medical Society of the County of Kings, November 20, 1906.

man to be neurasthenic and tired out, and advised him to go away for quiet and a long rest. So he went to Boston.

In spite of such literal compliance with directions, he did not improve, but shortly afterwards fell in the street, in an agony of epigastric pain, and fainted. He was taken to the Massachusetts General Hospital, where he lay for nearly three weeks. His initial symptoms were collapse, an irregular fever, epigastric pain and tenderness, abdominal distension high in the belly, constipation and nausea. That attack seems to have been the perforation of a duodenal ulcer. Surgery was not dealing much with such matters in those days. If there was a perforation, it must have been well walled-off and the peritonitis limited; probably, in the light of subsequent knowledge, we may assume that the ulcer was in the posterior duodenal wall. At any rate the patient recovered and went back feebly to the practice of medicine, but always with a tendency to some gastric irritability, when tired or overdriven. Always he observed a careful diet, eating sparingly, and for many years he was never hungry. So he went on for eleven years. Then, some seven years ago, he became again acutely ill,—with pain in the epigastrium, nausea, and debility, culminating in profound collapse from an alarming rectal hemorrhage (Melena). Out of this he rallied, with care; and with care he went on another four years; then three years ago there was another hemorrhage from the rectum; and again, one year ago, when, conscious that another attack was imminent, he washed out from his stomach a little blood. Then he consulted me for the first time, and after some discussion, decided to fight along on the old lines for a while longer. He left town to bury himself in the country, put himself on starvation treatment for a time, lived for long on the minimum of food, and finally returned to his work, in excellent physical condition. But in the course of last year he deteriorated. Again he realized that he was a chronic dyspeptic. He could tell a familiar story—of a feeling of weight when the stomach was full of liquid, and of weight and a sense of obstruction, or back-pressure, after eating solid food. When not overtired he found that the stomach emptied itself in about six hours. There was no fermentation, and the bowels acted daily. Latterly there was a sense of soreness in the right hypochondrium and a sensation as though a bunch were present there, over which the food was felt to pass. The epigastrium was always tender, but there were no especially painful points. He has long been rather thin; he is a tall man, forty-eight years old, of active mind and vigorous body, giving himself unsparingly to his professional labors, and in his leisure devoted to a woods-life—a notable sportsman and lover of nature.

I venture to say that here was a man whom nine physicians out of ten would regard as fortunate, considering the gravity of his past history; and would advise to go on as he was, thankful that he was no worse. But my friend was not so minded, and again consulted me with a view to an exploratory operation. That was in the latter part of last June. The physical signs were not conspicuous, except that the stomach was somewhat dilated, extending, when full of water, about one inch below the navel; and there was a tender spot in the right hypochondrium, but no tumor to be felt. The stomach yielded free hydrochloric acid, and the contents were in no wise remarkable. His own diagnosis was, cicatrized ulcer in the posterior wall of the duodenum, obstructing the pylorus; with dilation of the stomach, and probably some perigastric adhesions. He went to the hospital with the cheerful conviction that he could be relieved, if not cured.

The findings at the operation were interesting, in view of his opinion of his own case. The stomach was markedly distended and thin-walled, so that the mucous lining retreated when cut through, instead of bulging into the stomach wound, as is common. There were extensive tough adhesions between the stomach, transverse colon, duodenum, bile-passages, gastro-hepatic omentum and liver. There was the thick scar of an old ulcer, to be felt on the posterior wall of the duodenum, while the pylorus was firmly attached high, close to the left lobe of the liver; and from this high attachment, the great stomach fell away, causing a kink at the pyloric opening, with a consequent obstruction, which was *not* formed of scar tissue. So, food had to ascend and force an exit, instead of passing smoothly out at the normal level. Obviously there was need of breaking up the crippling adhesions, and providing the stomach with a competent outlet. This was done. The proper outlet was provided through a gastro-jejunal anastomosis and not by Finney's pyloroplasty, since that latter operation was rendered impossible by the deep and tough adhesions of the duodenum.

By gastro-jejunostomy I counted on obtaining a comfortable exit for food; with the expectation that the stomach would empty itself in normal time, that the organ would return to a nearly normal size, that the mucosa would fall again into its proper folds, and perform satisfactorily its normal functions, that the tendency to ulcer formation would subside, and finally that, with the elimination of the active irritating ulcerative process, the grave probability of subsequent malignant changes would be abolished. Let me assert here with all the conviction within me, that we have become convinced of the frequency of cancer development on the site of old ulcer, so that in this fact alone there inheres reason sufficient for operating to cure early non-malignant stomach disease.

As for our patient, he made the usual and

expected rapid recovery. For let me remind you that gastro-enterostomy, in the case of active, clean-bodied persons, whose other organs are sound, is a safe operation, nearly always followed by a short and wonderfully comfortable convalescence. Take the cases early. Don't wait for patients to become exhausted, hopeless wrecks.

As in the present case, the sense of obstruction, nausea, weight and fermentation is relieved at once. In two or three days simple food is taken with relish. Often these patients tell you with smiles that they have not felt so comfortable for years. They *were* gloomy and apprehensive; *now* they are cheerful and eager. In ten days our patient was out of bed, and on the sixteenth day from the operation he departed happily for his camp in the Maine woods.

Here is what he says of himself now, four months after the operation:

"All previous symptoms mentioned in the diagnosis, dictated by me July 8, have disappeared. I can eat any food now without discomfort, and when I have had all I want I feel there is still room for more. This is the only symptom I have, and it is certainly a new one. It is years since I could eat, even a moderate amount of food, without a sense of fullness and discomfort. I can even take a drink without wishing I hadn't. My bowels move once or twice in twenty-four hours. The stools are usually soft. Sometimes they are formed, more often they are not. This condition may be due to the stomach emptying too promptly (?), to increased peristalsis, especially in the colon, or it may be due to the fact that I eat fruit and vegetables, in amount, as I have not done for years. My hearing has improved somewhat. I have middle ear catarrh, due to scarlet fever. My dentist says that the complexion of my teeth has changed; they have more lustre and are more translucent. He thinks this due to my vacation, he does not know I have been operated upon.

"On entering the hospital I weighed, stripped, 158 pounds; on leaving the hospital, thirteen days after the operation, I weighed 155 pounds. To-day I weigh 165 pounds. For the past two months I have tramped the woods as usual in summer, without experiencing any ill effects.

"I have no knowledge of the character of the operation performed on me. I am of the opinion it is a good plan to keep patients in ignorance of operations done on them till long after they have recovered from the immediate effects. I am often amused at the way my mind tries to think out what has happened to me, but returns always to the same point of view,—a blank. The psychic effect of this is good, one may worry over an idea, but one cannot worry over a blank."

I have related this case in considerable detail, while avoiding a discussion of chemical and surgical technique, because this man illustrates both clinically and anatomically an extremely familiar type; the type of a chronic dyspeptic, with dilated burdensome stomach due to adhesions causing kinking with pyloric narrowing, but without a true organic stricture. Such adhesions are due to ulcer, either active or long-healed—to ulcer setting up a low grade of peritonitis, just as certain forms of appendicitis, never active or alarming, in the course of time will give rise to a mild localized peritonitis, crippling, distorting and tying down the appendix. In the case of the appendix, removal of that organ does away with the source of irritation; in the case of crippling perigastritis, proper drainage of the stomach banishes a dreary invalidism.

In March, 1904, I was consulted by a lady of woebegone appearance. She was forty-one years old, and looked sixty. She brought a letter from her physician, who stated that for twenty years she had been under treatment for nervous dyspepsia. Her one and only child was twenty years old. She said that during her only pregnancy she had suffered for the last three of her nine months with nausea and occasional vomiting, and that after her convalescence from labor these symptoms had only gradually and partially disappeared. After a year the tendency to vomit had ceased, and she had not vomited since. But she never regained her appetite, and for many years went about, emaciated, feeble, spiritless, constipated, a victim to insomnia; apprehensive and almost suicidal. Frequently she had consulted physicians, who seem to have made little of her, and for a number of years she was under the care of a well-known alienist. You see there were no definite symptoms of any sort, and so far as I can learn, the various chemical tests, made during those years, were negative. Then, five years before I saw her, something positive developed —pain after taking anything into her stomach —food or water; but there was seldom any special tenderness. Here are some of the diagnoses made in her case: hysteria, melancholia, neurasthenia, hypermetropia, carious teeth, uterine prolapse, gastralgia, enteroptosis.

I admit that when this patient came to me I was as puzzled as the others had been. Here was a person who had been a dyspeptic for twenty years, with pain after taking food, but the only physical signs to be made out were a slightly enlarged stomach and some tenderness in the right hypochondrium. No blood could be found in the gastric contents, but there was marked hyperchlorhydria. Perhaps most of you in these days would at once vote for an exploratory operation in such a case, but such a sentiment was by no means instant and unanimous among my colleagues thirty months ago. I had the woman see two competent internists. Both felt that proper measures had not been tried in her case. So for a month she submitted to a regimen of tonics, laxatives, careful dieting and gastric lavage. There was no improvement, and we then decided to explore the stomach.

It was a case differing in many essential respects from that of the physician with doudenal ulcer. This woman had no definite history of ulcer to relate; her pain and distress were not relieved by treatment, and the size of her stomach was not markedly abnormal. The operation, when undertaken, was purely exploratory. On opening the abdomen we found no adhesions, except that over a small area the

stomach was lightly attached to the transverse colon; but the two were separated readily. The stomach was not markedly enlarged, but there was disclosed a deep cicatricial infolding of its anterior wall, about four inches from the pylorus. In other words we had to deal with an hour-glass stomach. The large proximal portion of the organ was somewhat dilated, and was considerably hypertrophied, but the small distal portion was insignificant in size and was but slightly pouched. I maintain that a diagnosis of this condition was impossible before the operation, for the ordinary tests employed to disclose hour-glass stomach fail when the two pouches are so extremely disproportionate in size. In effect, the deformity in this particular case was similar to that of a pyloric obstruction; but there was no pyloric obstruction, and there was but little delayed gastric motility.

It is reasonable to suppose that this patient's excessive vomiting during her pregnancy of twenty-one years before was due to a peptic ulcer, which healed slowly, leaving a thick distorting scar, furrowing the gastric wall. The woman was of a neurasthenic type, and probably suffered more from her gastric lesion than would a normal individual. Her nervous symptoms befogged the vision of physicians, and she gives us one more example of those unfortunates whose symptoms are assigned to neurasthenia, when in truth a genuine organic lesion exists. The operation consisted in enlarging the close stomach lumen, by a method similar to that employed by Finney for stricture at the pylorus. The procedure was extremely simple and was rapidly accomplished.

This woman's recovery was retarded, for she had suffered long, and was greatly debilitated At the end of ten days she was eating a moderate diet and was out of bed, but her appetite improved slowly, though food no longer distressed her. The effect on her bowels of the operation was striking. An immediate stimulation of peristalsis was apparent, and she has been free from constipation ever since. For the first year after the operation she had three or four periods when food burdened her. For this condition I followed Bevan's suggestion successfully, giving her for a week at a time small doses of castor oil half an hour after her meals. Now, for more than a year she has been comparatively well, and writes me that she has gained fifteen pounds, and, except for occasional periods of depression, enjoys life as she has not done since her youth. Is it not a melancholy reflection, however, that half of her existence so far has been made wretched by an affliction which we now know to be curable?

I have operated upon five patients in whom there was gastric stasis from no appreciable cause. In each case there was some little dilatation, what is commonly called *atonic dilatation.* The condition for which I operated seems to have be an atonic stasis. Whether or not atonic dilatation is a proper term, I believe atonic stasis to be a condition more common and more intractable than generally is recognized. A few years ago it was often asserted—and I myself so wrote—that true atonic dilatation is a rare condition, and that most of the cases hitherto assigned to that class should properly be grouped with cases of dilatation from organic pyloric obstruction.

Here is a case in point. Like the others I am relating, it is of a familiar clinical type, and I defy any man to distinguish it, before operation, from gastrectasia from obstruction.

Some two years ago an accomplished internist asked me to see with him a lady who had been a pronounced dyspeptic for six years. She was an intelligent school teacher, thirty-five years of age, and unmarried. Doubtless she was suffering from the strain of life, but she was not neurotic. The tale about her was that though in good health up to six years previously, she had since then become much of an invalid. Her ill-health was characterized by attacks every two or three months, of epigastric pain a few hours after eating; by nausea, vomiting, and quite constant tenderness in the epigastrium. She had occasionally vomited food ingested twelve or even twenty-four hours previously. These attacks were increasing in frequency, violence and duration. At no time had blood been found in the vomitus; the stomach was distended to the navel. When I saw her she looked plump and ruddy, but languid. She was then living on peptonized milk, the only food which her stomach did not reject. My consultant and I studied the case for some weeks and came to the conclusion that she was the victim of a pyloric obstruction. Mark you, however, there were certain features in the case which did not accord entirely with that diagnosis. The attacks were periodical, and for weeks at a time she ate an abundant diet, and was free from ill symptoms. Moreover, there was no evidence of hemorrhage into the stomach, and that organ was not markedly dilated. She had other common concurrent symptoms—obstinate constipation, a copper taste in the mouth, and quite constant abdominal distention.

In view of the patient's long-continued ill-health, her failure to mend permanently under internal treatment, the probability of organic obstruction, and her present fair condition, we decided upon an exploratory operation.

To me that exploration was a disappointment at the time, for I found a condition of affairs not far from the normal. There were no adhesions; the stomach walls were somewhat flabby, and the organ was somewhat enlarged. But there was no deformity, no scar, no abnormal thickening, no pyloric obstruction. The stomach sagged somewhat, and the upward trend of the pyloric end towards the pylorus was slightly exaggerated, but there was no kink or other condition to cause obstruction.

At first I was minded to do nothing more, but on reflection, certain considerations led me

to a gastro-enterostomy;—the fact that there had been increasing stasis for six years, and the relaxed condition of the stomach walls. We have long believed and taught that atonic dilation is best treated by internal measures. Here was a patient growing steadily worse under the most intelligent internal measures employed for six years. I reasoned that a second stomach exit near the pylorus would probably do no harm, and might be of decided benefit in providing an additional vent for the stomach's contents. Moreover, gastro-enterostomy in the case of such nearly normal organs is almost devoid of danger. Accordingly I made an anastomosis between the beginning of the jejunum and the pyloric portion of the stomach. I found the gastric mucosa somewhat pale, but otherwise not abnormal. The pylorus admitted readily the ends of two fingers.

To the general practitioner the subsequent history of this woman is of vital interest. In a word, that subsequent history was devoid of incident. She rallied well. On the third day she was taking milk and other liquids in abundance. At the end of ten days her appetite was good, and she was eating, without discomfort, a varied diet. In the third week there was some tendency to stomach-heaviness and nausea, owing probably to over-eating, but by limiting the diet and giving a short course of castor oil this difficulty was overcome. Gradually the patient regained sound health, and I am informed that she has returned to her professional work.

This case was peculiarly interesting for these reasons: We proved that gastric stasis without obstruction is benefited by providing free drainage when other measures have failed to relieve the stasis; and we demonstrated again, if demonstration was needed, that the after-treatment of gastro-enterostomy and other stomach operations is not the rough rule-of-thumb business which some surgeons have taught it to be. For myself, I am convinced that these operations should always be followed by a careful supervision of the diet for a year at least. The stomach must never be overloaded, the bowels must be regulated, the general hygiene of the patient must be supervised, and the long overburdened organs must be coaxed and nursed back to a proper balance, for the restoration of function; and finally, I learned from this woman's experience that in case of long standing, obstinate, crippling dyspepsia of obscure nature, provided the patient's reserves are not yet exhausted, a timely operation may cure the invalid.

Here is one final case. It is that of a woman sixty-five years old, who came under my care something more than three years ago. She was a stout, active person—not a woman of whom one would have assumed a chronic dyspepsia. But she was dyspeptic; and on the following terms: For thirty years she had suffered grievously from constipation, and had had the commonly resulting hemorrhoids, for which she had been operated upon twenty years ago. In middle life she learned that certain articles of food distressed her—tomatoes, oysters and clams, strawberries and mushrooms. For many years—perhaps twenty—she had periodical bilious attacks so called—headache and nausea. Half a dozen times during these twenty years she had suffered for a few days at a time, with pain and tenderness in the epigastrium. She had had no attacks of vomiting. Indeed she was one of those persons who will tell you that they cannot vomit. She had frequent heartburn. So, from her symptoms, there was no evidence of gastric stasis or of hemorrhage.

From all this one concludes nothing definite, except that this woman was a chronic dyspeptic of a mild type. What pronounced symptoms she had pointed to disease of the bile passages as much as to disease of the stomach.

When I saw her first the situation was far from clear. She was a robust woman of good color, who told me that in the past year she had lost ten pounds in weight. Of late she had acquired a distaste for food, especially for meat. She felt languid, with a constant sense of epigastric oppression, and an exasperating constipation. The stomach tube revealed no stasis and no dilatation. There was a trace of blood, shown by the guiac test, but there was present free hydrochloric acid, with no lactic or butyric acids, and no Oppler-Boas bacilli or other unusual organisms.

You will see that all our findings were negative, except for the small amount of blood; and repeated observations showed this to be constantly present. That meant ulcer or cancer, and in view of the patient's age, it suggested cancer especially. As yet an accurate diagnosis was impossible. We were on the horns of the dilemma, which constantly confronts every practitioner. Under such circumstances I advise strongly an exploratory operation. This patient's heart and arteries were sound, and her kidneys were doing their proper work. Unfortunately no tumor could be felt—a regrettable fact. It used to be taught that the presence of a palpable gastric tumor contraindicates operation. I know not whence arose so perverse a teaching. It must have destroyed many useful lives. A small anterior pyloric cancer *can* be removed, with a hopeful outlook, though such a tumor be *felt* through the abdominal wall. A large, extensive posterior cancerous mass *cannot* be removed, yet often such a mass cannot be felt. And then, as to the dangers of an exploration; such dangers do surely exist, as Fitz has shown in a monograph almost classic; but when a patient is in fair general condition, when the abdomen is opened rapidly through a two-inch incision, when hopeless cancer is determined.

with little disturbance of the viscera, when the wound is sewed up with permanent, buried wire, or silk-worm gut, when the patient is kept in Fowler's position and is out of bed on the fourth day,—in such cases an exploratory operation is advantageous; and it is in such cases that we urge it. I am a conservative person. I abhor hasty and illadvised operating, but in appropriate cases I regard the exploratory section, under skilled hands, as the sane precaution and the true conservatism.

All this apropos of advice which was not accepted in the present case. The patient had the normal dread of an operation, and elected to take her chances without it. She went on for ten months, and then died. It was the usual melancholy story: increasing anorexia, pain, thirst and emaciation; increasing doses of morphia, long periods of stupor, of delirium, and finally death.

Four months before she died a tumor became palpable, to the left of the middle line. It increased rapidly in size, evidently involving the stomach, omentum and other organs. At the autopsy we found a mass of cancer occupying the posterior wall of the stomach, with the expected metastases in the superior and posterior glands, the pancreas, the gastro-hepatic omentum and the liver. The pylorus was patent and the bile passages were uninvolved. And note that there was a puckered scar on the lesser curvature of the stomach.

This was an instructive case, and illustrates a number of conditions, as well as certain assumptions which surgeons have been making in recent years. We believe that a long continued mysterious dyspepsia frequently is due to gastric ulcer, undetected; and we believe that long-standing gastric ulcer, unrelieved, frequently is the foundation of malignant disease.

This woman's cancer was on the back of the stomach, and therefore was not evident to the touch until the disease was far advanced. That is an uncommon location for cancer. Moreover, it did not involve the pylorus, and therefore caused no stasis.

An exploratory operation, at the time I advised it, would probably have done no more than confirm the diagnosis, but I make little doubt that a gastro-enterostomy a few months earlier would have cured her ulcer, relieved her dyspepsia, forestalled the development of cancer, and given her many years of active and comfortable life.

In these desultory remarks you will probably recognize no new thing. I have endeavored to formulate merely certain general propositions, and to illustrate these propositions by a few concrete examples.

The physician with the duodenal ulcer, the high, kinked pylorus, adhesions and a dilated stomach, is one of a large class. The conditions which we found in him could never have been cured by other than operative measures. By diet and medicine he was relieved for a time only. Not long ago men were saying to each other, Is not that all you can expect? Should he be submitted to the risks of a surgical operation? To-day our statistics prove abundantly that properly selected patients, when submitted to an appropriate operation, recover from the operation to find their dyspepsias cured.

The woman with the hour-glass stomach belonged to a smaller class. Hour-glass stomach is relatively uncommon, but twenty years of dyspepsia should have suggested a gastric lesion, and should have led to an exploratory operation.

The woman with atonic dilatation and stasis shows in her own case some of the difficulties and perplexities of diagnosis; but cheers us by making obvious a path of treatment for persons frequently consigned to a hopeless invalidism.

Finally the patient with cancer of the stomach illustrates an experience most familiar. Among the well-to-do classes such patients postpone operation, and substitute for it an abundant attendance upon the physician; refusing often to submit to a proper examination, and contented with palliative treatment. When an operation is insisted upon, often the proper time has gone by. Dispensary patients are treated more rigorously, and see the surgeon while there is still time.

The field of stomach surgery is sown with other cases, of many and varying types. The four I have quoted, taken somewhat at random, but all sufficiently familiar, may serve to suggest to you the scope and the variety of surgical therapeutics which we believe should be applied to chronic gastric disease.

STOOL EXAMINATION: ITS VALUE AND PRACTICE.*

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IN the study of diseases of the intestinal tract numerous difficulties are encountered. The gut invades all regions of the abdomen and comes into more or less intimate juxtaposition with all other viscera within that cavity. Its nerve supply is intimately connected with the other organs. The position of some portions is liable to considerable variations, being affected by traction, pressure, distention and relaxation. The functions of the gut are many and dissimilar, while the inception and completion of each is not sharply defined at any particular point. The symptoms of its derangement may be numerous and confusing or almost entirely wanting: frequently the only manifestation of abnormality is

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a disturbance of another organ or a sensation referred to a neighboring organ or remote part of the body.

It is unquestionably an organ peculiarly subject to limitations of diagnosis, but with the advances of knowledge in regard to its physiological workings and pathological deviations we are now in a better position to determine the nature of the affection and define its area. This can only be done, however, by having recourse in all the methods of precision. While the study of clinical histories and the making of careful physical examinations is indeed indispensable, it must be admitted that no matter how complete these may be, we are still without sufficient data for an accurate diagnosis in many cases without an examination of the stools. In making a diagnosis of the condition of any organ the secretions or discharges are given consideration: one would hesitate to form an opinion on the condition of the urinary, reproductive, respiratory organs or the stomach without some study of their secretions or abnormal discharges; but the disagreeableness of the work commonly restrains even the careful clinician from taking advantage of the information that may be gained from a similar study of the intestinal dejecta. Those who in spite of this complication have given serious consideration to this subject know its value not only in the elucidation of underlying causes of evident intestinal derangements, but also in the study of many cases of obscure anemia, nourishment, gastric abnormalities and obscure abdominal pain.

In the first attempts in this study one is apt to be baffled by the difficulties that present themselves. The mass is heterogeneous and the identification of every substance is a useless and almost impossible task. An accurate idea of what is of pathological import must be gained from studies of the normal stools; but it must be appreciated that the diet conditions, the fecal residue and a certain finding, pathological for one diet, is perfectly normal for another. We must know then the feces that normally result from the ingestion of certain diets as a proper foundation for the work. For ascertaining certain facts the milk diet is well adapted, as the resulting feces are comparatively simple in character and certain objects are readily recognized microscopically. This often applies in our search for inflammatory exudates or the eggs of intestinal parasites. Where, however, we wish to study the digestive capacity of the bowel it is necessary to make use of a diet such as advised by Schmidt and Strassburger. This diet is of proper caloric value for the average adult, and some of its ingredients are morphologically recognizable if passed improperly digested. Through study of the normal we ascertain the possible amounts of undigested substances and know that beyond this there is a digestive deficiency. The particular diet they suggest is not well adapted to our dietetic customs and the proportion of fat to carbohydrates is relatively high. I have constructed a diet list readily obtainable, with a more normal proportion of fats and carbohydrates, and have ordered the foods in such bulks that accuracy of amount may be obtained without weighing.

This *standard intestinal test diet* is started in the morning, and a capsule of carmine, five grains, or a tablet of charcoal is given immediately after this first meal; at the completion of the second day another dose of coloring agent is taken, and the entire feces resulting from the diet are demarcated. Judging from the appearance of the first color we also secure the time of passage. The food values are given in calories.

For Breakfast.	
A teacupful of well strained oatmeal	160 C.
A tablespoonful of cream	80 C.
A teaspoonful of sugar	40 C.
Lean meat, finely chopped, slightly cooked in pan—an amount equal to a heaping tablespoonful	60 C.
Three slices of toast (4 by 4 by ½ inch thick)	150 C.
An inch cube of butter	65 C.
A large glass of milk (8 oz.)	160 C.
At Midday.	
Potato puree (one potato to 8 oz. milk)	225 C.
A slice of toast, size as above	50 C.
A half-inch cube of butter	30 C.
Lean meat, as above, a teacupful in amount	150 C.
Add an inch cube of butter	65 C.
One large, well-baked potato	75 C.
Add 2 teaspoonfuls of cream or ½ inch cube of butter	40 C.
Two slices of bread, size as above	100 C.
An inch cube of butter	65 C.
A large glass of milk	160 C.
For Supper.	
A teacupful of rice, cooked dry	150 C.
Add an inch cube of butter	65 C.
Two poached eggs	140 C.
Three slices of bread	150 C.
An inch cube of butter	65 C.
A large glass of milk	150 C.

In this dietary there are about 2,220 calories, made up of 100 grams of proteid, 80 grams of fat, and 300 grams of carbohydrate.

In the examination of the feces as in other clinical studies one is apt to follow along lines indicated by the nature of the case, but a certain routine method is most expeditious and at times gives very valuable, although unexpected, results. The examination should always be started with a careful macroscopic examination, and in many cases this gives all the desired information; this is particularly true of the acute cases such as must be studied by the general practitioner.

The amount of feces passed per diem is normally subject to considerable variations, depending on the fluids and solids ingested. Ordinarily we are not repaid for the annoyance of weighing the dejecta. Errors in the estimation of the clearing of the colon are less liable to occur if one bears in mind the greater bulk of a soft stool and the decreasing bulk as the feces are passed in drier states. Again it must be remembered that the bodies of bacteria make up about one-third and the debris of secretions and intestinal

mucosa about one-fourth of the solids of the feces under normal conditions; the remaining portion, about one-third, of the solids being the residue of food stuffs ingested; we then must expect daily stools measuring well up to the normal in bulk, although the individual has been on much reduced diet.

The *consistence* of the stools is also conditioned by the ingesta; changes from the normal semi-solid formed cylinders to a condition of semi-fluidity may be entirely physiological if the diet contains an overabundance of fat or fresh vegetables with watery cells, or the amount of ingested fluids be excessive.

Unformed stools in the absence of such dietary conditions must be considered pathological, although in rare instances competent observers have watched individuals for years without finding such abnormal fluidity to evidence more than a physiological idiosyncrasy.

Abnormal fluidity in the absence of these conditions may be accounted for by a failure of water absorption, due either to defective absorbing power of the mucosa or too rapid a rate of peristalsis in the colon; by the addition of fluid from the intestinal wall in the form of serum. pus, blood or mucus; or by the failure of the small intestine to absorb a normal amount of fat. The differentiation of these various conditions may be exceedingly difficult, involving a very complete study of the entire case, or may be made on simple macroscopic inspection. The very watery stools are due either to the addition of serum or to a failure of water extraction. In the transitory diarrheas, due to intestinal irritation or nervous excitation, we have to deal with a rapid rate of peristalsis: the frequency of defecations is great, compared to the amount of fluid evacuated, food remains are very evident, and the odor of fermentation may be pronounced. When the fluidity is due to the addition of serum, as in acute serous colitis, the amounts evacuated are great at each defecation, and the fluid is whitish and frothy in character, but has little odor.

Abnormal hardness of the feces is attributable to deficiency of fluid ingestion or prolonged retention or squeezing of the mass.

The *form of solid stools* may be indicative of the condition of the colon; decrease of the normal calibre points to spasmodic or organic contracture at some point from cæcum to anus. Contractions high up are suggested by cylinders of small calibre being passed with softened feces. Ribbon-shaped stools are most commonly due to contracting conditions about the anus. The small balls of fecal matter, the so-called "sheep-stools," may be passed in either spastic or atonic conditions. The large balls of hardened feces indicate an atonic condition of the colon, and usually an atonic dilatation of the rectum.

The color is largely determined by the diet, and variations from the normal light color of milk diet to the dark, almost black stools, consequent upon the ingestion of a diet rich in meat, may be described as normal. Carbohydrate diet tends to lighten the color, and this is most pronounced as abnormal fermentation is added. The dark coloration due to meat diet is exaggerated if the time of passage be prolonged, if the putrefactive process be abnormal, or the mass be exposed to the outside air after passage. Cylinders passed with the outside of much darker color than the inner portions have probably remained long in sigmoid or rectum. Through the administration of drugs, such as iron, lead and bismuth, and the ingestion of berries, there is the blackening of the feces distinguishable from decomposed blood from the upper portions of the colon and small intestine by microscopic and chemic examination. While the color of fresh blood ordinarily is retained only when blood comes from rectum or sigmoid, if the amount be large or the rate of peristalsis be concurrently exaggerated there may be reddish coloration and blood cells discovered microscopically, although it arises from as high as the duodenum. Occasionally an orange tint of the feces has been found to arise from the presence of blood.

The most marked deficiency of coloration may occur from a diet rich in fat, and yet not indicate a pathological condition. Clay colored or acholic stools are not necessarily indicative of biliary failure; besides the very common fatty stools, as a causative factor in such an appearance, it occasionally happens that the bile is reduced to a colorless bile salt and not to the brownish urobilin. The absence of bile from clay colored stools should only be decided on by chemical examination.

The green coloration of the stools, so commonly seen in infants, may in rare instances be due to the growth of a chromogenic bacterium, but a greenish hue results from increases in the peristaltic rate, as during the first year of life the change of bilirubin and biliverdin to urobilin are not complete when the mass reaches the cæcum, as is the case in later years. Indeed, with perfectly normal peristalsis, a greenish tinge is normal when the stools of infants are exposed to the air. Green coloration of even small particles after this period indicates a pathological acceleration of peristalsis in the small intestine.

The fecal mass is next examined macroscopically for mucus and the microscopical study cannot fill the same place. If, through either form of examination, mucus be found we have positive evidence of an inflammatory condition somewhere in the intestinal tract. There are only two exceptions to this rule. Normally there may be a thin glistening coat of mucus on a hardened cylinder of fecal matter, due to a somewhat long retention within the rectum. The true cause of this mucus is evident if a softer mass fails tc show such mucus coating. In addition to this we have the seemingly mucus masses of membranous colic, which in fact is not true mucus.

In the diagnosis of intestinal catarrh, both as to variety and site, we are dependent on the examination of the stools; the kind and arrangement of mucus is the chief diagnostic point, and consequently its study is of primary importance.

An evacuation of pure mucus indicates a catarrh of the lower descending colon, sigmoid or rectum. Actually pure mucus is only passed when the disease is acute and the frequency of defecations too great to admit of fecal admixture from the bowel above. As the inflammation becomes less acute fecal matter is added to the mucus, but the mixture is not intimate. The stool may again acquire a fecal odor and appearance, but in places we find masses of mucus with more or less color.

The frequent passage of thin feces with small masses of mucus and some also in lumps or shreds, intimately intermixed with the feces, shows an acute inflammation of the upper *and* lower portions of the colon. In this case as the inflammation subsides, and peristaltic activity is less, the stools become soft and mushy, but the dual findings persist,—mucus in discrete masses and that finely divided and intermixed with feces. If the inflammation becomes chronic, either abnormal fluidity or constipation, or both, alternately or together, may be observed, but on careful examination the mucus is found in a similar arrangement.

The higher the site of inflammation in the colon, or if, indeed, it involves the small intestine, just so much finer will be the subdivision of the mucus, and so much the more intimate will be the admixture with feces. We reach the limits of macroscopic discovery of the mucus in the mass, and continue the search in separate portions with the "glass plate" test. Small portions are rubbed up with water, and spread out between glass plates of liberal size. If these be held to the light very small particles are discoverable. Mucus from the first portion of the colon and the small intestine is not ordinarily distinguishable with the naked eye.

In the ordinary acute catarhal inflammation of the lowermost portions of the colon, we may discover a few flecks of blood: very evident streaks of blood, intimately intermixed with the mucus, indicate an ulcerative condition. The presence of purulent fluid, mixed with the mucus, has a like significance, but indicates a deeper destruction of tissue.

The passage of large shreds of rather tough exudate, on close examination, resembling diphtheritic membrane rather than true mucus; is attributable not to true inflammation but to a secretory neurosis of the intestines. This neurosis, described as colica mucosa or membranacea, and also as membranous enteocolitis, does not develop on an inflammatory basis, although at times this may occur coincidentally. The masses are frequently mistaken by the patient for tapeworms or the "linings of the bowels"; such a history should excite suspicion of this secretory neurosis. *On several occasions we have examined specimens that proved the presence of this secretory neurosis without a history of true intestinal colic being given, merely a complaint of moderate or slight abdominal discomfort.*

Upon the completion of these macroscopic examinations, a small portion of the stool is removed from the mass for microscopical and chemical examination; the remainder is washed in the stool sieve until only the insoluble and odorless residue remains. This residue from a twenty-four hours' collection on the "test diet" amounts to less than a teaspoonful under normal conditions. It may properly consist of the cellulose coverings of oatmeal, possibly a few lumps of coagulated casein or potato and a few large meat particles. Under pathological conditions we may discover: numerous connective tissue or meat fibres, masses of undigested starch, fat or mucus, intestinal sand, parasites, gall-stones, and enteroliths. The stool sieve described by me makes this examination particularly easy, as the patient uses the office water closet, if convenient, and the sieve, which is suspended therein, gives off no unpleasant odors while the washing is going on.

Taking up the microscopical examination we first examine the native unstained preparation, using extra large slides and cover glasses. In this preparation we continue the search for mucus, and its appearance in the form of tiny lumps or shreds indicates a catarrh of the small intestine or first portion of the colon; if greenish in appearance the former origin is certain. Connective tissue fibres, known by their faint striations and clean cut edges, are normally present in small numbers, not more than a few to the prepared slide; an excess shows a deficiency of gastric digestion as the connective tissue of meat ingested practically raw is dependent on the gastric juices for the preliminary steps in its digestion. Muscle fibres with striations faint or entirely lost may be found in small numbers under normal conditions. If proper activity of the pancreas is lacking the fields of the microscope are covered with large and small fibres in different states of destruction. If the pancreatic deficiency be due to lack of the normal gastric chyme to excite it to action, we find both connective tissue and muscle fibres in excess. We have recently been able to demonstrate such a condition, and have eradicated all evidence of intestinal indigestion by bringing the gastric secretions up to normal.

In a preparation stained with iodine there should be merely an occasional granule with violet color, and these usually having a partial covering of cellulose capsule. The appearance of pathological amounts of unchanged starch, shown by the blue coloration of a considerable portion of the specimen, is certainly very uncommon among adults on the "standard diet." In cases of degeneration of the pancreas, evi-

denced by marked glycosuria and lack of proteid and fat digestion, starch is frequently well digested. This is attributed to the succus entericus having a part in starch digestion, and also to the ease with which fermentation may in part break down the carbohydrate bodies. One frequently finds evidence of incapacity to digest starches in the amounts ordered for children, and there is evidence that such an excess may be the causative factor in the institution of catarrhal enteritis.

A few drops of the feces, liquefied if necessary, are heated with acetic acid, and the fat estimated from the number of fatty acid crystals. Moderate increase above the normal number is not to be taken too seriously, for the specimen that is actually significant is seen to be greasy when spread out between slide and cover glass, shows abundant droplets of fat, and the crystals cover the entire preparation. True fatty stools may result from overabundance of fat in the dietary, exclusion of bile from the intestine, deficiency of pancreatic enzymes, or atrophic changes in the intestinal mucosa, leading to failure of fat absorption. Excess of fat and exclusion of bile are readily determined, and the atrophic conditions of the bowel are rare except in general amyloid disease; fatty stools then, in the absence of these other etiological factors, point to organic or functional disturbance of the pancreas. Meat fibres in this condition are also passed in great excess. The combination is not infrequently seen in certain cases of diabetes mellitus.

The use of a few drops of the feces from the sublimate test, to be discussed, is sometimes of value when studied microscopically. The green coloration of bits of mucus and cells shows their small intestinal origin. An abundance of meat fibres and other particles, stained green, shows exaggerated rate of peristalsis in small intestine.

The microscopical examination for the eggs of parasites is occasionally the object of the study, but always to be thought of as a possible etiological factor in anemias and intestinal disturbances. In the stools of an Italian in the wards of the Brooklyn Hospital this past summer we discovered the eggs of uncinaria or anchylostoma duodenale; the patient had long been treated for a severe anemia and malaria, and our discovery of the real cause was due more to our practice of examining the feces in all doubtful cases than to any suspicion of the real condition. It is interesting to note the entire cure of this case from the systematic weekly exhibition of thymol in 30 grain doses until all eggs had disappeared from the stools.

The sublimate test already referred to is best performed in a test tube: to about 5 grams of the feces, at least an equal amount of saturated solution of mercuric chloride is added, and the mixture allowed to stand for 24 hours. If bile is excluded from the intestine the normal pinkish red coloration is absent. Particles stained with bilirubin become green, and such a reaction shows that the particles have come from the small intestine without a normal reduction to urobilin. Particles stained with biliverdin are shown in the fresh specimen, and have a like significance.

The test for occult blood in the feces has come into well deserved prominence in the past few years and the method need not be discussed. The test is most valuable in its absence, as in this we have positive proof that there are no bleeding ulcerative surfaces. A positive reaction is of value, taken with other clinical facts, if blood from the rectum, naso-pharynx and mouth can be excluded. In carcinoma after the ulcerative stage has been reached this finding is always positive. In benign ulceration of stomach or duodenum, blood is found during the very acute periods and at intervals only during the subacute and chronic stages. A constantly negative reaction is of great value in the differential diagnosis between gall-bladder disease and ulceration of the stomach and duodenum. It frequently happens that in any severe vomiting a small amount of blood is discovered by the patient. A negative reaction of the feces makes it improbable that an ulceration is responsible for the occurrence of the trace of blood in the vomitus. This differentiation is frequently of great practical value. The absence of occult blood in the test meal demonstrates the subpyloric site of any possible ulcerative condition. The positive reaction for occult blood in the stomach contents must always be viewed with suspicion if there is much retching attending its expulsion, or if the amount of stomach contents obtained is so small that a trifling amount of intermixed blood could be shown by the test. In the feces the dilution is necessarily great.

In this period of much sought for scientific accuracy in diagnosis, the profession has but to appreciate the value of a diagnostic method and its adoption becomes certain. In the examination of feces many enthusiasts have been discouraged, and we believe this would be otherwise were it realized more clearly that this study differs from the majority of the many laboratory aids to diagnosis in that it is not a matter of finding a certain reaction positive or negative but rather that the examination gives us a number of data which are conclusive when the other clinical findings are given their due consideration.

Again I say, more air, more sunshine and more pure water in the homes of the poor. Surely, those who never have an opportunity to escape during the heat of summer to the green fields and the pleasures of the open air, are entitled to a generous share of those blessed cheap necessities to right and happy living.

HOWARD A. KELLY.

LITHOLAPAXY WITHOUT ANESTHESIA.*

By G. MORGAN MUREN, M D,
BROOKLYN, N. Y.
Professor of Genito-Urinary Surgery and Venereal Diseases, Brooklyn Post-Graduate Medical School; Genito-Urinary Surgeon, Williamsburgh Hospital.

WITH the exception of the first effort to crush and remove the stone in the first case reported in this paper, no anesthetic, either general or local, was used in any of the cases.

In the spring of 1904 I reported the first two cases, before the Long Island Medical Society.[1] Since then, through the courtesy of several medical friends, I am able to report fourteen more cases without disastrous results, which is the best answer that can be given to those surgeons who still favor cystotomy for stone.

While it is probably unnecessary to remind the members of this association of the obvious advantages of litholapaxy as compared to the cutting operation, I still must do so, as I venture to hope that when published this paper may be read by those not so familiar with the subject.

To quote from my first paper: "I wish to say just a little about the comparative merits of litholapaxy and the cutting operations, as I believe many of the latter are constantly being done when the former would save the patient considerable time in convalescence, as well as the greater mortality risk of the cutting operation. The general opinion among genito-urinary surgeons is that litholapaxy in the hands of men of experience in urethral and bladder instrumentation is the operation of choice in all cases where the necessary instruments can be passed into the bladder, and there are no special contraindications, such as encysted or adherent stone, very large or particularly hard stone, cases in which thorough drainage and rapidity of operation are the chief indications, etc."

The following opinions are quoted as examples:

R. W. Taylor:[2] "In practised hands it is the operation of choice for children and also for adults."

White and Martin:[3] "Litholapaxy is, in both adults and children, the method of choice."

Keyes[4] sums up the situation as follows: "Suprapubic lithotomy exposes the patient to more dangers and inconveniences than does litholapaxy. Yet lithotomy is appropriate to all cases, which litholapaxy is not; while litholapaxy requires a special training, which lithotomy does not."

The time lost in convalescence is a serious matter to all male patients. Several weeks at least is the shortest time we can promise our cystotomy cases, and this may extend to a longer period. Even in somewhat unfavorable cases when litholapaxy is done, the patient can frequently leave the hospital in a week. In suitable cases operated in the office there is no time lost.

There are worse things than cutting operations, but not many in the minds of the average patient and his family. On this account many will readily accept litholapaxy who would make great objection to any cutting operation. This is a somewhat important advantage for the former.

In the following statistics, quoted from White and Martin,[5] the marked difference in mortality will be noted:

"Operations on patients ranging in age from puberty to middle age: Perineal lithotomy, 226 cases, 22 deaths, 9.7 per cent.; suprapubic lithotomy, 159 cases, 18 deaths, 11.3 per cent.; litholapaxy, 485 cases, 22 deaths, 4.5 per cent. In old age: Perineal lithotomy, 69 cases, 13 deaths, 19 per cent.; suprapubic lithotomy, 91 cases, 17 deaths, 18 per cent.; litholapaxy, 581 cases, 40 deaths, 7 per cent."

The reaction following litholapaxy is usually slight, and generally the patient experiences great and immediate relief from his chief symptoms. In a few cases, where all fragments of the stone cannot be immediately removed, there is some aggravation of the symptoms.

This after disturbance has never been of any consequence in my experience except in one case, which will be referred to again.

Great stress is laid by most writers upon the special skill required for crushing stone as compared with the easy operation of cutting into the bladder and removing the stone at once. I do not believe that special skill, more than that which should be possessed by any competent genito-urinary surgeon, is necessary for the performance of a successful litholapaxy.

The lithotrite can be passed usually as easily as a sound, and the finding of the stone, its crushing and the washing out of fragments is a matter of patient perseverance.

In all my cases except one every effort was made to get the patient in as good condition as possible before any attempt was made to crush the stone. This included bladder washings, the use of some urinary antiseptic and attention to the general health. The crushings were all done in my office without any assistance, except in two cases, where the physicians bringing the patients were invited to help.

Chismore,[6] who has had much experience in this work and has originated a most ingenious lithotrite, uses cocaine anesthesia. He injects one or two fluid ounces of a 4 per cent. solution of cocaine hydrochlorate into the bladder and leaves it there during the operation, which he performs in a series of office sittings.

The danger of cocaine poisoning makes this an unwise procedure, and I do not believe even a local anesthetic is necessary, as my patients complained of discomfort only during pressure upon the bulb of the evacuating apparatus, and this was slight.

*Read by title before the Fifth Annual Meeting of the American Urological Association at Boston, Mass., June 5, 1906. Read by invitation before the Brooklyn Medical Society, October 19, 1906.

In many cases the effort to remove immediately all fragments is unwise and unnecessary, as the prolonged instrumentation is frequently the cause of much discomfort at the time and afterwards. I believe, with Chismore, that we should not try to do too much at each sitting. Gradual fragmentation and removal of the stone, where it cannot easily be done in one operation, should satisfy the operator, and he should not be influenced from this course by the wish of the patient to have the operation completed in one sitting.

In performing this operation without general anesthesia, care must be exercised in selecting suitable cases. Patients with large and sensitive prostates will do better under general anesthesia. Highly nervous men, upon whom the sight of formidable instruments has a demoralizing effect, will not bear it well. Unless some special contraindication exist, fragmentation and removal may be repeated once a week.

The instruments I used were the Keyes lithotrite and the Bigelow evacuating apparatus.

For the following cases my thanks are due to Drs. A. L. Reeve, A. C. Jacobson, H. C. Anderson, M. R. Rarick and W. E. Lippold, of Brooklyn, and Dr. W. A. Funk, of Hoboken, N. J.

The first case is fully reported, as a general anesthetic was used for the first crushing, and the patient suffered some distress after one of the subsequent sittings.

Case I.—F. S.; German; theatrical carpenter; aged 54 years. He complained of almost constant desire to urinate, stating that he passed water every half hour during the day and every two hours at night. He also complained of severe and constant distress throughout the whole course of the urethra. He passed bloody urine once only. The searcher came in almost immediate contact with a large rough stone. Examination of his prostate found it but slightly enlarged and soft. His bladder capacity, 250 c. c. Residual urine, 60 c. c. Ordinary rubber catheter passed easily. Litholapaxy was advised.

He was operated on January 14, 1904, in the Williamsburgh Hospital, under ether anesthesia, and apparently all fragments were removed. No reaction followed the operation, and his improvement was marked and immediate. The second night he did not have to urinate between 11 P. M. and 6 A. M. the following morning. He had no further increased frequency in urination until after the second operation. He left the hospital ten days after the operation.

On January 29, February 1, 3, and 24, while urinating, passed fragments of stone. February 24 his bladder was searched and several fragments discovered. March 3 the fragments were crushed in the office and a fair amount removed.

No immediate reaction followed, and the patient continued regularly at his work, including the day of the operation. From the third to the tenth day following, his cystitis was somewhat increased.

Again, on April 6, 15, 22, 29, and May 25, the remaining fragments were crushed and finally all removed. His general health, which was somewhat impaired, has continued to improve since the first operation. He has practically no residual urine, and his bladder capacity is 300 c. c.

The above history was written two years ago. I have heard from him within a month. He is in good condition, and has no bladder symptoms.

Case II.—J. D.; aged 33; nativity, U. S.; occupation, clerk; previous history, none; never passed blood; number of sittings, one; result, cured.

Case III.—J. W.; 51; U. S.; merchant; cut for stone three years before; attack of renal colic six months later; never passed blood; six sittings; cured.

Case IV.—C. E. H.; 37; Switzerland; clerk; no previous history; bladder irritable for past eighteen months; passed blood twice; one sitting; cured.

Case V.—W. H.; 71; Germany; retired carpenter; cut for stone in Germany eighteen years previously, and had another stone crushed in England seven years later; passed blood frequently; a nervous, fragile old man; had large prostate, for which he refused operation; eleven sittings; symptoms much relieved; still has some residual urine and cystitis.

Case VI.—C. F.; 23; U. S.; clerk; no previous history; pain in penis; frequent urination past two years; passed blood twice; one sitting; cured.

Case VII.—O. J.; 64; Germany; barber; no previous history; frequent urination with blood; large hard prostate; refused operation on prostate; nine sittings; relieved; some cystitis and residual urine.

Case VIII.—H. E.; 47; Germany; grocer; no previous history; irritable bladder; pain in penis; never passed blood; three sittings; cured.

Case IX.—W. F.; 37; U. S.; fireman; no previous history; pain in penis; frequent urination; no blood; four sittings; cured.

Case X.—J. J.; 47; Russia; tailor; no previous history; pain in testicles; frequent urination; three sittings; cured.

Case XI.—J. C.; 53; Switzerland; waiter; no previous history; frequent urination and blood occasionally; five sittings; cured.

Case XII.—W. H. F.; 55; U. S.; merchant; no previous history; almost constant desire to urinate; no other symptoms; six sittings; cured.

Case XIII.—C. W.; 40; U. S.; clerk; no previous history; frequent urination; no blood or pain; three sittings; cured.

Case XIV.—A. R. L.; 29; U. S.; clerk; no previous history; frequent urination; no blood; some pain in end of penis; two sittings; cured.

Case XV.—J. H.; 59; England; retired; small stone crushed ten years previously; slightly increased frequency of urination; no blood; two sittings; cured.

Case XVI.—M. H.; 64; U. S.; retired painter; no previous history; pain in urethra and testicles; frequently passed blood; large hard prostate; nine sittings; relieved. Refused operation on prostate.

REFERENCES.

1. Litholapaxy in the Office, Muren, *Brooklyn Med. Journal*, July, 1904.
2. Genito-Urinary and Venereal Diseases, R. W. Taylor, 2d edition, p. 371.
3. Genito-Urinary Surgery and Venereal Diseases, White and Martin, 3d edition, p. 683.
4. Surgical Diseases of the Genito-Urinary Organs, E. L. Keyes and E. L. Keyes, Jr., 1903, p. 444.
5. White and Martin, 3d edition, p. 694.
6. Quoted from White and Martin, 3d edition, p. 689.

VAGINAL ABDOMINAL SECTION.

Duehressen, of Berlin, has opened the abdomen in 1,600 cases, through the anterior vaginal wall with a mortality of 2 per cent. He has been able to reduce to 20 per cent. the number of cases in which he has been required to open the abdomen above the pubis. He states, therefore, that 80 per cent. of all gynecological cases, in which opening the abdomen is required, can be treated without the anxiety that the anterior abdominal wall must be divided, that a visible scar must result, or that a ventral hernia may follow the operation.—*Muenchener Med. Woch.*, No. 38, 1906.

THE FIRST YEAR OF AMALGAMATION IN THE MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.*

BY FLOYD M. CRANDALL, M.D.,
President of the Society.

The agreement which brought about the union of the Society and Association became operative by a decree of the Supreme Court, issued on December 9, 1905. This agreement not only united the two societies, but also instituted a new system of medical organization in this state and changed the relation between the state and county societies. This new system was not forced upon the local societies by the State Society or any other body, but was adopted by each as an independent and individual act. In taking such action each county society became a party to a contract. The New York County Society did this on February 29, 1904, without a dissenting voice or a negative vote. The State Society voted unanimously for amalgation and the new system of organization in 1904 and reaffirmed its action in 1905. The State Association approved it in 1905 by a vote of 1,517 to 2, every one of its 1,519 members voting.

In the performance of official duty during the first year of amalgamation, therefore, it seemed to the officers of the New York County Society that one rule of action was clearly presented to them, namely, to loyally carry out the provisions of the contract to which the Society had bound itself. It was the fundamental principle of the administration. The second principle was the equal recognition of every member without regard to previous affiliation.

In assuming the duties of office on the eve of amalgamation I said: "If the Society is so wise as to form a union in fact as well as in form, the outlook for the future will be very bright. If the lines of difference can be forgotten the first year, they will rapidly fade and soon be obliterated." It can now be said in all truth that the obliteration of the old lines has been going on in New York County more rapidly than the most sanguine dared to hope a year ago. Unless some evil genius arises to fan into flame the embers now smouldering and almost extinct, the differences that so long vexed the profession will soon be of the dead past.

In view of the various changes instituted by the union of the Societies, it is proper that a review should be made of the work of the first year. The New York County Society being the largest in the state, such a review may be of more than local interest. Coincident with the reunion there happily occurred a momentous centennial anniversary. The most important medical law ever enacted in New York State was the act of April 4, 1806. It loooms up as a great landmark in American medical history. It was befitting that its hundredth anniversary should be celebrated, and this was done on April 4, in dignified and becoming manner. It was most auspicious that union and harmony should have marked the beginning of the Society's second century.

As it frequently happens in old societies, the County Society had made no material changes in its constitution and mode of administration to conform with modern methods and increased membership, but had continued to conduct its affairs much is it did in the days of small things. Immediately after amalgamation was completed, a systematic remodeling of the business methods of the various departments was undertaken and they are now conducted in a modern business-like manner. Extensive card catalogues and improved methods of record are utilized in all departments.

Owing to laxness in certain provisions of the old constitution, members could not be dropped for nonpayment of dues. The membership lists had, therefore, become very imperfect, and were loaded down with dead wood. During the year the Secretary thoroughly revised the lists. For purposes of record, he went back as far as 1840, and has in his office a record of over 5,000 names. After great labor the active list was made strictly correct. All the records, papers, and documents are now kept in spacious filing cases, according to approved modern methods. A card index system of accounts was instituted by the Treasurer and a simplified but most perfect system of accounting was devised. The exact financial standing of any one of the 2,308 members can be told at a moment's notice. The Counsel also adopted improved methods of record and placed his business upon a system not before attained even in his well-conducted office.

The work of improving the business methods of the Society was finally completed by the adoption at the annual meeting in October of a new constitution and by-laws. Through repeated amendments and alterations the old by-laws had become hopeless and beyond repairing. The formation of a new constitution afforded full opportunity of bringing the Society into accord with the new system of organization and placing its methods of work upon a modern business-like basis.

The functions of the New York County Society are many. A largely attended general meeting is held monthly in the building of the Academy of Medicine. At the close of the scientific session a collation is served and the social hour thus provided has proved a feature of great value. Although the most visible functions, these public meetings are by no means its most important work.

In legislative matters the Society took the active course which it always takes when legislation is pending, which affects the health of the public or the welfare of the profession. A committee of twenty members was appointed which sent delegations to Albany and did much effective work.

*As an example of the advantages of the new regime in New York State medicine the report of the largest County Society is herewith presented.

The legal work of the Counsel exceeded in every particular that of any previous year. Over 1,200 complaints were investigated and the number of prosecutions, convictions, and fines imposed, and the amount of fines were all in excess of past records. The fines imposed amounted to $3,785, and the total expenditures for legal work were $4,135. The newly formed Public Health Protective League gives promise of doing a great work along the paths in which the New York County Medical Society has been the pioneer, but there will still be left for the Society more work to do than it will have resources to perform.

The Milk Commission also had the most prosperous year in its history, its income being $3,034.70. It is expected to be a self-supporting but not a money-making body. Its financial management is so excellent that it never goes beyond its income, but actually turns a small annual balance into the treasury.

In May the Society united with the Academy of Medicine and the Richmond County Society in raising a relief fund for the stricken physicians of California. Through the efforts of this relief committee $7,701.10 were raised, to which were added $5,000, appropriated from the Chamber of Commerce fund for the special use of medical men, thus making $12,701.10.

The effects of amalgamation and the new system of organization are best shown in a statistical manner by a study of the membership and finances. The Society reported in 1904 to the State Society 1,750 members, and in 1905, 1,870 members. The books of the treasurer show that in 1905, 1,476 members paid their dues. In the three years preceding that, the number of paid members was smaller.

The corrected list shows that on December 9, 1905, the date upon which the Court consummated amalgamation, the membership of the County Society was 1,839. The Association brought in 423 who were not already members. This was the true membership of the Society a year ago. Since amalgamation the losses by removal and death have been unusually heavy. Twenty-four resigned, specifying removal from the county as the cause, and 26 died. Both lists are unprecedented. A death list of 12 or 14 has not been unusual, but 14 died during the last summer alone.

In the Society year preceding amalgamation, 1,870 members were reported to the State Society, of whom 1,476 paid their dues, thus leaving 394 members who did not pay dues. At the end of the first year after amalgamation on a strictly correct list there were 2,308 members, of whom 155 did not pay their dues. This includes 61 who were in arrears when the year began, and 21 who removed to a distance but did not resign. This was the deadwood of a large society, the accumulation of two years previous to amalgamation. They were the members who would fail to keep up their dues under any circumstances. In the year preceding amalgamation, therefore 21.1 per cent. of the membership failed to pay their dues, while in the first year following amalgamation, but 6.8 failed to pay.

In former years a solicitor was employed to obtain new members and received a commission of $2 for each member he brought in. In 1905 about 70 per cent. of the new members were thus obtained, and in 1904 about 80 per cent. The Comitia Minora of 1906 did not regard this as a wise method and withdrew the solicitor. As a result the admissions were somewhat reduced, but the number of voluntary admissions was most satisfactory. Such voluntary admissions numbered 58, as compared with 29 in 1905 and 18 in 1904.

Financially the year was the most successful in the history of the Society. The total income aggregated $21,908.56. A small balance or an actual deficit was the rule for many years. The year began with $373.37 in the treasury and closed with $3,094.01, *and all bills paid.* All the ventures of the year were successful financially. The Centennial Dinner Committee and the Milk Commission turned small balances into the treasury. The legal work, though larger than ever before, was done strictly within the prescribed limit of expense. The medical directory was retired when the State Society decided to publish a directory of the state profession. Owing to a vigorous collection of old debts for advertising, the directory accounts were made to show a small balance. Adding all these balances from special sources and deducting the special payment to the California relief fund, it appears that only $193.62 of the balance on hand was derived from sources special to the year 1906. The available income of the Society is derived from membership dues only.

During the last fiscal year over $950 were paid for dues in arrears and the total sum for January 1st was at least $1,000. Current dues and assessments were paid by 2,178 members. Hereafter the income will not be increased by payments of arrears of dues, as each year will start with a clean list.

To summarize the inquiry regarding the effect of amalgamation upon the Medical Society of the County of New York, we find: 1. That the receipts from membership dues the first fiscal year after amalgamation were $2,189 greater than the average receipts for the five years preceding it, and $1,803 greater than for the year immediately preceding it.

2. That 6.8 per cent. of the membership was in arrears of dues on December 31, 1906, as compared with 21 per cent. in arrears at the end of the year preceding amalgamation.

3. That 2,178 members paid dues for the first year after amalgamation as compared with 1,476 for the year immediately preceding it; that is, 702 more members paid dues in 1906 than in 1905.

4. That this increase of 702 was but partially due to the members received from the Associa-

tion, who were 423 in number, of whom 387 paid their dues.

5. That prior to 1906 the total paid membership never reached 1,500.

In New York County, therefore, union and the new system of organization have brought a larger membership and greater income than ever before, and the percentage of members who have paid their dues has been unprecedented.

HISTORY OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK.

BY JAMES J. WALSH, M.D., Ph.D.,
NEW YORK.

(*Continued.*)

PART II.

CHAPTER VII.

PRIZE ESSAYS.

At the very first meeting of the Society it was determined that prizes should be offered in order to encourage medical research. At the time when medical literature was not the filled-up and overflowing measure that it has since become, the need for encouraging medical writers was very evident. At first, as can be seen from the details for the examination of essays, it was thought that many persons would enter into the competitions. Probably there was considerable disappointment in this matter. It is surprising, however, considering the limited opportunities for the consultation of foreign works, and the little time for research observations, that the busy medical practitioners of the early part of the century enjoyed, how many of the early prize essays have a distinct value even at the present time. In order to show how much the Medical Society accomplished by its prize essays, excerpts have been made from the first five of them that are preserved to us. They are valuable reading even at the present time, though it might be expected that they would treat of subjects of little interest at this late date, and discuss medical methods so antiquated as to have only an historical value.

Nothing that we know is more chastening for those who boast of recent medical progress than to find that writers in the first quarter of the nineteenth century, on such subjects as consumption, the treatment of typhoid fever, the therapeutics of iodine, delirium tremens, and occupations and disease, should have treated their themes not only so that they are interesting even now, almost a century later, but that the opinions of conservative medical writers of the present day would be expressed in practically the same terms.

The two prize essays that follow those from which we have made excerpts, were written by Dr. Nathan S. Davis, the distinguished founder of the American Medical Association, who lived to be a patriarch in medicine down to the beginning of the twentieth century. Anyone who knew Dr. Davis well will be assured at once that anything that he wrote in the vigor of his early manhood when he was accomplishing so much for medical organization, as well as medical literature, will be worthy of perusal at any time.

The portion of the proceedings of the first meeting of the Society referring to the matter of prize essays gives a good idea of the liberality of the members of the State Medical Society, and also of the breadth of view that dictated the subjects for which the prizes were offered.

The Society, taking into consideration the importance of promoting philosophical and medical enquiries, which might be interesting to the public, deemed it expedient for that purpose to adopt prize questions, when the following were agreed to, and directed to be published:

1. A Medal, value fifty dollars, for the best dissertation on the topography, geology, and mineralogy of any county in the state, together with an account of the prevalent diseases in such county.

2. A Medal, value twenty-five dollars, for the second best dissertation on the same subject.

3. A Medal, value twenty-five dollars, for the best dissertation on the causes and best method of preventing and of curing the *typhus mitior,* or low nervous fever, which prevails in the different counties of the state.*

Drs. Sheldon, Graham and Wheeler, who were appointed a committee to determine the best means of adjudging the preceding prize questions, reported—"That it be the duty of the President, Vice-President, Secretary, Treasurer and Censors to select from the communications six of the best dissertations on each question, which shall be presented to the society for final adjudication."

The first prize essay that is preserved is that of Dr. Andrew Hammersley, entitled, "A Dissertation on the Remote and Proximate Causes of Phthisis Pulmonalis," to which the prize for the year 1825 was adjudged. It is published in the Transactions of the Medical Society of the State of New York, Vol. II., 1834-5, coming after two prize essays in the same volume that had been awarded prizes in years subsequent to it. The reason for this very probably is that the manuscript of the other essays had been in the printer's hands before this reached him. Although it might be expected that there would be little of interest at the present time in a dissertation on the causation of consumption, written in 1825, it must not be forgotten that in the first

* By *typhus mitior* is evidently meant the fever that we now call typhoid, and which was at that time confounded with true typhus —the *typhus gravis* or *gravior* of older authors. Clearly there was a suspicion already becoming prevalent that the milder disease, so widespread in its contagiousness, and so apt to make its appearance in the country at a distance from cities and seaports (for typhoid has ever been a rural disease), was distinct from the severe affection so common at that time on shipboard and in seaboard towns as well as in the jails of large towns.

quarter of the nineteenth century the medical profession appreciated certain phases of tuberculosis more judiciously than at a later period. Dr. Hammersley's discussion of cold as a source of consumption is especially interesting because of his refusal to concede it as an important factor. He says:

"Popular prejudice has all along conducted to the belief that sudden exposure to cold, when the body is heated, would be attended with extreme hazard, and this alone has been accounted one of the fruitful sources of disease. The researches, however, of more modern experimenters have tended in no small degree to qualify such conclusions.

Those of Dr. George Fordyce and Sir Charles Blagden, familiar to every person, are among the most important in evincing that exposure to a high degree of cold, after violent heat, is unattended with danger to the constitution. This fact is likewise confirmed by the mode in which the practice of bathing is conducted in Russia, and in several other countries, the inhabitants of which, to heighten the luxury and add to the refreshment of immersion in heated baths or long exposure to vapor of high temperature, immediately plunge into contiguous cold baths, or run into the open air and without the smallest covering on their bodies roll themselves in snow. In considering a fact of this kind, there are two particular circumstances to be noticed, to wit, the acquired vigor of the subject to whom the practice appertains and the inherent powers of reaction possessed by the animal economy. The hardy Russian, whose every fibre is made tense by the severity of his climate, suffers no harm from such practices, as the principle possessed by the system just adverted to is put in action in a frame capable of enduring the influence of the opposite media to which it is exposed."

A little bit further on Dr. Hammersley dwells particularly on the historical case, that of Alexander the Great, which used to be most frequently quoted as an example of the danger incurred by bathing in cold waater, while the individual was heated and perspiring. His discussion of this would be acknowledged at the present time as thoroughly sensible.

"Much has been said by those who dwell very earnestly on the case of Alexander, and the great risk he encountered by bathing in the River Cydnus when clothed with perspiration. Dr. Currie has, however, in our judgment, very accurately conjectured 'that from the length and difficulty of the march, he must have been cooled as well as debilitated by excessive perspiration and fatigue, and under such circumstances immersion in the cold and rapid Cydnus was followed by the consequences which we would expect from the principles already laid down.' The vigor of his frame must, we may presume, have been temporarily suspended and the temperature of his body to such a degree lowered as to leave not sufficient room for the necessary reaction to occur."

With regard to the influence of vitiated air in the predisposition of the individual, to contract pulmonary tuberculosis, Dr. Hammersley could not be more explicit were he writing at the present time. The subject of dust-laden air, too, is discussed very thoroughly; and all the various occupations in which irritant particles find their way into the lungs, and as a consequence predispose to the development of pulmonary consumption, are pointed out even more fully than at the present time, because various sanitary regulations, the result of legal enactments, are now enforced in occupations which used to be a fruitful source of pulmonary consumption. Because of the historical interest of this, the whole passage with regard to pneumoconiosis seems worth while quoting:

"Among the various artisans Dr. Cullen has enumerated stone cutters, millers and flax dressers as particularly subject to attacks of this disease. 'But the most striking example,' says another writer, 'of this species of injury is afforded by one of the processes of the needle manufactory; it is that of dry grinding by which the needles are pointed; the persons employed in this labor are universally affected in a short time with the symptoms of approaching consumption.' They go on coughing till they either spit blood or a thick substance having the appearance of matter. They decline in flesh and strength and scarcely ever survive to the fortieth year. Dr. Kirkland observes that scythe grinders are subject to a disease of the lungs from particles of sand mixed with iron dust (getting into the lungs and setting up an affection) which among themselves they call the grinder's rot.' It is moreover asserted on good authority that the gilders of London die almost universally at a very early period of a similar disease. Certain other occupations are very properly thought to bestow an immunity from this extensive malady. Such are those of boatman, watermen, sailors and gardeners. Certain animals of the lower order are moreover supposed to enjoy a marked exemption, as dogs; while on the other hand, cows, it is reported, are particularly subject to it."

There is in this last sentence a tribute to the benefit of the open air in such cases, and a recognition of the disease in animals that would seem to belong rather to the end of the nineteenth century than to its first quarter.

The second prize essay that has been preserved is to be found in the "Transactions of the Medical Society for the State of New York for 1834-35." It bears the title, "An Essay on the History, Causes and Treatment of Typhus Fever," to which the annual prize for the year 1828 was awarded. The essay was presented in competition by Dr. Alfred Y. Magill, of Winchester, Va. The essay, of course, was written before the general recognition of the distinction between typhoid and typhus fever, and it is evident that both diseases are confounded. It might be thought that whatever is permanently valuable in this essay would occur in the observations on the causes of the disease, or perhaps in the gleanings from the literature as to its history. As a matter of fact, however, it is under treatment that the best part of the essay, and the only part that retains an enduring interest, is to be found. The confusion as to the two diseases grouped under the name of typhus, the lack of definite pathological observations, though there are evident signs even in the literature quoted here, that the enteric basis of what we now know as typhoid fever was coming to be generally recognized, rendered much of the essay a mere vague theorizing from false premises.

It is surprising to find in this essay, written seventy-five years ago, a very definite expression of the value of cold water, especially of cold bathing, and, where this is impossible, even of cold air, in lessening the temperature, reducing

patients' restlessness, moderating the pulse and tempting him to restful sleep. Here is a typical passage:

"No one can peruse Dr. Currie's recent experience in this matter without being convinced that cold water when properly applied is a most important remedy in case of fever. Its utility is not confined to typhus; it is equally serviceable in all fevers attended with increase of heat and arterial action. Its effect upon the pulse is astonishing in many cases. We have often known the mere bathing of the hands and arms of a febrile patient to reduce the action of the pulse from ten to fifteen beats in the minute, and if this partial application of cold water has such an effect on the action of the heart, how much greater must be the effect of a cold bath! We have many instances on record of its calming at once the most furious delirium; persons in such a situation have often jumped overboard from a vessel into the sea and been taken up perfectly calm and rational and with an almost complete extinguishment of the fever. With the many strong instances recorded in various works of its remarkable efficacy in curing fever, it is justly a matter of surprise that physicians so seldom call its great powers into requisition. It exercises a more immediate control over the action of the heart than blood-letting. Dr. Currie mentions a striking instance of the effects of cool air in reducing the pulse. 'In the month of May, 1801,' says he, 'I was desired to see a patient ill of fever in Sparling Street. I found him in the tenth or eleventh day of the fever, delirious and restless; the surface of the body dry, and his heat 104 degrees of Fahrenheit. The room was close, and I desired the only window in it opened. The wind from the northwest blew directly into this window, and the bed being situated between it and the chimney, a pretty brisk stream of air passed over it. The patient had just thrown off a considerable part of his bed clothes and was exposed naked to the breeze. I sat by him with my finger on his pulse watching the effect. In a little time the pulse fell from 120 to 114 in the minute; he became more tranquil, and soon afterwards he sank into a quiet sleep, in which he remained when the water for affusion was prepared; of course we did not disturb him; he remained exposed to this cold air until morning, when his pulse was found to be about 100 and his heat 101.'"*

Almost needless to say, Magill recognized the fact that there would be much prejudice against the use of cold water, especially as regards bathing or affusion, and he therefore suggests cold rubbings and wrappings with cloth. He notes that usually this form of treatment is so consonant with the patient's inclinations, once it has been tried, that there is usually no further difficulty in its application. In severe cases, peremptorily requiring the use of active means, he advises the doctor to disregard the prejudice against the use of cold baths, or of cold affusions.

On the other hand, he did not consider that all patients suffering with fever should be subjected to cold applications indiscriminately, but advised the selection of patients and suggested certain contraindications to this method of treatment. His paragraph on this matter is of suggestive interest and practical value, even at the present time, accordingly, we quote it entire:

"But cold water is by no means to be used indiscriminately in every case of fever; neither is it to be used in all stages of any fever; the rules which Currie has laid down on this subject are excellent and cannot be followed too closely. If we obey strictly his directions, we will always be prevented from misapplying or doing injury to its use. He gives separate rules for the external and internal use of cold water, but as its effect, except in degree, is the same when used either way, so one set of rules will answer as a guide for both. His first general rule is that 'it may be used (either internally or externally) when there is no sense of chillness present, when the heat of the surface is steadily above what is natural, and when there is no general or profuse perspiration.' We will now give the substance of the particular rules he has laid down on this subject. 1st, 'Cold water is not to be used either internally or externally in the cold stage of the paroxysm of the fever, however urgent the thirst;' taken at such times it increases the chillness and produces great weakness of the pulse, and if used to any extent might cause the death of the patient.' 2d, 'When the hot stage is fairly formed and the surface is dry and burning, cold water may be used both ways with the utmost freedom; frequent draughts of cold liquid and its external application, under such circumstances, are highly grateful; they diminish very much the heat of the body and lessen considerably the volume and frequency of the pulse.' 3d, 'It is also necessary to abstain from the use of cold water when the body is under profuse perspiration, and this caution is more important in proportion to the continuance of this perspiration.'"

(To be continued.)

[*It is interesting to note that though the clinical thermometer was not often used for half a century after the date of this observation, indeed, Dr. Keen says that surgeons during our Civil War estimated fever by touch and not by the thermometer, this English observer quoted by Dr. Magill was studying his fever cases very carefully with the aid of a Fahrenheit thermometer in the early years of the nineteenth century.]

There is something woefully wrong in our common scheme of preliminary education, and I am inclined to think that the official scheme of education is wrong in this, that it is a system of cramming instead of one of "drawing out," a system of supply of facts instead of being one of training in the application and the utilization of facts. In place of a thorough training in the aforesaid tools our youth is fed abundantly on a multiplicity of subjects and then, if I may venture to quote a very well known English physiologist, is "expected to pass a copious examination." The examination system almost of necessity calls for the exhibition of facts instead of the application of the same. While further, our present system, perhaps rightly (though I think to too great an extent), instills into the mind of the learned a reverence for authority,—such and such a text-book is to be used, such and such a statement or statements are contained in that text-book and have to be known, such and such statements, therefore, are to be regarded as essential and correct. Thus it is that the student enters upon his career at a medical college with a profound belief in authority and a disposition to accept what he finds stated in text-books as authentic and as, if I may so express it, "necessary to salvation." He is prepared to have his thinking done for him by writers of text-books and by his lecturers; he is wholly unprepared to think for himself, or if he does think for himself, his thought and his theory are based, not upon what he has himself observed, not upon facts which are known by him to be facts, but upon what he assumes to be facts. To such an extent is this the case that tell the commonplace young student that there is a murmur to be heard over an aortic cartliage, and he will hear that murmur although it is non-existent; tell him that there is no murmur present, and he will mistake a good hard blowing murmur for the ordinary heart sound.

Dr. J. G. Adami.

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Editorials.

MEDICAL SOCIETY OF THE STATE OF NEW YORK.

THE indications point to a profitable and successful meeting of this Society on the occasion of the one-hundred-and-first annual meeting, to be held at Albany on January 29 and 30. An attractive program has been arranged, and all of the conditions for harmonious and profitable work are present. The *de jure* unification of the profession of the State was accomplished a year ago; the *de facto* unification has gone on continuously ever since; and this annual meeting will be a proof of the solidarity of the reorganized State Society and of the wisdom of reorganization.

The county societies have already felt the impulse of the new regime, and the quickening influence of the larger advantages of membership has contributed much to the prosperity of these organizations. The day is here when every reputable physician must affiliate himself with his county society. The combination of these societies into the State Society represents an influence so potent for the protection of the people of the State and a power so great for the conserving of the interests of the medical profession and the fostering of high standards in medical practice that no sincere physician can afford to withhold his sanction or aid. The doctor who desires to serve the State and his profession can best do so by becoming a part of the organized effort which has that service as its aim. The doctor who desires the improvement of the conditions of medical practice and the mitigation of the evils which hamper his work can best serve his personal interests by becoming a part of the great movement which makes for these ends. Every member of the county society should feel it his duty to urge upon his unaffiliated neighbor the importance of his joining with the whole profession. He has a field of missionary usefulness very near at home.

We earnestly hope that a large representation of the membership of the State Society will attend this annual meeting to bear witness to the advantages which have already come out of amalgamation, to testify to their interest in the work of the Society, to participate in the business of the organization, and to enjoy the scientific papers and discussions which have been prepared for their help.

ON THE CAUSES OF COLDS.

NOW is the season of colds, which are conditions of advanced civilization. People who live close to nature are exempt. It is the denizen of the city, surrounded with the luxries, who suffers the most. The contrivences that he buys to keep away the *cold* are quite responsible for his *colds*. The woods-man, who lives and works in the cold and sleeps in a freezing hut, enjoys immunity.

The sufferers from colds are not those who live in the out-door air, but are those who spend a large part of the winter-time in an unnatural atmosphere. The air in offices, stores, theatres, factories, and dwellings, in this climate is bad. Its temperature is usually higher than is consistent with good health; each occupant inhales the materials that have come out of some one else's lungs; and the percentage of moisture in the air is much below normal. These defects are due to the defects of the modern heating appliances. It is a long step backwards, so far as healthfulness goes, from the fireplace of our coldless ancestors to the steam-heated radiator of this catarrhal generation.

Of all the iniquitious machinery that has ever been contrived to destroy the weaklings and emasculate the strong the steam-heated radiator stands pre-eminent. Here is a thing which can be put in a room, and the more tightly the room is sealed against the inlet and egress of air the more efficient it is and the more is it vaunted as

a successful heater. The furnace, which was cast out to give place to this thing, is eminently more rational. Every cubic foot of air from the furnace that enters a room displaces a cubic foot; it will not work unless there is ventilation. And the old-fashioned stove and the fire-place all demanded ventilation; but the radiator works best without it.

Another defect of most modern heating apparatuses is that they dry the air. Examination of the air of rooms in the winter shows from five to thirty per cent. less moisture than is present in the normal out-door air. Our in-doors winter population lives in an atmosphere so far below the point of saturation that evaporation is constantly and more rapidly than normal taking place from the skin and respiratory mucous membrane. A result of this evaporation is a sensation of coolness. It is not uncommon to find in an office a temperature of 70 or 75 degrees, or even higher, and yet a sensation of chilliness when the moisture is low, whereas in a kitchen, with boiling pots on the stove, a much lower temperature imparts a decided sense of warmth to the skin. It has been shown that persons breathing abnormally dry warm air have the vital resisting power of their respiratory mucous membranes decidedly lowered and rendered susceptible to the complex of phenomena designated as cold. Thus we find in our fine modern system for preventing coldness the conditions conducing to colds.

As heating materials become more expensive, greater economy in conserving the heat in buildings is practiced. This is done by minimizing the amount of fresh air which is allowed the tenants. Colds are the result. Colds are prevalent in winter, not directly because of the cold, but because that is the season when people shut themselves in and breathe bad air. Persons who have enjoyed pure air all the summer, habitually reverse their practice, and give themselves pure air in winter only when they are out of doors. As a matter of fact, cold air is better to breathe than warm air, even though equally pure. It is more concentrated. Every inhalation of cold air gives one more oxygen than an inhalation of warm air.

The lessons which we learn from the consideration of these things are, that we should inure ourselves to the cold of winter, that we should court the fresh air, and that in heating our houses it should be done by means which give ventilation and moisture. Thoreau said that he loved the cold when it chilled his skin; he was like an oak tree, it did him no harm because he was always in the air, be it warm or cold.

FRACTURE OF THE BASE OF THE SKULL.

A NOTABLE advance was made in the surgery of the brain in 1897 when Charles Phelps published his work on "Traumatic Injuries of the Brain and Its Membranes." Up until that time fracture of the base of the skull had been a vague and uncertainly diagnosticated lesion. Phelps studied 286 cases, 110 of which recovered and 176 of which died. Autopsies were made upon 126 of these cases. As a result of his studies it became evident that many cases of fracture of the base of the skull were not recognized as such, but had been classified as concussion, contusion, laceration, etc. He showed that the classical signs—bloody oozing from the nose or ears or mouth, and subconjunctival or subcutaneous ecchymosis—were present in only half of the cases.

Ten years later the same author again discusses cranial injuries.* He reports his observations in a large number of cases. Among other conditions epidural hemorrhage was observed with fracture of the base of the skull in 31 out of 148 cases which came to autopsy. Pial hemorrhage co-existed with fracture of the base in 21 out of the 148 cases. These pressure-producing hemorrhages are the conditions which give rise to the immediate grave symptoms. But, that there is a large number of basilar fractures without grave symptoms, we are indebted to Phelps for demonstrating. His studies have shown that many cases of fracture of the base have been dismissed from the hospitals undiagnosed.

Grandon and Wilson have analyzed 530 cases of fracture of the base which came into the Boston City Hospital during the past forty-two years.† Three hundred and ninety-five, or 74 per cent. of these cases had hemorrhage from at least one orifice. As these figures differ from those of Phelps it is easy to surmise that during those forty years there were some 200 cases of fracture of the base without hemorrhage, which were not put down as such.

There is still a need of more accurate knowledge of this subject. When we come to look up

*Annals of Surgery, Dec., 1906.
†Annals of Surgery, Dec., 1906.

reports we find statistics showing that so many cases had a "discharge of blood"; other statistics report "serous discharge"; others report "serosanguinous oozing"; and still others present a "discharge of cerebral fluid." All of these conditions are different, but unfortunately the terms are used to describe the same phenomenon. Many cases of concussion have bleeding from the nose or mouth without fracture; and many cases of fracture have neither bleeding or any other fluid discharge from the head cavities. For the sake of accuracy we need a better use of these terms, and a classification and description of the signs and symptoms of this injury which will harmonize diagnosis.

THE ELECTION OF OFFICERS OF MEDICAL SOCIETIES.

Like business corporations, the fate and prosperity of medical societies depend largely upon the efficiency of their officers. Unlike business corporations, medical societies are philanthropic organizations working toward ends for the advantage of the community. Selfish or personal interests have no place in them. The interests are strictly communal. It is doubly important, therefore, that the officers of such a society should represent the whole society and should be the most efficient members possibly obtainable for their positions. Many considerations enter into the determination of efficiency. For the sake of more concrete consideration, the first office, that of president, may be taken. The candidate for this office should be first of all a man of high ideals. He should be one who commands the respect of his profession. He should be capable as an executive officer, and ambitious for the advancement of the interests of medical science and practice through the instrumentality of his society. He should represent no coterie or faction, but should be equally interested in the whole society. If possible he should be a man who can be agreed upon unanimously.

There are still other qualifications which contribute to the efficiency of such an officer. A man whose reputation extends beyond the confines of his county or state can add much to the prestige of his office, especially if he be known as a teacher or writer. In county societies a president who is widely and favorably known can be of especial value through his ability to secure eminent participants for his discussions. He can do much also to bring credit to his society in the eyes of the public. A certain degree of independence and leisure, out of which to give time and thought to his society is a desideratum. If the society have property interests, is erecting a building or developing a library, a man who can reach persons of means, who can interest philanthropists, and who is in touch with "the springs of affluence," may be able to serve his society in a most substantial manner. All of these things may be summed up in the word efficiency. The efficient man is the one who serves to the best purpose.

The worst thing that can happen to a medical society is to elect officers for reasons other than that of efficiency. Some societies fall into the unfortunate practice of using the president's chair for the commercial purpose of paying bills. They sell it to pay some officer who has served faithfully and well in one of the subordinate positions. To elect a secretary or librarian president of a society because he has placed the Society under obligations to him for his services is quite equivalent to selling the office. The official who would accept or demand pay of this nature for his services would take from a society what means more than money to it. If the work of the subordinate officers is arduous, and the society can afford to pay them for their services, it may with propriety be done; but no society is so rich that it can afford to pay them with the president's chair in lieu of coin.

Many societies have what are called "time honored customs"—of always electing the vice-president to the presidency, or of never electing the vice-president to the presidency, or of always reelecting the president to a second term, or of never reelecting the president to a second term, or of electing "our faithful secretary," or what not? There is room for only one custom, and that should be the custom of electing the best possible man available for the place, be he vice-president, secretary, treasurer, censor or non-official member from the working ranks.

Time-honored customs! Time honors no customs.

In marked contrast with the spirit and tradition of ancient medicine which jealously guarded its secrets or disclosed them in Delphic utterances, the genius of modern medicine is essentially in the direction of popularization of hygienic knowledge.

PRINCE A. MORROW.

Observations.

ON THE BEGINNINGS AND PROGRESS OF THERAPEUTICS.

Whether we think of man as the low-browed primate, as the warrior clothed in the skins of animals, or as the exalted ruler of creation, he has always sought for remedies to assuage his pains and the ills of his flesh. This has continued to be the main function of medicine, notwithstanding that the philosophers of all times have insisted that the highest object to which medicine can attain is in the prevention of disease and in the prolonging of life.

The treatment of diseases began long before man knew the nature of disease. Then came the study of anatomy and physiology and pathology, and the development of the science of medicine; but therapeutics, the oldest of all the branches of medicine, has always attempted to progress faster than its sister branches and keep in a degree independent from them, thus showing its primative origin. There always has existed a disposition to try remedies for diseases before the nature of the disease had been studied, or, indeed, before the nature of the remedy was known. This constitutes the empiricism which lies at the base of therapeutics. And somehow or other there crept into the mind of man the unfounded notion that somewhere in the world there was a remedy for every symptom of his ailments. To this add the superstitions, begotten of religious fanaticism, and we have the picture of the humble origin of our materia medica. The employment of drugs and chemicals in the treatment of disease began too early; it would have been better had it followed rather than preceeded pathology. It commenced wrong. It began at the target, and not at the bow; it began at the top, and not at the bottom as all well-founded knowledge should.

Our modern materia medica is a continuation of fetichism, down through alchemy and empiricism. Its brother is the amulet. It is but a few steps in human progress from the rust of the sword that killed an unbeliever to Blaud's pills; from the powdered tails of scorpions to the tincture of capsicum; from the decoction of the shells of the eggs of a dove gathered from the cloister wall to the liquor calcis of the drug store. Drugs with little or no effect gradually gave way to those which had a demonstrable action; and we have our materia medica. But this development has been through empiricism; it constitutes empiricism.

After the middle ages the science of medicine developed with extraordinary rapidity. A vast amount of knowledge was accumulated; new truths were discovered; but the practical application of these truths to the treatment of diseases was unconscionably slow. Yet, during all that time the best knowledge that we have at the present time for the treatment of diseases was then in the possession of man.

The science of medicine is of value to the people only as it is brought in a practical way to their daily needs, and this administration has rested largely in the hands of its practitioners. Have they applied most wisely and practically the vast knowledge of human disease which has come down to them as the heritage of time and which the patient labors of thousands of earnest men have won? Were is possible for you to project your vision backwards into the past for so short a period as a hundred years, you would witness in the medical administrations of that day such therapeutics as would convince you that the fetichism of drugs survived still in the very presence of scientific medical knowledge. And what of to-day? Have we any compunctions as to what the historian shall see when he projects his vision backwards, a hundred years from now, upon us? I fear we have. What is the present status of our medical therapeutics?

The young man who graduated during the past century, or I may say during the present, was sent out into the world to practice medicine with the impression that drugs are the main reliance of therapeutics. His professor of therapeutics was also professor of materia medica; and his mind was trained so that when the treatment of disease was mentioned he at once thought of the particular drugs that were indicated. Text books upon therapeutics exhibit two different arrangements: one gives the description of the drugs, and then follows this with the diseases in which they are indicated; the other gives diseases or symptom groups, and follows this with the drugs to be used. The combination of drugs with therapy is so close that the student can not escape it. And yet, beyond and outside of all of this, lies the great field of therapeutics only just beginning to receive the scientific attention which its importance merits.

The chair of materia medica and therapeutics should be divided. Materia medica should take its place where it belongs in the department of chemistry, or else be amplified into a separate branch of medicine, involving all the materials that are used in the treatment of disease. The science of the treatment of diseases should be a branch of medicine, divided into medical and surgical, or as many divisions as the advancement of the art of medicine demands, and the teacher of medical therapeutics should become one of the most important adjuncts to the faculty of medicine. He should have to do with the rational treatment of diseases. He should not have to teach "secterian medicine," the treatment by drugs alone. He should roam all the fields of every art and science, and take the best they have to offer. His therapeutics should be founded on physiology and pathology, not on chemistry and botany. He should teach the student how to treat a sick person, not what drugs to give in certain diseases.

The man who knows the history of his race knows that homeopathy, osteopathy, christian

science, and the kindred delusions, would not have secured the following they have unless they had something good to offer. If this good is anything that can be employed in the treatment of diseases, it is the business of the scientific therapeutist to find it out and let us have it. We have had to learn for ourselves that homeopathy taught the healing power of nature; our professor of therapeutics did not tell us. The old time doctor saw patients recover under the alleged administrations of the homeopath without their taking any appreciable medication. There was not much difference between the mortality in his practice and that of his homeopathic neighbor. It was a valuable knowledge to acquire, that a sick man might get alone pretty well without any drugs; and we have to thank the homeopathic delusion for teaching it. Unfortunately, or fortunately, as the case may be, apostasy has overtaken the disciples of this particular error, and they have become addicted to the administration of drugs to such a degree that we are deprived of further opportunities of observing in their practice the phenomena of the vis medicatrix naturae.

Christian science, founded upon unreason, teaches us the value of the influence of mind over certain illnesses. It has demonstrated this in a practical manner; and the therapeutist who ignores it is not wise. Christian science is a demonstration of the power of optimism. Because the good in it is wrapped in the warp and woof of ignorance and superstition does not make it any the less good or available, any more than morphine or iodine should not be prized because they are found in nature associated with noxious and inert materials. Osteopathy, a combination of ignorance and charlatanism, is adding further proofs of the healing power of nature and of the value of massage and passive motion in certain chronic diseases.

If the therapeutist wished evidences of the natural tendency of diseases to heal themselves, he need not go to these pseudo-sciences and quackery for proofs. He may find them in the legitimate practice of medicine. He may see the apparent success enjoyed by many a legalized practitioner, whose knowledge of medicine can scarcely come under the head of knowledge. I have recently had related to me a striking contribution to this subject made by the pharmacist of a large homeopathic hospital. He put up all of the prescriptions for the patients, and during a whole fiscal year, intending to leave at its end, he purposely omitted all homeopathic drugs, or so-called "potencies," from the medicines ordered, so that the patients received only sugar of milk, water, or some other inert substance. The annual report of the hospital for that year showed practically the same percentage of cured and died as on the previous year. Of course, this only brings this hospital in comparison with itself, but its comparison with others is sufficient to satisfy the State of New York that this practice should constitute a school of medicine.

We stand upon the threshold of the institution of rational therapeutics. The advances of medicine have lead us hither. We were not taught it in our student days, but now we are learning that drugs, if we exclude the antitoxins, have a very subordinate place in the treatment of the diseases in which the mortality is being lowered. With our professor of materia medica drugs were the first consideration in the intestinal diseases of infancy, in phthisis, typhoid fever, the exanthemata, diphtheria, appendicitis, erysipelas, and pneumonia; and now how small a figure they play in the treatment of these conditions. Why? Because rational therapeutics has developed out of the study of the pathology of these diseases.

Items.

THE PURE MILK QUESTION IN ROCHESTER.—The Health Officer of Rochester, N. Y., Dr. G. W. Goler, is one of those rare men who have brought honor and distinction to a public office. The administration of the affairs of the Health Bureau of this city by Dr. Goler has attracted wide attention, and has done more to bring Rochester into the favorable notice of the world than anything in its history. If there is anything in the administration of this office which should confirm the citizens of Rochester in their faith in their Health Officer it is that the milk dealers who wish to sell unclean milk are, to a man, against him.

Now come the milkmen with an amendment to the city ordinance, transferring the power to enforce the milk ordinances from the Health Officer to another of the city departments, with the view of emasculating the law. The last monthly report of the Health Bureau showed a number of cases of typhoid which were traced by Dr. Goler to milkmen, and the reason for the proposed amendment is obvious. To the typhoid-disseminating milkmen of Rochester the words of John Trumbull apply:

> No man e'er felt the halter draw,
> With good opinion of the law.

AVENUE LOUIS PASTEUR.—There are many avenues in our cities named for warriors who have slain, but there are few bearing the names of men whose mission has been so benign and salutary as that of Pasteur. He was the founder of the science of bacteriology, and one of the world's greatest benefactors. Boston has given one of her avenues in the Fenway this name. The Avenue Louis Pasteur is a continuation of Commonwealth Avenue, and is over-looked by the New Harvard Medical School.

TO CHECK CHILD LABOR, Senator Beveridge has framed a bill to shut out from inter-state commerce the products of industries which employ children under fourteen years of age. Each State has had its own laws on child labor, and its own particular method of enforcing them. In

some of the States the employment of children in the factories has been, and still is, a blot upon our civilization. A federal law such as this disposes of the whole problem.

To Reduce Infant Mortality, the Mayor of Huddersfield, England, has instituted a prize offer of one pound for every child born during his term of office, which reaches the age of one year. This embodies a much higher principle than is found in the offers of prizes, by certain French communities, for children born. Communities should first know how to rear children before prizes are offered for fecundity. Huddersfield is approaching the race suicide question by the right path.

Medical Society of the State of New York.

The one-hundred-and-first annual meeting of the Medical Society of the State of New York will be held at Albany, New York, on January 29 and 30, 1907. The House of Delegates will meet at Albany on Monday evening, January 28th.

The Committee on Arrangements announces that the annual banquet will be held at the Hotel Ten Eyck on Wednesday evening, January 30th.

Exhibitors desiring space at this meeting should communicate with Dr. W. J. Nellis, 210 State St., Albany, N. Y.

In view of the fact that the Medical Society of the County of Erie, through its attorney, is of the opinion that certain portions of the Constitution and By-Laws of the Medical Society of the State of New York, and of the advisory By-Laws sent out for adoption to County Societies, are in conflict with the Statute Laws of the State of New York, the Ad Interim House of Delegates, at a meeting held in New York, December 8, 1906, resolved to consult the Hon. William G. Choate, former Justice of the United States Court, with the idea of ascertaining his views on the subject, and of preparing a bill for the purpose of remedying any defects that may exist. The opinion of Judge Choate, and the Bill, are herewith appended, and it is proper to add in this connection, that the views held by this eminent jurist are also held by the Counsel of the Medical Society of the State of New York, Mr. James Taylor Lewis.

Opinion of Mr. William G. Choate.

I have carefully examined all the laws of this State relating to the Medical Society of the State of New York and to the State Medical Association; also the entire proceedings for the consolidation of the two societies, for the purpose of advising you as to my views with reference to the introduction of a bill at the coming session of the Legislature. I have reached the following conclusions:

First: Although by the early statutes certain persons were made permanent members or delegates, and although certain institutions were permitted to send delegates to the annual meeting of the Medical Society of the State of New York, there is no doubt whatever that the Legislature has the power to change or modify the laws of 1806 or 1813, and prescribe different qualifications and methods of election of members. By section 23 of the Laws of 1813, that act was expressly made subject to modification, amendment or repeal, and was declared a public act.

Secondly: Before consolidation of the two societies, chapter 549 of the Laws of 1904, was enacted, in effect amending section 3 of the Laws of 1813. By its terms full authority was given to your society to elect such members as may be provided for in the Constitution and By-Laws of the Society; "said Medical Society being empowered to fix and determine the qualifications and conditions of membership therein, and to regulate and control its own membership." Chapter 544 of the laws of that same year gave the Society the privilege of adopting a constitution and by-laws relative to the admission and expulsion of members and the regulation of its affairs, and sections 5 and 7 of the laws of 1813 were expressly repealed. The act authorizing consolidation, chapter 1 of the Laws of 1904, provided that the consolidated corporation should have all the powers, rights and privileges possessed by either corporation, at or immediately prior to the consolidation. The order consolidating the two corporations was entered after all these laws were passed. The consolidation agreement and the order, adopted a constitution and by-laws by which the same full power with regard to membership was vested in the consolidated body. I am of the opinion, therefore, that you need no further legislation in any manner referring to your membership.

Thirdly: By the same course of reasoning, I believe the establishment of the House of Delegates, the Council and Censors are now complete and in accord with legal enactments.

Fourthly: The Society has ample power to collect its dues. The special charter granted the Association at section 5 thereof, gave that corporation the power to determine the amount of the annual dues and also to impose assessments and to collect the same, by suit or otherwise. The consolidation, therefore, brought to the present State Society this provision, which in effect removed the limitation contained in chapter 682 of the Laws of 1893, which act permitted but Five Dollars to be imposed as dues and assessments in any one year. To the same effect were the provisions of chapter 549 of the Laws of 1904, which gave to the Society the power to fix and determine the conditions and qualifications of membership therein, and to regulate and control its own membership.

Fifthly: There is but one matter upon which legislation is desirable. I am of the opinion that a broad power given to the State Society to determine what county societies are in affiliation with it, and the conditions on which such affiliation shall continue, will give to the Society all the power it needs.

Sixthly: Under the present statutes the State Society may hold $150,000 in property; if you think it advisable to enlarge that amount it may be accomplished by legislative enactment.

Seventhly: There may possibly be doubt as to whether the property of the Society is exempt from taxation. In 1903 county medical societies were apparently considered as not coming within exemptions of scientific societies. If it is desirable to make this exemption certain, a separate act should be passed amending subdivision 18 of section 4 of the Tax Law.

I am therefore of the opinion that the Medical Society of the State of New York, as now constituted under its By-Laws and Constitution, can go into operation and continue business without embarrassment even without any further legislation, and the acts of the *ad interim* House of Delegates performed under the authority of the order of consolidation and the Constitution and By-Laws of the Society are entirely legal so far as they conform to the authorizations contained therein.

The principal point seems to be that there may be

rights of permanent membership heretofore created by statute inconsistent with the absolute right of the Society to regulate its membership. There is no objection to adding to your act a section providing that all laws and parts of laws creating permanent members or delegates to the Medical Society of the State of New York inconsistent with chapters 1, 544 and 549 of the Laws of 1904, or with the order of court consolidating the two corporations made in pursuance thereof, are hereby repealed.

If you consider that some members would be satisfied only with a legislative re-enactment of powers which the State Society now has, I know of no legal reason why that should not be done, but such a course I consider absolutely unnecessary, and my advice is, therefore, opposed to such action.

AN ACT IN RELATION TO THE MEDICAL SOCIETY OF THE STATE OF NEW YORK.

The People of the State of New York represented in Senate and Assembly do enact as follows:—

SECTION 1. The Medical Society of the State of New York, re-constituted and continued by the consolidation of the Medical Society of the State of New York and The New York State Medical Association, in accordance with the terms of chapter One of the Laws of Nineteen Hundred Four, shall have power from time to time to determine what county medical societies are in affiliation with it, and to prescribe the terms and conditions under which any county medical society shall be or shall continue to be so affiliated, and shall have power to suspend and discipline affiliated county medical societies.

SECTION 2. All acts or parts of acts, relating to permanent members or delegates in, or to delegates to the Medical Society of the State of New York, inconsistent with the provisions of Chapters Five Hundred Forty-four and Five Hundred Forty-nine of the Laws of Nineteen Hundred Four, or inconsistent with the order of the Supreme Court made and entered December Ninth, Nineteen Hundred Five, pursuant to the provisions of Chapter One of the Laws of Nineteen Hundred Four, so far as they provide for such members or delegates, are hereby repealed.

SECTION 3. This Act shall take effect immediately.

Progress of Medicine.

PRACTICE OF MEDICINE.

EDITED BY

HENRY L. ELSNER, M.D.,
Professor of Medicine, Syracuse University;

DE LANCEY ROCHESTER, M.D.,
Associate Professor of Principles and Practice of Medicine, University of Buffalo;

EDWIN H. SHEPARD, M.D.,
Instructor in Clinical Microscopy, Syracuse University.

HOME TREATMENT OF TUBERCULOSIS.

Home treatment of tuberculosis, says Lawrence F. Flick of Philadelphia, director of the Henry Phipps Institute for the study, treatment, and prevention of tuberculosis, is treatment of the disease in the home country of the patient; in other words, in the climate in which the disease was contracted, but not necessarily in the home of the patient. It disregards climate altogether as a curative factor and tries to restore the patient to health with as little interference with home life as possible. The modern treatment of tuberculosis, consists: First, of a careful selection of diet; second, of regulation of exercise and rest; third, of regulation of mode of life; fourth, of medication; and fifth, of artificial immunization. By the proper use of these methods, the author says, every case of incipient tuberculosis can be cured, and a very large percentage of even advanced cases. It is the judgment of the author that the treatment of tuberculosis can be better carried on at present in the home of the patient, in those places where expert services can be given, than in a health resort. For people living in places where expert services cannot be had, it is undoubtedly better to go to a health resort than to remain at home.—*American Journal of the Medical Sciences,* October, 1906.

THE UNITED STATES POOR IN INSTITUTIONS FOR THE TREATMENT OF TUBERCULOSIS.

Joseph Walsh gives the following as the points learned at the International Congress of Tuberculosis held at Paris in October, 1905, and from a personal investigation of tuberculosis work in Europe:

1. That although the sanitoria in the United States are probably accomplishing better results in individual cases, we have not a sufficient number of sanitoria. Germany with only two-thirds of our population, not one-tenth our area and not one-twentieth our wealth has more sanitoria and is spending three times the amount of money on them.

2. We are not using all the means that might be employed to build and maintain sanitoria, such as by insurance companies, beneficial societies, etc.

3. We are lacking in hospitals for advanced cases, and until we get them, wards in general hospitals should be set aside for the care of the tuberculons. Such wards in addition to caring for the consumptive will help in the education of the general physicians, the residents, the nurses and the patients.

4. The tuberculosis dispensary as managed in France or in Germany is the most important element in the crusade against tuberculosis, and we are woefully lacking in them. A city the size of Philadelphia should have at least a dozen, and it has one. Baltimore should have three or four and it has one. Such dispensaries might be supported as follows: One by the city (as in New York City), one by charity, and one by a combination of beneficial societies.—*Bulletin of the Johns Hopkins Hospital,* October, 1906.

ADVICE TO THE CONSUMPTIVE.

The following advice to tuberculosis patients, quoted in the *Journal of the Outdoor Life,* is among the recommendations of the Bellevue Hospital of New York.

Bathe regularly. Sponge your chest with cold water every morning.

Rest. Avoid all unnecessary exertion. Do not walk more than you are allowed. Sleep at least eight hours every night and go to bed early. Never run; never get out of breath. Never lift heavy weights; never get tired. If you have to

work take every chance to rest that you can. Go slow.

Food. Eat plenty of good, wholesome food. Drink at least one quart of milk a day. Eat from three to six eggs a day, and take them raw if you possibly can. Eat slowly; avoid anything that causes indigestion. Keep your bowels regular. Do not drink liquor, wine or beer. Do not smoke.

Medicine. Take no medicine without your physician's advice. Stop any medicine which upsets the stomach. Report regularly to your physician. Report immediately if you have indigestion, diarrhea, constipation, pain, increased cough, or hemorrhage.

Follow instructions carefully and your chances of getting well will be increased ten times.

CHRONIC HEMORRHAGIC BRONCHITIS.

W. Ebstein reports the case of a 40 year old man who was seized with coughing and expectoration of blood. After three weeks he coughed up a compact, solid tree-like twigged blood coagulum. For a time improvement followed, then hemoptysis again occurred, and after several recurrences death followed in about a year. Besides bloody sputum, solid coagula, casts of the larger and finer bronchial passages were expectorated. For months nothing abnormal could be found in the thorax. After six months the left apex became higher pitched. Occasionally there was a slight rise of temperature or fetid breath, but these would disappear after expectoration of the larger coagula.

This case most resembles the picture of bronchitis fibrinosa, but is differentiated from it in that the casts were not of fibrin alone, but rather of coagulated blood. Ebstein thinks it probable that just as in the fibrinous bronchitis, so here in the hemorrhagic bronchitis, various etiological factors may enter. Influenza has recently been accepted as one of the most important of these.—*Deutsche Archiv für Klinische Medizin,* Vol. 87, Nos. 5-6, from review in *Zentralblatt für Innere Medizin.*

DIFFERENTIATION BETWEEN SMALLPOX AND VARICELLA.

The following points will be of aid in differentiating between most cases of smallpox and varicella, says Frederick H. Dillingham, although there is great variation in the unusual types, and no one point alone can be relied upon.

If the person has been recently successfully vaccinated it is probably not smallpox.

In smallpox the invasion is usually more severe and lasts from three to four days, while in varicella the eruption appears on the first day, and there is no secondary fever. In some cases of smallpox the invasion is not noticed, and the secondary fever is absent.

In variola the eruption appears first on the mucous membrane of the mouth and then on the forehead and wrists, while in varicella, though it may be present in the mouth, it is at first seen on the shoulders and chest.

In smallpox the lesions are more uniform and deeply seated, while in varicella they are superficial, flat and irregular in shape.

The eruption in smallpox commences as small papules, not usually becoming vesicles before the second day, while in varicella they appear as macules, becoming vesicles in a few hours, and are seldom shotlike except on the palms and soles, localities where they are not so commonly seen. The first lesions in smallpox may be vesicles or they may become vesicular in a few hours, but by carefully examining the patient there will usually be found in the early stage of the disease, some papules which will decide the diagnosis. In variola the vesicles, as a rule, have indurated bases, while in varicella they are superficial and can easily be brushed off, collapsing early and forming crusts by the second to the fourth day, with a characteristic puckering of the periphery.

The secretion in varicella is more transparent, and the pustules are composed of a single cell, while in variola they are made up of several. In variola the lesions, as a rule, appear in a regular course over the whole body, while in varicella they usually come in successive crops.

Few scars result in varicella, and the duration of the disease is considerably shorter than in smallpox. Monkeys can be sucessfully inoculated with the secretion of patients ill with smallpox, but they cannot be with varicella, and this means has been used to determine a doubtful diagnosis.—*New York Medical Journal,* October 6, 1906.

THE PARATHYROID GLANDS NOT RESPONSIBLE FOR EXOPHTHALMIC GOITRE.

W. G. MacCallum, of Johns Hopkins University, in a paper presented before the British Medical Association stated that the parathyroid glands were not responsible for the condition of exophthalmic goitre, as was thought at one time to be a possibility. In several cases which have recently been examined the parathyroids have been found practically normal. The treatment is therefore not to be directed against disorder of the parathyroids but against the perverted condition of the thyroid gland itself.—*British Medical Journal,* November 10, 1906.

RECTAL INJECTIONS OF GELATIN FOR HEMOPTYSIS.

Good results in the treatment of hemoptysis by means of rectal injections of gelatin, according to the method first described by Tickel have been reported by Sprit. The procedure is simple, and without the detrimental after-effects so often observed with subcutaneous injections. The solution is prepared by dissolving 50 grams of gelatin in 1¼ liters of water, and boiling until there is only one liter. Of this one-fourth liter is injected into the rectum three times daily, as required. — *Muenchener Medizinische Wochenschrift,* September 25, 1906.

THERAPEUTICS.

EDITED BY

CHARLES G. STOCKTON, M.D.,
Professor of Medicine in the University of Buffalo;

ELI H. LONG, MD.,
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THE TREATMENT OF CHRONIC BRONCHITIS OF OLD PEOPLE.

The chronic bronchitis of senility, accompanied not infrequently by an unhealthy state of the mucous membrane of the upper air passages, is dependent in part upon vascular degeneration and disturbed blood supply; but also to a very considerable extent upon a toxemia, which is almost universally present in old people.

One finds in the aged incompetent kidneys, imperfect digestion, incomplete emptying of the colon, lessened activity of the glandular secretions in the digestive tract; also one finds that the skin is harsh, dry or sodden, lacking in elasticity and in the natural activity of its glands, showing in fact a poor blood supply and also the effects of intoxication. In the lungs one expects to find a degree of emphysema, comparatively fixed chest walls, and therefore imperfect respiratory movements, all contributing to a lessened oxygen intake. One will usually find in addition that the heart is strained to propel a lessened quantity of poorly oxygenated and over viscid blood through narrow vessels. These facts, without further enumeration of details, may suffice to show that the respiratory function is overtaxed in the aged, that the resistance is lowered and infection made easy. Chronic bronchitis increases in the winter largely for the reason that delicate old people seek the warmth and confinement of the poorly ventilated house. Really the best method of treatment is hygienic and consists in systemic elimination while increasing the resisting power of the individual. A practical way of carrying out this method of treatment is to prescribe from two or three times a week a hot air cabinet bath, to be followed by sponging in salt water (not emersion in the tub); the regular irrigation of the colon that the patient may escape the disadvantage of the absorption of toxic material, which so easily occurs in old people, upon the importance of which Professor Metschnikoff has justly insisted. Then the patients should sit in rooms thoroughly ventilated, with windows open even in winter. If too cold, furs may be worn, but pure air is absolutely requisite. The writer has had the pleasure of seeing, with scarcely an exception, improvement in all cases of chronic bronchitis in the aged subjected to this treatment, in many complete relief, although it will be seen that the treatment must be repeated year after year. Not only is the cough relieved, but the energy, usefulness and happiness of the patient are all equally advanced. It is occasionally necessary to advise the drinking of tar water or the use of small doses of potassium iodide. Cough mixtures are particularly forbidden. The principles involved in this method are not limited in application to old people. C. G. S.

THE TREATMENT OF EPILEPSY.

In the *Deutsche Medizin. Wochensch.*, of September 13, Prof. Emil Redlich gives a comprehensive review of the treatment of epilepsy. Recognizing the meagreness of successes, he cautions against pessimism, but advises a careful study of each case in points of etiology and symptoms, as a basis for therapeutics. Touching upon the relation of epilepsy to marriage, he is positive in the advice that undoubted epileptics should not marry. Contrary to the view that recurring seizures can be benefitted by marriage, he expects, through pregnancy and labor, rather an increase of attacks or a reappearance of a previously latent epilepsy.

In the matter of prevention, the offspring of epileptic individuals should be reared with special care, as to avoiding all that would endanger bodily or mental health and employing the various means of strengthening the organism. Our insufficient knowledge of causal conditions and pathology gives little chance for etiological treatment. But as a result of continuance of the disease itself there is recognized an increased irritability of the brain which can contribute to the tendency toward seizures.

Cases of so-called "reflex epilepsy," due to peripheral irritations, offer greater chance for causal therapy; but the author cautions against the enthusiastic reports of success through removal of the irritation, for the reason that in many cases the seizures sooner or later recur. He considers the cases of "alcohol epilepsy" as more frequent than the foregoing and also very favorable to treatment, provided the disease is not of too long standing. The treatment must include total and continued abstinence. In the rarer cases of epilepsy due directly to syphilitic lesions etiological treatment, by means of mercury and iodine, is frequently successful. But in all of the above cases, besides the treatment of causes, attention must be given for considerable time to reducing the increased irritability of the brain and the tendency to seizures which it occasions.

In the genuine cases of epilepsy, by far the most numerous, the author sees little chance of treating causes, but advocates combatting the phenomena of the disease, with the object of lessening the number of seizures or, if possible, securing their disappearance. The mode of life, or the hygienic and dietetic treatment, is of the greatest importance and in some cases alone successful. The question of schooling and occupation must depend somewhat upon the frequency of seizures. If attendance at school is inadvisable the patient may be taught at home, it being very important to avoid mental overstrain. In

occupation, beside the avoidance of dangerous situations, great bodily strain and whatever might cause cerebral congestion are to be prohibited.

In the matter of diet the author refers to the several current dietetic views, but himself takes no extreme position. Mentioning the more recent advocacy by French authors of the salt-free diet with substitution of bromine salts for chlorides, but noting the difficulty of carrying it out absolutely, he advises a diet as free as possible from salt and spices, with absolute exclusion of alcohol. Every disturbance of the digestive tract is to have careful treatment, and regular, free bowel evacuations secured. Of hydriatic treatment he admits only the milder forms, such as tepid bathing, avoiding the more stimulating douches, as to the head. He discountenances the use of electricity.

Sometimes a short stay in hospital or, better still, a well-equipped sanitorium, is useful as giving opportunity to establish rules of living for the patient, the neglect of which in his ordinary environment hinders successful treatment.

Among medicinal remedies the bromides still hold first place, not as specifics, but by their indirect action in lessening the irritability of brain centers, whereby the seizures are diminished in frequency in most cases. He regards the bromides as much more efficient than all other drugs in this direction. In general he prefers a mixture of sodium and potassium bromides, equal parts, with ammonium bromide one-half part. In ascertaining the needed dosage, it is advised that a moderate quantity be first given, say 4 gm daily to an adult with moderately frequent seizures, and this to be increased if necessary to 6 or 8 gm daily, the object being to secure a suppression of the seizures or at least to render them as infrequent and mild as possible. The daily quantity is divided into two or three doses and always given dissolved in a large amount of water, preferably carbonated. Redlich advises a long continuance of the efficient dosage. Only when the seizures have disappeared for some months would he permit a cautious diminution; and even when no seizure has occurred for a year he advises the continuance of small doses, say 2 gm, for one to two years longer. Of the other bromine preparations, several are mentioned. Bromopin (a combination of bromine with oil of sesamum), doubtless in the majority of cases causes less acne, with equal influence upon the occurrence of seizures, than do the bromides; but the oily taste is objectionable to many. Bromalin and bromocoll should act similarly to bromopin. Bourneville is quoted as recommending monobromated camphor in many cases. The newest bromine derivative, neuronal, is not to be advised for general use or for continued administration.

Reference is made to the opium-bromide treatment advocated by Flechsig years ago, which consists of the use first of opium exclusively in increasing doses (from .05 gm up to 1 gm daily) during about six weeks, then its substitution at once by large doses of bromides (8 gm.) This treatment has been successful in many cases, even where prolonged bromide treatment has been ineffectual; but a real cure of epilepsy can not be attained in this way, although the seizures may be diminished in frequency and severity. The treatment is attended by the inconveniences of full opium medication; it is not applicable to cases with mental disturbance or to old people, it cannot be attempted at the patient's home, but requires admission to a hospital, and, at times during the opium period, the seizures may be considerably increased.

Among the substitutes for bromides, when the latter are either ineffectual or inapplicable, the author gives belladonna first place. Also small doses in addition to bromides may be tried. He questions the value of valerian and of borax and does not consider zinc salts at all superior, if equal, to the bromides. The use of the newer substances, cerebrin and opocerebrin, must wait upon further experience.

Regarding surgical treatment of epilepsy, note is made of the early reports of success in cases which later show a return of seizures. Of all surgical measures proposed, that of trephining is the only one that claims serious attention. Kocher's idea of establishing a valve for the escape of cerebrospinal fluid, in order to prevent rise of intracranial pressure, the author does not entertain as deriving any indication from genuine epilepsy. He discountenances removal of a part of the normal cerebral cortex supposed to be the seat of the irritation, as likely to result in paresis. He records a striking case of epilepsy of the Jacksonian type, showing paresis of the left arm, with 30 to 40 seizures daily, in a child of twelve, which, after trephining with negative findings, the brain being undisturbed, improved so far under the continued use of one gram of bromides daily, that seizures have been entirely absent for more than one and one-fourth years and the paresis of the left arm has disappeared.

Trephining is, as a matter of course, indicated in the evident local injuries to the head which are followed by Jacksonian epilepsy, but its value is questionable in the cases of more diffuse brain injury, where nothing upon the skull or in the character of the seizures indicates a localized lesion. In proper cases the prospect of success will be better if the seizures are recent. E. H. L.

What would you think of our Medical Health Officer if he proposed to stamp out scarlet fever by segregating girls, while little boys, in an infected condition, mind you, were sent to school or allowed to play upon the streets? What would you think of him if he proposed to stamp out the cattle plague by slaughtering heifers while young bulls were allowed to spread infection all over the country? What would you think of him if he proposed to limit smallpox by vaccinating females only? A sanitary law applicable to one sex only is not only a cruel injustice, but a mockery, a delusion and a snare.

DR. CHARLES BELL TAYLOR,
before the House of Commons.

Society Transactions.

THE SIXTH ANNUAL CONFERENCE OF SANITARY OFFICERS OF THE STATE OF NEW YORK.

At this meeting Commissioner Porter reported that a school for sanitary officers would be launched in a small way. It was purposed to begin in November with a two-day course of lectures and demonstrations at the Bender Laboratory in Albany. Some of the subjects to be treated are the diagnosis, prevention and treatment of communicable diseases; the examination of water, and disinfection and disinfectants.

Dr. Herbert M. King, speaking of the scope and value of the sanatorium in the antituberculosis movement, said that a sanatorium educates the people of the neighborhood, and also the friends of the ex-patients; it is of value for statistical purposes. Such an institution is not dangerous in a community. and there are many difficult problems which sanatoria can help to solve.

Dr. Hills Cole said that the vast importance of the sewage question could be judged from the fact that in September there were 222 deaths from typhoid, representing a loss to the community of at least $660,000; to this could be added $750,000 for wages lost by the victims of the disease. Roughly, failure to treat its sewage had cost this State $1,500,000 during the month of September alone.

Dr. J. L. Heffron, of Syracuse, read a paper on "Personal Hygiene in the Prevention of Tuberculosis." He said that a healthy environment must be secured. Windows must be kept open. Window screens and more bed covers will overcome all objections. The house should be on damp-free soil. Smoke and dust must be abated. The house must be sun-lit. A useful occupation is essential; professional men often work too long. Give plenty of time for sleep. Cultivate a joyful mental attitude. Bathe daily in cold water, commencing the practice in the summer with the water at 70 degrees. The teeth must receive careful attention; there must be provision of good food in the proper quantity. Elimination should be favored by drinking freely of water, between meals, at bedtime and on rising. Physical exercise is essential. The food of the tuberculous should be slightly in excess. Pay careful attention to the discharges. Take care of colds. Finally, the fate of man is in his own hands.

Dr. S. A. Knopf said that we have museums enough and libraries enough, and asked, where is the philanthropist who will build model dwellings for the poor?

County Societies.

MEDICAL SOCIETY OF THE COUNTY OF KINGS.

STATED MEETING, December 18, 1906.

Scientific Program.

PAPER.—"Compulsory Vaccination and Anti-Vaccination," By George Dock, M. D., Ann Arbor, Mich.

Section on Pediatrics.
December 26.

"Review of the Pediatric Literature of 1906." English Section, by Wm. H. Woglom, M.D., German Section, By Archibald D. Smith, M.D., French Section, by Louis C. Ager, M.D.

Section on Ophthalmology.
December 27.

1. "Report of a Case of Optic Neuritis," by John Ohly, M.D.
2. "Report of a Case of Double-Sided Glioma," by John Ohly, M.D.
3. "Presentation of a case of Detached Retina with Unusual Features," by P. C. Jameson, M.D.
4. "Presentation of a case of Recurrent Intraocular Hemorrhage in the Young," by E. W. Wright, M.D.

Topic for Discussion—"Cataract Extraction."

Section on General Medicine.
December 10.

"Modern Treatment of the Typhoid Group," by Dr. Egbert Le Fevre, of Manhattan.

THE MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

STATED MEETING, November 26, 1906.

Scientific Session.

1. The History and Principles of the Method of Motor Re-education in Tabetic Ataxia," by Dr. H. S. Frenkel Heiden, Switzerland.
2. Address of the Retiring President, Floyd M. Crandall, M.D.
3. Address of the First Vice-President, H. Seymour Houghton, M.D., in the absence, through illness, of the President-elect, Walter Lester Carr, M.D.

SARATOGA MEDICAL SOCIETY.

REGULAR MEETING, December 7th, Saratoga Springs, N. Y.

Symposium: Arterio Sclerosis.
Etiology and Pathology, Dr. Coruthwait.
Symptoms and Diagnosis, Dr. Towne.
Complications and Treatment, Dr. Palmer.

REGULAR MEETING, December 21, 1906.

Paper on fractures, Dr. D. C. Moriarta.

MEDICAL SOCIETY OF THE COUNTY OF ULSTER.

ANNUAL MEETING held at Kingston, N. Y., December 4, 1906.

Scientific Session.

1. President's address, "Review of Medical Progress the Past Year," E. E. Norwood.
2. General discussion on Bacteriological work. A committee was appointed to consult with the Board of Health in regard to a bacteriological department.

Deaths.

MARY D. DEWEY, M.D., died at her home in Saratoga, N. Y., August 20; aged 84 years.

GEORGE DOUGLAS, M.D., died in Oxford, N. Y., October 9; aged 83 years.

BERNHARDT FINCKE, M.D., of Brooklyn, N. Y., died October 21; aged 85 years.

CHARLES JENKINS FINN, M.D., died in Hempstead, N. Y., November 3; aged 50 years.

JOSEPH GRUNDMAN, M.D., died in New York City, October 30; aged 60 years.

ORSMAN S. KENYON, M.D., died in Taberg, N. Y., October 26; aged 70 years.

GEORGE F. KIMBELL, M.D., died in New York City, October 16.

GEORGE FREDERICK REESE, M.D., died in Rockaway Park, Long Island, October 19; aged 68 years.

CHARLES P. RUSSELL, M.D., died in Utica, N. Y., October 26; aged 53 years. Dr. Russell was widely and favorably known as a specialist in diseases of the skin, and his practice extended throughout Central New York. He was consulting physician to St. Luke's and St. Elizabeth's Hospitals, and a member of the Utica Medical Library Association and the Oneida County Medical Society.

THOMAS STEVENSON, M.D., died in New York City, October 27; aged 41 years.

HENRY S. WELLS, M.D., died in Norwich, N. Y., October 22; aged 72 years.

CHARLES SAMUEL WILLIAMSON, M.D., of Brooklyn, died at Rainbow Lake, N. Y., October 21; aged 37 years.

New Books.

THE PROPHYLAXIS AND TREATMENT OF INTERNAL DISEASES. By F. FORCHHEIMER, M.D. Cincinnati, New York. D. Appleton & Company, 1906.

This book is written in the spirit of advanced therapeutics; it considers prophylaxis as the precursor of treatment. It is a work which every practitioner of medicine, who treats internal diseases, should possess. It is practical; and the methods of prophylaxis and treatment are such as can be carried out in private practice. The author has considered all the modern methods of treatment, devoting much attention to hydrotherapy, gymnastics, exercise and diet. Treatment by drugs is not neglected and the author gives those remedies which he has found in an experience of thirty years to give the best results.

This book opens with an admirable introductory chapter on the development of therapeutics, in which it is set forth that, "the symptoms are not the disease; it follows, therefore, that logical treatment consists in removal of the cause and not simply of its manifestations." The first section is devoted to specific infectious diseases. The following ten sections are given respectively to diseases produced by animal parasites, the intoxications, constitutional diseases, diseases of the digestive system, diseases of the respiratory apparatus, diseases of the circulatory system, diseases of the blood and ductless glands, diseases of the kidneys, diseases of the bladder, diseases of the male sexual organs, and diseases of the nervous system. An appendix gives a valuable table of the composition and value of various foods, an analysis of alcoholic liquids, a chapter on the treatment of poisoning and a list of the drugs and prescriptions recommended in the text. The index is well made.

Under alcoholism, the author in speaking of prophylaxis, says that, if we would aim at true temperance, instead of abstinence, more good could be done to more people. He believes that the daily habitual use of alcohol, even in medicinal doses, is harmful.

The author believes that the physician should not write a prescription for morphine, but should carry the tablets with him and give them to the patient himself. He, furthermore, lays it down as a rule that no physician should give himself morphine, but should take it only when ordered for him by another. This is in view of the fact that, according to Pouchet, forty per cent. of morphinists are physicians.

This book fills a want in medical literature. It contains many of the essential things wanting in most text books on medicine. It deserves a high place in the estimation of the medical profession.

OPERATIVE GYNECOLOGY. By HOWARD A. KELLY, A.B., M.D., LL.D., F.R.C.S. With illustrations by Max Brödel. Second Edition. Two Volumes. New York. D. Appleton & Company, 1906.

The first edition of this work is so well-known and met with so favorable a reception, that its revision is destined to find a welcome and appreciation awaiting it. Nine years ago this book first appeared, and delighted the profession of medicine as the most handsome piece of medical book making of the time. We are not just clear yet as to whether Max Brödel's wonderful pictures or the practical and scientific text of Howard Kelly did the most for the work. This we do know, that never has an American text-book been given a more flattering reception. The striking clearness and artistic individuality of the pictures carried it a long way. To see in a picture of cysts of a labium minus the window-sash of the examining-room, reflected in the walls of the smallest cyst, is a merit and refinement in medical book making, which is best appreciated when we look at the inartistic and inaccurate representations of this very scene in some of the works on gynecology which preceded this.

Dr. Kelly has rewritten some of the chapters and added many others. He has brought the treatment of relaxation of the pelvic outlet thoroughly up-to-date. The chapters dealing with the urethra, bladder, ureters and kidneys, he has revised in the light of his recent and very extensive experience. For the general practitioner, he has added a new chapter on local and palliative treatment and chapters on displacements and on menstruation and its anomalies. A new chapter on bacteriology has been added, and also one on the use of the X-ray in diagnosis.

The work has been further improved by a new chapter on abdominal extirpation of the cancerous uterus and by a chapter on the gynecological diseases of children.

This work contains eleven plates and seven hundred and three original illustrations. It gives attention to both the anatomy and pathology of diseases under discussion. It is particularly in elucidating the former, that the admirable pictures are of value. Much also could be said of their value in making clear the technique of operations.

A chapter on anesthesia adds much to the value of the work. The author believes in the more general employment of apparatus for determining the blood pressure during grave operations. Of the administration of drugs during anesthesia he says, "Perhaps in no other condition does there exist greater misuse and abuse of therapeutics than in connection with anesthesia and operation. In general it will be found that the more skilled the anesthetist, the less will be the frequency and quantity of the drugs he will administer, and the tyro alone will keep the nurse busy preparing and injecting one hypodermic after another." How true this is, we all know: it is just as true in operative gynecology as it is in the general practice of medicine.

The descriptions of the treatment of tuberculosis of the urinary bladder are the best in medical literature.

MODERN CLINICAL MEDICINE. DISEASES OF THE DIGESTIVE SYSTEM. Edited by FRANK BILLINGS, M.D. New York, D. Appleton & Company, 1906.

This book is an authorized translation from "Die Deutscher Klinik," and presents the subject of diseases of the digestive system in the light of the most modern knowledge. This is a book of some eight hundred pages with forty-five illustrations in the text. It is made up of twenty chapters, written by eminent German internists. The advances of physiological chemistry and the studies of metabolism have cleared up the mysteries of the alimentary canal. The pancreas, which a few years ago was a *terra incognita,* now has an extensive literature. The investigation of the feces has contributed much to the advancement of this knowledge, and surgery has elucidated many of the obscure passage of the digestive tract.

The subjects in this book, each treated by a different author, are stenosis of the œsophagus, gastric lavage, functional diseases of the stomach; secretory disturbances of the stomach; gastric dilation; gastric ulcer and gastric hemorrhage; gastric and intestinal carcinoma; displacements of the abdominal viscera and of the heart; symptomatology of the diseases of the pancreas; jaundice and hepatic insufficiency; chronic hepatititis; neoplasms of the liver and biliary passages; echinococcus of the liver; gall-stones; acute diffuse peritonitis, appendicitis, and perityphlitis; examination of the feces; diarrhea, intestinal catarrh, and intestinal tuberculosis; constipation and hemorrhoids; mucus colic and membranous intestinal catarrh; and intestinal constriction and intestinal occlusion.

One of the most valuable aids to diagnosis which has been developed in the last few years, is the scientific examination of the feces, and to the pediatricians belongs the credit of having inaugurated this work. Nothnagel elaborated it and applied it to all classes of diseases of the alimentary tract. It was he who said that in the pathology and diagnosis of intestinal diseases examination of the feces is of more importance than examination of the sputum in respiratory diseases. The chapter in this book on examination of the feces presents this subject in the light of the most recent knowledge. The author agrees with Dudley Roberts that the passage of large shreds of tough material, resembling diphtheritic membrane, is com-

monly due to a neurosis of the intestines and not to inflammatory process.

The chapter on constipation and hemorrhoids by Boas is most admirable. This eminent authority shows that preparations of aloes, podophyllin, colocynth, bitter waters and salts, castor oil should be utterly discarded in the treatment of habitual constipation; they do more harm than most physicians believe. He says, "Treatment by purgatives now so popular, is the survival of a medieval humoral pathology which we should forever discard."

We commend this book to the physician who desires to secure the most recent views of the authorities upon diseases of the digestive system.

CLINICAL DIAGNOSIS. By CHARLES PHILLIPS EMERSON, A.B., M.D., Johns Hopkins University. J. B. Lippincott Company, Philadelphia.

This book is based upon the author's experience as physician in charge of the clinical laboratory, and instructor in medicine, of Johns Hopkins Hospital. It embodies the methods in clinical microscopy and chemistry used in the Hospital and in the instruction of students in the laboratory. It gives the practical methods there employed, without reference to new and little-used procedures. The author very properly says, "To be wise in the points of differential chemical and microscopical diagnosis is splendid; but to recognize artefacts and extraneous matter, the stumbling-blocks in diagnosis, that is the true test of the chemical laboratory worker, and this ability is gained by wide experience alone." The less experience a man has had, the more "new things" does he discover.

Laboratory work has become a necessary adjunct to good clinical work. The clinical work, however, must always be regarded as the more important. The clinical chemist and microscopist must first be a good clinician. The most valuable physician and practitioner is the one who *uses* the microscope and stethoscope.

The book is divided into sections devoted to the examination of the sputum, the urine, the stomach contents, the intestinal contents and feces, the blood, and various body fluids. All of these are examined in the light of their clinical significance.

The book is most practical. Interest in such work as this signifies the best progress in medicine. We hope that every practitioner will add it to his library. For the men who have been drilled in the methods of laboratory diagnosis, the book is a help; for the practitioners who have not had the privilege of such instruction, it is an insight into the possibilities of accuracy in medical work. It differentiates the established fact from the clinical guess.

CLINICAL BACTERIOLOGY AND HEMATOLOGY FOR PRACTITIONERS. By W. D'ESTE EMERY, M.D., B.Sc., LOND. Philadelphia, P. Blakiston's Son & Company, 1906.

This book is a second edition of "A Handbook of Bacteriological Diagnosis for Practitioners." The author has revised this and added a section on hematology. The deduction to be drawn from blood examinations is well elucidated. "The blood is the only tissue which we can easily examine during the life of the patient. Its relations to all other tissues are such that it is typical of them all in a way that no other tissue is, acting on all and being acted on by all."

This work is made as simple as possible. The technicalities of the laboratory are eliminated as much as can be, and examinations made as simple and efficient as possible in order to be within reach of the general practitioner. The section on bacteriology describes the apparatus and processes used, and the technic of examinations; the diagnosis of diseases by bacteriological study; and the collection and examination of morbid materials. The section on hematology gives simple and practical methods of blood study. A third part of the book is given to cyto-diagnosis. The illustrations are good and effective; and the work is destined to fill a place in the practical needs of the practitioner.

THE PRACTICAL MEDICINE SERVICE. Vol. III. THE EYE, EAR, NOSE AND THROAT. Edited by CASEY A. WOOD, C.M., M.D., D.C.L., ANDREW H. ANDREWS, M.D., GUSTAVUS P. HEAD, M.D. Chicago, The Year Book Publishers, 1906.

This book is divided into three parts, one of each devoted to the eye, the ear and the nose and throat. It is an attractive volume, and belongs to a series which issues ten volumes yearly at about monthly intervals. The ten volumes cover the entire field of medicine. Each volume is complete for the year prior to its publication on the subject of which it treats. While this series is published primarily for the general practitioner, the special subjects are treated in separate volumes, so that the specialist may secure only the subject in which he is interested.

These books are of much value also to the general practitioner.

SURGICAL SUGGESTIONS. By WALTER M. BRICKNER, M.D., and ELI MOSCHCOWITZ, M.D. New York, Surgery Publishing Co., 1906.

This book is made up of a collection of terse and epigrammatic practical hints in surgery. They are grouped under headings, and number two hundred and fifty. They are of a practical character, and the surgeon as well as the general practitioner may peruse them with profit.

PENNSYLVANIA STATE BOARD OF HEALTH. TWENTIETH ANNUAL REPORT AND VITAL STATISTICS. 1906.

RHODE ISLAND REGISTRY AND RETURN OF BIRTHS, MARRIAGES AND DEATHS, AND OF DIVORCE. Fifty-second Report. 1906.

A NURSE'S HAND-BOOK OF MEDICINE. By J. NORMAN HENRY, M.D. Philadelphia, J. B. Lippincott Company, 1906.

This book contains the medical information which it seems to the author the trained nurse should possess. The common diseases are briefly described in such a way that the nurse may have a theoretical familiarity with them. It is a good little book.

THE TEETH AND THEIR CARE. By THADDEUS P. HYATT, D.D.S. Brooklyn-New York, King Press, 1906.

This little book is dedicated to the proposition that "imperfect teeth do not permit of perfect mastication; imperfect mastication leads to malnutrition, and malnutrition is one of the greatest factors in all diseases." If people would follow its advice they surely would have better teeth.

A COMPEND OF OPERATIVE GYNECOLOGY. By WILLIAM SEAMAN BAINBRIDGE, M.D., and HAROLD D. MEEKER, M.D. New York, The Grafton Press.

This book is based upon lectures delivered to post-graduate students upon operations on the cadaver. It describes each operation concisely.

A COMPEND OF PHARMACY. By F. E. STEWART, M.D., Ph.G. Philadelphia, P. Blakiston's Son & Co., 1906.

This little book is based on Remington's Text-Book of Pharmacy. It conforms to the eighth revised edition of the United States Pharmacopœia. The author states that it is not the intention to place in the hands of students a book for cramming; but we fear that is what he is doing, for the quiz compend is used as a short cut to the passing of examinations, however much the author may protest that that is not its purpose.

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Address

To the House of Delegates of the Medical Society of the State of New York.

By JOSEPH D. BRYANT, M.D.,

President of the Society.

To the Members of the House of Delegates of the Medical Society of the State of New York.

Gentlemen:—It is with peculiar feelings of gratitude and a keen sense of satisfaction, that I now approach the final acts of my official relations with the completed organization of the great medical body of which you are the accredited representatives. I entered upon this labor in connection with the Joint Committee of Conference many months ago, because of the request to do so on the part of those in whose sincerity I had implicit confidence, and for whose motives and judgment I had an abiding respect. These gentlemen assured me of their earnest determination to labor unceasingly and honestly for the attainment of the unity of the medical profession of the State, and asked that I co-operate with them in securing this end.

In view of these facts, and likewise of others which have followed this request, I trust to be pardoned if, at this time, I chance to experience "peculiar feelings of gratitude" because of the confidence and the trust reposed in me, and also if I express the hope that, in a small degree at least, I have justified the confidence implied in the bestowal of the honorable considerations falling to my lot in connection with this field of labor. The "keen sense of satisfaction" which I now feel is a product of the happy outcome of this labor and is not mine alone to enjoy, but also is the delightful reward of all those who welcome fraternal peace, and who seek the exaltation of the profession of their choice.

One year ago, gladly indeed, I would have lain aside the responsibilities and perplexities of official station in this connection, and labored willingly in the rank of file-closers, had not the wisdom of the framers of the joint agreement of consolidation contemplated, that one ought not to stop amid-stream, in so great an undertaking as this was belived to be. The logical reasons for this provision should now be obvious to all, recognizing as they ought the fitting application to the then situation of the old axiom, which admonishes of the danger of "swapping horses while crossing a stream!"

However, the unanimous vote of the general meeting of the Society last year, granting a continuation of power to the *ad interim* House of Delegates for farther time to perfect the consolidation, has enabled that body to complete its labor and to place at this time in your charge, to direct and develop the interests of the largest organized body of the medical men within any State of the Union.

The attainment of this end has not been altogether easy, being often interrupted by the advent of unexpected legal perplexities which have some time since, in no uncertain manner, impressed the truth, that the spontaneous legal notions of medical men often have no standing in courts of law —about the same, in fact, as the medical notions of legal men would have in this Society. Fortunately, the obstacles interposed by law, and the caprices injected by mortals have been, or soon will be, it is hoped, as fully satisfied as human desire will permit and legal enactment sanction. All of this, however, has been accomplished only with considerable tedious travail, and not a little expense.

It appears to me to be fortunate, indeed, that watchful minds occasionally have interposed unwelcome and perplexing objections, to apparently proper plans of procedure in the achievement of consolidation, soon enough at least, to obviate illegal union of the medical bodies and, consequently avoid the subsequent confusion and distrust that might easily have attended a future adjustment, of mistaken facts. It is eminently just, at this time to understand, that it could hardly be possible to carry forward to completion so complex and arduous a labor as this has been, along the entire line of procedure, and under the stress of varied conflicting desires and interests, without the occurrence of legal imperfections, notwithstanding the constant devotion and vigilance exercised by the members of the Joint Committee, supplemented by abundant competent legal surveillance.

And, in this connection I am prompted to declare that, should the future custodians of this union strive but half as faithfully to develop and perpetuate it, as its founders have striven to give to it form and force, then indeed, will the pro-

fession of this State for the time to come, possess a glorious heritage.

I will now bespeak your undivided attention, while briefly considering the character and the importance of the chief possessions of the State Medical Society, and of the great consequence of their development and care. For the purposes of orderly thought in this consideration, these possessions will be grouped under two distinct headings:—

1. Those already acquired and of established material worth.

2. Those of professional character, the prospective products of present opportunity and of devoted personal effort.

The important factors of the first class are the NEW YORK STATE JOURNAL OF MEDICINE, the Medical Directory of New York, New Jersey and Connecticut, and the belongings relating thereto, a library of considerable dimensions, a fruit of consolidation with the New York State Medical Association, and, finally, the Privilege of Legal and Moral Support of the Society in Malpractice Defense.

The MEDICAL JOURNAL which, since its inception until a short time ago, has been to a greater or less degree a financial burden, is now reported to be no longer a source of expense. And you will be told by those who should know whereof they speak, that with active promotion, proper support and prudent vigilance, the JOURNAL will soon become a continual source of healthful influence and of substantial revenue. I am, however, clearly of the opinion that the net earnings of the JOURNAL should be utilized for its betterment, and for the purpose of extending, when feasible, publication courtesies to such of those as contribute to its pages, important and original articles. It should not be the policy of this Society, in my judgment, to accumulate worldly belongings, but instead to increase the wealth of good fellowship and professional advance, by a wise adjustment relating thereto, of its business management.

In this relation it is well that you should realize at the outset, that our JOURNAL is having as great circulation as few medical journals possess, and with a prospect of a large increase in the near future, affords opportunity fertile with responsive possibilities, for those who thrive by the proper exploitation of legitimate business aims. The policy of announcement of business matters in the JOURNAL, is advised and superby the versatile chairman of the Committee of Publication, Dr. E. Eliot Harris, who has given much time and thought to the differential consideration of patent, proprietary and allied kinds of medical agents. The recent report of the Committee relating thereto is both instructive and interesting, especially in these particular respects.

It should be plainly understood at this time, that the policy of the control of affairs by the *ad interim* House of Delegates, has been to conduct matters relating to the Society so as not to constitute a pledge of real or implied nature which might be binding on the organized body, at least, for a longer time than should be required by it, to secure a satisfactory adjustment of its own matters of state.

Therefore, any objectionable items of business announcement, that are the products of previous contracts or of later conceptions of propriety, which now find places in the publications of this Society, are either of brief permissible tenure therein, or of limited obligatory continuance, and, in all respects subject to the selective verdict of the House of Delegates and Council of the present organized body. I hope you will pardon a seeming presumption on my part if I urge in this connection that, in the making of future contracts of these business announcements, the basis of such action should comprehend demands for pure drugs, whose names and virtues are in all respects definitely and ethically stated, and which are the products of honest pharmacists. A different course than this would be a faithless one and, therefore, destructive of professional claims of honesty and of truth on our part, since in the conduct of our publications the business and the editorial departments, especially of the JOURNAL, are under like control. Whether or not the medical journals which for covetous business reasons, exploit remedial agents in a manner calculated to deceive the unwary, the unsophisticated and the indolent, are to receive professional support, will as it seems to me, be determined more by the outcome of patiently developed, and higher comprehensive professional sense, than by other inhibiting influences. In the blazing of the way in these matters relating to honest ethical action, one can gain much, indeed, in fitting knowledge and abiding support, through the force of the example which is now being established by the parent organization. The scientific reports of this medical body regarding the character of exploited remedies submitted by its wisely formed and impartial "Council of Pharmacy and Chemistry" and published from time to time in the *Journal of the American Medical Association* along with the action taken in noteworthy cases, are deserving of thoughtful study and of prudent emulation. And concerning this matter I advise that the reports of this Council and of the action taken relating thereto, be consulted by those who are hereafter placed in charge of these very important questions.

The scientific part of the JOURNAL of the State Society, affords ample opportunity to the members of the organization, to consult with each other in matters of professional interest, by the means of published opinions, and, thereby correspondingly, to mutually profit in many substantial ways. The fact that each member of the organized body has rights in the publication equal to those of another, would seem to inspire sentiments of mutual interest and fidelity, resulting in a more extended and higher standard of pro-

fessional fellowship, than sometimes appears to exist. And, too, the united voice of the profession can be heard through the agency of the JOURNAL, with a clear unhindered emphasis on all matters relating to common professional and common public betterment. And it is not impossible, that some members of the profession, whose isolation or experience has begotten in them exaggerated notions of self-reliance or personal attainment, might, at a trivail outlay, gain in wisdom and correspondingly in skill, through the instrumentality of printed communion with their fellow laborers in the field of medical endeavor. Also the MEDICAL JOURNAL affords the best opportunity, and at the least outlay, of keeping in touch with the attainments of others, and of placing those of your own before the profesion, that can be devised.

Since, "every rose has its thorn," it should not be overlooked at this time, that the flowery probabilities of mutual scientific medical journalism, might easily be inhibited, and even destroyed by the thorny possbilities of selfish time-serving desires. In any event, common justice demands that all questions of mutual material interest, and others of general interest to the profession of the State, should find free and impartial utterance through the pages of its own journal. The presence of a spirit which contemplates that the entire membership of the profession of this state, be not made familiar by its own servants, with the facts relating to the respective differences in all matters of common importance, is offensive to the principles of American institutions, and to those of fair dealing in all lines of manly action.

The editorial policy of a journal of mutual constituent ownership, like this of ours, should be guided by the composite wisdom of an impartial committee chosen for the purpose, rather than by the notions of the editor himself, as in the instance of personal proprietorship. Prompted by this belief, the President declined to appoint on the Publication Committee, the Editor of the JOURNAL. In my opinion, the salaried agents of the Society ought not, for apparently obvious reasons, to be entitled to membership in the executive bodies which regulate their compensation or determine their policies of action. Other and wiser means of conference than this can easily be determined.

The present Medical Directory has been carefully revised and the names therein cautiously verified. The maintaining of its present standard of excellence requires a continued and painstaking effort, and necessarily at a considerable expense. These matters, however, will be considered in detail in the reports of the Secretary and Treasurer of the Society. As a return for the expenditures in this regard, each member receives for a trivial sum the best book of the kind, I believe, heretofore issued. I am disposed to attach great importance to this asset of the organization. It is a prolific source of information in many matters of pressing interest of a professional nature, settling many questions of professional status to the satisfaction or the discomfort of honest inquiry, or deceptive intent, respectively. It enables one, especially at a distance, to come promptly in practical contact with another, thus providing a co operative touch in business and professional matters of common interest.

It is worthy of note that, if the proprietors of the various important business interests in the cities and large towns in the state embraced by the directory, were to favor it with but a small part of their advertising patronage, the final outcome of such action would be of relatively great importance to them, and of decided financial advantage to the Medical Society. We are now in relation to the directory afforded the rare opportunity of congratulating ourselves, on account of our own embarrassment. Already the keen spirit of loyalty relating to State membership has caused absorption of the 1906 edition of the Medical Directory, notwithstanding, the comparatively liberal estimates made by those long familiar with this part of the service. The potential reason giving rise to the situation should solace those who are temporarily inconvenienced thereby, and gladden us all because of this uncommon earnest of professional *esprit.* In view of the disquieting fact and of the need of its prompt adjustment, I respectfully advise that a Committee of Three be appointed by the president to take under consideration and report to-morrow, after the election of officers, recommending a plan of adjustment relative to those members who, having paid dues for 1906, have not yet received the Medical Directory.

The Medical Library, once the property of the New York State Association, is composed of about 9,500 volumes, and for some time has been stored in the Mott Memorial Building, No. 64 Madison Avenue. I am not sufficiently familiar with the value of the books, to enlighten you in this respect. I am, however, aware of the fact that their storage and insurance is a continuous expense, unattended, so far as I know, with any compensatory return. I would, therefore, respectfully counsel that a committee be appointed with power to examine into, and make such disposal of these books, as may seem to be wise and expedient.

I will now invite your attention to a brief consideration of the fourth and last of the substantial assets that will be considered by me on this occasion, viz.: "The Privilege of Legal and Moral Support of the Medical Society in Malpractice Defense." It should require no admonition on my part, to impress on the understanding of practicing physicians the fact, that malpractice prosecutions are, in the great majority of instances, unwarranted legal persecutions. It is, also, unfortunately true, that the sympathy of the lay masses, and sometimes those of professional calling, strongly incline to the side of the plaintiff. The saddest feature of it all is, that the brilliant prospects of competent and worthy

physicians suffer indefinitely, and often deeply, even after acquittal, because it is rare, indeed, that homely truth in a race of justice can overtake picturesque falsehood. The appetite of envy and of chatter are keener and more active, than those of the passive sympathy or the introspective compassion usually exhibited in such cases. It does seem to me, that each member of the Society would take special pleasure in contributing his mite to the total required for the reasonable defense of those, who are unjustly attacked while in the faithful pursuit of their calling. It does seem to me, that the spirit of fraternal relationship as embodied in the Principles of Ethics, so recently and overwhelmingly adopted by the profession of the state, would silence those who, for captious reasons, would in any way embitter the adverse sting of persecution. The report of Mr. Lewis, the attorney of the State Society, will, in my judgment, decidedly impress on you, at least, two important facts: First, that the duties of his station in this connection are both onerous and beneficient; Second, that no one engaged in the practice of medicine is yet immune to the subtleties of malignant mischief, or to the embarrassments of defensible error.

I will now dismiss from further consideration, the established assets already mentioned, and hasten to remind you of those of professional character, "the prospective products of improved opportunity and of devoted personal effort," on our part, or in modern business phraseology—the "undigested assets," if you please, of great and abiding importance. Strange as it may appear to be, not half of the members of our profession in this populous state, are constituent parts of representative medical organization. Many of these members plod their weary way in comparative profesional seclusion, unconscious or uncaring of the higher, more attractive and ennobling state, as begotten by sympathetic and mutually profitable intercourse with the profession-at-large.

This condition is not what it should be, since the non-members and the members of organized medical men alike, are losers thereby, the former, because of the loss of contact with those general professional activities which hasten understanding, and correspondingly enhance confidence and self-respect; the latter, because hidden away in the experience of the former class of practitioners there is much indeed, relating to the healing art of great significance to the entire medical profession. If it be true that medical men of populous environment, possess comparatively more medical knowledge than do those of meagre surroundings, it is equally true, that the difference is largely the outcome of the special advantages arising from the benefits of a broader personal contact, for, at the beginning of their respective careers no special dissimilarity can be noted. It follows, therefore, that medical society membership affords a remedy of great importance in this respect, hence, the membership should be increased and extended, and professional intercourse developed, in order that to each medical man may be given the opportunity of contributing his special attainments toward advancing the common good of the whole profession.

At the present time, the membership of this Society is about sixty-five hundred, of which ninety plus per cent. have already qualified for continued membership, and are to-day receiving the benefits relating thereto. Each of these members should bring into the medical fold, one of those who is not a participant with him in the special advantages of general professional relationship. The proper fraternal spirit in this Society should purpose that every practitioner in medicine divorced from special dogma, and in good standing as a physician and a citizen, should be entitled to membership.

The organization of the medical profession here, and everywhere throughout the country, contemplates the realization of more than the scientific advantages arising from personal contact and local co-operative thought. It should be regarded as an earnest, that the medical profession intends to take an active and controlling part, if possible, in those affairs of civil life which relate to the physical welfare of the body politic. There should be no question regarding the status of the medical profession in all matters relating to the securing of pure food, pure drugs, and wise public sanitation. And properly fathered measures, directed to attaining these ends in the promptest and completest possible way, should receive the earnest, honest support of united medical effort. It goes without saying, therefore, that your Committee on Legislation should be both vigilant and active in the discharge of its duties, vigilant in the detection and defeat of bad legislative efforts, and active in devising and promoting those which, in all respects, are good. And in supporting the efforts of your Committee on Legislation, each and every member of the medical body should make his influence felt in no uncertain manner, in the guiding of legislative sense, so as to insure wise and beneficent law-making.

It should come to your knowledge at this time that this state is entitled to be represented on the Committee of Medical Legislation of the American Medical Association. The purposes of this Committee, under the able leadership of Dr. Chas. A. L. Reed, of Cincinnati, relate to the moulding of national legislation of general interest to the medical profession and of coincident importance to the people of the country. The functions of the Bureau of Medical Legislation, as set forth by Dr. Reed, are as follows:

"To formulate lists of correspondents; to revise and keep active the organization of the National and Auxiliary Councils; to issue all referenda, both special and general, and to conduct all routine correspondence relative to the legislative work of the American Medical Association."

The National Legislative Council generally

convenes in Washington during the first month of each session of Congress. The appointment of a representative by the State on this Committee is of great importance, and therefore I earnestly commend such action to your attention.

At this time I would be negligent of my duty were I not to call your attention to "Section 8" of the "Report of the Joint Committee of Conference," together with the action taken by the *ad interim* House of Delegates in respect thereto.

Section 8. "The Society agrees that it will petition the Legislature for the passage of such further act or acts, as may be necessary, if any, to carry this agreement into effect."

As has been told you already, the labors of the Joint Committee were often hindered by unexpected revelations relating chiefly to somewhat comprehensive, quite varied and sometimes conflicting laws regarding the special rights of those, connected with the two medical bodies seeking consolidation. Hence, the discreet wisdom of the provision of Section 8 becomes at once apparent. In order, therefore, to cement the lines of union of the consolidated bodies, so as to obviate any misgiving or contentions that might arise in the future, a suitable bill for the purpose has been drawn by Mr. Lewis, the attorney of the State Society, approved by Judge Choate, and was introduced to legislative consideration by the Committee on Legislation of the Society at the opening of the present session, and is now on its journey to enactment. It is expected and believed, that with the moral and active support of the members of the State Society, this bill will promptly become a law of great cohesive purpose, in the subsequent history of the organization.

The most acute topic at present in hand in the State, is that of the lately proposed medical legislation. The bill recently introduced provides for the formation of a single-headed Board of Examiners to be appointed by the Board of Regents of the State, independently of all medical Society recommendations. The wisdom of this course is logically based on the idea that only professional knowledge is required as the test of fitness to practice medicine, which idea is in full harmony with the well known fact that the fundamental parts of medical education are the same, in all accepted forms and fields of medical endeavor. That this is true cannot be gainsaid, therefore, the only differences that do now, or can hereafter exist are those of faith, or dogma, regarding the therapeutic effect of medical agents on the human mind and body. Of these effects, it is proposed that no notice be taken by the State, but that the estimate of proper capacity to practice medicine be based only on the knowledge possessed by the applicants of the branches of study common to all forms of established practice. Consequently, whatever radical differences may be present of therapeutic character are left untouched by the State, the ascertaining of the necessary proficiency therein being consigned to the judgment of the faculties of the respective schools devoted to medical education.

While at first not inclined to favor the last feature of the bill I now regard it of ample moment to recommend it to your earnest consideration. I cannot at present conceive of a line of action apparently so well calculated to relieve all who are concerned, of a perennial source of contention in the legislative halls of the State, as is this one, also, as likely to be followed by the establishing in the State of a practical comprehensive system of preparatory education, one which will meet the educational requirements of the State to practice much better than do the foreign miscellaneous schemes to which our State medical educational matters are now so unsatisfactorily adjusted. Finally, if impartially estimated scientific attainments are ever to be made the standard of fitness to practic, then, indeed, there is nothing in sight as well suited to the purpose, as are the even-handed provisions of this bill.

I cannot permit this opportunity to pass without calling your attention to an unfortunate contest which has lately arisen between many of the insurance companies of this State and their medical examiners, and which contest seems likely to enlist the attention and perhaps the active co-operation of the members of this Society. The differences in question relate, particularly, to the reduction on the part of certain insurance companies of the fees for examinations of insurance risks. I am sorely disappointed and much grieved by the state of affairs relating thereto. It is disappointing and sad to realize that the companies in question, at least one, and perhaps others, are insistent recipients of medical services in determining insurance risks, at a rate which they should know is not likely to stimulate the thoughtful consideration in medical examiners, which, in the interest of all concerned, common justice demands. Nor do I believe that, in many first class risks the insured themselves, who it is said meet this expense, would, were they appreciative of the fallacies of such service as this, willingly consent to be judged by it, or to have their life's expectancy measured by that of many, who would thus fall into their class.

Also, I am oppressed by the fear, and grieved by the thought of the possibility that the injection of this contention into the membership of the State Society might lead the many to oppress the few, because of honest differences of opinion or of necessitous demands. Such action as this happens frequently in other walks of life, especially among those who are the bread-winners in manual labor, but even then, only after provision is made to meet the necessitous requirements of those members who are forbidden the privilege to toil. In this State, however, not yet have manifestations of this nature ever occurred

in the medical profession, and, I sincerely hope that they never will occur. If on our part, a spirit of fraternal oppression of any kind should develop as the outcome of organized strength, then indeed, will the day of consolidation become one of mourning for the loss in fraternal fellowship and in professional station, instead as it ought, a day of rejoicing because of the great opportunity for general good, thus brought into existence.

It is neither wise nor prudent at this time for me to advise you as to the proper course you ought to pursue in these matters. You should think for yourselves, judiciously and without passion, and until convinced of a righteous course of action, give heed to the wisdom of the utterance of the "sad Dane" that,

"Make us rather bear those ills we have
Than fly to others we know not of."

Finally, I most respectfully recommend that a special committee of five, be appointed by the president, to which committee shall be referred for consideration and recommendation all matters relating to medical insurance examinations that may come to hand, during the current year.

As a precedent for this action you have that of the appointment of the Committee on Insurance by the parent body at its last meeting in Boston in June, 1906. And from the preliminary report of this same committee I quote for your inspiration and guide the following:

"We urge, however, that the will of the majority be not made a test of membership, in accordance with the modern idea in the profession that kindness and moral suasion should be substituted for the old methods of ostracism and exclusion in all of our work."

It would be sadly amiss, indeed, were I not to admonish you at the opening of a united career, of the grave perils begotten by the spirit of paternalism which, not infrequently, is a pernicious by-product of organized power. The seductive and oppressive influence of this spirit often usurps, and may inhibit that nobler, more enduring and beneficent one, characteristic of common manhood and of professional brotherhood. In this relation it should not be forgotten that the greater and more extended is the membership of a fraternal body, the greater and more extended is the membership of a fraternal body, the greater and more extended its constituent paternal desires are apt to be. Consequently, the longer the chain of affiliation is the weaker it may become, for as you already understand, no chain is stronger than its weakest link. And if perchance 'twere possible to forge a chain each link alike, even then, if wrought too long, 'twould fall apart from overweight.

I cannot close this address without speaking in terms of admiration of those with whom I have been associated in this labor for the last two years. I recall no one vested with important station who has not labored without reference to loss of time and opportunity during this entire period. The Editor, Dr. Warbasse has, I am told, with the co-operation of the Publication Committee, placed the JOURNAL on a substantial financial and scientific basis, with a rosy outcome in view. The attorney, Mr. Lewis, has not only ably but successfully kept inviolate his obligations in the defense of members against malpractice pretensions, but in addition thereto, he has bestowed upon us abundant, invaluable assistance, without apparent thought as to time or personal expense, in other matters of legal and conciliatory kinds. But to no one is greater credit due for what has thus far been attained than to the Secretary, Dr. Wisner R. Townsend. Early or late, rain or shine, week day or not, Dr. Townsend has always diligently, earnestly and joyously reminded us all to attend to our associated duties and obligations. I venture to say that had there not been a Dr. Wisner R. Townsend, consolidation would be, even now, in the fickle realm of anticipation.

Kindly permit me to admonish you to be steadfast and diligent in the preservation and development of the state organization as at present constituted. It is a free government in the complete sense of the expression, one in which the humblest members of the most cheerless stations of the State, have equal privileges with those of exalted station in the midst of wealth and power; one in which the officers are your servants and not your masters, unless *you* so will it to be, and from whom you have the right to demand at the proper time, and in a suitable manner, a complete accounting of the status of their respective stewardships, and which, when wisely required, they have no right to decline. And in all other respects, your rights and privileges cannot be overshadowed by those of another unless you, yourselves, lend aid to the eclipse. You should not, therefore, give a willing ear to the artful objections or seductive manifestations of those who have in the past, or may in the future, endeavor to rob you of faith in the wise course pursued by those who have striven so long and earnestly in this consummating labor. And please remember that, whatever course you may pursue will be closely regarded by the profession of the country, therefore your actions should earnestly bespeak of the potent activities of devoted professional fellowship, and of those relating to the highest attainments of medical men, and of American citizenship.

To close an address at this time, and in this presence, without tenderly uncovering an unhealed wound of the heart, it is quite impossible for me to do. More than one heart suffered when, about a year ago, Dr. George Ryerson Fowler died. And, because of his death, many hearts will bear the scar of personal affliction, so long as memory invests the seat of reason. Dr. Fowler was once a student and always a friend of mine. In whatsoever relation we were, no request of Dr. Fowler's was ever unheeded by me, nor was one of mine ever unrequited by him. His presence was inspiring; his action

convincing; his loyalty certain, and his steadfastness of purpose knew no obstacle.

Less than an hour before the attack that caused his death, he had come many miles to see me in behalf of professional consolidation. His last words to me before operation—in fact, the last I ever heard him utter, were those of pleasure and approval, because of the bright outlook secured by our mutual co-operation in the adjustment of medical society differences.

If in spirit he be with us to-night, then, indeed, should the joy which he experiences because of the outcome for which he labored so fondly and earnestly, hallow the occasion. And a consummation thus sanctified should ever bear indelibly the stamp of human constancy.

Original Articles.

SUBSTITUTION AND ITS REMEDY.

By CLINTON T. BRANDOW, M.D.,
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THE tremendous amount of evidence secured through four year's casual investigation of this subject throughout the Northwest, Middle West and East has convinced me that to write a history of substitution, or even a general outline of the evil effects consequent to such a practice, both to the physician and patient, and the inaccuracies that every day creep into our literature, because of this thief, would be an endless task, a source of information to but few, and awaken too many past failures and discouragements; therefore, I wish to mention but one very evident reason why previously honest druggists are forced to such a practice.

a. A substitutor fills a prescription calling for one drachm of phenacetin, for twenty cents, and is able to do so because he substitutes acetanilid, which is twenty times cheaper.

b. An honest pharmacist fills the same prescription and charges fifty cents for it, because he does not use the cheaper and more dangerous drug. He is called a robber, loses his patient's patronage, and gains a reputation for being dishonest. Does anyone wonder at B's protecting (?) his reputation by substituting?

During the month of January, 1903, the New York Board of Health discovered 84½ per cent. of substitution in that city in three hundred and seventy-three prescriptions sent out by them.

The following extracts are from a letter from the New York Board of Health answering my inquiry for details in reference to the three hundred and seventy-three test prescriptions collected by them: (Italics in quotations are the authors.)

"In reply, you are respectfully informed the Board of Health was led to take the action it did *owing to the widespread and flagrant adulteration and substitution of drugs believed to exist in the City of New York.* Careful inquiry elicited the information that one of the most common adulterated drugs, and one for which cheaper substitutes are frequently substituted, was phenacetin. This was consequently chosen as the first of a systematic investigation into the question of drug adulteration as a whole."

"In all, three hundred and seventy-three samples were collected in the boroughs of Manhattan and Brooklyn. From analyses made of these samples, *fifty-eight* were pure phenacetin as labeled. *Three hundred* and *fifteen* were *adulterated,* or were cases of substitution. Of the adulterated samples two hundred and sixty-seven were mixtures of phenacetin and acetanilid, four were mixtures of phenacetin and starch, two were mixtures of phenacetin and sugar, thirty-two were pure acetanilid; four were mixtures of acetanilid and cane sugar, one was a mixture of acetanilid and starch, one was antipyrine, and one was quinine sulphate."

"In continuance of these investigations the subject of the next and last inquiry up to date was the alleged use of methyl (wood alcohol) in the preparation of tinctures, in the place of ethyl alcohol, as required by the United States Pharmacopoeia. Among the samples of spirits of camphor, several were found to have been prepared with methyl, or wood alcohol. Examinations of samples of this preparation were, therefore, continued."

"In all, two hundred and fifteen samples were collected and examined. Of these, one hundred and seventy-five were properly prepared with ethyl alcohol, while *forty* contained methyl alcohol. In thirty of the latter, methyl alcohol has been used exclusively; no ethyl or grain alcohol being present. Ten contained both ethyl and methyl alcohol."

"Five of the adulterated samples had 'For external use' printed in small type on the label. Three, on the other hand, had printed directions for internal use on the label, as follows: 'Dose, from five drops to a teaspoonful, first added to sugar and then mixed with water.'"

"These three had been prepared with methyl alcohol exclusively. The remainder were simply labeled 'Spirits of Camphor.'"

Need for Remedy.—With such existing circumstances is it not time to show a true interpretation of our ethical code, *one for all and none for one,* and to pull away from those stores which fit but a few individuals who use a drug store to boom their practice, to one controlled by the profession, run on a thoroughly ideal ethical bases?

It is the object of all physicians to labor for the benefit of humanity, and as a result of this sacrifice, has sprung up one of the most powerful weapons used by the medical profession, namely,

Preventive Medicine.—No stone has been left unturned to make prophylactic measures as practical and secure as possible, but substitution, one of the most evident evils and cause of much disappointment, both to physicians and patients, has been constantly avoided, not because the effects are not appreciated by the profession, but because no one felt able to combat such a monster alone, and because the laws governing same cannot be successfully enforced. For this reason, is it not imperative that the medical profession organize to overcome this injustice and its associate evils?

Let the American Medical Association appoint a committee to incorporate a company whose object shall be to establish stores, owned and controlled by the medical profession, in districts, the physicians of which subscribe for 500 associated membership certificates at $10 each, each membership certificate entitling the holder to one share of stock in the parent company at par value of $10 without extra cost. Any district

needing more than one store, the same to be established according to a ratio of the above. Said store to be managed by a registered pharmacist of recognized ability, and agreeable to a majority of the stockholders vitally interested in each store, and sufficient other help to successfully conduct the business.

The methods of the company invariably conducted according to a motto, *"Purity and Protection to Physician and Patient."*

First and always the purest chemicals and the very best supplies which science can produce to be furnished, whether specified or not, and in the filling of prescriptions substitution never to be practiced.

Secondly, protection to physicians and patients through strictly honest and ethical methods.

Let it be an iron-clad rule of the management never to refill a prescription unless specified, or to sell any dangerous or poisonous drug except by order of prescription.

All drugs, and all solutions made therefrom, to be plainly stamped with the date of their receipt, at each store; and let it be one of the rules of the company to insist in so far as possible that each manufacturer place the date of the making of said drugs, serum or solutions upon each bottle or container.

Where the need exists for a bacteriological and chemical laboratory, same to be provided, and in charge of a competent bacteriologist and chemist, open at all times to members for original work or investigation, lessening considerably the cost of such work. With the improved methods of transportation and communication (suburban lines, telephones, etc.), such an organization would be able to establish a system of quick returns which is not realized at present. Should the locality demand a perfect disinfecting corps, this also should be established.

A charter can be obtained liberal enough to allow publishing and manufacturing, should it be the desire of the profession to do so, which could be regulated as such demands arose. Such a company would be in a position to organize a corps to thoroughly investigate any new preparations, subject to advice from the American Medical Association, and to publish detailed reports of their results, should such a plan meet with their approval.

The manager of each store would at all times be in a position to give any information required concerning new preparations, and should keep a supply of same constantly on hand, subject to the prescriptions of any physicians who wish to investigate same, instead of present mode of sampling.

Dr. G. Frank Lydston has suggested that a bureau might be established in each store for the exchange of instruments, books, etc.

You say, however, it is not customary for a physician to be interested in what is considered the laity's work, and that you cannot afford to risk your reputation and dignity by contributing toward such an end, but when each of your brothers joins interest with you, for the benefit of all instead of a few, to overcome this monster, can you afford to hide behind a misinterpreted code which does not conform to the time and which will hinder the benefit you can extend to humanity? Is it not time to overcome prejudices, combine forces and to act for the benefit of both yourself and patient, before the profession loses the respect of those whom they seek to benefit?

Have you ever stopped to think how you may have become skeptical in regard to the use of some drugs even though all your text-books admitted their efficiency? What some of your patients thought of your ability, because they did not get results, and how you may have believed your diagnosis wrong because of substitution, and tried drug after drug, without results, finally believing yourself incompetent, etc.? How degenerating drug habits have been formed by the score because of the ever-increasing demand for and fearless sale of poisons? Of course there are laws to prohibit the purchase of these dangerous weapons, so also is there a law to prevent swearing, but neither prevents either evil; therefore, is it not obligatory for the medical profession to organize against such a gross insult, while they are able to do so and still antagonize no one?

Volunteers to organize such a company there certainly would be, inasmuch as such a company would be owned and controlled by the medical profession; therefore, standing the brunt of comment, overcoming obstacles, etc., as a unit instead of individually. With such a company organized would not our conscience decide it to be each physician's duty to set an example by lending our assistance and name toward the success of such an undertaking, like many of our foreign brethren (especially of Austria and Germany), who are combining to fight such evils.

The management of such a company should be exercised by a board of directors elected by the stockholders, consisting of seven members, at least five of whom should be members of the medical profession; said board to elect a president, vice-president, secretary, treasurer and manager, whose duties would be to conduct the affairs of the company.

A General Advisory Board, composed of twelve members of the medical profession, elected by a majority of the stockholders, would be required to inspect the books, acts, methods, etc., of the officers at least once a year, or at any time they might deem it necessary, publish annually a general report in the *Journal* of the American Medical Association, or other official press, and cause a separate report to be mailed to each stockholder by the Secretary of the company. In fact, they should act as advisers to the officers of the company, and have such

other powers as are generally delegated to such boards.

Any advice or instruction given the officers of the company by the advisory board should be followed, provided such resolution or resolutions were passed by a majority vote of a quorum present at time of passing same resolution or resolutions.

Local Advisory Boards should be composed of local certificate holders, and have power to inspect the stores and advise the officers of the company of any need or change necessary to better meet the demands of the physicians or the patients of this district.

The management should: 1. Never allow counter prescribing or the sale of nostrums.

2. Establish a checking system that detects and prevents all errors.

3. Keep a nurses' record for the convenience of physicians, nurses and the public.

4. Seek the advice of physicians interested, and endeavor at all times to exact rules and regulations for mutual benefit.

5. Conduct each store on a thoroughly honest, ethical basis, subject to the advice of the advisory boards.

6. Never require a prescription clerk to work more than ten hours of each twenty-four.

7. Never cut rates or antagonize other druggists who conduct their business according to the law.

The business methods, stock,, etc., should be open for inspection at all times to the profession, State boards, official medical press, traveling auditor, advisory board and officers of the company.

Prescriptions should be filled separately under the name of the physician writing same, and he alone to have the privilege of examining them.

To sum up: Such a company would be conducting its business on the highest ideal ethical basis, and also consistent with good business principles.

Let us suppose the American Medical Association had appointed a committee to incorporate such a company under the laws of the State of Illinois, with an eventual, unlimited, capital stock, and an initial issue of $30,000.00, par value of shares, $10.00 each. Such an organization could be perfected, and the expense of securing the subscriptions for a first store could be paid at an expense of not more than $2,500.00. New stock authorizations could be made from time to time to meet the requirements of the business in its development.

The sole purpose of such a corporation would be to capitalize, establish and operate a system of co-operative stores in the interests of thousands of conscientious, honorable physicians who, for the sake of their good reputations and the welfare of their patients and public at large, feel the urgent need of some systematic plan by which they may be assured of:

1. Having only the highest quality of drugs dispensed on their prescriptions.

2. To prevent substitution without their knowledge or consent.

3. To prevent the indiscriminate sale of nostrums.

4. To prevent the sale of poisons excepting for specific purposes, as prescribed.

5. To insure the prompt and proper filling of prescriptions.

6. To establish a check system to obviate errors.

7. And for the multitude of other reasons which would tend to protect the physician in his practice and reputation, and the public against dangerous mistakes, indiscriminate substitution, and other well-known abuses in the filling of prescriptions.

The company assuming the responsibility of making proper connections with the manufacturers of high-grade drugs, physicians' supplies and instruments, whereby only first-class goods might be had at lowest possible cost, under a system guaranteeing their purity and freshness. Every article dispensed by the system of stores to bear the Association label guaranteeing its purity.

This company also assuming the organization of all stores, and the general conduct of business in a way to relieve the subscribing physicians from liability and risk. It offers a maximum promise of profits, and beneficial results, as remuneration for professional and financial support.

It should do all the purchasing for the system of stores, keep a supervision over them, pay all of their bills, audit their accounts, and relieve the interested physician from all responsibility and trouble of whatever kind.

What could be an easier or more practical remedy?

Let us look at the working of such a company.

With the view of concentrating and localizing as nearly as possible the business done by the physicians of a given locality, the following plan could be adopted:

Incidental to and simultaneous with the establishment of each store, a certain number of leading physicians would be invited to subscribe to the enterprise. Not less than fifty would warrant the establishment of a co-operative store.

These physicians would be known as the Associated Physicians, into whose hands, as a local advisory board, is intrusted the general oversight of that store.

In order to distinguish them from many other physicians, who would patronize such stores, the company would issue to these subscribers Associated Physicians Certificates, the company reserving the right to limit the number of certificates that may be held by any one subscribing member, in order to give wider distri-

bution and foster large interests in the business of the company.

The certificates to be sold for $10.00 each. The certificates should have a first claim upon the profits of the prescription business done by that store, to the extent of six per cent. interest on the investment.

A prescription account, separate and distinct from the prescriptions themselves, should be kept, and any certificate holder should have authority to examine this account in presence of either the manager of the store or an auditor of the company.

With each of these certificates the company could issue one $10.00 share of stock in the company without further cash outlay on the part of the certificate holder. All this stock would of course be fully paid and non-assessable.

It will at once be seen that the purpose of making the Associated Physicians' certificates to participate first in the profits of the prescription department, is to foster and encourage that part of the business locally.

The object of the stock bonus, issued free with the certificates, is to interest the physicians financially and co-operatively in the other departments of the store, by giving him a direct interest, making it an object on his part to exert every effort toward making the company a success.

All these stock shares would participate alike in the general dividends of the company, which might be earned and declared from time to time. The issues of certificates to each locality where a store is to be established could not be less than five hundred certificates.

Certificates of membership should be issued to physicians of good standing only.

For the protection of the company and Associated Physicians, the company should issue the certificates, reserving the right to redeem same at their face value at any time it might, for good and sufficient cause, desire to do so. Moreover, these certificates should not be transferable, except upon the written consent of the director of the company; and it should be a part of the contract with subscribers that stock shares should only be transferred to physicians of good standing and in practice. The purpose of the company should be to operate stores for each locality, in the most economical way, and to secure to the system of stores the advantage of purchasing in large quantities direct from manufacturers, and dispensing the same in the most economical manner, and assure other objects of association.

It should purchase all merchandise of every description for the system of stores, therefore would be able to secure extraordinary wholesale prices and discounts. It should collect and disburse all moneys under one general system; and, with the advice and assistance of the thousands of physicians interested, should always adopt operating plans insuring the same success to all the stores in the system. It should convert to a surplus fund all accruing profits, out of which to pay dividends from time to time, and as the state of the treasury permitted, to the stockholders or worthy charity. It should be the policy of the company not to pay dividends exceeding six per cent. per annum on the outstanding stock, without the authority and consent of not less than two-thirds of the stockholders.

When a store is established a stock of drugs and merchandise should be put into it representing not less than 80 per cent. of the subscription from the locality, the other 20 per cent. to pass into the general treasury of the company as an emergency fund. This is a safeguard, owing to the fact that the company will have assumed all of the liabilities of that store. This reserve would be necessary to meet unexpected losses or expenses, etc. This stock could be gradually increased as the business developed.

From a Moral Point of View.—Every conscientious and well-meaning physician desires to live strictly up to the requirements of the Code of Ethics of his profession; but nearly every physicians knows that to do so very often is to the detriment of his own honor and reputation and the welfare of his patients. For instance, it is held that a physician cannot participate in the profits of filling his own prescriptions without overstepping ethical propriety. Yet he knows with almost moral certainty that when his prescriptions are presented at the counter of the average druggist a large percentage of them are filled with substitute drugs, and in many cases actually harmful to the patient; therefore, it should be the specific object of this Association to establish, foster and maintain a system, guaranteeing three things:

First. The prevention of substitutions.

Second. The dispensing of pure drugs.

Third. No counter prescribing.

This is absolutely essential for the protection of the physician's reputation and the welfare of the public. Therefore, if to accomplish this end the American Medical Association appoints a committee to organize such a company and invest the physicians well-earned capital to bring about this much-needed reform, it certainly cannot be said that they are participating unprofessionally in the profits of filling their prescriptions, because out of these profits a small percentage is taken to pay a legal interest on their investment. Especially since they are making it possible for local physicians and the laity to participate in pure drugs and the other advantages which a store of this class would necessarily offer.

As for the profits resulting from other departments from the sale of other merchandise, it is plainly the physician's legal and ethical right to draw any profits in which he as a stockholder may be entitled. Many of the highest classed physicians in the land have been interviewed on

this subject, and I have yet to find the first reputable physician who says that any brother practitioner who would subscribe to such an association would in any manner violate his code of ethics.

Protection Against Loss.—Naturally, like any other business man, the physician, asked to subscribe to such an enterprise, would weigh carefully the possibilities of loss and gain to himself, from a financial standpoint.

It is difficult to conceive of a more propitious opportunity for a physician to invest a small amount of money.

First. He is subscribing to that with which he is heartily in sympathy; with which he is thoroughly acquainted; and the possibilities of which he himself can foresee and estimate.

Second. He is encouraging that which he knows to be of vital necessity to his profession and to the public which places its confidence in him.

Third. It requires no expert to estimate, approximately, the profits and advantages which could accrue under the proper management of such a system of stores.

Fourth. He has under his very eye, and open to his constant scrutiny, properties of the company with the nature and values of which he is familiar, and to which his own practice daily contributes intrinsic value.

Fifth. He is assured that the profits of the prescription counter must be applied to satisfy the face of his certificate before they can be applied to other purposes, and, as the prescription account is open to his inspection at any time, he, by his own knowledge, is aware of the state of the fund which is to pay him an interest on his investment.

Sixth. He knows that every associate in the business with him is contributing daily to its value and profits.

Seventh. He knows he will participate in the general profits and dividends of the company with all the other stockholders in proportion to his own stockholding.

Thus viewing the matter, a subscriber would be forced to admit that such an investment offers the minimum of risk.

Anyone familiar with the operation of the Naval Stores Co-operative Association of London, England, the stock of which is now enormously valuable, can readily appreciate the possibilities of a co-operative organization, with every subscriber a direct factor in its success, and especially contributory to its prosperity.

PROSPECTIVE PROFITS TO CERTIFICATE HOLDERS.

First. He would be absolutely certain that neither he nor his patients would be the victim of substitution; that pure drugs were being dispensed on his prescriptions, and that his ability and reputation as a practitioner would be thoroughly safeguarded.

Second. He would be a recognized factor in the maintenance of an institution which keeps his profession up to the highest moral and ethical standard.

Third. He would realize the best results of his practice.

Fourth. He would receive out of the first profits of the prescription department enough to pay six per cent. on his investment.

Fifth. It seems almost a certainty that liberal dividends would be paid on the stock of the company.

Sixth. He would be in constant touch with the most advanced ideas, methods and remedies, originated by the highest types of his professional kind.

Seventh. He would receive the benefit of the constant watchfulness on the part of the company, whose duty it would be to keep in all stores an Association bulletin of new things in medicine and medical practice, doing away with the interviewer of chemical houses.

Eighth. He would be relieved of innumerable difficulties in obtaining pure, fresh drugs, supplies, instruments, furnishings, and all that go to perfect the outfit of the up-to-date physician.

Ninth. He would have the hearty good will and support of thousands of the most reputable physicians in the land, banded together solely to elevate and improve the conditions in medical practice.

Tenth. He would not be investing money in an unknown quantity for experiment, but in a field with which he himself is familiar, and the very nature of which assures success, and which, moreover, should be endorsed by the highest medical authorities.

Necessarily, each one of the associated stores would be approximately a duplicate of every other one; therefore, what one would accomplish we could expect all to accomplish.

The following business statement will approximate what may be expected of each store after it is put in operation, for the first year. Each asset is based on the most conservative basis, and at the minimum figures. Any increase of the business will show larger profits without a corresponding increase in fixed charges and expenses, and this at a price estimated to be 33 1-3 per cent. less than at present to the patient.

ESTIMATED BUSINESS OF CO-OPERATIVE STORE, FIRST YEAR.

Five hundred certificates at $10 each.....		$5,000.00
(Average fifty prescriptions per day, at 40 cents each.)		
Prescription business per annum...	$7,200.00	
Other business ($10 per day).....	3,600.00	
		$10,800.00
Expenditures, conservatively high:		
6 per cent. on certificates.....	300.00	
Manager and help	1,800.00	
Rent, light and heat	1,000.00	
Incidentals	1,000.00	
Cost of merchandise	5,500.00	
		$9,600.00
Surplus		$1,200.00

It is at once apparent that here is a liberal margin for profit of the stock of such an organization, for if we should divide this surplus in two, we would still have a liberal surplus left on hand.

I have purposely taken the lowest possible view of a store in order that every physician can see for himself the possibilities of the organization.

I have had an estimate made by one of the most experienced druggists in this country, and he more than doubles the estimated surplus.

Those of you who are still skeptical as to the success of such an organization, I refer to the fact that in one of our principal Western cities there are at least three of our well known colleagues receiving patients in most sumptuous offices maintained by the corner druggist, the rent of which alone is at least $4,000.00 yearly; and yet the druggist can afford to do this from one physician's prescriptions; and to a report of the Charkoff Medical Society of Charkoff, Russia, whose success along these lines speaks volumes for their courage, perseverance and intelligence.

THE MEDICAL CHARITIES OF MANHATTAN AND THE BRONX.

A Fellowship Study for the New York School of Philanthropy.

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IN the mixed population of New York City, with its variable standards of living influenced by classes, races, and religions, each with its own characteristic customs, habits and needs, there is one element which remains individual and stationary for all classes and races alike, and that is the element of normal health.

In addition to the desire for physical comfort the individual owes to himself, to his family and to the State the protection of his health as the basis of his efficiency. Upon its maintenance the community depends for stability and power as expressed by the welfare and activity of its members, and its destruction constitutes the most formidable problem with which charitable agencies, public and private, have to deal.

To study the modern care of the sick and injured is to trace the practical application of curative and preventive measures as developed in hospitals, dispensaries, homes for convalescents and chronic invalids, visiting nurses' associations, and other agencies devoted to the restoration of the sick, the preservation of health, and the prevention of disease.

The medical resources of a city sooner or later have to deal with the results of "hard times," overwork, undernutrition, unhealthful sanitary conditions, intemperance, and other causes which every year leave large numbers of the poor at the doors of its medical charities. In New York City, as elsewhere, there has been a rapid multiplication of medical resources to meet the need which could not be ignored and there is, in consequence, a group of hospitals and other institutions which minister to every kind of misfortune which has succeeded in robbing the individual of his health or which seriously threatens it. The emphasis which has been laid upon proper nursing and suitable surroundings has so far broken the prejudice and suspicion with which hospitals were formerly regarded by the ignorant, that the individual is now far more likely to go to a hospital at times of illness than he was a decade ago, and the rich and poor of to-day are placing a new reliance upon its care.

The importance of sickness from a social point of view has developed a spirit of expansion in the connective charities of the hospital proper, and it becomes of interest to take, as it were, a census of this fast increasing group of agencies to discover, if possible, the extent of their development, the demand made upon them by the sick poor, and the degree to which the bond of a common interest has drawn together the agencies for the protection of health, the agencies for the emergent care of the sick, and the agencies providing for those who are discharged from the hospitals as "improved" or "unimproved."

The following study has been restricted to the medical charities of Manhattan and the Bronx, for the reason that they present a unit of cooperation and that in these two boroughs the earliest and the latest forms of such charities are found.

GENERAL AND SPECIAL HOSPITALS.

The first medical charity institution to enter the field in America, apart from the individual care given by religious organizations, was the general hospital. In this state it had its origin in an historic address made at the Commencement of King's College (now Columbia University), in 1769, by Dr. Samuel Bard. His plea for a public infirmary resulted in a petition sent by three physicians to the Lieutenant Governor of the Colony of New York for a charter of incorporation. The charter was granted by King George III. to the Society of the Hospital of the City of New York in America, a society which to this day has steadily increased its usefulness.

It was not, however, until 1791, after the Revolutionary War, that the hospital was opened to patients, and for nearly half a century it was the only general hospital incorporated as a private charity independent of municipal, county, or state supervision, which New York contained. The Charity or Almshouse Hospital, located in City Hall Park, came into existence at the same time the New York Hospital was opened, and clinical instruction was given in it as early as 1787; but Bellevue, which had its beginning in the Almshouse, after its removal from City Hall Park to East Twenty-sixth Street, was not opened as a hospital until 1816, and for ten years thereafter it continued to be little more than an infirmary

for the Almshouse inmates. No resident physician was appointed until 1826, and there was no medical board to take charge of the service until twenty years later.

A new era in hospital work was begun when, to the first great function of the hospital—the care of the sick—was added the second, viz., medical education, through the introduction of clinical teaching in its wards in 1850.

It will be noticed that the first two hospitals established in New York City remain to-day as typical of the two general classes into which such institutions are divided, the one private in control and support, and the other managed by public officials and maintained by public funds. For seventy-five years after its opening the New York Hospital was the sole representative of its kind in the state, but at the end of this time a new stimulus was given to the establishment of such institutions through the influence of soldiers and surgeons returning from the war where they had gained experience in the field hospitals and had learned the value of ambulances from the army ambulance corps. Other general hospitals sprang quickly into existence and the ambulance service was established, the first being used in Bellevue in 1867.

As late as 1849 the institutional care of the sick in the City of New York was left entirely to Bellevue Hospital and New York Hospital, but the need for others was being urged in the Roman Catholic and Episcopal churches. The first result of this agitation was the founding of St. Vincent's Hospital by the Roman Catholics in 1849, and St. Luke's Hospital a year later by the Episcopalians. Then came Mt. Sinai in 1852, founded by the Hebrews; St. Francis, by the Roman Catholics in 1865; the Presbyterian, in 1868; St. Mary's Free Hospital for Children (Episcopal), in 1870, and St. Elizabeth's, in the same year—a hospital under the Sisters, now exclusively for private patients.

These seven hospitals in 1880 constituted the group founded by religious organizations; they had among them a total capacity of 825 beds, which is now increased to 2,065.

Roosevelt Hospital, the gift of a single individual, was founded in 1864; the German Hospital was founded by the Germans in 1857, and the Hahnemann in 1875 for its special school.

All these hospitals, with the exception of St. Mary's Free Hospital for Children, received in their wards general medical and surgical cases, ruling out, here and there, certain diseases which for one reason or another they could not treat. The so-called "general hospital" is one which accepts for treatment a large number of general diseases, in contradistinction to the "special" hospital which restricts its work to a special class of patients or to the special disease or diseases designated in its charter or articles of incorporation. The nearest approach to a really general hospital now existing in New York City is Bellevue, which accepts practically all cases except certain contagious diseases which come under the care of the Department of Health.

General hospitals may be expected to have male surgical wards and female surgical wards, male medical wards and female medical wards, children's wards for medical and surgical cases, isolation rooms for any contagious diseases that may break out among the patients, and may be expected to be equipped for ordinary hospital and emergency work. If a hospital has an ambulance service a special emergency ward will usually be found. A general hospital may or may not have provision for maternity, alcoholic or psychopathic cases or for the care of tuberculosis and other chronic diseases. As a rule patients suffering from incurable or contagious diseases and those whose illness is of such a nature as to be a source of annoyance to other patients are not accepted.

Special hospitals have been founded for the treatment of most of the diseases which the general hospitals refuse and consequently supplement the general work. In New York City there is a large class of these institutions.

The first special hospital established was the New York Ophthalmic Hospital in 1852, which was followed by the Woman's (incorporated 1857), the New York Orthopædic Hospital (1868); the Manhattan Eye and Ear Hospital (1869), and the Metropolitan Throat Hospital (1874). This number has increased until it reached, in the year 1905, in Manhattan and Bronx, thirty general and forty-one special hospitals. The "special hospitals" here include all the institutions caring for the sick poor who are not admitted to the "general hospitals." The six general hospitals controlled by the City, receiving as they do, a greater variety of diseases than those hospitals under private control, have less need of special public hospitals. Within the boundaries of Manhattan and The Bronx the City special hospitals consist of one for children, one for the aged and infirm, and four for contagious diseases, one of which is exclusively for contagious diseases of the eyes.

The scope of both private and municipal hospitals is much enlarged by the out-patient departments which most of them maintain. The out-patient department was at first but an insignificant part of hospital work. It was established, as the name implies, for the care of those no longer retained in the institution as bed-patients but returning to the hospital for further advice and treatment. The term "out-patient department" is now used synonymously with "dispensary" and often with "clinic," although the word "clinic," which means pertaining to the bed, was originally limited to bedside demonstration.

The first dispensary in the United States was opened in Philadelphia in 1786, and its duplication, like that of the hospital, has been exceedingly rapid, especially in New York City. Of the one hundred and twenty-three dispensaries in this state in the year 1905, ninety-five were in

New York City, distributed in the five boroughs as follows: Sixty, or nearly one-half, in Manhattan, twenty-eight in Brooklyn, and seven in the Bronx, Queens and Richmond, leaving but twenty-eight in the rest of the state. Of the one hundred and twenty-three, seven existed prior to 1862, and the majority of the one hundred and sixteen remaining have been opened since 1880. Out of the sixty-seven dispensaries in Manhattan and The Bronx in 1904, forty-one were connected directly with hospitals, four had emergency beds in the dispensary building, leaving twenty-two independent dispensaries doing out-patient work.

The duty of passing upon the applications for the incorporation of hospitals was placed by the Laws of 1896 upon the New York State Board of Charities. It was stipulated that no hospital should be incorporated until its certificate was approved by the Board. An officer of the State Board of Charities says the Board assumed that the objects desired by the Legislature were these: First, to prevent undue multiplication of general hospitals; second, to require that the establishment of hospitals be on a firm financial basis for the proper care of patients, and third, to see that the buildings used were adapted to their proper purposes. A study was made of the hospitals existing at the time the law went into effect that it might be determined how far the needs of the community were met and that the incorporation of new hospitals might be limited to that need.

Although the work of the hospitals of New York is diverse and difficult of comparison, yet in organization and management they are about the same. The Commissioners of the Department of Public Charities and the Department of Health are to the institutions under their control what the boards of trustees, directors or managers are to other hospitals and dispensaries.

The general organization is as follows: The trustees, managers or directors have full responsibility for the administration of the funds established for the benefit of the patients. Their duties are financial, executive and administrative, and they are responsible for their subordinates or appointees, such as the medical board, superintendent, nurses, clerks, etc.

The medical board is divided into a consulting staff, a visiting or attending staff, a house staff and a dispensary staff. The members of the consulting staff are appointed by the board of trustees and are generally the emeriti of the visiting staff. They may be called in for the purpose of consultation, but this rarely occurs and the office is chiefly honorary.

The members of the visiting or attending staff usually hold office for their full period of usefulness. They serve in rotation for a period of one or more months—usually three—and are responsible for the treatment of the patients, either directly or through the house staff.

The house staff is appointed either by the medical board or by the trustees, after a competitive examination held by a committee of the medical board. The ordinary term of service is six months as junior assistant, six months as senior assistant, and six months as house physician, the same plan being followed for the surgical side of the service. It has been the custom for the junior assistant to give ambulance service in the institutions where an ambulance is maintained. The house staff cares for the patients according to the rules and regulations prescribed by the medical board and the board of trustees. It carries out the treatment of individual patients subject to the orders of the visiting physician.

The executive head of the hospital is the superintendent, the administrative representative of the board of trustees, who has general administrative control of all departments and property of the hospital and is responsible for the efficient service of the hospital employes. This officer is appointed by the trustees, and holds office at the pleasure of the board. Through the superintendent patients are admitted, rejected or discharged, upon the recommendation of the medical staff. If patients are not able to apply directly to the superintendent for admission to the hospital an examining physician is sent to determine whether or not the illness is one which the hospital treats. Patients may be refused admission by the superintendent as not suitable under the rules of the institution, or by the examining physician. Patients are discharged, after treatment, by the superintendent on the recommendation of the medical staff. The superintendent, at his discretion, may, if the rules permit, allow a patient to stay in the hospital after his discharge is recommended. The superintendent of the training school for nurses is subordinate and responsible to the board of trustees through the superintendent of the hospital for the management of that part of the work.

The number of physicians occupying positions on the staffs of the hospitals in Manhattan and Bronx is about 1,800. The connection which many of the hospitals have with medical schools makes this figure somewhat variable.

The members of the house staffs numbered 400 in 1903-4, and 420 in 1904-5; while the dispensaries had about 1,512 physicians giving service in 1903-4, and about 1,565 in 1904-05. In this number are included some 36 externes or physicians who did work among dispensary patients in 1903-4, and in 1904-05 the number was about 39. The total varies with the number of medical students sent out from the Eclectic Medical College to do such work.

There were twenty-one training schools for nurses in general hospitals in 1903-4, and twenty-two in 1904-5. The special hospitals, in taking a limited kind of cases, employ young women to be trained attendants for the sick, or such special hospitals affiliate with others which train the same nurses in rotation, so that upon the completion of a number of short courses in different hospitals the pupil may be qualified to take the state exam-

ination and become a legally registered nurse. An illustration may be cited of the Laura Franklin Free Hospital for Children, which co-operates with the J. Hood Wright Memorial Hospital, the New York Infant Asylum and the Minturn Hospital (the last for private cases of contagious diseases).

The only hospitals which train male as well as female nurses are the City Hospital, on Blackwell's Island, and Bellevue. The Bellevue Hospital trains all its nurses in its own wards, while the Allied Hospitals are supplied with nurses who come daily from Blackwell's Island. In a few hospitals the nurses are sent out to do district work as part of their training, as in the Lying-In Hospital, St. Mary's Free Hospital for Children, the New York Infirmary for Women and Children, and the Presbyterian, but the extent of this district work is small compared with that done by graduate nurses employed for dispensaries. However, the introduction of district nursing as part of the regular course may be looked upon as a tendency of great value. In no better way could the pupil be taught the social significance of illness and the necessity for co-operation with other preventive and constructive measures to secure the much desired permanent relief.

By the passage of the Dispensary Law (April 18, 1899) the dispensaries were next placed under the supervision of the State Board of Charities. The conditions which called the bill into being were the unrestricted number of dispensaries, the fact that there was no check upon their being opened and carried on in undesirable places by persons not properly qualified for such a responsibility, and seeking other ends than the welfare of the deserving poor. The object of the law was to correct these evils by limiting the number of dispensaries to the real need of the community, to confine the charity to the deserving poor, and to improve the condition and management of dispensaries. A special inspector has, under the law, been detailed by the State Board of Charities to see that the rules framed by the Board for the management of dispensaries are carried out.

These regulations have reduced the number of dispensaries from 136 in 1899 to the present 123, two of which are still unlicensed, although the estimated increase in the city's population is 150,000 a year.

The rules made by the Board in regard to the opening of dispensaries are that before a license is granted, proof must be given of the need for a dispensary in the location where it is proposed that one be established, and also that there will be sufficient income to assure its efficiency, that tenement houses and drug stores must not be occupied by dispensaries, that the premises which are used shall be in suitable condition and furnished with seats for the applicants, the men and women separated except when they come in as a family group; matrons must be present when gynecological work is done; there must be a registrar to admit or reject applicants and to keep records of the work done in the dispensary; and the persons who make up the prescriptions must now be duly licensed pharmacists or physicians. The managers are constantly made to feel the obligations of their office, and the interest of the State Board of Charities in the Dispensary work, by the official communications from the central office of the State Board in the Capitol at Albany, containing a copy of the report made to the State Board by its special dispensary inspector. There are also rules for the isolation of cases of contagious disease and the immediate notification of the Department of Health, and for the enforcement of the law in respect to the limitation of the charity to the really poor. Much good has resulted from the adoption of this method of the Board.

In 1902 the control of Bellevue and its allied hospitals, Gouverneur, Harlem and Fordham, was transferred by law from the Department of Public Charities to a special board of trustees. Since then all public hospitals in the City have been managed by three independent bodies—the Trustees of Bellevue and Allied Hospitals, above referred to, the Department of Public Charities, and the Department of Health. The trustees of Bellevue and Allied Hospitals constitute a Board of seven members, one of whom is appointed each year and serves for seven years. They are appointed by and are responsible to the Mayor. Of this board the Commissioner of Public Charities is an *ex-officio* member.

This group of institutions is made up of four general hospitals: Bellevue, the largest, is on the middle east side of the city, with an Emergency Hospital for women located near by; Gouverneur, at the extreme southeast edge; and Harlem, on the upper east side of Manhattan; while Fordham is located at about the center of the Bronx. These hospitals are for acute cases only, and each has its own ambulance service.

The hospitals of the Department of Public Charities and the Department of Health are under the management of the respective commissioners of those departments. The Department of Public Charities has two large general hospitals on Blackwell's Island and a hospital for acute and chronic diseases of adults in connection with the City Home for the Aged and Infirm, also a hospital on Randall's Island for children over two and under sixteen years of age.

Under the Department of Health are the hospitals for contagious diseases, which receive those persons whose presence elsewhere would be a menace to the community. They consist of a Reception Hospital for the temporary care of cases awaiting classification and transfer, a hospital for diphtheria patients called the Willard Parker, and the Riverside Hospital on North Brother's Island which has separate pavilions for scarlet fever, diphtheria, small-pox, tuberculosis and other contagious diseases. A Hospital for Contagious Eye Diseases has recently been

opened in Harlem. The need for this hospital developed from the introduction of medical school inspection in September, 1902, when cases of trachoma were excluded from school attendance until they had been placed under treatment. A child having trachoma was allowed to reënter his grade upon giving evidence of being under proper treatment. In December, 1902, the Trustees of Bellevue and Allied Hospitals placed at the disposal of the Department of Health part of a building of the old Gouverneur Hospital, and this was equipped as a dispensary and temporary hospital for the treatment of trachoma and conjunctivitis of school children. The great number of patients applying for treatment filled this dispensary as well as all others which treated eye diseases. The needs of the patients living uptown who could not afford the time or the necessary car-fare to go to Gouverneur Slip necessitated the new hospital with its dispensary recently opened in Harlem at 118th Street and Pleasant Avenue. To it are referred the operative cases from the Gouverneur Slip dispensary, which has now no facilities for such work. The number of children treated in these institutions is here given for 1904.

	Gouverneur Slip Dispensary.	118th Hospital Dispensary.
Total treated.....	4,677	4,827
Total treatments	94,536	37,596
Total treated in both institutions.....		9,504
Total treatments in both institutions..		132,132

There has been a noticeable decrease in the number of trachoma cases among school children since the above provisions were made, a decrease which may be due to this work of the Department of Health.

The hospitals under the Department of Public Charities, the Department of Health, and the Trustees of Bellevue and Allied Hospitals do not, however, represent the entire resources of the City for the hospital care of its poor; by the subsidy system it maintains large numbers of them in private institutions. The subsidies, up to 1899, were paid in lump sums to special institutions which cared for the sick poor, but in that year the form of the subsidies was changed to a per capita and per diem rate to the hospitals, which cared for patients approved by the Department of Public Charities as proper charges upon the City—provided that such institutions were reported by the State Board of Charities as having complied with the State laws. The appropriations were classified as follows: sixty cents a day for each medical patient, eighty cents for each surgical case, thirty-eight cents for each infant under two years of age and for each child between two and five. For maternity cases the rate is $18 for the care of the mother and child during fifteen days of her confinement, and each day of their stay after the fifteen is paid for at the rate of thirty-eight cents per day for the maintenance of the child and also $12 per month for the maintenance of the mother, provided she stays in the hospital and nurses her own infant. The custom of paying subsidies to private dispensaries in small and irregular amounts was discontinued at the time the hospital appropriations were changed to a per capita and per diem rate with the exception of six of the oldest. Two hospitals only receive public appropriations for the maintenance of ambulance services. These are the J. Hood Wright Memorial Hospital and the St. Vincent's Hospital.

The support of private hospitals is derived from endowment, voluntary contributions, city money, and, if members of the Hospital Saturday and Sunday Association, then a certain proportion of its contributions; and all of them receive indirect contributions from the City in exemption from the water tax and the taxes on all property used for hospital purposes.

The Hospital Saturday and Sunday Association, formed on the same lines as its forerunners in London and Liverpool, originated in America from an appeal made by the managers of St. Luke's Hospital to the Episcopal churches of New York City for a collection to be taken on the last Sunday of the year for the support of the Hospital. Their desire was to have annually a Hospital Sunday for this purpose. It was held that the opportunity to contribute to the care of the sick poor should be made more general, and that such a collection would stimulate public interest in hospitals. In the discussion which arose while this movement was being organized, the desirability of making additional effort to reach synagogues and those public spirited business men, many of whom lived outside of the city was emphasized. It was finally decided (in 1879) to have not only a Hospital Sunday but a Hospital Saturday as well, and the name of Hospital Saturday and Sunday Association was adopted. In this movement all the private hospitals in the city were invited to join and to-day thirty-nine of them are enrolled as members. The contributions are taken the last Saturday and Sunday of each year. Many of the contributions are given for designated institutions, but the undesignated funds are distributed according to the rule of the Association, that they should be divided by the Distributing Committee, according to the number of days' care given to free patients in the beds of the hospitals during the foregoing year. "But when the income of any institution shall have been greater than its expenditure for current expenses, as shown by its last annual report, it shall be at the discretion of the Distributing Committee to decide whether such institutions shall share in the division of the undesignated contributions. This Committee shall also consider the amount received by any institution through designated gifts on the appointed Hospital Days in making a division of the undesignated contributions." In 1904 over 1,000,000 days of free care were given by the hospitals connected with the Association which distributed among them $88,834.

On account of the struggle which each hospital has been obliged to make in order to meet the ever increasing demands upon it there has been little interchange of experience among them and consequently there is a lack of uniformity in the data which they record. The reports which the hospitals annually publish deal, except in one or two instances, with individual problems and successes, and no effort is made to relate the facts of one hospital to the facts of another or to treat the results of hospital work in relation to the subject as a whole. Therefore the student of hospital work finds a confusion of terms and data as used in the records which makes comparison between even those hospitals founded and equipped for the same specific purpose a difficult, and upon many essential points an impossible task.

The terms and data referred to will be discussed in the analysis made by the writer of the work done by the medical charities in Manhattan and The Bronx. Much valuable service must pass unnoticed because in very many cases there was no record from which the desired facts could be obtained and in many others the information existed but in so scattered a form that the clerical force of the institution could not undertake its compilation. Frequently the records did not cover the same points for the two years under consideration, and it was sometimes impossible for the writer to learn which records had not been kept and which had merely not been compiled. This situation is easily understood in the case of many of the special hospitals and some of the smalled general ones—their attention has been upon other matters.

The study was made of the actual work of the medical charities for the years 1903-4 and 1904-5. The data did not exist for a study of the calendar year of 1905 as the reports of the city institutions were not made up and many private hospitals were a year or two behind. The year for which the statistics are given in this paper, ends in many hospitals on September 30, in about as many others on December 31, and one has chosen the 31st of May. When it proved impossible to get the information for the calendar year from January 1 to December 31 for all medical charities alike it was necessary to use the statistics of the years according to the records and the work of those years studied by the writer are from 1903 to 1904 and from 1904 to 1905.

In the year from September 30, 1903, to 1904, there were eleven public hospitals, six of which were general and five special; thirty-two subsidized hospitals, fourteen of which were general and eighteen special, and twenty-eight private hospitals, nine being general hospitals and seventeen special, making a total of twenty-nine general and forty special hospitals which made provisions for the poor, all but one of which were doing active work. In the following year this number was increased by the opening of a small general hospital on Washington Heights, an emergency hospital on the lower east side, and a hospital for contagious eye diseases in Harlem. The bed capacity in 1903 was 13,491, and in 1904 it was enlarged to 14,164. The increase was but 47 in the Bronx, 35 of which were in the Washington Heights Hospital, and 626 in Manhattan, the increase being distributed in this borough over a number of existing hospitals which made small additions, the new emergency hospital containing 25 beds and the eye hospital containing 14.

A number of beds, in every well-managed hospital, must always be vacant in order to accommodate emergency cases at any hour or for the transfer of patients from one ward to another. If the bed capacity of a hospital were perfectly flexible the anomaly of having at the same time many vacant beds and a waiting-list of acute cases, as sometimes occurs, would be impossible. A moment's thought will show how inevitable is this situation. There may be vacancies in the male surgical ward, vacancies in the female medical ward, the isolation rooms may be entirely empty, and yet we will find female surgical cases, male medical cases, etc., being turned away for "lack of room." The modern methods of asepsis have led to a strict classification of diseases which, while adding a most valuable protection to the admitted patients, yet is found to hamper the service. Unless the average number of beds occupied in a hospital for a given year is based upon the ward classification it is of little value as indicating the true demand made upon the hospital. Were it possible to compare the average number of beds occupied in given wards, whether medical, surgical, etc., with the number and kind of cases turned away for "lack of room," the data would then be significant. Unfortunately such data are not yet available.

The total number of patients treated in the hospitals of Manhattan and The Bronx was 147,585 in 1903-4 and 157,085 in 1905, or an increase for one year of 8,610 patients and of 673 beds. Of the total of 147,585 in 1903-4, 114,940 were in the general hospitals and of the total 157,085 in 1904-5, the general hospitals cared for 119,738.

Regarding the number of applications made for hospital care in 1903-4 a record was kept in but nine out of the sixty-nine hospitals, the next year showed, however, that fifteen had kept such a record. It has been pointed out that the record of the number of applicants refused for lack of room, without classification, is of slight importance, yet four hospitals report it in 1903-4, and an additional four report it in 1904-5. It must be remembered that the public hospitals cannot turn away proper cases for lack of room, therefore a record of rejections is impossible for them.

A few of the hospitals give the number of applicants turned away for lack of room or as unsuitable medical cases under one heading, which does not add to the number of hospitals from which it is possible to learn the one fact or the other. If a record is kept of the number for

whom there is not room it is merely approximate to the need, as many persons who sould have hospital care do not apply to institutions known to be full.

The sick who apply at the Department of Public Charities, at the foot of East 26th Street, are referred to the Bureau of Dependent Adults for examination by a physician as to their condition. Those who need hospital care are assigned to one of the hospitals under the Department, provided they are proper City charges. If it is thought that an applicant is not properly a City charge an investigation is made by one of the inspectors of the Department. The patient is then either refused treatment or is carried to the hospital on one of the islands by a City boat. Accident cases, or cases of sudden acute illness are, however, sent to Bellevue for immediate care.

By the charter of the City it is the duty of the public hospitals to care for all the sick poor who apply to them for needed treatment. An extract from the charter states, in reference to Bellevue and Allied Hospitals that, "Any person injured or taken sick in the streets or in any public square or place within the City of New York, who may not be safely removed to his or her home, may be sent to and shall be received by the said hospitals for temporary care and treatment, irrespective of his or her place of residence." Also, "The said board of trustees may permit the reception and treatment in said hospitals of persons who do not reside in the City of New York, provided that every person so receiving treatment shall be required to pay such sum for board and attendance as may be fixed by said board of trustees, provided that no such person shall be received to the exclusion of patients who reside in said city."

Although this clause relating to payment of non-resident patients is specific, the trustees have not favored the policy of charging any patient for the care given in these hospitals, and no investigation is made of the financial condition of those admitted to the beds.

The number of beds vacant for lack of funds is another matter upon which statistics fail, one general hospital reported forty and another reported fifty beds vacant for this reason in 1903-4, while one special hospital reported five, two reported twenty, and another reported 124 such beds. In 1904-5 one of the general hospitals reduced its forty vacancies to twenty-eight, the other increased its vacancies from fifty to eighty-nine, and a third reported added room for 100 beds, but this space had not been used because of lack of means; while but three of the special hospitals report vacancies—those reporting 5, 20, and 124 vacant beds in 1903-4 the next year reported 10, 12, and 100 respectively. The hospital that reported 20 vacancies in the year before had all of its beds in use in 1904-5. The hospital that had fifty beds vacant for lack of funds in 1903-4 and eighty-nine vacant in 1904-5 reports refusing admission to 347 patients in 1903-4 and to 367 in 1904-5 "for lack of room," the hospital reporting twenty-eight beds vacant for lack of funds in 1904-5 also reports turning away 481 patients for the same reason. The others did not report the number they turned away. It will thus be seen that the difficulty was not due to lack of room or of beds in the building proper, but to the lack of endowment for the beds, and "lack of room" is seen to possess a technical meaning which is not generally understood.

The number of applicants rejected as unsuitable cases according to the hospital rules is of importance as indicating the necessity of having, in the absence of a central bureau of hospital information, some one in each hospital to direct elsewhere those whom its rules exclude. The *New York Charities Directory,* published by the Charity Organization Society, contains the only list found in the hospitals except the list of institutions for tuberculosis patients. In hospitals where the Charities Directory was not kept the superintendents were sometimes uninformed of existing provision for convalescent and chronic cases. Two of the convalescent homes occasionally send out small announcement cards, but no attempt has been made to have a complete list of such places. A total of the number rejected as unsuitable cases cannot be given, inasmuch as in 1903-4 only four of the sixty-nine hospitals made any record and only eight out of seventy-two in 1904-5.

The number of applicants rejected as unsuitable medical cases in 1904-5 in the eight hospitals reporting is as follows: Beth Israel 462, Lebanon 321, Roosevelt 285, St. Luke's 138, St. Mark's 50, Sydenham 3, the Society for the Ruptured and Crippled 25, and Seton 3.

When an attempt was made to count the number of days of hospital care for a year, as valuable, not only in itself, but as a basis for certain other calculations, it was learned that twenty-eight hospitals gave no statistics on this subject, and as the average duration of stay in the hospitals which have the same scope of work, and which furnish statistics on the days of care, is variable, no estimate of any value can be made for those which do not report. For instance, in Bellevue and Allied Hospitals the average duration of stay for patients was (1904) for Bellevue ten and five-tenths days, eight and six-tenths days at Gouverneur, twelve and five-tenths days in Fordham, and seven and three-tenths days at Harlem.

In the method of estimating the number of days' care given in a year there is no agreement among the hospitals. Some of them count the day of admittance and the day of discharge as two whole days in all cases, while others allow but twenty-four hours to include the day of arrival and the day of discharge. Superintendents differ also on the question of emergency cases which occupy a bed but part of a day and are then discharged. Some hospitals record such cases as having received a day of hospital care and add it in with the records of regular ward

patients, others keep such service under a separate heading. Some idea of the confusion which exists may be given by a statement from the 1906 report of one of the largest general hospitals in Manhattan, from which the following is a direct quotation:

Total treated	8,301
Total hospital days (including private patients)	65,784
Total treated in private rooms	6,550
Emergency cases treated in Reception Ward	305
Average days—ward patients	18 plus
Average days—private patients	23 plus

From the first two entries the average duration of stay of patients in this hospital would seem to be seven and nine-tenths days, but it is stated further down in the same column that it is eighteen plus for ward patients and twenty-three plus for private patients—figures which themselves make an average of twenty-one plus. The explanation in this instance was that the system used in the books did not explain itself in the report, and the seeming inconsistency was due to the fact that the total treated to make eighteen average days should be 3,655 instead of 8,301. This system is so individual that the figures given cannot be used for comparison.

Of great importance is the number of patients who received free care in these hospitals, but again a confusion of terms makes even this figure unobtainable. To arrive at a total by accepting the figures given at the hospitals for "free patients," without inquiry as to what each particular hospital means by the term, will produce an overwhelming percentage of error in that total. A "free patient" is regarded by some hospitals as one who contributes nothing directly toward the cost of his care, but it does not necessarily mean that he is not paid for by the city or supported in an endowed bed. To add the number of free patients to the number paid for by the city results in some duplication. The term "free patient" means in other hospitals that the patient is supported entirely out of the general funds of the institution. The Hospital Saturday and Sunday Association defines "free patients" as those "who pay nothing toward the cost of their treatment, or from whom nothing is paid from any source."

The amount of free care is sometimes stated, not by the number of patients treated free, but by the number of days unpaid for. The number of free days is determined by dividing the number of dollars received through the wards during the year by the number of ward patients; counting $1 as the per diem cost. If a patient leaves before his deposit is exhausted and gives the remainder to the hospital, this sum, when used for ward expenses, reduces the number of free ward days. In fact it is a fiscal statement and does not express the social value of the work done; that could be given only by a full-pay, part-pay, and free classification.

One institution records two half-pay patients as one full-pay and one free "to even up." The classification for which its books are prepared, is, however, full pay, part pay, charity—the last meaning those paid for by outside charity—and free, or those maintained by the hospital funds, but the records are not so entered. The question was put to several superintendents as to the method they would adopt in recording a patient who was able to pay ward rates of seven dollars for two weeks only, but who was detained in the hospital a month. The answer in a number of hospitals, which classify patients either as "pay" or "free" was that the patient would be entered as full-pay for the first two weeks, and as free for the last two weeks. There seems to be no reliable method in use for avoiding such duplication in the recording of patients, and its effect upon the correctness of the number of patients represented in the total at the end of the hospital year. As the data of this duplication could not be obtained, it becomes impossible to estimate the extent to which the average stay expressed in days—which is determined by dividing the number of hospital days by the number of patients treated—is affected by it.

In a search for the number of patients who, though unable to pay the regular charge for a bed, still could pay something toward their support while in the hospital, it was learned that here also the difference in methods of keeping records concealed the wished-for data. Only seventeen hospitals in 1903-4 and fourteen in 1904-5—exclusive of the City hospitals—gave the figures. Frequently it was said that the patient was classed either as "pay" or "free," and that no part-pay classification was used. Patients who were recorded in some hospitals as part paying would, in others, be entered as "paying" for so long a time as their money covered the ward rates and would, for the remainder of their stay, be counted as "free." Some superintendents hold that all ward-patients are part-paying because the full ward-charge does not cover the cost of their maintenance.

The decision as to whether a patient is allowed to enter the hospital free or not depends largely upon the individual opinion and experience of those who have this matter in charge. Among the same group of applicants one superintendent may find a number whom he would consider able to pay the ward rates, where another, equally conscientious, would find none. The decision made by a number of superintendents is that a patient who has not the means to pay the usual ward rate of seven dollars a week should be classed as a free patient. At the Italian Hospital the money of a patient who can pay but a fraction of the rates, is taken by the hospital and kept until the patient's discharge when it is returned to him; the superintendent, believing that that method is helpful in maintaining the patient's self-respect while in the hospital and is a needed assistance to him when he leaves. Others regard

the part-pay classification as a necessary check upon the tendency toward pauperization.

The private hospitals which do not receive money from the City and whose applicants, therefore, are not investigated by the Department of Public Charities, use a variety of means to discover the status of the applicant. Many of the sick poor who apply are referred to the hospital by some agency or person from whom inquiry can be made concerning them; but there is little investigation beyond the interview with the superintendent or admitting physician, much dependence being placed upon credentials or upon the opportunities given by intimate contact with the patient during his stay.

The Department of Public Charities examined 17,402 persons in 1903 and 23,501 in 1904, to determine their fitness to become public charges in the private hospitals of Manhattan and The Bronx. Of the 17,402 examined in 1903, 14,735 or 84 per cent. were accepted and 2,667 rejected, while of the 23,501 examined in 1904, 19,356, or 82 per cent. were accepted.

The reasons for the 2,667 rejections in 1903 and the 3,846 in 1904 are given below:

	1903.	*1904.*
Unknown at residence given	780	813
Insufficient history	63	102
Able to pay	543	769
Referred to Department Hospital	14	176
Not emergency	744	1,188
Refused treatment	25	64
Non-resident	297	403
Immigrant	201	331
Total rejected	2,667	3,846
*Referred to Brooklyn Hospital		51

It would seem as if no difficulty could be experienced in obtaining such conspicuous hospital facts as the number of patients who were discharged as cured, improved or unimproved, yet even these were unavailable in three general and four special hospitals in 1903-4, and in one general and five special hospitals in 1904-5. Such records are not given in maternity hospitals where the patients are not considered as suffering from disease. Several omissions were due to alterations of hospital buildings which taxed the hospital service to such an extent that the usual statistics were not compiled. The Woman's Hospital has been closed for three years past for this reason, and has maintained a dispensary only; the new St. Gregory's Emergency Hospital has not been in operation a year, and two Catholic hospitals have not made their records public. The Department of Health does not give such reports of the hospitals for contagious diseases. The omissions were as follows: in seventeen hospitals the number of cured, in eighteen the number of improved and in nineteen the number of unimproved.

With the above exceptions the figures stand thus:

	Cured.	*Improved.*	*Unimproved.*	*Died.*
1903-4.				
Special	11,346	1,717	541	4,471
General	42,487	37,850	5,383	10,465
Total	53,833	59,567	5,924	14,936
1904-5.				
Special	9,507	3,252	676	4,471
General	45,977	40,084	5,464	10,465
Total	55,484	43,336	6,140	14,936

[N. B.—Hospitals for incurables do not keep records of cured, improved and unimproved. Hospitals for convalescents do not keep records of unimproved.]

From an analysis of this number of discharged patients, it is noticed that while, in 1904-5, 55,484 were discharged as cured, 43,336 were discharged merely as improved, while the total of those reported unimproved reached 6,140. The first classification, those discharged as cured, includes the patients treated for injuries or diseases from which they have been entirely relieved during their stay in the hospital; the second, those discharged improved, includes patients who, by a longer stay under beneficial surroundings, might ultimately be classed with the cured but also many whose diseases were of a chronic nature, capable only of a certain degree of relief.

The number of patients discharged as "improved" is greatly affected by the number and character of other cases applying for treatment. There are times when an unusual number of accident cases, and cases of serious illness, demanding immediate attention at a hospital already full, lead to the discharge of patients who, although not cured, are considered able to be taken home, directed, perhaps, to return to the dispensary for further treatment. It is this improved class that needs the watchfulness of agencies outside the hospital in order that relapses may be avoided and the patient may be assisted toward a steady recovery. A member of the visiting staff of the Country Sanatarium of the Montefiore Home, New York, has volunteered to counsel and guide at his city office, all patients discharged from the Sanatarium, hoping in this way to reduce the number of readmissions. The patients discharged "unimproved" present the greatest problem to the hospitals discharging them, and to the families to which they return. A study of the number of the discharged "unimproved" who, by a timely change of employment might continue to be self-supporting, is yet to be made. It is these persons who so largely make up the waiting list of the Home for Incurables, and swell the census of the New York City Home for the Aged and Infirm.

The history card, made out for each patient upon his admission to a hospital, contains much information of social and economic value; usually giving the employment of the patient, his nationality or nativity, age, religion and several other facts in addition to his medical history and the physician's diagnosis. A few hospitals publish in their reports the nationality or the nativity of patients, and some include the employ-

ments also; but in those hospitals which do not publish any information from the history card the facts contained therein are not available, as the cards are considered private in their nature. Yet many of these facts might be made public without being a breach of confidence; especially, could the nature of the employment be given in such detail as to show its influence upon the health of the patient and recorded side by side with the nature of the disease and the patient's standard of living, it would then be exceedingly suggestive and helpful to those agencies which are interested in preventive health measures.

In the case of several hospitals which do not publish reports the number of deaths occurring in a year had to be obtained from the Department of Health. Upon comparing the figures given by hospitals publishing reports with the records of the Department of Health there was found a puzzling difference of statement, some of the hospitals being recorded as having had more deaths, and some as having had fewer, than the institutions had themselves stated. The explanation of this discrepancy was found to be due to a difference in the methods of computation.

The statistical year of the Department of Health, as in other large statistical bureaus, ends at noon on December 31st. Public hospitals are allowed one week and private hospitals four days in which to report a death to the Department—the public hospitals having the longer period because of the large number of bodies sent by them to the Morgue to await identification. A number of these identifications of persons dying before January 1st do not reach the Department in time to be included in the records of the year, and are added to the record of the twelve months following. The hospital year, on the other hand, generally ends at midnight on September 30th or December 31st, which explains the difference in records.

(*To be continued.*)

HISTORY OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK.

BY JAMES J. WALSH, M.D., Ph.D.,
NEW YORK.

(*Continued.*)

PART II.

CHAPTER VII.

The third of the prize essays published had for its subject, "The History, Preparation and Therapeutic Uses of Iodine," and was presented by Samuel J. Hobson, M.D., a member of the Philadelphia Medical Society. Those who think that at the present time we have any new or recent suggestions with regard to the therapeutic value of iodine or its combinations, should read this essay.* There is of course scarcely any pathological condition in any important organ that has not been apparently benefited by iodine, in the hands of some investigator. Even as early as 1830, however, it was true that symptoms of all forms of chronic disease were at least relieved by iodine or its compounds. The list of diseases given by Dr. Hobson includes such terms as scrofula, enlargement of the mammary glands, of the liver and spleen, of the testicles, marasmus or disease of the mesenteric glands, all the various forms of tuberculosis in all parts of the body, and nearly everything else from varicose veins to diseased heart and angina pectoris, and polysarcia or corpulence, and the non-union of fractures.

It was especially recommended for enlargements of the various glands that are possessed, as we have since learned, of an internal secretion, as the prostate, the thymus, and the thyroid. The enlargement of the thymus gland, for which it is supposed to be especially useful, is that which by its sudden acute effects produces serious dispnea or even convulsions, so-called thymic asthma which may result in sudden death, an affection that is often thought to be of much more recent observation. It was with regard to enlargements of the thyroid, however, that the most important field of iodine in therapeutics was found. Dr. Hobson's discussion of this will be of interest even to the modern therapeutist. As his illustrative case is associated with a special use of the electric current, not very unlike that known in more recent times as kataphoresis, the whole passage is quoted.

"Bronchocele, or Goitre. Such unparalleled powers has iodine displayed in this disease that it has received, by almost universal consent, the title of specific.

We do not conceive it necessary to select any from among the numerous cases, except one, which have been reported as illustrative of the successful employment of iodine in this disease, as its efficacy is too well known.

The case we are about to mention is one related by Dr. Coster and was cured in a singular and most ingenious manner—by combining the action of the Voltaic Pile with that of iodine.

A young man had a goitre of large size which had resisted the use of iodine both internally and by friction. Being aware that iodine was attracted by the positive pole, Dr. C. thought it probable that by applying iodine on one side of the tumor and the pole to the other, its absorption would be accelerated; the result was highly confirmatory. He performed the operation twice a day, taking care to change sides at each time of its operation, i. e., in the morning he would rub the ointment on the right side of the tumor and apply the pole to the left; and in the evening *vice versa*. He kept the tumor under its influence for ten or twelve minutes, and in the space of twenty days it was entirely removed. To show that its effect was not solely owing to the pile he had previously subjected the tumor to a galvanic current without the least sensible effect. He used the pure iodine ointment made in the proportion of two grains to a scruple of lard. It was the only case in which he ever adopted the above plan of treatment, but recommends physicians to give it a trial in all obstinate cases of the disease and also of scrofula.

When used in the ordinary way we direct together with the internal use; in bad cases, frictions twice or thrice a day on the tumor, with the ointment either of iodine or hydriodate of potash; it should be rubbed

*Transactions of the Medical Society of New York State, Vol. II, 1834-5.

with a portion about the size of a hazel-nut or more until the unguent is absorbed. There is frequently a little hard, knotty lump that remains after the goitre is dissipated which is often difficult and sometimes impossible to remove. Mr. Austin, of England, is in the habit of using strongly camphorated mercurial ointment for its removal. The use of iodine ought never to be imprudently peresevered in on account of it."

Some of the notes to the essay on iodine contain some curious observations made with regard to the effect of this substance on the sexual sphere, especially as regards the mammae and testicles. These observations have not been entirely confirmed, yet there has always remained a persistent tradition with regard to the influence of iodine on such glandular structure when used for prolonged periods.

"This last effect (that of causing reduction in size of sex organs) has more than once been observed; and from merely remedial doses. Professor Hufeland says he has seen three cases where the mammæ disappeared during its use for disease.—*Amer. Med. Record,* vol. VIII, p. 624.

It is also said that men have been castrated, if I may so speak, from the use of iodine. Such events are apt to create an aversion to the remedy; but they are of extremely rare occurrence and generally proceed from its protracted or injudicious use.

These facts demonstrate, however, its potent sway over the absorbent and glandular systems. But what remedy is there whose action is not influenced by temperament or idiosyncracy?"

Dr. Hobson's directions as to the dosage and methods of administering the various preparations of iodine show how far advances had been made in the direction of the most modern thought at a time when this substance and its compounds were as yet scarcely more than a quarter of a century before the medical profession.

"With regard to the administration of iodine, we should observe the same general rules with it as with every other active medicine;—to commence with minute doses, and gradually increase it:—to watch its effects:—to attend to the age, temperament and immediate condition of the patient:—to suspend it on the manifestation of any untoward symptom, . . . Of the tincture of iodine and the solution of hydriodate of potassium, we should commence with six drops of either to an adult three times a day, about two hours after each meal, and to be cautiously augmented, say, another drop every other day until we reach to the amount of twenty drops thrice a day; it may, however, by continuance, be gradually increased with safety to 25 to 30, and even to 40 drops, thrice a day; at least we know that practitioners have occasionally increased the dose to that amount with impunity. At page 247 we mentioned cases where enormous doses were taken daily with no bad effect.

Our reason for advising it to be taken some time after eating it that then it would be less apt to produce nausea, an effect frequently complained of by patients under its use. Of the two the solut. potass. hydriod. is found by experience to be far less liable to disagree with the stomach than the tincture of iodine, and hence it is more generally employed especially in private practice, and should always be in delicate females. We may administer either of them in a wine glass full or more of pure or sweetened water with a few drops of tincture of lavender, cinnamon or mint to render it more agreeable. As the tincture of iodine possesses a very unpleasant taste and smell, it would be perhaps most palatable if taken in some of the aromatic syrups. Coindet always exhibited it in capillaire syrup. The solut. potas. hydriod. has no taste whatever.

Some may think that the dose we have recommended to begin with is unnecessarily small, but we are convinced from what we have read that too many practitioners are in the habit of commencing with injuriously large doses, hence we so often hear of their having to suspend it from its inducing nausea, headache, febrile excitement, etc. It is moreover a false notion that we can hasten the cure or obtain more good from medicines of this kind by giving them in large doses; we may indeed obtain their poisonous effects, but not their specific constitutional sanative influence, if I may so speak."

The closing sentences of these directions have in other words often been re-echoed since Dr. Hobson's time, and the thoroughgoing conservatism of his position is all the more remarkable as it is evident from his essay that he was an enthusiast on the subject of Iodine.

It is rather curiously interesting to find that the first prize essay published by the New York State Medical Society was on the subject of Delirium Tremens, though it is not a matter of surprise to find that the essay was written by Dr. James Conquest Cross of Kentucky. How long that State has enjoyed its reputation for distilling is not clear, but in the modern time we would be sure to assume that it was the opportunities provided Dr. Cross by his special Kentucky environment that enabled him to gather the really valuable observations which constitute the basis of his essay. I say that this was the first essay published by the New York State Medical Society because it is to be found in the Transactions in what is called Vol. I. for the years 1832 and 1833. The prize was awarded for the year 1831, and as already mentioned the prize essays for 1825, that of Dr. Hammersley on the Causes of Phthisis, and for 1830, that of Dr. Hobson on Iodine, were published in the second volume of the Transactions, issued for the years 1834 and 35.

Dr. Cross' essay on Delirium Tremens contains a very valuable review of the literature on the subject, published up to the year 1830. According to this, delirium tremens was not recognized as a distinct affection due to a specific cause, until the beginning of the nineteenth century. He asserts that it was not described as an independent disease until the year 1801. Even then the description of it, issued by Dr. Samuel Burton Pearson, was only meant for private circulation in the circle of his personal acquaintances. It was not until 1813 that the value of this article was recognized to such an extent, that in order to make it more generally known in the profession, it was reprinted in the Edinboro Medical and Surgical Journal. Some quotations from Dr. Cross' paper will serve to show how thoroughly conservative he was in the treatment of the disease and how much he recognized the necessity for individualization in the prescription of remedial measures. The sheet an-

chor was opium, but opium used in conjunction with remedies especially indicated by the patient's individual symptoms.

"That the energetic enforcement of the opium practice when the system is in a state of obvious unpreparation or where it is not associated with suitable auxiliaries may force the patient into a state of stupor that will terminate in death is intuitively evident. Independently of every other consideration, this single fact is sufficient to prove how exceedingly preposterous that precept is which recommends the indiscriminate employment of opium. It also enforces the superlative importance and indispensable necessity of attending closely to the effects of this drug as they are in succession developed. With blind and heedless impetuosity to push forward this potent narcotic until sleep is produced without regard to any other circumstance, I hesitate not to assert to be the quintessence of quackery. This is the more culpable, as it is in the power of the attentive physician with some degree of certainty to determine from the condition of the symptoms that precede sleep, whether opium is making a salutary or prejudicial impression. We lay it down as a rule that if there is not a gradual, although it may be an exceedingly inconsiderable amelioration in the symptoms, the conviction should be indelibly impressed upon the mind of the physician, that he has been premature in the exhibition of opium. Perhaps this remark should be qualified. It will always happen that when a quantity of opium sufficient to over come the gastric irritation has been given all the symptoms will be exasperated. This conclusion will not, therefore, be authorized unless we have properly prepared the system and are perfectly sure we have given sufficient doses."

His discussion of the value of venesection in delirium tremens gives probably the best idea of his broadminded care to treat the individual suffering from the delirium, rather than the delirium itself. This discussion will serve at the same time to show to what an extent venesection had been carried by some supposedly conservative authorities in the treatment of delirium tremens. The affection is, of course, one of those in which phlebotomy would seem to be indicated. The violence of the symptoms and their reference mainly to brain, would seem to indicate that the circulation must be relieved at almost any cost. It is then interesting to see how modern in this matter was Dr. Cross, and the fact that his essay should be selected by the prize committee of the day indicates the conservative temper of representative members of the New York State Medical Society in the early part of the nineteenth century.

"While there are those who proscribe venesection altogether and others who commend it guardedly, there are those who wield the lancet with a boldness not surpassed in the treatment of most inflammatory affections. Thus Profesor Potter, whose high pretensions as a sound and successful practitioner have never been questioned, declared that, 'in young subjects, and even in patients advanced in life, but recently attacked, we have frequently bled to the amount of 70 or 80 ounces, and several times an hundred in three or four days.' In some instances so energetic are the symptoms so indicative of inflammatory action that Professor Frank has been induced to conclude that this disease is a peculiar encephalitis, and consequently in accordance with this view of the subject the treatment is conducted exclusively upon antiphlogistic principles. Here, however, the same error has been committed by Professor Frank that deserves such severe reprehension in those who obstinately maintain that delirium tremens is invariably a disease purely asthenic. A little experience, uninfluenced by preconceived opinions, will soon convince the attentive practitioner that while both these oposing hypotheses are true to a certain extent they are, when designed to embrace all the varieties of this disease, radically unfounded. It is this circumstance which renders the propriety of following their precepts not only questionable, but absolutely dangerous. For if we should embrace the views of those who proscribe the lancet entirely, we should doubtless succeed in some instances, but the experience and success of Professors Potter, Frank, etc., afford conclusive proof that we shall meet occasionally with patients who imperiously require venesection and that must inevitably perish under the narcotic or narcotico-stimulant modes of treatment. An adoption of the pure antiphlogistic treatment of Professor Frank would be followed by a greater mortality as there are fewer cases in which the lancet is admissible than in which it is clearly and incontestibly proscribed."

The fifth prize essay that has been preserved is that of Dr. Benjamin W. McCready of New York, who wrote on the influence of trades, professions and occupations in the United States, in the production of disease. His was the prize-essay for the year 1837. It may be remarked in passing that this was the first time so far as we know, that the prize was awarded to a New York man. Kentucky, Virginia and Pennsylvania had been represented in the list of prize-winners, and it is very evident that the prizes were awarded entirely for the merit of the essays and not for any personal or partial reasons. This fifth essay contains some rather interesting material, with regard to sanitary problems that are even yet matters of discussion for the medical profession. The question of the overcrowding in the tenement house districts of New York City is discussed just in the same terms that would have been used ten years ago on the same subject, though fortunately recent legislation has brought some amelioration of the worst conditions in this matter. The reasons for ill health in the tenement house districts is thus stated:

"In other cases the cupidity of landlords has tempted them to build up narrow alleys with small wooden tenements which, costing but little, and being let to numerous families yield immense profits. The alley is often not more than six feet wide, paved with round stones and with very insufficient means for draining off the water. It is not uncommon in such situations, to find one or two of the apartments in each house entirely underground. Can we wonder if in such a state of things we find moral as well as physical disease, vice as well as sickness? Can we expect men who live thus to be orderly and sober, or women to be cleanly and domestic? In such situations, during the summer months, diarrhoea and dysentery are rife, and among children fatal. Scrofula, in some of its protean forms, is frequently met with and they form the lurking places where smallpox, measles and scarlet fever lie covered under the ashes, or when circumstances are favorable, blaze up into sudden fury."

At the end of Dr. McCready's essay there is a rather striking set of passages in which he discusses the evils of the quack and especially the patent medicine vender, and suggests the reasons for the popularity of their products. He has caught the essence of the idea in the declaration

that the present popular errors in medicine are always the result of previous supposed knowledge among physicians themselves. Medical theories not only do harm, by satisfying the mind of the physician for the moment and thus preventing his inquisitiveness from urging him to investigate where he thinks he knows no reason for things, but they prove even more harmful by perpetuating themselves among the populace for at least a generation or two after they have been exploded by the regular practitioners. This is an idea that such men as Virchow and our own Jacobi have often expressed since, and the significance of which all serious thinkers in medicine will recognize. Dr. McCready's remedy for this unfortunate state of affairs would be the spread of real knowledge. In the seventy-five years that have elapsed since the writing of this many improvements and advances in education have come, yet his words retain their forcefulness and application.

"That the present errors of the vulgar were formerly the themes of philosophers, is an old and trite observation. Most of the vague and unfounded notions of the public concerning the nature and treatment of diseases, which embarrass the young practitioner on his entrance into practice, were once the cherished doctrines of the wise and learned. Can we do nothing to correct the evil our predecessors have occasioned? Can we not substitute truth for falsehood, facts and reasoning founded on facts, for idle notions, and injurious hypothesis? I would not wish to instruct the community in a knowledge of the symptoms and treatment of diseases—that were impossible; but I would wish to make a knowledge of the laws and functions of the living body a necessary part of a liberal education, and to communicate to all classes so much information as would enable them to educate their children and regulate their diet, clothing, exercise and habitations. Something of late years has been done to this end, but much, very much, remains to do, and professorships of physiology in our literary colleges, and popular lectures and popular books on the same subjects for all classes, would be productive of benefits widely felt and as widely acknowledged. Many of the evils incident to the occupations of civilized society would then be remedied, and others, essentially alleviated. Medical men are bound to urge this matter upon the public, not only from motives of general benevolence, but of private interest; for it affords the surest means of elevating the character of the profession. Then would the public be enabled to judge of the intelligence of their medical attendants, and then in common with the rest of the community, would the young physician feel the truth of the maxim, 'Knowlege is Power.'"

Dr. McCready has also an excellent review of the situation as to quack medicines which unfortunately has not become an academic question in spite of all our progress in educating the masses; and he thought the newspaper press as responsible for it then as we do now. The evil results to be anticipated from the abuse of medicines are just those that medical writers of the present day insist on.

"There is an evil, which has of late years become of excessive magnitude, and which is daily increasing—the consumption of quack medicines. Aided by the immense circulation of a cheap press, many of these nostrums have obtained a sale that exceeds belief. Few patients among the lower classes now apply to a physician, who have not previously aggravated their complaints by swallowing numbers of these pretended specifics, and a late resident-physician of the city hospital has informed me that he has met with many cases of derangement and irritation of the mucous membrane of the stomach and bowels, caused solely by the drastic articles, which enter into their composition. Formed in most instances of irritating ingredients, and directed to be taken in immense doses, and as infallible remedies in all cases, the mischief which they do is incalculable, and unless some stop be put to the evil by law or by an enlightened public opinion, it will soon claim an unenviable pre-eminence as a cause of public ill health."

CHAPTER IX.

ESTABLISHMENT OF THE PHARMACOPEIA.

Undoubtedly one of the most important practical advances in American medicine was due to the movement initiated by the Medical Society of the State of New York which finally led up to the establishment of the National Committee on the Pharmacopeia and the publication of that work for the benefit of American physicians. The subject had been hinted at several times, and finally a communication from the New York County Medical Society on the subject of a National Pharmacopeia was received at the twelfth meeting of the State Society and referred to a committee consisting of Drs. Willoughby, Patrick and Wendell. This committee met and after discussion reported the following preamble and resolutions, which after some discussion in the open session of the Society were finally adopted. As they state the reasons for the need of the action suggested, and contain some historical details as to the confusion in dispensing we give them in full:

Whereas, A uniform system of preparing and compounding medicines, throughout the United States, would contribute much to the satisfaction of the practitioner, and obviate many existing sources of embarrassment and danger; and

Whereas, Much diversity does now prevail in pharmaceutical preparations in the different sections and States of the Union, in consequence of the various pharmacopeias which are adopted—such as Coxe's Dispensatory, the Massachusetts Medical Society Pharmacopeia, Thatcher's Dispensatory, the New York Hospital Pharmacopeia, the Edinburgh Dispensatory, the London Dispensatory, the London Pharmacopeia, the Dublin Pharmacopeia, and Parisian Pharmacopeia, etc. —which accounts for a well known fact, that the traveler gets a different preparation, under the same name, in almost every village, town or city in which he may chance to be indisposed. This is not the only evil; for so multifarious are the names of medicines, that a name, which is common in one town, may be unknown in another, or, what is worse, may be applied to a very different medicine.

Therefore, Resolved, That it is expedient that an American Pharmacopeia should be formed for the use of the United States.

Resolved, That the several incorporated State medical societies, the several incorporated colleges of physicians and surgeons, or medical schools, and such medical schools as form a faculty in any incorporated university or college in the United States, be respectfully invited to unite in the formation of the American Pharmacopeia; and in case there should be any State or Territory in the Union in which there is no incorporated

medical society, medical college, or school, that voluntary associations or physicians and surgeons, in such State or Territory, be respectfully invited to unite in the formation of this work.

Resolved, That a general convention be held in the city of Washington, on the first day of January, 1820, to be composed of delegates form the district conventions.

Resolved, That this Society do now appoint David Hosack, M.D., J. R. B. Rodgers, M.D., Samuel L. Mitchell, M.D., John Stearns, M.D., John Watts, M.D., T. Romeyn Beck, M.D., Lyman Spalding, M.D., Wright Post, M.D. and Alex. H. Stevens, M.D., delegates to meet in district convention, for the purpose of forming a Pharmacopeia.

Resolved, That the delegates appointed by this Society be a special committee to correspond with all the incorporated State medical societies, etc., in the Union, and such other influential medical men as they may deem proper.

Resolved, That if a majority of the incorporated State medical societies, incorporated medical colleges, medical schools and faculties of medicine in the United States, approve of the formation of an American Pharmacopeia, that it ought to be undertaken.

Resolved, That as soon as it shall be made known that a majority of the societies, etc., approve of the formation of the Pharmacopeia, that the special committee of correspondence of the New York Medical Society shall give public notice, as well as notice to all incorporated State medical societies, etc., that an American Pharmacopeia will be formed.

Resolved, That in order to fix on times and places for holding the several district conventions, the special committee of correspondence be directed to request the several societies, etc., to name what time and place in their opinion, would be most convenient for the meeting of the convention in this district; and when the formation of a Pharmacopeia is agreed on, that the aforesaid committee transmit to each society, etc., the names of the several places in their district, and at the times which have been mentioned, and point out what time and place have the most votes, and submit to the several societies, etc., if such time and place would be most convenient.

Resolved, That this Society would propose the first day of June, A. D., 1819, and the City of Philadelphia, as a convenient time and place for the meeting of the convention in the district known by the name of the Middle States.

Resolved, That it be recommended to the different county societies, to raise money by subscription, or otherwise, to defray the expenses of the delegation to the district convention.

At the next annual meeting there was a report of progress of the most encouraging kind. Dr. Samuel L. Mitchell, one of the committee, to whom was referred the resolution, passed in February, 1818, to adopt measures to establish a National Pharmacopoeia, made the following report:

That your committee have dilligently attended to the subject referred to them; and they congratulate the Society on the accession of the requisite number of Medical Societies and Colleges, to the important undertaking in forming such a necessary and great professional work; and moreover on the prospect of its eventual ratification in a manner which the enlarged view of its authors contemplated.

In the following annual meeting, 1820, the definite success of the enterprise that had been so ably forwarded by the Society was announced.

In his annual address, as President, Dr. John Stearns referred with pardonable pride to the successful termination of the labors of the Pharmacopeia Committee. He said:

"I trust the time is not remote when the opinions of American physicians will be referred to as the highest authorities in medicine. This event will be accelerated by the liberality of opinion and discussion that is tolerated in our schools, unshackled by the restraints of authority imposed upon the graduates of the colleges of Europe. The late effort to form a National Pharmacopeia, is a strong illustration of this position. An effort which has never been equalled, and the magnitude of which intimidated many of its ardent friends; but which our diversified climate, abounding in medicinal plants, alone sufficient for the indigenous diseases of our country, urgently required.

The delegates originally appointed by this Society performed the duties assigned them, in the City of New York, and reported a complete Pharmacopeia to the District Convention of the Middle States, assembled, in June last at Philadelphia. The work executed by this, and the other District Conventions, held at Boston for the Eastern, at Lexington for the Western, and at Columbia for the Southern States, was reported to the General Convention of the United States, recently held at Washington. From the whole of which a judicious and satisfactory selection has been made. It is, therefore, with no ordinary satisfaction that I announce the final completion of a work which will constitute a new era in medical history. The benefits will be extended to every practitioner, and perhaps to every individual in the United States. We search the annals of the world in vain for a precedent.

From Maine to Georgia, from the Atlantic to the Mississippi, we behold the medical public, animated by one spirit, merging all private considerations in this grand object, and spontaneously congregating in State, District and General United States Conventions. An intercourse of correspondence, then commenced, have excited the medical energies of America, and will produce important consequences, co-extensive with our empire, and durable as its existence."

(To be continued.)

MEDICAL EDUCATION.

What is our object in medical education? That object is to develop, or attempt to develop, the ideal practitioner. It is not merely to develop a learned man, but to develop one who shall so bear himself in all his relations that he will be a credit to himself, his *alma mater*, his profession and his country; who shall be, in the first place, of the greatest possible service to those of suffering humanity to whom he ministers, and not only that, but shall be an influence for good in improving the conditions of life in the community in which he practises; who shall so minister that he aids and strengthens his fellow-workers and raises the standard of our profession as a profession; who shall add credit and lustre to the school which has produced him, and, lastly, who in all his relations shall so bear himself that at the end of the day's work—as at the end of life's work—he shall feel within himself that he has done his duty loyally and has earned his rest.

It is difficult to picture forth the ideal practitioner, nor shall I attempt it. Each of us, I doubt not, has his own idea of that ideal. In the words of Pythagoras, "There are two things which must ennoble Man, and make him to resemble the Gods: *to know the Truth and to do Good.*" The ideal practitioner of all men, it seems to me, most constantly attempts to exemplify this saying and to live the noble life. High character, good manner and marked capacity play important parts in our ideal of what he should be.

J. G. Adami, M.D.

New York State Journal of Medicine

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JAMES PETER WARBASSE, M.D.,
Editor.

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Further information on last advertising page.

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Editorial

AN ACT PROVIDING FOR A SINGLE MEDICAL EXAMINING BOARD.

WHILE New York State has supported high educational standards in the interest of the health of the people, to a degree not surpassed by any other state, it should not be lost sight of that there have been continuous assaults aimed against these high standards. The enactment and maintenance of salutary medical laws have not been altogether without opposition.

To the medical profession belongs the credit of having created these standards. It has been the medical profession that has served the highest interests of the people by imposing higher and more difficult requirements upon itself. Never has this profession attempted to secure any advantage to itself at the expense of the people. Behind every act of legislation which has raised the standard of requirements for the practice of medicine in this State has stood the great body of its medical men. They have supported every act of legislation which has aimed to preserve the health of the people, to improve sanitary conditions and to minimize sickness.

Latterly, confusion has arisen in the minds of the people because of a failure to differentiate between the educated physician who stands for their best interests and the pretender to medical knowledge whose interests in acts of legislation is measured by the special advantage they can bring to him. The Education Department and the Regents of the University of the State, as well as the medical profession, have recognized this confusion, and many means have been considered to overcome it. In the interest of a uniform standard of medical education, a bill has been presented to the Legislature (Assembly Bill No. 160, introduced by Mr. G. H. Whitney, entitled, An Act to Regulate the Practice of Medicine, etc., dated January 15, 1907), which places the matter of licensing physicians entirely with the University of the State. This bill calls for a single medical examining board of nine members to be appointed by the Regents. No reference is made to the complexion of the board. The only requirement imposed is that the examiners shall have received the degree of Doctor of Medicine from some registered medical school and thereafter shall have practised medicine in this State for at least five years prior to the date of appointment.

We have but one State Department of Health; and there is but one examining board for candidates for the practice of law. As now constituted the medical licensing examining system is divided into three separate boards,—the regular medical board, the homeopathic, and the eclectic: the candidate may take his choice and appear before whichever one he please. This bill, under discussion, provides for one board. It gives no special privileges; nor does the regular profession ask for any. It asks only that all candidates for a license to practice shall be subjected to the same tests, namely, that they shall have had a fair preliminary education; shall be of good moral character; and shall have a knowledge of the human body in health and disease; that they shall know the causes of diseases, their manifestations, and the methods of their prevention. A man well grounded in these things should be allowed every latitude in treatment which his knowledge and intelligence demand; and in the interest of impartiality this bill does not call for an examination in therapeutics.

The Medical Society of the State of New York, at its annual session held in Albany, January 28, 1907, passed the following resolution:

Resolved: That in introducing the Single Board Bill, so ably presented by our Committee on Legislation, it is the sense of the Society that if enacted into law it will do more to unite the entire profession of our State than has anything in the near past . We believe that it will do justice to all and can not see that it discriminates against any, and we desire the members of the Legislature to understand that in our endorsement of this measure we stand as a unit, and believe it is a step in the right direction which will do much to maintain the medical standards of our State.

We earnestly trust that all members of the profession will strive to secure the passage of this most commendable measure.

THE PRESENT STATUS OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK.

THE one hundred and first annual session of the Medical Society of the State of New York, which was held on January 28, 29 and 30, 1907, must be written down as a very successful meeting. Although it was held at a season of the year when the members of the Society are most occupied with their professional work the sessions were well attended. The Committee on Scientific work brought together a program of much scientific interest and practical value. No reader of a paper lacked an appreciative audience; and the papers were well discussed. The scientific program was the best that has ever been presented before the Society. There was a notable absence of the reading of papers by title; but four, out of a total of forty-seven, were not actually read and offered for discussion, and these were read by title on account of the unavoidable inability of the authors to be present. The large audience which is now guaranteed to readers of papers before this Society is already appreciated. In the business meetings, as well as in the general sessions, a spirit of enthusiasm, which was prompted by a realization of the sucess of the new regime, prevailed.

Attention is directed to the annual reports of officers and committees, published in this number of the JOURNAL. From these reports it will be seen how large a part of the work of the Society goes on during the year between the annual meetings held at Albany, and how broad and general is the function of this organization. Instituted a hundred and one years ago, "for the purpose of regulating the practice of physic and surgery," it has broadened its scope to embrace every interest which touches the health of the people. Through its influence the profession of medicine has been brought together and its work harmonized; the standards of professional excellence have been continuously raised; and the health of the people has been conserved by the dissemination of knowledge and the enactment of salutary laws.

The dignified and instructive address of the President reviews the work of the Society and presents a presage of its scope and usefulness, which should inspire not only every member, but every physician, with a sentiment of the the highest sense of duty. The national Association is to be felicitated upon securing in its president-elect the genus for organization and for the promotion of high ideals that has done so much to bring the New York State Society to its present position of efficiency and security. The reports of the Secretary and of the Treasurer give one a view into the work which is necessary in the business affairs of the Society, and show its prosperity and the sound basis upon which it stands. The Committee on Legislation has zealously labored in the interest of wise legislation, and has had the satisfaction of seeing some good bills through the Legislature and of witnessing the defeat of some vicious attempts to degrade the educational requirements of medical practice. The report of the Committee on Public Health should be widely read. It is of much importance, and deals with the vital questions which confront not only the physician but the whole people of the State. If every legislator could read this document the serious purposes of the medical profession would meet a better appreciation in the eyes of our law makers.

The report of the Committee on Publication shows the prosperous state of the JOURNAL and the degree to which it has been developed during the past year. The Directory is the most complete that has been published, and is highly appreciated. A practical value of membership in the Society is demonstrated in the report of the Counsel, which shows that many of the actions in law brought against members for alleged malpractice have been instigated by motives of blackmail, and are frequently dropped when it is discovered that the defendant has the Medical Society of the State and its counsel behind him.

The first year's work of the reorganized Society bodes good for the future, and promises well for a strengthening of all the interests of the medical profession in this State.

A WORD FROM OUR PRESIDENT.

To the Members of the Medical Society of the State of New York:

Availing myself of the opportunity which the JOURNAL offers as a mouth piece it has appeared to me wise, after expressing my sense of profound appreciation of the honor of having become president of the Society, to say a word to the members and the profession of our imperial State.

The evolution started in 1901, and matured during the next three years, came to its birth in 1905, and the new life of the Society had still to be realized. Unless untried methods were shaped into actual operation and brought to general approval, the evolution intended to develop a larger life for the profession of this State in

organized unity would end in anarchy rather than in vitality. With a wise man of wide reputation at its head during these past two years and with efficient coadjutors, what was purposed for the Society has been accomplished. It stands matured upon its feet in its new ways with all its important functions in operation. I congratulate President Bryant and his immediate associates on the accomplishment. I speak this word of satisfaction as one who has been a member of the Society for twenty-five years, a worker on its committees, for seventeen years an active office holder in its domestic affairs, sometimes a contributor to its scientific work and always concerned for its welfare, but more especially as having entered with all my heart into the broad purposes of its plans for larger life.

The coming year is to determine whether the acceptance of the Society is tentative or permanent. It will be permanent if the 6,000 members find it valuable to them, and have red-blood enthusiasm for it as an organization to defend and promote our common interests; if its currents reach out and take into the circulation all members of the professions of worth in every county, I shall hope that during this coming year all men in this State, in city, town and country alike, shall come into this alliance for the common good; that every interest of a professional sort shall be harmonized, that apathy, if it exists anywhere, shall give way to enthusiasm, and that all its working parts shall find themselves and come into operation. I shall look to all my many good friends to help on this our common hope and enterprise, both those whom I was closely associated with in the old Society, and those who have come in with us in this our re-formation.

The practical gifts of membership, hardly needing reiteration, are a monthly Journal which is going to be better each year, an invaluable annual Directory, the privileges of a large and growing library available to the remotest member, defense in malpractice suit. Of larger appeal is being in the bonds of association with all reputable physicians, alliance with an organization of your own profession, started a century ago to uphold its best purposes, to contend against the evil and mischievous, which seems almost as necessary now as then for a vital contest is now pending in the Legislature where each year brings its work. This is something that every good physician should realize as a right and privilege. It is the only one in the State, for all local Societies, save the voluntary ones which can have but a limited function, are organic parts of the State Society.

To some of those wonted to the old order, terms and methods are strange and may appear to a certain extent depriving. While I can appreciate this I would say that really nothing is lost to any individual. The present method is more representative. The executive body of the Society is open to every County Society member (though it would appear to me that eligibility to delegateship ought really to be won by local service of some sort.) It is democratic for with widely diverse election there is little chance for the conduct of affairs to fall into the hands of a clique or combination. The general Society is open to everyone, and yet the few hundreds of our old organization have not cheapened their pre-eminence or lost anything by this.

The District Branch Societies supply what some of our best men have long desired. They give opportunity for wider contact with one's immediate environment and reach outside the home circle of the County Society. Obvious advantages come from this. The weaker County Societies will be helped by giving their members the aid of numbers and the direct help of the District Society Officers whose duty is to visit them. Men in stronger Societies have a larger forum. Many who seldom reach the State Society meeting can have the benefit of a day in the District Society meeting. These District bodies have yet to be organized, and this will be done this year. The expenses of this work will be borne by the State Society.

Is there not enough of promise and potency in all this to win the co-operation of all? No man or woman who loves the work to which their life is given will do otherwise than render it. If any have a doubt or a question the present officers of the Society will solve it if in their power, and all suggestions will be appreciated. We hope to have a good meeting in every district this year and to furnish one of the State body in Albany next January that will be of a sort that no one will willingly stay away from.

It is the good fortune of the Society, which no one can appreciate as I do, that the Secretary, the Treasurer, the Chairmen of all the Standing Committees were re-elected. No one could think without trepidation of standing in my place without such efficient aid; but certainly not without the help and good will of all the members, which a chief purpose of this communication is to bespeak. (Signed) F. C. CURTIS.

Medical Society of the State of New York.

ANNUAL REPORTS.

REPORT OF THE SECRETARY.

To the House of Delegates:

In compliance with Section 3, Chapter VI., of the By-Laws, the Secretary begs leave to submit the following report for the year ending December 31, 1906:

The Ad Interim House of Delegates held during the year four meetings, two in Albany, one on January 29, and one on January 30, reported in the February issue of the JOURNAL, pages 37 and 43; one in New York, May 19, reported in the June issue of the JOURNAL, page 262, and one in New York, December 8, not yet reported, as the minutes were not approved at the date of the meeting, and will be read for approval at the next meeting. The Council held one meeting in Albany, January 30, reported in the February issue of the JOURNAL, page 45.

In the State of New York, there are sixty-one counties. Medical Societies exist in all of these with the exception of Essex, Hamilton and Putnam. The Counties of Queens and Nassau are combined in one Medical Society, known as the Queens-Nassau Medical Society. There are thus fifty-seven county medical societies in the State, and all of these have adopted new constitutions and by-laws in conformity with the Constitution and By-Laws of the Medical Society of the State of New York, which went into effect at the date of the Amalgamation, December 9, 1905.

The Medical Society of the County of Livingston, with a reported membership of forty-five, adopted new by-laws on June 12, but reorganization was not completed until October 2, and then it was with the understanding that the new by-laws would not become effective until January 1, 1907. In all the other county societies the by-laws went into effect when adopted.

The Medical Society of the County of Erie, at its Annual Meeting, January 9, 1906, passed the following resolution:

"*Resolved*, That the Medical Society of the County of Erie, an incorporate body, does hereby accept the Agreement of Consolidation and the new Constitution and By-Laws of the Medical Society of the State of New York, as binding upon it and thereby making it the component part of the State Society for Erie County and that it shall consist of those members of the State Society resident in said County.

That the papers from the State Society be received and that Erie County accept the new rules of the State Society, and resolved that the said Erie County Medical Society be the constituent part of the State Society resident in Erie County."

On June 12, the question of adopting the tentative and advisory by-laws sent out by the State Society was brought before the Erie County Society. At this meeting the following resolution was passed:

"*Resolved*, That the By-Laws reported by the Committee, as printed and corrected, be submitted to the Counsel of this Society for examination and opinion as to whether they conflict in any manner with the Statutes of the State of New York now in force, and that such report of Counsel be made at an adjourned meeting on the second Monday in October, at an evening session, the place to be subject to the call of the Chair."

The report of Mr. O'Brien was read at a meeting held in Buffalo, October 8, 1906, and at this meeting, the following resolutions were adopted:

"*Resolved*, That the Medical Society of the County of Erie hereby accepts and adopts as its By-Laws, the By-Laws which were presented at the last meeting and are now under consideration, as approved by the Medical Society of the State of New York, except such parts of the aforesaid By-Laws which have been or may hereafter be found to be inconsistent with the Statutes of the State of New York.

"*Resolved*, That the Medical Society of the County of Erie pledges itself to pay its dues regularly and in all manner to conform to the requirements of the proposed By-Laws, and to treat them as though they were valid and authoritative until such time as all legal questions have been removed, and the precise legal status of the State and County Societies of the State of New York have been finally passed upon."

At the suggestion of the President and Secretary, the Attorney for the State Society, Mr. Lewis, and the Attorney for the Medical Society of the County of Erie, Hon. John Lord O'Brien, held a conference in Buffalo on November 17. Mr. O'Brien claimed that the permanent members were still entitled to vote in the House of Delegates; that the present House of Delegates was illegally constituted, as the permanent members had been deprived of their vote at the meeting held in Albany in 1906; that the medical colleges were still entitled to send delegates to the State Society; that the State Society had no authority to compel members of County Societies to pay the State Assessment; that the State Society had no authority to suspend such county societies as failed or refused to conform to the State Society's requirements; that all provisions of by-laws in conflict with the views above stated were contrary to the Statute Law of the State of New York, and that the various laws enacted in 1904, and the Court Order of Amalgamation, did not grant authority to the State Society to carry out the provisions of the Consolidation Agreement. As these claims did not accord with the views of the Counsel of the State Society, the matter was taken up by the Ad Interim House of Delegates at a meeting held in New York, December 8, 1906, in view of the provisions of Section Eight of the Agreement of Amalgamation of the Medical Society of the State of New York and the New York State Medical Association, viz: "The Society agrees that it will petition the Legislature for the passage of such further act or acts as may be necessary, if any, to carry this agreement into effect." The Counsel of the State Society suggested that additional legislation might be advisable and asked that eminent Counsel be secured to consult as to the necessity for such action and to criticise such a

bill as the Counsel should present. Two hundred and fifty dollars were appropriated for that purpose. At this meeting of the Ad Interim House of Delegates the following resolutions were passed:

"*Resolved*, That a sum not to exceed two hundred and fifty dollars be paid to eminent counsel for the purpose of examining the proposed bill to be introduced in the Legislature in conformity with Section Eight of the Agreement of the Joint Committee on Conference, and that the Counsel of the Medical Society of the State of New York, be authorized and permitted to pay such a sum and to select such a counsel.

"*Resolved*, That the Ad Intermin House of Delegates accepts the proposed legislative enactments submitted by the Counsel of the Society and directs the Secretary to forward sufficient copies of the same to the Chairman of the Committee on Legislation with instructions that he secure the introduction of such proposed legislation at the opening of the Legislature, and that he use his best efforts to secure the passage thereof with all convenient speed."

The entire subject was referred to the Hon. W. G. Choate, former Justice of the United States District Court, who rendered the following opinion:

CHOATE AND LAROCQUE.
40-42 Wall Street, New York,
December 26, 1906.

JAMES TAYLOR LEWIS, Esq.

Dear Sir:—I have carefully examined all the laws of this State relating to the Medical Society of the State of New York and to the State Medical Association; also the entire proceedings for the consolidation of the two societies, for the purpose of advising you as to my views with reference to the introduction of a bill at the coming session of the Legislature. I have reached the following conclusions:

Firstly: Althoughly by the early statutes certain persons were made permanent members or delegates, and although certain institutions were permitted to send delegates to the Annual Meeting of the Medical Society of the State of New York, there is no doubt whatever that the Legislature has the power to change or modify the laws of 1806 or 1813, and prescribe different qualifications and methods of election of members. By Section 23 of the Laws of 1813, that act was expressly made subject to modifications, amendments or repeal, and was declared a public act.

Secondly: Before consolidation of the two societies, Chapter 549 of the Laws of 1904 was enacted, in effect amending Section 3 of the Laws of 1813. By its terms full authority was given to your society to elect such members as may be provided for in the Constitution and By-Laws of the Society: "said Medical Society being empowered to fix and determine the qualifications and conditions of membership therein, and to regulate and control its own membership." Chapter 544 of the Laws of that same year gave the Society the privilege of adopting a constitution and by-laws relative to the admission and expulsion of members and the regulation of its affairs, and Sections 5 and 7 of the Laws of 1813 were expressly repealed. The Act authorizing consolidation, Chapter 1 of the Laws of 1904, provided that the consolidated corporation should have all the powers, rights and privileges possessed by either corporation, at or immediately prior to the consolidation. The order consolidating the two corporations was entered after all these laws were passed. The Consolidation Agreement and the Order adopted a constitution and by-laws by which the same full power with regard to membership was vested in the consolidated body. I am of the opinion, therefore, that you need no further legislation in any manner referring to your membership.

Thirdly: By the same course of reasoning, I believe the establishment of the House of Delegates, the Council and Censors are now complete and in accord with legal enactments.

Fourthly: The Society has ample power to collect its dues. The special charter granted the Association at Section 5 thereof gave that corporation the power to determine the amount of the annual dues, and also to impose assessments and to collect the same, by suit or otherwise. The Constitution thereof brought to the present State Society this provision, which in effect removed the limitation contained in Chapter 682 of the Laws of 1893, which Act permitted but five dollars to be imposed as dues and assessments in any one year. To the same effect were the provisions of Chapter 549 of the Laws of 1904, which gave to the Society the power to fix and determine the conditions and qualifications of membership therein, and to regulate and control its own membership.

Fifthly: There is but one matter upon which legislation is desirable. I am of the opinion that a broad power given to the State Society to determine what county societies are in affiliation with it, and the conditions on which such affiliations shall continue, will give to the Society all the power it needs.

Sixthly: Under the present statutes the State Society may hold $150,000 in property; if you think it advisable to enlarge that amount it may be accomplished by legislative enactment.

Seventhly: There may possible be doubt as to whether the property of the Society is exempt from taxation. In 1903, county medical societies were apparently considered as not coming within exemption of scientific societies. If it is desirable to make this exemption certain, a separate act should be passed amending subdivision 18, of Section 4, of the Tax Law.

I am, therefore, of the opinion that the Medical Society of the State of New York, as now constituted under its By-Laws and Constitution, can go into operation and continue business without embarrassment even without any further legislation, and the acts of the Ad Interim House of Delegates performed under the authority of the Order of Consolidation and the Constitution and By-Laws of the Society are entirely legal, so far as they conform to the authorizations contained therein.

The principal point seems to be that there may be rights of permanent membership heretofore created by statute inconsistent with the absolute right of the Society to regulate its membership. There is no objection to adding to your Act a section providing that all laws and parts of laws creating permanent members or delegates to the Medical Society of the State of New York inconsistent with Chapters 1, 544 and 549 of the laws of 1904, or with the Order of Court consolidating the two corporations made in pursuance thereof, are hereby repealed.

If you consider that some members would be satisfied only with a legislative re-enactment of powers which the State Society now has, I know of no legal reason why that should not be done, but such a course I consider absolutely unnecessary, and my advice is, therefore, opposed to such action.

Very truly yours,
(Signed) W. G. CHOATE.

The following bill prepared by Mr. Lewis and approved by Mr. Choate was introduced in both the Assembly and Senate, by the Committee on Legislation:

AN ACT IN RELATION TO THE MEDICAL SOCIETY OF THE STATE OF NEW YORK.

The People of the State of New York represented in Senate and Assembly do enact as follows:

Section 1. The Medical Society of the State of New York, reconstituted and continued by the consolidation of the Medical Society of the State of New York and the New York State Medical Association in accordance with the terms of Chapter One of the Laws of Nineteen

hundred four, shall have power from time to time to determine what county medical societies are in affiliation with it, and to prescribe the terms and conditions under which any county medical society shall be or shall continue to be so affiliated, and shall have power to suspend and discipline affiliated county medical societies.

Section 2. Section three of chapter ninety-four of the revised laws of eighteen hundred thirteen, entitled "An act to incorporate medical societies, for the purpose of regulating the practice of physic and surgery in this state," passed April tenth, eighteen hundred thirteen, is hereby amended to read as follows:

Section 3. And be it further enacted, that the medical society already incorporated, by the style and name of Medical Society of the State of New York, shall continue to be a body politic and corporate, in fact and in name, and by that name shall be in law capable of suing and being sued, pleading and being impleaded, answering and being answered unto, defending and being defended, in all courts and places, and in all matters and things whatsoever, and shall and may have and use a common seal, and may change and alter the same at their pleasure. [;and that the said society shall be composed of one member from each of the county societies in the state, elected by ballot at their annual meeting, who shall meet together at a time and place appointed by the said state society for any purpose, and being met, not less than fifteen in number may annually elect by ballot, a president, vice-president, secretary and treasurer, who shall hold office for one year and until others shall be chosen in their places.]*

Section 3. The following acts and parts of acts are hereby repealed: section five, six, seven, eight, and nineteen, of chapter ninety-four of the revised laws of eighteen hundred thirteen, entitled "An act to incorporate medical societies, for the purpose of regulating the practice of physic and surgery in this state," passed April ten, eighteen hundred thirteen. Section three of chapter five hundred thirty-two of the laws of eighteen hundred thirty-six, entitled "An act to amend title seventh, chapter fourteen, of the first part of the revised statutes and for other purposes," passed May twenty-sixth, eighteen hundred thirty-six. Section five of chapter two hundred seventy-four of the laws of eighteen hundred fifty-one, entitled "An act to incorporate the New York Academy of Medicine," passed June twenty-third, eighteen hundred fifty-one. Chapter three hundred eight of the laws of eighteen hundred fifty-three, entitled "An act to amend an act, entitled 'An act to incorporate the New York Academy of Medicine, passed June twenty-third, eighteen hundred fifty-one,'" passed June fourth, eighteen hundred fifty-three. Chapter three hundred seventeen of the laws of eighteen hundred fifty-three, entitled "An act to amend an act, entitled 'An act to incorporate medical societies for the purpose of regulating the practice of physic and surgery in this state, passed April tenth, eighteen hundred thirteen,'" passed June fourteenth, eighteen hundred fifty-three. Sections one and two of chapter two hundred fifty-one of the laws of eighteen hundred seventy-eight, entitled "An act to regulate the election of permanent members of the Medical Society of the state of New York," passed May thirteenth, eighteen hundred seventy-eight. Section one of chapter three hundred seventy-nine of the laws of eighteen hundred eighty-five, entitled "An act regarding membership in the Medical Society of the State of New York," passed May twenty-ninth, eighteen hundred eighty-five.

Section 4. This act shall take effect immediately.

The experience of the past year has demonstrated very clearly that a large majority of the county societies are thoroughly organized, are doing excellent scientific work, and that their affairs are conducted in a businesslike way, but there is one point to which attention should be called, namely, that in the smaller counties, and even in some of the large ones, there is apparently no co-operation between the secretaries and the treasurers, which results in an enormous amount of confusion, and very largely increases the correspondence of the State Society Officers. In as much as a proper adjustment can easily be attained, this will no doubt be remedied in the future.

*Matter in brackets [ ] is old law to be omitted.

Owing to the fact that most of the county societies did not reorganize until during the Spring, it is impossible to give the exact membership on January 1, 1906.

Membership on May 16, 1906, omitting duplicates		6,378
Deaths during 1906	87	
Resignations during 1906	61	
Removals during 1906	12	
Total		170
		6,208
New and reinstated members admitted in 1906		388
Total membership December 31, 1906		6,588
Paid up membership for 1906 on January 21, 1907, from Treasurer's reports made up to that date.		5,857
Percentage of paid up membership calculated on January 21, 1907		89%

The percentage of paid members to the total membership in 1906 of 89 per cent. is a remarkably satisfactory showing when one considers that this is the first year that a State Assessment has been levied, and that the county society lists contain the names of many men who are many years in arrears for county dues and are carried on the rolls, simply because under the old By-Laws there was no way of dropping a member unless he resigned or died or was expelled from the Society. It must be clearly understood, however, that in so large an organization of any description there will always be a certain number, who will fail to pay their dues and at the end of each year there will always be a certain per-centage dropped. Many of these, no doubt, will pay and be reinstated, and many new ones will be elected, and the prospect for an increase in membership in 1907 is very gratifying.

The District Branches could not be called together for the purpose of organization until the Annual Meeting in Albany, because it was impossible to do so, as many of the counties did not hold their elections until December or January, and there would have been no time left for metings of the delegates before the State Society Meeting. These District Branches should be of great value from a scientific standpoint. In the future there will be nine meetings held in the State each year, eight by the District Branches and the Annual Meeting of the State Society. The expenses of these meetings will be paid by the State Society, but only after a satisfactory agreement relating thereto has been made by the officers of the Society on the one hand and those of the District Branches on the other. Special

attention is thus called to the fact so that premature action relating to District Meetings will not happen.

The County Secretaries of several counties have urged that those members of the "Permanent Retired List of the Medical Society of the State of New York," who have failed to pay their dues for 1906 be released from the payment of such dues. They number eight, all of whom are old graduates and practitioners. In accordance with these requests it might be fitting that the House of Delegates vote a sufficient sum to liquidate the dues of these men to the State Society, as it is impossible under the present By-Laws to exempt them from dues, and it is also impossible for the same reason to increase the present number of the "Permanent Retired List of Members."

During the past year an earnest effort has been made to secure the registration of all who were qualified by law to be registered as physicians, and as a result of much correspondence between the County Clerk's offices and the individuals who were not found on the lists sent us by the County Clerk, we have succeeded in having all register except seventy. At the beginning of the year the number was about two hundred and fifty. Another beneficial result attained has been that the County Clerk's lists are in better condition to-day than ever before. It is a pleasure to testify to the great assistance rendered by the County Clerks and to their uniform courtesy in responding to the many letters written to them. The State Society to-day possesses accurate and full registration lists of every county in the State. The Medical Directory of New York, New Jersey and Connecticut for 1906, contains, in the list of New York physicians, no data concerning those who are not legally registered, but a few names may be found in the lists of members of county societies of physicians who have failed to comply with the law relating to registration. In view of the fact that a failure to register not only entails certain legal penalties, but may render the individual liable to prosecution as an illegal practitioner, and therefore a loss of professional services, it is hoped all of those will see the importance of complying with the laws and promptly effecting registration. The Directory is therefore of great value as an official register of those legally qualified to practice medicine in this State. For a full resume of the laws relating to the registration of physicians, see the NEW YORK STATE JOURNAL OF MEDICINE, June, 1906, page 266.

The Publication Committee and the Editor of the NEW YORK STATE JOURNAL OF MEDICINE have cheerfully co-operated whenever called upon by the Secretary, and the JOURNAL has been of great use in keeping the members informed on many subjects. To do the same work by circular or individual letter would mean a great additional expense to the Society. From this standpoint it is highly desirable that this manner of diffusing instructive information be continued.

In accordance with the Resolutions passed by the Ad Interim House of Delegates, January 30, 1906, certificates as Delegates from this Society to the Fifteenth International Congress were furnished to Drs. A. E. Macdonald, L. L. Seaman, C. C. Wagner, C. W. Allen, J. N. Vander Veer, and to the Annual Meeting of the New Jersey State Society to Dr. W. M. Leszynsky.

In conclusion the Secretary desires to express his sincere thanks to the officers and members of the State and County Societies for their uniform courtesy and assistance during the past year.

(Signed) WISNER R. TOWNSEND, *Secretary.*

January 21, 1907.

REPORT OF THE COMMITTEE ON SCIENTIFIC WORK.

To the House of Delegates:

The Committee on Scientific Work beg leave to present the following report for the year ending December 31, 1906:

The Committee, after consultation with the State Officers, decided to have the Scientific Programme completed in two days, and to have an extra evening session. This was thought advisable because many of the men could ill spare three or four days away from their professional duties at this time of the year, and it was believed that a programme of great interest could be arranged that would satisfy all demands.

The Committee sincerely trust that this change of plan, as compared with the methods of previous years, will meet with the approval of the Society.

Respectfully submitted,

(Signed) LEO H. NEUMAN, *Chairman.*

January 1st, 1907.

REPORT OF THE COMMITTEE ON ARRANGEMENTS.

To the House of Delegates:

The Committee on Arrangements respectfully submit the following report for the year ending December 31, 1906.

There have been several meetings held during the month of December, and arrangements are well advanced for the 1907 meeting.

The full report of expenditures and receipts for the meeting of 1906, will be found in the June, 1906, issue of the NEW YORK STATE JOURNAL OF MEDICINE, page 263.

(Signed) WILLIAM J. NELLIS, *Chairman.*

January 1st, 1907.

REPORT OF THE TREASURER.

ALEXANDER LAMBERT, *Treasurer*, In Account with THE MEDICAL SOCIETY OF THE STATE OF NEW YORK.

DR. CR.

CASH RECEIPTS, year ending December 31, 1906.		
To Balance State Society	$2,567.70	
Less applied to dues	438.00	
		$2,129.70
Balance N. Y. State Med. Assn., Jan. 1		1,541.52
Title Guarantee and Trust Co. Bond and Mortgage, Jan. 17		3,294.28
Sundry receipts during year		67.17
Directory catalogue sale		1,000.00
Directory advertising		1,502.10
Directory sales, 1905-1906 edition		1,099.50
Advertising, Journal, Jan. and Feb		837.39
Clerical work		174.61
Sale of Transactions		23.25
Interest on bank deposits		138.69
Centennial History		204.75
Committee on Arrangements Annual Meeting, 1906		334.60
Dues, Arrears, 1896-1905		370.00
Dues for 1906		17,168.50
Dues for 1907		159.00
		$30,045.06

CASH PAYMENTS, year ending December 31, 1906.		
By Annual dues overpayment		$144.00
Safe		65.00
Typewriter		80.00
Catalogue case		12.00
Carfares		68.24
Express		20.60
Outside clerical work		154.36
Secretary's travelling expenses		41.86
Sundry petty cash disbursements		156.98
Miscellaneous expenses		84.28
Accountant		200.00
Telephone		116.95
Stationery and printing		364.25
Postage—General		550.85
Referendum		257.00
Rent		500.00
Insurance		40.00
Trow Directory Co., balance due from 1905		2,000.00
Directory, 1906		9,894.87
JOURNAL, Jan. and Feb.	$1,342.18	
March to Dec. (inc.)	2,538.72	
		3,880.90
District Branches		103.25
Centennial History Repayments	$204.75	
J. J. Walsh	350.00	
		554.75
N. Y. State Med. Assn., dues returned		43.00
Salaries, exclusive of Directory and JOURNAL		773.00
Committee on Legislation		513.00
Annual Meeting, 1906		635.98
Legal expenses		3,461.75
		$24,716.87
Balance in Lincoln Trust Co.		5,328.19
		$30,045.06

ANNUAL DUES, 1906.

County.	*Am't Paid.*	*County*	*Am't Paid.*
Albany	$471.00	Onondaga	$372.00
Allegany	114.00	Ontario	174.00
Broome	144.00	Orange	195.00
Cattaraugus	114.00	Orleans	60.00
Cayuga	126.00	Oswego	165.00
Chautauqua	207.00	Otsego	114.00
Chemung	126.00	Rensselaer	225.00
Chenango	99.00	Richmond	150.00
Clinton	105.00	Rockland	81.00
Columbia	96.00	St. Lawrence	153.00
Cortland	78.00	Saratoga	123.00
Delaware	75.00	Schenectady	216.00
Dutchess	219.00	Schoharie	54.00
Erie	480.00	Schuyler	35.00
Franklin	99.00	Seneca	75.00
Fulton	111.00	Steuben	131.00
Genesee	104.00	Suffolk	207.00
Greene	78.00	Sullivan	54.00
Herkimer	132.00	Tioga	90.00
Jefferson	186.00	Tompkins	84.00
Kings	2,037.00	Ulster	156.00
Lewis	51.00	Warren	62.00
Livingston	9.00	Washington	86.00
Madison	120.00	Wayne	87.00
Monroe	657.00	Westchester	417.00
Montgomery	108.00	Wyoming	90.00
Queens-Nassau	294.00	Yates	33.00
New York	6,496.50	Unattached	3.00
Niagara	132.00		
Oneida	408.00	Total	$17,168.50

ADVANCE DUES, 1907.

Broome	$15.00	Herkimer	$3.00
Columbia	63.00	Orleans	15.00
Rensselaer	30.00	Steuben	3.00
Sullivan	3.00	Kings	15.00
Wayne	9.00		
Suffolk	3.00	Total	$159.00

DIRECTORY ACCOUNT, 1906.

Expenditures.

Postage	$333.00	
Stationery and Printing	126.60	
Delivery	1,060.06	
County Clerks	150.64	
Commissions	572.37	
Salaries	2,288.68	
Printing and binding	5,175.77	
		$9,707.12

Income.

Advertisements	$1,807.23	
Sales	950.50	
		2,757.73
Cost of Directory		$6,949.39

NEW YORK STATE JOURNAL OF MEDICINE.
Brooklyn Office.

Profit and Loss Account, Ten Months Ending December 31, 1906.

Debits.

General Expense:		
Office Printing, Stationery and Supplies	$133.50	
Exhibit British Med. Assn., Toronto	96.23	
Postage	83.62	
Extra Clerical Work	28.12	
Telephone tolls	9.85	
Express, etc	5.60	
Rent Extra Typewriter	4.00	
Traveling Expenses Adv. Solicitor	51.65	
		$412.57
Salaries		432.64
Commissions	$1,469.24	
Less chargeable 1907 account	629.57	
		839.67
Doubtful Debts	50.00	
Publication Account	6,253.45	
		7,988.33

Credits.

Reprints	$10.05	
Subscriptions and Sales	9.27	
Discounts	5.20	
Sundries	52	
Advertising	5,643.53	
		5,668.57
Net Loss		$2,319.76

NEW YORK STATE JOURNAL OF MEDICINE,
Brooklyn Office.

Balance Sheet, December 31, 1906.

Assets.

Accounts Receivable:		
Advertising	$1,258.28	
Reprints	116.30	
		$1,374.58
Advance Commissions, 1907		629.57
Inventory Paper on Hand		70.08
		$2,074.23

Net Assets.

Profit and Loss—Loss to date	2,319.76
	$4,393.99

Liabilites.

Brooklyn Daily Eagle	$1,519.77	
Home Trust Co.	178.72	
	$1,698.49	
Advertisers' Advance Payments	75.20	
Medical Society State of New York	2,620.30	
		$4,393.99

MEDICAL SOCIETY OF THE STATE OF NEW YORK.
INCOME AND DISBURSEMENTS, YEAR ENDING DECEMBER 31, 1906.

Income.

Arrears of Dues	$370.00	
Interest on Deposits	138.69	
Annual Dues, 1906	17,024.50	
		$17,533.19
Catalogue Directory, Sale of List		1,000.00
		$18,533.19

Expenditures.

Expense	$553.40	
Telephone	116.95	
Stationery and Printing	364.25	
Postage	737.85	
Rent	500.00	
Insurance	40.00	
Salaries (exclusive of Directory and JOURNAL)	773.00	
Committee on Legislation	513.00	
Legal Expenses	3,325.40	
Annual Meeting, 1906	373.38	
1905 Directory	180.00	
1906 Directory	6,949.39	
New York State Medical Ass'n	4.03	
Medical Society, State of New York	415.00	
Centennial History	350.00	
District Branches	103.25	
		$15,298.90
Excess of Income		3,234.29
		$18,533.19

MEDICAL SOCIETY OF THE STATE OF NEW YORK,
BALANCE SHEET, DECEMBER 31, 1906.

Assets.

Cash in bank	$5,328.19	
Petty	3.05	
		$5,331.24
Library	$3,000.00	
Furniture and Fixtures	682.00	
Directory Catalogue	3,000.00	
		6,682.00
*JOURNAL, January and February	$504.59	
J. P. Warbasse, Editor	2,620.30	
		3,124.89
Directory, 1906, accounts receivable		530.13
Union Dime Savings Bank	$1,526.25	
Albany Savings Bank	758.96	
		2,285.21
		$17,953.47

Liabilities.

Annual Dues, 1907		$159.00
Lucien Howe Prize Fund	$1,526.25	
Merritt H. Cash Prize Fund	758.96	
		$2,285.21
Surplus, January 1, 1906	$12,274.97	
Income, 1906	3,234.29	
December 31, 1906		$15,509.26
Total		$17,953.47

New York, January 12, 1907.

I hereby certify that the above balance sheet is correct as shown by the books.

(Signed) ALFRED H. WICKS,
Certified Public Accountant, N. Y. S.,
302 Broadway, New York.

* This represents the cost of the JOURNAL for 1906 in excess of the receipts. It is carried as an asset, and profits of the JOURNAL in the future will be credited against it.

REPORT OF THE COMMITTEE ON PRIZE ESSAYS.

To the House of Delegates:

The Committee on Prize Essays respectfully report to the House of Delegates that there have been no essays presented during the past year.

ABRAHAM JACOBI, *Chairman.*

January 1st, 1907.

REPORT OF THE COMMITTEE ON PUBLIC HEALTH.

To the House of Delegates:

Preventable death and preventable disease continue to destroy and to ravage the people of our state in hardly less proportions than they did twenty-five years ago. The little gains that we can note are not commensurable with our increased knowledge of the causes of diseases and of the ways by which they can be prevented. It is doubtful if the future shall add much of significance to the knowledge we already possess of the exact etiology of most of the infectious diseases and of the methods of protection against them which the people must adopt if they will save their lives, their health and their means. Twenty-five years is too short a time to overcome the ignorance, the prejudice and the inertia of the past. The old conception that disease is a "mysterious dispensation" of what was termed a "Divine Providence," and that man should accept it with resignation of spirit, is largely responsible for the apathy of the present generation of men, who, while they would now deny such interpretation of the cause of preventable disease, have still become so familiar with their ravages that little impression is made on them by their needless horrors. But knowledge is spreading slowly to the people, and leaders in science must be willing to reiterate the truths of Public Hygiene and to demonstrate them in simple terms easy of apprehension.

During the past year there has been an awakening of the public mind upon some of the fundamental facts in public hygiene such as no similar period of time has witnessed. The people have been aroused to the importance of pure food, and have enacted a law for self protection, which, if efficiently carried out, will make an enormous diminution in the death rate. They have come to some competent conception of the necessity of protecting the springs, streams and lakes from which they are supplied with drinking water from pollution from the excrement of animals and man and from chemical pollution from factories.

A few more epidemics of typhoid like that at Ithaca, at Washington and at Scranton will make the people insist upon the double precaution and added security offered by a modern filtration plant for all systems of water supply. The people will gradually see, that, while they insist upon the purity of the water which they themselves drink, they have no right to pollute by sewage the waters which flow from them and which must infect some other community. Because of the practice and the apparent necessities of former methods of sewage disposal, this question has become one too large to be solved with fairness by any single community, and because of the interstate and even international relations involved where the waters of a natural drainage area are concerned, as in the valleys of the Genesee, the Susquehanna, the Hudson and the St. Lawrence Rivers, prevention of the pollution of such systems must become a matter of national action.

The pure food law recently enacted and now in force, is a national measure and rightly so. No community, however obscure, at present furnishes its people with the food upon which the healthful nutrition of the body depends. The ends of the earth are drawn upon and their products are preserved by some of the modern methods until they are consumed. No power but that of the National Government can adequately protect the people from frauds and impurities in preserved foods.

Because of these facts and of many others which could be added but which are unnecessary to adduce before this body of educated physicians, your Committee commends the action of the American Society for the Advancement of Science in the appointment of a committee of one hundred of the eminent leaders in the professions to consider and propose the best way by which a National Department of Public Health may be established. We commend to your careful perusal the masterly presentation of the subject made by Prof. J. Pease Norton, and published in full in the journal of the American Medical Association of September 29, 1906.

We recommend that this society endorse the formation of a National Department of Public Health, and pledge its influence to carry into effect such a plan as this Committee of distinguished men may formulate.

Every community in the State is daily confronted with problems of public health which it must solve for itself. The character of individual water supplies from springs and wells, the purity of the milk supplied to consumers, the nature of the infectious diseases of the throat, the determination of the exact cause of enteric diseases and of respiratory diseases can only be solved by the aid of a competent bacteriologist. In cities of a certain size such examinations are habitually made by the city bacteriologist; but in the towns and villages no such provision is generally made. This is not only a great injustice to the people but it is a source of danger to large centers of population. Your Committee recommends that a concerted movement be made in every county for the establishment of a competent bacteriological labratory under the charge of a bacteriologist of recognized ability to which every physician in the county may send specimens for analysis. It is easy of demonstration that the expense of such a labratory will save to the county much more than it will cost.

The responsibility for the fact that our present attainments in the control of preventable deaths and preventable disease are not commensurate with our knowledge does not lie wholly with the people. Our state has not yet seen fit to demand evidences of special qualifications on the part of those who would serve as health officers, but such appointments have generally been made in con-

formity with the political exigencies in each town. Such a system is necessarily faulty. It has been repeatedly recommended by this Committee that the Regents should create the degree of Doctor of Public Health, and should grant it to such as have taken special post-graduate courses in the Science of Public Health in recognized Schools of Medicine, and that the State should enact a law, making only such as have such a degree eligible to appointment as Medical Health officers. This is in the spirit of the movement for improving the civil service. It is no experiment. The fruits of such a system are to be observed in more than one country, and they are only good. Your Committee once more recalls your attention to this important subject and recommends that the Society endorse the principle and endeavor through its Legislative Committee to secure such legislation as may be necessary to carry it into effect.

Last year a bill was introduced into the Legislature to abolish the existing system of granting licenses for the practice of medicine by displacing the three boards of medical examiners representing the three, recognized, so-called-schools of medicine, with a single board, equally chosen, who should examine all applicants for license to practice medicine in all subjects save only in therapeutics. Your Committee considered this a measure in the interest of the promotion of public health.

The public have demanded and they have the right to be assured that every individual licensed to practice medicine be so thoroughly educated in all of the sciences upon which the practice of medicine and surgery is based that he shall be able to make a correct diagnosis and to conduct with skill the treatment. It is not possible nor right for the state to say what particular forms of treatment are best. It can only demand proofs of scientific attainment. Year after year we have seen different groups of people, claiming special merit in some one form of treatment, come before the Legislature for recognition as a so-called "School of Medicine." In other states we have seen succeed in obtaining recognition at least two classes of healers, the followers of which ignore the truths of pathology. However much of good such treatment may have conferred in individual cases has nothing to do with the question. If modern science is true the fundamental propositions upon which they base their claim to recognition are false and only false. To admit to the practice of medicine those ignorant of all the truths of medical science, will result in disaster to the people. The people should be taught that there is but one science of medicine, however greatly those practicing it may vary in applying remedial measures. Every ignorant practitioner doubles the evil results of sickness. Only by such an improvement in our methods of safeguarding the people as proposed in this act can we prevent the recognition, one after the other, of every group of men who propose some vaunted new method of treatment. By demanding the same education of all those who would practice the art of healing, the state will unify the profession of medicine, while, at the same time, it will deprive no man of his right to use any method of applying remedial measures that appeal to his reason, nor will it take from any individual the right of selecting any physician he may like.

Your Committee urges the Society to take action favoring the passing of this bill.

Respectfully submitted,

(Signed) JOHN L. HEFFRON, *Chairman.*
HENRY C. HOPKINS,
HAMILTON D. WEY.

January 1st, 1907.

REPORT OF THE COMMITTEE ON LEGISLATION.

To the House of Delegates:

At the last session of the Legislature there were thirty-six bills pertaining to the public health or the practice of medicine, introduced in the Assembly. Of these, 31 were not reported out of the Committees to which they were referred; four were passed and signed by the Governor and one bill, which had passed both Houses, was vetoed by the Governor.

In the Senate, 16 bills were introduced, and of these only one was signed by the Governor.

There were several bills which had an important bearing on the medical profession. Two osteopathic bills were introduced and one came very near being passed. It was defeated mainly by the combined opposition of the medical profession.

The optometry bill was introduced, but was not passed.

A bill to regulate the practice of dermapathy was killed in Committee.

A number of bills relating to the pharmacy law in regard to the labelling of proprietary medicines, sale of narcotics, poisons, et cetera, were introduced, but only two of them became laws.

A most important measure was introduced in the Assembly and known as the Assembly Public Health Committee's bill. The object of this bill was to regulate the practice of medicine and the establishment of one medical board for all medical schools, irrespective of sect or creed. In the judgment of the Committee on Legislation, this was by far the most important medical bill, before the Legislative session. The bill was vigorously opposed by the homeopaths and by reason of its late introduction was not reported out of Committee.

The Committee on Legislation of the Medical Society takes great pleasure in reporting the defeat of all osteopathic bills and many others detrimental to the public health.

If anything more minute as regards detail is desired, the information will be found in Fox's Annual Report.

Respectfully submitted.

(Signed) ARTHUR G. ROOT, *Chairman.*

January 1st, 1907.

REPORT OF THE COMMITTEE ON PUBLICATION.

To the President and Council of the Medical Society of the State of New York:

The Committee on Publication begs leave to submit the following report on the JOURNAL and Directory for the year of 1906:

At the first session of the Committee the sources of revenue to carry on the publications of the State Society were considered, and a business agent was engaged to look after the advertising department of the JOURNAL and Directory. It being thoroughly understood that all copy of the advertisements should be approved by the Committee. The ease with which contracts for a certain class of proprietary remedies can be secured brought the questions connected with the advertisement of such remedies to the attention of the Committee, and they have received careful consideration throughout the year.

In the beginning of its work the Committee adopted certain rules which have formed the basis of receiving advertisements in the Directory and JOURNAL. Such rules having been in operation since the publication of the former in 1899 and of the latter in 1900. One of the adopted rules states that the name and the amount of the active ingredients of all internal and external proprietary medicines, should be published to the profession, either upon the label or wrapper, or at least once in the JOURNAL of the State Society. All patented medicines which, under the law must be new and useful definite chemical compounds, of known formula, the process of manufacture thereof being published in the patent papers issued by the government, a copy of which can be obtained by any one, and if placed in the hands of a competent pharmaceutical chemist, he can, by following the process as published, produce the identical preparation found upon the market, but no commercial use can be made of it by others while the patent is in force. Such proprietary or patent medicines are acceptable as advertisements under the same conditions as open formulas.

None of the so-called secret synthetics have been accepted as advertisements in the JOURNAL of the Society, although the proprietors of many of them claim that they are definite chemical compounds, and some go so far as to publish formulas, in meaningless chemical symbols. They are not patented, as the process of their manufacture is secret, only their names are protected by being registered under the trade-mark law. They are mixtures or psuedo-chemical compounds; the large majority of such remedies which are exploited to the medical profession contain Acetanilid.

In order to distinguish readily patent medicines (which are protected by letters patent issued by the government)—from the secret synthetics (the names of which are only protected by the trade-mark law) the former should have its patent number published with the advertisement. And in the case of proprietary pharmaceutical mixtures of open formulas the date of the issue of the JOURNAL containing their formulas should be plainly stated in the advertisement. All internal and external proprietary remedies such as secret pharmaceutical mixtures and secret synthetics, the formulas or process of manufacture not being published, are classed as nostrums, and the advertisements of such preparations are not accepted for publication. The proprietary foods have not been considered by the Committee as coming under this rule. The value of publishing the name and formula of the active ingredients of proprietary remedies has been demonstrated many times. In the advertising columns of the JOURNAL of this Society there appeared a proprietary medicine, the formula of which was published in several issues. The Council of Pharmacy of the American Medical Association analyzed the preparation advertised and the analysis showed that the ingredients differed widely from those given in the published formula. The Committee was unable to get a satisfactory explanation of the discrepancy from the proprietor of the medicine, therefore his advertisement was dropped from the JOURNAL.

The Committee has always acted under its second rule of editing copy of advertisements for greatly exaggerated claims as to the therapeutic value of the preparation.

Under its third rule the Committee passes upon the standing of the firm submitting preparations to be advertised.

A fourth rule rejects all internal and external medicines advertised to the general public if the advertisement contains extraordinary and deceptive claims as to therapeutic value of the remedy.

The Committee wishes to acknowledge the great value to the medical profession of the Council of Pharmacy of the American Medical Association which is doing splendid work in educating the profession along the lines of Scientific Medication and away from the nostrum evil for which the profession appears to be largely responsible. The Committee wishes also to acknowledge the valuable services rendered to the general public by *Collier's Weekly* and the *Ladies' Home Journal,* in exposing the poisonous drugs contained in secret medicine, and especially for their work in helping to secure the enactment of pure food laws.

Education is a great factor in the evolution of the question before us; we must look to the teaching bodies for the far-reaching and permanent improvement which can be assured only by the more thorough instruction of students in Materia Medicine, and therapeutics as embraced in the larger study of pharmacology, so that their graduates may go forth with more knowledge to meet the responsibility connected with the practice and support of legitimate pharmacy and scientific medication. The nostrum evil will give way before efficiency in pharmacology, leading as it does to a more general use of the *United States*

Pharmacopœa, National Formulary and reliable pharmaceutical preparations, instead of nostrums.

The Committee on Publication, for the convenience of administration, transferred all business connected with publishing the JOURNAL to Brooklyn, in March, 1906, where the Editor, Dr. J. P. Warbasse, established an editorial office, and assumed control of the finances, as well as of the editorial department of the JOURNAL. He was placed under a bond of $2,500, the premium of which was paid by the Society.

The Treasurer's report shows that the expenses to the Society of conducting the JOURNAL for the year 1906 was as follows: During January and February, when the officers of the Society edited the JOURNAL, the net loss was $504.59, and for the ten months from March to December, $2,319.76, making the total net cost to the Society for the JOURNAL during 1906 $2,824.35. This sum is much less than would have been the cost of issuing 6,000 copies of transactions. And as the JOURNAL contains not only the papers read at the annual meeting and the official minutes, but many interesting and valuable articles, extracts of current literature, news items, etc., the advantage of the JOURNAL over the transactions would seem to be manifest. The JOURNAL of to-day compared with the JOURNAL of a year ago shows a great increase in the number of pages of both rading and advertising matter, and every possible endeavor has been made to publish a JOURNAL worthy of the Society. The expense of the JOURNAL to the Society has shown for each month a gratifying diminution and the Committee believe, from present indications, that the deficit for 1907 will be smaller than for 1906.

The Directory for 1906 was compiled in the office of the Society and no trouble was spared to make it the most accurate book of its kind ever published. This, the Committee believes, has been accomplished. It is gratifying to note that the American Medical Association, realizing the value of the work done on the Directory by the Society, made a satisfactory financial arrangement whereby the data for New York State for the National Directory was supplied by this Society. The cost of the 1906 Directory to the Society for the edition of 6,000 was $6,949.39.

The Secretary and Treasurer, on June 25, were commissioned by the Publication Committee to ascertain how many volumes of the Directory should be printed. Every possible effort was made to learn from reliable sources how many members had then paid their State assessment, and what further number might be expected to pay before December 31st. It was realized that it was desirable not to have an edition in excess of the expected requirements, because of the expense involved, and because, after the year 1906 was passed, there would be no further demand for the book, and the unused copies could not be disposed of at any price. The problem was a particularly difficult one, as there was no definite data on which to base an estimate. In the past a large number had been sold to those members, who to-day were entitled to receive the book free, as members of the Society, therefore the sales from that source would naturally be less. The results in this direction accorded exactly with the above views, nor did the demand from tradespeople exceed the anticipations. Five hundred copies it was estimated would be needed for advertisers, druggists, hotels, physicians not members of the Society, etc. The number actually disposed of in this manner was 471. Of this number 373 were sold prior to December 1st; after that date, no copies were sold. The complimentary list was practically abolished; only six being sent out.

When the printer was given the order for the publication of the Directory in July, less than 4,200 members out of a membership of 6,400 had paid their State assessment, according to the reports received from the County Treasurers. Adding this number to the 500 alloted for other purposes made a total of 4,700. An edition of 6,000 was ordered, as that number was considered ample for all purposes, because the most optimistic of the reports gathered by letter or by personal interview with members throughout the State did not lead to the belief that more than 5,000 would pay the state assessment and thus be entitled to receive a copy of the Directory. The results, however, have far exceeded the most sanguine expectations, over 5,700 having paid the State assessment, and of this number nearly 1,800 have paid since the contract was signed, with the result that the entire edition has been exhausted. It, therefore, follows that a certain number can not be provided with the Directory of 1906, and exactly the proper method of adjusting the matter is somewhat perplexing.

The Committee would respectfully suggest that a Committee of Three be appointed by the Chair to decide what allowance should be made to those members who failed to receive the Directory.

The Committee recommends for the guidance of those who may be in charge of the JOURNAL and Directory hereafter that the following rules should be adopted as the basis for accepting advertisements in the publications of the Society:

RULE NO. 1.

The name and amount of the active ingredients of all external and internal proprietary medicines advertised in the JOURNAL and Directory of the Society shall be published to the profession either upon the label or the wrapper, and also, at least once in the JOURNAL or Directory, *provided,* however, that the date of the JOURNAL or Directory bearing the formulas shall be plainly stated in connection with these special advertisements, in each subsequent issue of the JOURNAL.

RULE NO. 2.

All patented medicines, (which under the law must be new and useful definite chemical com-

pounds, of known formula, or process of manufacture, and which are accessible to any one) are acceptable as advertisements under the same conditions as open formulas. *Provided,* however, that the patent numbers of such medicines shall be published with the advertisements of each issue of the JOURNAL or Directory.

RULE No. 3.

All internal and external secret pharmaceutical mixtures, and secret synthetics (where the processes of manufacture are not divulged), shall be classed as nostrums and the advertisements therefore shall not be accepted for publication.

RULE No. 4.

All internal and external remedies which are advertised to the general public in an extraordinary or deceptive manner and those containing dangerous and potent drugs shall be refused publication in the JOURNAL or Directory.

Respectfully submitted,

(signed) E. ELIOT HARRIS, *Chairman.*
FLOYD M. CRANDALL,
HERMANN M. BIGGS,
ALEXANDER LAMBERT,
Jan. 21, 1907. A. T. BRISTOW.

REPORT OF THE EDITOR OF THE NEW YORK STATE JOURNAL OF MEDICINE ON THE TEN NUMBERS, MARCH, 1906, TO DECEMBER, 1906, INCLUSIVE.

To the Committee on Publication,
Medical Society of the State of New York:

Your Editor took charge of the JOURNAL beginning with the March, 1906 (Vol. VI, No. 3) issue. It has been his aim to develop as rapidly as possible a journal which should reflect credit upon the Medical Society of the State of New York.

INCREASE IN SIZE.

The JOURNAL shows an increase in the number of pages of both reading and advertising matter.

	Number of Pages		
Issue.	Reading Matter.	Advertising Matter.	Total.
March, 1906.....	64	44	108
April, 1906.....	48	36	84
May, 1906.....	42	34	76
June, 1906.....	36	32	68
July, 1906.....	36	32	68
August, 1906.....	42	34	76
September, 1906.....	36	32	68
October, 1906.....	34	34	68
November, 1906.....	34	38	72
December, 1906.....	40	40	80
Totals	412	356	768
Monthly average.	41.2	35.6	76.8

Two hundred and fifty-six pages (62%) of the total number of pages of reading matter have been devoted to original articles (averaging in number 7½ per issue), and 156 pages (38%) to the various regular Departments.

TYPOGRAPHICAL APPEARANCE.

With the March number a cover was put on the JOURNAL, and marked improvements were made in its typographical appearance.

CIRCULATION.

Beginning with the March issue also, the JOURNAL started printing a monthly edition of 10,000 copies. Copies in excess of those mailed to the regular subscription list of members of the Society and others, were utilized in a campaign for subscribers, were sent to prospective new advertisers, etc., and a small stock has been kept to supply new subscribers desiring back numbers.

BUSINESS DEVELOPMENT AND PRESENT STATUS.

The actual mechanical expense incurred in the publication of the JOURNAL in its present improved form is by no means small, and during the period in which the JOURNAL has been put on its present sound financial basis a deficit has been incurred as was anticipated at the start. The actual net deficit for the ten numbers amounts to $2,319.76 and includes every expense connected with their publication. It should be clearly understood, however, that this deficit was incurred while the JOURNAL was undergoing development, and that to-day the JOURNAL is self-supporting. The large increase in the membership of the Society resulting from amalgamation and the consequent enlargement of the circulation of the JOURNAL, with its attendant cost, at first was not offset by any corresponding increase in the JOURNAL's revenue; in fact, by far the greater portion of the deficit incurred is chargeable to the first two or three numbers. At the end of ten months, however, the outside revenues of the JOURNAL have been increased to approximately 250 per cent., so that, in its present size, the JOURNAL is earning enough now to more than pay all its expenses.

Sufficient literary material of high scientific value has been offered for publication to provide for a JOURNAL containing twice as much original material as has been published, and the question of publishing a much larger and better journal resolves itself into one of finance only.

CENSORSHIP OF ADVERTISING.

Every advertisement appearing in the JOURNAL has first been favorably passed upon by the Committee on Publication.

FINANCIAL REPORT.

The books of the JOURNAL, closed Dec. 31, 1906, have been audited by a certified public accountant, and show:

BUSINESS STATEMENT.

	Losses.	Gains.
Publication (see Schedule A for items)	$6,253.45	
General Expense (see Schedule B for items)	412.57	
Salaries (editorial)	432.64	
Commissions on advertising (1906 business)	839.67	
Profit and loss (see Schedule C for items)	34.23	
Advertising, subscriptions and sales		$5,652.80
Balance, net deficit		2,319.76
	$7,972.56	$7,972.56

FINANCIAL STATEMENT.

	Resources.	Liabilities.
Bills Receivable:		
From advertisers	$1,258.28	
From authors for reprints	116.30	
	$1,374.58	
Bills Payable:		
To printer		$1,519.77
Advertising Commissions paid in advance (1907)	629.57	
Advertising paid in advance, not yet earned		75.20
Inventory:		
Paper stock, cost price	70.08	
Cash, overdraft		178.72
Medical Society State of New York, Cash Investment		2,620.30
Balance, net deficit	2,319.76	
	$4,393.99	$4,393.99

SCHEDULE A.

Publication Account: Items.

Printing (including composition, press work, binding, electrotyping and engraving, etc	$3,540.85
Paper	2,106.12
Postage (mailing the JOURNAL only)	424.54
Wrappers, addressing and mailing	176.94
Copyright fees	5.00
Total	$6,253.45

SCHEDULE B.

General Expense Account: Items.

Office printing, stationery and supplies	$133.50
Cost of Exhibit, British Medical Association, Toronto, August, 1906	96.23
Postage (editorial and business offices)	83.62
Traveling expenses (advertising solicitor)	51.65
Extra clerical work	28.12
Telephones (tolls)	9.85
Express, etc	5.60
Rent of extra typewriter, one month	4.00
Total	$412.57

SCHEDULE C.

Profit and Loss Account: Items.

	Debit.	Credits.
Discounted bills, exchange, etc	$60.98	$66.18
Sundries	11	10.68
Uncollectable accounts charged off books	50.00	
Balance shown in business statement above		34.23
	$111.09	$111.09

CERTIFICATE.

I have examined the foregoing statements and schedules, and have compared same with the books and accounts of the NEW YORK STATE JOURNAL OF MEDICINE, and have examined and verified the disbursements stated with the vouchers therefor, and have verified cash, bank and check books; and I find the same correct.

(Signed.) ALFRED H. WICKS,
January 9, 1907. Certified Public Accountant.

From the foregoing Financial Report it will be noted: That of the gross expenses of the JOURNAL, General Expense account was only about 5 per cent. (and of this 5 per cent. nearly 90 per cent. was expended for advertising the JOURNAL and extending its outside subscription list). The JOURNAL is under no expense whatever for rent of editorial and business offices, care and maintenance of same, or for office furniture and equipment, etc.

Losses from bad accounts only about .00 3-5 per cent.

Actual cost of manufacture over 78 per cent., and salaries, commissions, bad accounts, general and office expenses, cost of securing advertising and subscriptions, all told, less than 22 per cent.

ACKNOWLEDGEMENT.

Grateful acknowledgement is made to the contributors of original articles and of other material, and particularly to those who have taken editorial charge of the various departments under the head of "Progress of Medicine."

Respectfully submitted,
JAMES P. WARBASSE, *Editor.*
Jan. 10th, 1907.

REPORT OF THE COUNSEL.

DR. JOSEPH D. BRYANT,
President, Medical Society of the State of New York, and the HOUSE OF DELEGATES.

Sirs:

I have the honor to transmit to you herewith my report covering malpractice defense on behalf of the members of the Medical Society of the State of New York, from January 1st, 1906, to January 1st, 1907.

At the commencement of the year 1906 I had in my hands undisposed of the following cases which had previously to that date been brought and defended by me on behalf of the members of the New York State Medical Association:

(A) This was an action in which the alleged negligence of the physician consisted in the care of a woman in childbirth. Upon my advice the doctor set up as a counterclaim, his bill for services to which bill the plaintiff neglected to reply, and the plaintiff's attorney was called upon to pay costs in order to interpose a reply. The reply was interposed and the costs paid, and the action restored to the calendar. This case is now ready to be dismissed for failure to prosecute, and the doctor will be given an opportunity to collect his bill as the malpractice claim will have then outlawed and cannot be set up as a counterclaim to the bill.

(B) This was an action where the physician sought to collect a bill; the bill was denied and malpractice set up as a defense, the patient alleging negligence in operation on bladder. The action was tried, the allegation of malpractice disposed of and the physician recovered a verdict for the amount of his bill.

(C) This was an action against a physician charging

failure to properly set a broken right arm; an attorney of Erie County appeared to defend. Action discontinued.

(D) Action brought against two physicians, one a member of the Society and one not a member of the Society. Your counsel defended the member of the Society and served the pleadings. The case was placed on the general calendar for trial and noticed for trial by your counsel and by the attorney for the plaintiff; is still undisposed of. A motion to dismiss this case for failure to prosecute might be successful.

(E) This was an action to recover for alleged improper setting of a fracture of the tibia and fibula. Case was tried, trial lasting eleven days, which resulted in a verdict of $1,900 against the defendant. This case is now in preparation for appeal to the Appellate Division, Fourth Department. The appeal will probably be argued in March. This case is of special interest as it showed a somewhat extraordinary situation in that there appeared between the broken ends of the tibia fragments of muscle which prevented the union of the bones, which condition was not discovered until the radical operation of cutting down on to the bone was resorted to.

(F-1) This was an action brought in the Supreme Court of New York County; the malpractice in this case consisted in failure to properly treat and operate on a woman for hemorrhage of the uterus, and the further allegation that the woman was abandoned by the doctor who left her without medical attention. In this case the question was raised as to whether or not a doctor could leave a patient temporarily in the care of another doctor. The case is undisposed of and does not appear on the last calendar of the Court. Within a few months a motion to dismiss this action for failure to prosecute may be successful.

(F-2) This is an action brought in the City Court by the husband of the above woman for loss of services. The malpractice consists, of course, of the same alleged facts.

(G) This was an action brought for failure to properly set and cure a broken wrist. The action was tried and a verdict rendered for the defendant. Costs were taxed against the plaintiff, but not collected.

(H) This is an action brought for an X-Ray burn; the case is on the calendar of the Supreme Court for trial, No. 1284, and should be reached for trial before June, 1907.

(I) This was an action in which the malpractice consisted in the alleged improper and negligent setting of a broken clavicle. Your counsel has been called on by the attorney for the plaintiff in this case to attempt a settlement. Recently the case has not been placed on the calendar for trial, and it is believed the case will be dropped for that reason. During the next year a motion to dismiss this case for failure to prosecute might be successful.

(J) This in an action in which the alleged malpractice arose from failure to diagnose an alleged fracture of the elbow; this action will be reached for trial during 1907 and is No. 1312 on the new calendar of the Supreme Court of New York County.

(K) This is an action for failure to properly cure a fracture in upper third of the femur. This action has been on the calendar several times for trial, and on one occasion your counsel started for the Court in a remote county, but the case was marked off. It has since been discontinued. The physician in this case has a small claim for services and money advanced, which he will now be able to recover as the time to set up the malpractice defense to his bill has expired.

(L) This is an action brought by a woman charging negligence in an operation upon her for constipation and prolapsed uterus. This operation was performed in a hospital. The case is now on the calendar for trial in the Supreme Court, New York County, and is No. 2934. It may be reached for trial during 1907,—probably not.

(M) This is an action brought by a woman to recover damages for the improper certification of insanity, coupled with an action for assault; the alleged assault occurred at the time when the woman was being removed to an institution for treatment. Several motions in Court were made in this action to compel the plaintiff to separately state her causes of action; the litigation finally resulted in your counsel compelling the plaintiff to discontinue.

The following actions have been begun during the year 1906:

(1) This was an action caused by a doctor attempting to collect a bill for treatment of a woman in confinement; the alleged malpractice consisted in failure to repair lacerations. The action was tried and resulted in the doctor collecting his bill.

(2) Your counsel was consulted by a physician of this city, where a woman threatened the doctor with malpractice if action was brought to recover for his attendance. Your counsel advised that a letter be written demanding immediate settlement; the proposed malpractice suit in this case was abandoned.

(3) This was an action in which the alleged malpractice consisted of negligent and careless operation upon the eye of a child in one of the institutions of New York City. Action was begun, advice was given to the physician, and your counsel is conducting this case in connection with an insurance company, acting as advisory counsel.

(4) This was an action brought by a man as the result of the alleged improper certification of insanity, wherein the plaintiff in the action was incarcerated, and within a very short time was discharged by an order of a county judge. The action was tried and was settled against the advice of counsel in court, for the sum of sixty dollars.

(5) This physician was sued with the foregoing one on the same cause of action, and settled as I have indicated.

(6) In this case your counsel was consulted by the wife and friend of the physician, who was threatened with a malpractice suit as the result of an alleged improper adjustment of a fracture. The action was never brought, and your counsel was called upon finally to advise the family of this physician as to his own care and treatment, as it subsequently developed that he was mentally incapacitated.

(7) This action was never actually begun, although considerable correspondence was had between your counsel and the attorney for the proposed plaintiff, after a letter had been written to the physician. The malpractice consisted in the alleged delivery of an improper prescription, which the proposed plaintiff claimed that he had had filled and had used. As a matter of fact, the prescription was not the one provided by the physician, and this case was either one of barefaced attempt at blackmail or a careless mistake on the part of the patient.

(8) This was an action alleging carelessness in connection with the use of the X-rays and diagnosing a dislocated and fractured shoulder, resulting in the burning of a woman's breast. This action is now on the calendar for trial, and may be reached during 1907.

(9) This was an action brought against a member of the Society, and as a co-defendant the consultant was sued, and your counsel was called upon to defend him also. The alleged malpractice consisted in failure to diagnose and properly treat an alleged fracture of the neck of the femur. The case was tried at great length, and resulted in a disagreement by the jury in June, 1906. Recently the case has been again moved by the plaintiff, and your counsel expects that the case will again be tried during the early part of 1907.

(10) In this case a malpractice action was threatened if the physician brought suit to recover for his bill. Your counsel was called upon to advise the physician, and did advise in favor of bringing an action for his bill. Your counsel believes that the action on the bill was successful, though he was not employed to collect the same.

(11) This was an action brought by a woman undoubtedly insane, in which the plaintiff alleged that she

was lacerated and maltreated during an examination by the physician. The plaintiff in this case had been to several charitable organizations to enlist them on her behalf, as well as to the German Consulate at New York City, and finally secured the services of a firm of attorneys who brought the action. Your counsel was substituted for the attorney who originally represented the defendant, and the suit was pressed for trial, with the result that the attorneys bringing the action retired from the case and returned the papers to the plaintiff. Subsequently thereto the plaintiff met the physician in the street and shot him and seriously injured two citizens. The plaintiff is now in prison, and will be promptly placed in the State Asylum for the Criminal Insane for proper care.

(12) This case has not actually developed into a malpractice suit yet, but your counsel has been called upon to give advice in connection with the correspondence between the proposed plaintiff and the physician. It is hoped that the malpractice action will be avoided.

(13) Presents practically the same state of facts.

(14) This is an action brought by the wife of a brother practitioner against a physician in which it was alleged that the defendant was guilty of malpractice in that he carelessly and negligently treated a lachrymal abscess on the plaintiff's nose and made use of certain disinfectants, with the result that the patient lost her eye. Counsel was able to set up a complete defense to this action, and the plaintiff's attorney was compelled to discontinue the case and pay costs.

(15) In this case your counsel was called upon to advise with reference to the collection of a bill in which malpractice was threatened as a defense. Advice was given and up to the present time no action has been actually begun.

(16) This is an action wherein the malpractice consisted of a fracture of the elbow. This action was begun in May and the pleadings duly served, but for some reason the case has never been placed upon the calendar for trial. It would be unwise to move to dismiss the case for failure to prosecute at this time, although that will be eventually the manner of its disposition.

(17) In this case your counsel was called upon to advise as to the course to be pursued by the physician in a threatened case for malpractice resulting from improper treatment of a fracture. There has been some correspondence between the physician and your counsel with the hope that the action will be avoided.

(18) This is an action brought in reply to a suit by the physician to recover for his fees for an operation for fistula in ano. The case was brought on for trial and the defendant defaulted. Judgment was taken for the full amount of the surgeon's bill.

(19) This was an alleged abandonment by the physician of a woman in confinement. After some correspondence your counsel was called upon by the attorney in the case and the fact was explained to him that the physician had another similar case which demanded immediate attention on account of hemorrhage, and the matter was then dropped and the physician excused.

(20) Was an action threatened by an attorney against a physician wherein through correspondence between the patient's father and the physician, and between the patient's father and your counsel, it was urged that the physician failed to correctly diagnose a case of measles, and by reason of this failure to correctly diagnose the disease, the parent had been called upon to expend a large amount of money which he sought to recover from the physician. The action has never been brought to actual suit, and your counsel feels has been abandoned.

(21) This was an action brought by a father on behalf of an infant child alleging malpractice in the improper setting of a triple fracture at the elbow joint. The action was tried at great length and resulted in a full vindication of the doctor. His bill had already been paid.

(22) This was an action brought by the father against the same physician for loss of services of the child, and involved the same state of facts.

(23) This action was brought to recover for an alleged malpractice in connection with the use of the X-ray in a case of epithelioma. In this case the physician is being defended by an Insurance Company, and your counsel is acting as advisory counsel and passing upon the various preparation of papers and conduct of the case. The active management of he case is in the hands of the Insurance Company.

(24) This action resulted from a suit brought by the doctor to recover for his services amounting to $50, in which the husband of a woman claims that the doctor was careless and negligent in curetting the uterus. The doctor was called in as a specialist to complete the work of another physician. This case has been tried once, the defendant having defaulted and a verdict was entered in favor of the doctor. The case, however, has been restored to the calendar and will have to be tried again.

(25) This was an action brought to recover for alleged carelessness and negligence by a physician in caring for an injured ankle. The foot of this patient was subsequently removed by another physician, and the malpractice suit followed. This case is on the calendar, but will not be tried for some time.

(26) This action was begun by the service of a summons only. At the same time an order was granted by a Justice of the Supreme Court requiring the doctor appear and be examined as to what the exact nature of the disease was for which he treated the child, and what his course of treatment was. In the judgment of your counsel this order was improper, and the order of the judge was vacated. A motion was made to vacate the last order of the Justice, which motion was denied, and a motion was made by your counsel to dismiss their case,, and this motion was granted. The case has been thus ended. This kind of an order arbitrarily required a doctor to appear and be examined before service of a complaint is extremely dangerous This application to examine a physician has been made before, but has failed on each occasion.

(27) This is an action for an X-ray burn in the course of treatment for a diseased condition of the legs of the plaintiff known as eczema rubrum. This action will probably be tried during 1907.

(28) This is an action to recover damages for a physician's failure to give proper advice as to the care and treatment of a broken wrist. The physician in this case only saw the patient on one occasion and instructed the patient to go to some other physician and have a skiagraph taken of the wrist, which the patient did not do, but subsequently brought the action. The physician is now represented by a firm of local attorneys, and your counsel has acted simply in an advisory capacity.

(29) This action and the action following arose out of the same course of treatment in which the wife alleges damages for shock to the nervous system, pain and suffering resulting from the physician's failure to properly attend her in confinement, and that by reason of such neglect on his part she was called upon to suffer unnecessary pain and has been permanently injured in her health.

(30) This is an action brought on the part of the husband for loss of services by reason of the neglect of the physician as appears in the above action. In neither of these actions has the time expired to answer, and therefore, to even approximate the time when the actions will be tried.

You will observe that I have omitted the names of the physicians connected with these various litigations, because I feel that it would be undesirable and unwarranted to publish the same, although the complete record is accessible in the office of your counsel.

All of which is respectfully submitted,

(Signed) JAMES TAYLOR LEWIS, *Counsel,*
40 Exchange Place, New York.

Jan. 1, 1907.

ANNUAL REPORT.

STATE BOARD OF MEDICAL EXAMINERS.

To the Members of the Medical Society of the State of New York:

Herewith is presented the annual report of the State Board of Medical Examiners representing the Medical Society of the State of New York:

Total number of candidates examined for license since the establishment of the Board, 1892-1906.

	Total No. of Candidates.	Passed.	Rejected.	% Rejected.
State Board	9,124	7,337	1,787	19.5
Homeopathic Board	709	614	95	13.3
Eclectic Board	295	206	89	30.1
Total	10,128	8,157	1,971	19.4

Candidates examined from July 31, 1905, to August 1, 1906, for full examination:

	Total No. of Candidates.	Passed.	Rejected.	% Rejected.
State Board	379	292	87	22.9
Homeopathic Board	27	21	6	22.2
Eclectic Board	14	8	6	42.8

Primary medical examinations (anatomy, physiology, and hygiene, chemistry), July 31, 1905, to August 1, 1906.

	Total No. of Candidates.	Passed.	Rejected.	% Rejected.
State Board	262	258	4	1.5
Homeopathic Board	29	28	1	3.4
Eclectic Board	9	9	0	0.00

Final examinations (candidates who had previously passed their primary tests and appeared in 1905-6 before the Board for examination in surgery, obstetrics, pathology and diagnosis, therapeutics, practice and materia medica).

	Total No. of Candidates.	Passed.	Rejected.	% Rejected.
State Board	276	264	12	4.3
Homeopathic Board	29	29	00	0.00
Eclectic Board	10	10	00	0.00

Honor men for the year:

State Board	9
Homeopathic Board	3
Eclectic Board	0

The rejections per topic for the academic year were as follows:

Anatomy	43
Physiology and Hygiene	44
Chemistry	27
Surgery	41
Obstetrics	46
Pathology and Diagnosis	40
Therapeutics Practice and Materia Medica	10
Average rejection per topic	36

Total number of candidates for license, including those who took the full examination and those who took the final examinations was 735, against 810 last year, 778 in 1904, 756 in 1903 and 685 in 1902.

The total number of examined candidates appearing before all three boards was 1,035 against 1,195 last year.

During the year arrangements have been perfected whereby reciprocity for licensure is now effective with Ohio and Michigan. Satisfactory results from similar action with New Jersey, as stated in the last annual report, lead us to assume that no friction is likely to occur in these relations and that the group of three states, above mentioned, with which we are now interchanging indorsement of earned licenses, will be largely augmented ere long. Many other states are clamoring for reciprocal recognition and when the question of standards is adjusted in keeping with the provisions of the New York State laws, we never hesitate in taking favorable action on similar applications.

We regret our inability to report decisive action on the part of the committee appointed to outline the minimum requirements of the law regarding the combined seven years course in arts and in medicine. The issues involved are vexatious and much study is essential to reaching a judicious conclusion in the matter; therefore, the delay—however, all indications point to an early solution of the problem.

Dr. George Ryerson Fowler, who was taken ill on his way to attend the 1906 meeting of this Board, died, February 6, 1906. Appropriate action was taken by this body, expressive of its feelings of sorrow at Dr. Fowler's death, and an engrossed copy of the minute adopted in that connection was forwarded to the widow of the deceased. The Board also attended the obsequies. By action of the Regents of the University of the State of New York, Dr. Arthur W. Booth was appointed to fill the unexpired term caused by Dr. Fowler's death. Dr. Potter was appointed by this Board to succeed Dr. Fowler as a member of the Question Committee, and Dr. Booth was appointed to succeed Dr. Fowler as Examiner in Surgery.

During the year two conferences were held with officials of the Medical Society of the State of New York for the purpose of discussing matters relating to the registration of medical practitioners in the State. The measures taken by Dr. Townsend, Secretary of the State Society, to correct the evils existing in this connection have proven highly efficacious.

At the first session of the annual meeting of the Board held January 28, 1907, the following officers were elected for the ensuing year: President, William Warren Potter, M. D., Secretary, Maurice J. Lewi, M. D. The above are also constituted members of the Question Committee.

By order of the Board,

(Signed) M. J. Lewi, *Secretary.*

DELEGATES.

Delegates present from other State Societies at the 1907 meeting:

Dr. Joel Goldthwaite, of Boston, Massachusetts Medical Society; Dr. W. W. Townsend, of Rutland, The Vermont State Medical Society.

MEETING OF THE AD INTERIM HOUSE OF DELEGATES.

A meeting of the Ad Interim House of Delegates of the Medical Society of the State of New York, was held at 64 Madison Avenue, New York, at 3.15 P. M., December 8, 1906.

Dr. Joseph D. Bryant, President in the Chair. Dr. Wisner R. Townsend, Secretary.

The following were present: Drs. Joseph D. Bryant, Wisner R. Townsend, F. C. Curtis, Abraham Jacobi, Albert Vander Veer, Leo H. Neuman, Arthur G. Root, William J. Nellis, Alexander Lambert, Willis G. Macdonald, Parker Syms, Edward D. Fisher and Frank Van Fleet.

Dr. Bierwirth was excused from attendance, as he was only recently convalescent from an attack of appendicitis.

Dr. Harris telephoned his inability to be present on account of a professional engagement.

TREASURER'S REPORT.

The Treasurer's Report was read by Dr. Lambert:

Bank balance, December 7, 1906....	$4,986.34	
Bills receivable		
Advertisements.	1,100.40	
Directory sales	161.50	
Interest on deposits (about)	100.00	
One hundred and fifty directories on hand at $2.50 per copy.....	375.00	
		$6,723.24
Bills payable	$770.77	
Estimated expenses to January 1, 1907	532.00	
		$1,302.77
Estimated balance, January 1, 1907 (about)		$5,420.47

I desire further to report to the House of Delegates that the cost of placing the JOURNAL on the present self-supporting basis has been for the year 1906, $2,825.62. On December 7, 1906, 5,359 members had paid their State assessment for 1906.

Dr. Neuman, for the Committee on Scientific Work, reported progress. Dr. Root, for the Committee on Legislation, reported progress. Dr. Nellis, for the Committee on Arrangements, reported progress. There was no one present to report for the Committee on Public Health.

MOVED, seconded and carried that the Ad Interim House of Delegates endorses legislation, favoring a single Examining Board, as was provided for in the Bill introduced in the Legislature last year.

MOVED, seconded and carried that the Committee on Legislation be authorized to incur the necessary expenses for postage, telegrams, stenographer and legislative clerk.

MOVED, seconded and carried that the Secretary be requested to write a letter of sympathy to Dr. Potter on the death of Mrs. Potter, which occurred recently.

MOVED, seconded and carried that a banquet be given, Wednesday, January 30th, during the meeting of the State Society.

MOVED, seconded and carried that the State assessment be fixed at $3.

MOVED, seconded and carried that Mr. Lewis be reappointed Counsel for the Medical Society of the State of New York.

The Secretary read a report of the meeting of the Medical Society of the County of Erie, held October 8th. At this meeting the following resolutions were adopted:

1. RESOLVED, That the Medical Society of the County of Erie hereby accepts and adopts as its by-laws the by-laws which were presented at the last meeting and are now under consideration, as approved by the Medical Society of the State of New York, except such parts of the aforesaid by-laws which have been or may hereafter be found to be inconsistent with the Statutes of the State of New York.

2. RESOLVED, That the Medical Society of the County of Erie pledges itself to pay its dues regularly and in all manners to conform to the requirements of the proposed by-laws, and to treat them as though they were valid and authoritative until such time as all legal questions have been removed and the precise legal Status of the State and County Societies of the State of New York have been finally passed upon.

The Secretary also read two reports from the Hon. John Lord O'Brien, Counsel for the Medical Society of the County of Erie, criticising certain of the By-laws of the State Society, and certain acts of the State Society as being contrary to the Statute Law of the State, and that the proposed County By-laws were also contrary in certain particulars to the Statute Law of the State.

The following letter from Mr. Lewis to Dr. Bryant was also read:

NOVEMBER 23rd, 1906.

DR JOSEPH D. BRYANT,
President, Medical Society State of New York,
32 West 48th Street, New York City.

MY DEAR DOCTOR:

Pursuant to your suggestion I went to Buffalo on Saturday, November 17th, and had a conference with Mr. O'Brien, an attorney of Erie County and the legal representative of the County Medical Society of Erie County. Our conference resulted in the decision that it was advisable to have certain legal enactments passed by the State Legislature in order to place the State Society upon a sound footing.

In the evening of the same day I met Mr. O'Brien in conference with Drs. Stockton and Hopkins, and Dr. Briggs, the President of the Erie County Medical Society, for the purpose of receiving such suggestions as these gentlemen desired to offer for the purpose of taking care of the former permanent members and the delegates from the colleges. The following suggestions were proposed, with the agreement on my part to present the same to the Ad Interim House of Delegates, to be considered by that Body, and if considered favorably, to recommend any of such suggestions to the incoming House of Delegates and to the Society as amendments to the present plan:

First, That one delegate from each of the colleges be admitted as a regular delegate in the House of Delegates.

Second, That the permanent members heretofore elected be organized into an advisory or other similar committee or body.

Third, That the election of officers by the House of Delegates as now constituted, and the adoption of all by-laws or amendments thereto by the House of Delegates be a subject for confirmation or review by the entire membership of the Medical Society of the State of New York at an annual meeting.

I present the above suggestions from these gentlemen through you as requested, for consideration and action by the Ad Interim House of Delegates.

Very respectfully yours,
JAMES TAYLOR LEWIS, *Counsel.*

Upon motion the following resolutions were carried:

WHEREAS, certain suggestions necessitating the amending of the present Constitution and By-laws of the Medical Society of the State of New York, have been presented by the Counsel of the Society on behalf of Doctors Charles G. Stockton and Henry Reed Hopkins, of the City of Buffalo, with a request that such suggestions be considered and acted upon by the Ad Interim House of Delegates of the Medical Society of the State of New York.

Resolved, That such suggestions cannot be recommended for adoption for the reason that each and all of them are in violation of the spirit and the terms of the agreement of consolidation heretofore ratified by

the consolidating corporations, and for the reason that similar suggestions were discussed by the accredited Committee of Conference appointed by the consolidating corporations, and were by that Committee deemed to be unwise; and be it further

Resolved, That the Ad Interim House of Delegates deems such suggestions unwise and inadmissible.

Resolved, That the Ad Interim House of Delegates accepts the proposed legislative enactments submitted by the Counsel of the Society, and directs the Secretary to forward sufficient copies of the same to the Chairman of the Committee on Legislature with instructions that he secure the introduction of such proposed legislation at the opening of the Legislature, and that he use his best endeavors to secure the passage thereof with all convenient speed.

Resolved, That a sum not to exceed Two hundred and fifty Dollars be paid to eminent counsel for the purpose of examining the proposed bill to be introduced in the Legislature in conformity with Section Eight of the Agreement of the Joint Committee of Conference, and that the Counsel of the Medical Society of the State of New York be authorized and permitted to pay such a sum and to select such counsel.

There being no further business, it was moved, seconded and carried that the House of Delegates take a recess to meet on the call of the Chair at ten days' notice.

(Signed) WISNER R. TOWNSEND, *Secretary.*

MEETING OF THE AD INTERIM COUNCIL.

A meeting of the Ad Interim Council was held in the City Hall, Albany, January 28, 1907, at 5 P. M. Present: Dr. Joseph D. Bryant, President; Wisner R. Townsend, Secretary; and Drs. Nellis, Heffron, Lambert, Addison, Curtis, Root and Neuman.

The report of the Committee on Publication was presented by the chairman, Dr. E. Elliot Harris. Moved, seconded and carried, that it be referred to the House of Delegates. There being no further business, after reading the minutes of this meeting, the Council was declared adjourned.

WISNER R. TOWNSEND, *Secretary.*

MEETING OF THE AD INTERIM HOUSE OF DELEGATES.

A meeting of the Ad Interim House of Delegates was held at the City Hall, Albany, January 28th, at 5.30 P. M. Present: Dr. Joseph D. Bryant, President; Dr. Wisner R. Townsend, Secretary; and Drs. Nellis, Lambert, Addison, Curtis, Root, Neuman, VanderVeer, Heffron, Jacobi, Van Fleet, and Harris.

The minutes of the last meeting were read and approved. There being no further business, after reading the minutes of this meeting, the Ad Interim House of Delegates was declared adjourned.

WISNER R. TOWNSEND, *Secretary.*

MEETING OF THE HOUSE OF DELEGATES.

The annual meeting of the House of Delegates of the Medical Society of the State of New York was held in Albany, at 8.30 P. M., January 28, 1907; Dr. J. D. Bryant, President, in the Chair.

On roll call by the Secretary, Dr. W. R. Townsend, the following answered to their names:

Drs. J. D. Craig, W. G. Macdonald, A. H. Traver, W. O. Congdon, A. D. Lake, J. W. Morris, R. P. Bush, T. A. Rogers, Z. F. Dunning, A. T. Dana, I. G. Harris, J. E. Sadlier, A. L. Benedict, A. H. Briggs, G. L. Brown, L. Howe, W. M. Ward, R. L. Ellithorp, E. E. Snow, W. H. Thornton, E. Wende, C. F. Wall, U. G. Williams, J. D. Spencer, E. H. Bartley, W. C. Braislin, A. T. Bristow, W. Browning, W. F. Dudley, R. S. Fowler, H. E. Fraser, W. S. Hubbard, C. Jewett, A. M. Judd, G. F. Little, S. J. McNamara, G. McNaughton, J. C. MacEvitt, W. Maddren, W. A. Sherwood, J. M. Van Cott, J. P. Warbasse, W. C. Wood, W. G. Reynolds, O. P. Humpstone, P. H. Von Zierolshofen, G. W. Miles, E. B. Angell, J. C. Davis, W. R. Howard, W. T. Mulligan, D. Ayres, L. B. Bangs, J. T. J. Bird, J. Brettauer, C. G. Coakley, C. S. Cole, F. M. Crandall, E. E. Davis, R. H. Halsey, A. Jacobi, E. Le Fevre, J. F. McKernon, J. M. Mabbott, L. K. Neff, W. C. Phillips, C. H. Richardson, W. L. Stowell, W. S. Thomas, F. Van Fleet, H. L. Borland, H. J. Teller, T. H. Halsted, J. L. Heffron, D. M. Totman, O. J. Hallenbeck, E. Munson, J. K. Stockwell, M. Latcher, L. N. Lanehart, C. E. Nichols, C. H. Travell, J. T. Sprague, S. W. S. Toms, S. W. Dodge, G. C. Madill, D. C. Moriarta, C. C. Duryee, G. A. Bellows, H. P. Jack, S. B. Allen, W. H. Ross, C. S. Payne, L. Coville, H. Van Hoevenberg, R. A. Heenan, J. F. Myers, T. F. Goodwin, G. S. Skiff, C. E. Doubleday. Total, 100.

Officers: J. D. Bryant, President; W. R. Townsend, Secretary; A. Lambert, Treasurer; L. H. Neuman, Chairman, Committee on Scientific Work; A. G. Root, Chairman, Committee on Legislation; J. L. Heffron, Chairman, Committee on Public Health; W. J. Nellis, Chairman, Committee on Arrangements.

The Annual Address of the President was read by Dr. J. D. Bryant. Dr. Jacobi moved that the President's Address be received with thanks and placed on file; also, that a Committee of Three be appointed to consider the recommendations proposed in the Address.

The Chairman appointed the following Committee: Drs. A. Jacobi, J. C. Davis, and J. E. Sadlier.

The Annual Report of the Secretary was read by Dr. W. R. Townsend. Dr. Van Fleet moved that it be accepted and placed on file. Seconded. Carried.

The Annual Report of the Treasurer was read by Dr. A. Lambert. Dr. W. G. Macdonald moved that it be received and placed on file. Seconded. Carried.

The Annual Report of the Committee on Scientific Work was read by the Chairman, Dr. Neuman. Dr. S. Busby Allen moved that it be acepted and placed on file. Seconded. Carried.

The Annual Report of the Committee on Legislation was read by the Chairman, Dr. Root. Dr. Brettauer moved that it be accepted and placed on file. Seconded. Carried.

The Annual Report of the Committee to Select Members for the Board of Medical Examiners to be submitted to the State Board of Regents was presented by the Chairman, Dr. Stiles. Dr. Stiles reported the following candidates as the selection of the Committee: Drs. E. Beach of Gloversville, J. P. Creveling of Auburn, W. J. Nellis of Albany, and W. A. Moore of Binghamton. The Chair ruled that this report should be accepted and placed on file and it was so ordered.

The Annual Report of the Committee on Public Health was read by the Chairman, Dr. Heffron. Dr. Van Fleet moved that the report be accepted and that the recommendations contained in it be adopted. Seconded. Carried.

The Annual Report of the Committee on Arrangements was read by Dr. W. C. Phillips, in the temporary absence of the Chairman, Dr. Nellis. Moved, seconded and carried that it be received and placed on file.

The Annual Report of the Committee on Prize Essays was read by the Secretary. Dr. F. M. Crandall moved its adoption. Seconded. Carried.

The Annual Report of the Committee on Publication was read by the Chairman, Dr. Harris. Dr. Coakley moved that it be received and placed on file. Seconded. Carried. Dr. W. C. Phillips offered an amendment that at the same time the recommendations be adopted. Seconded. Amendment and original motion carried.

Dr. F. Van Fleet asked if the rest of the reports could not be received as printed. The Secretary asked if Dr. Lewi's report was to be included. Dr. Van Fleet an-

swered yes, and moved that these reports be accepted as printed. Seconded. Dr. L. B. Bangs asked how they could receive reports that had not been read and were, therefore, unknown.

The Secretary then read the Annual Report of the State Board of Medical Examiners, signed by Dr. Lewi. Dr. Bangs moved that the report be accepted and placed on file. Seconded. Carried.

The reports of the Counsel, Mr. Lewis, and of the Editor, Dr. Warbasse, were accepted as printed in the Annual Report of Committees.

The Report of the Committee on President's Address was presented by the Chairman, Dr. A. Jacobi.

The Committee moved that the Council should not accept advertisements that did not at least conform with the standards or rules recently adopted by the Committee on Publication. Dr. W. C. Phillips moved its adoption. Seconded. Carried.

The Committee moved that those members who had paid their dues for 1906, and had not received a Directory, be each credited with $1.10 by the Treasurer. Dr. Wall moved its adoption. Seconded. Carried.

The Committee moved that a Committee of Three be appointed with power to study the value of the books contained in the Library of the Society, now at 64 Madison Avenue, New York City, and to make such disposition of them as they may deem wise and expedient. Dr. Van Cott moved its adoption. Seconded.

Dr. W. G. Macdonald moved an amendment that the books and pamphlets be given to the medical department of the State of New York. Seconded. Dr. Rochester thought it would be better to leave this matter to a Committee. Dr. Angell said that because there were so many duplicates of the books that it would be, in his opinion, better to separate them and send them to different libraries in the State. He favored leaving this matter with a Committee. Dr. W. G. Macdonald withdrew his amendment.

Original motion was carried.

The Committee moved that a Committee of Five be appointed to consider all questions that may be presented relating to life insurance. Dr. Bristow moved its adoption. Seconded. Carried.

Dr. Van Fleet said that if the Chairman of the Committee on Legislation would allow the House of Delegates to pass a resolution opposing the Osteopathic Bill, such a resolution would have weight.

Dr. Root said that the Committee on Legislation would be glad if such a resolution was passed; it seemed to him proper that such should be passed. Dr. Root then offered a resolution, that, the Medical Society of the State of New York, as a unit, desired to enter its protest against the bill now pending in the Legislature, the purpose of which was to legalize the practice of osteopathy and establish a State Board. Seconded. Carried.

Dr. W. C. Phillips offered a resolution that the publication of the directory of New York, New Jersey and Connecticut be continued. Seconded. Carried.

Dr. Bristow moved that the Medical Society of the State of New York continue mal-practice defense. Seconded. Carried.

Dr. Bristow moved that the present contract with James Taylor Lewis as Counsel be continued to March 1, 1908. Seconded.

Dr. Benedict asked if it would not be well to incorporate in the resolution and so place it before the Society, what was meant by defense? He asked that this be placed before them more definitely.

Dr. Townsend referred Dr. Benedict to the February, 1906, issue of the State Society JOURNAL where he would find an answer to his question. Original motion carried.

Dr. C. H. Richardson moved that the Treasurer be authorized to pay hereafter the dues of such members of the Society who were on the Permanent Retired List prior to consolidation who apply therefor. Seconded. Carried.

Dr. Root spoke to the House on the subject of the one Board Bill.

Dr. Bristow offered the following Resolution prepared by Dr. A. Vander Veer.

Resolved: That in introducing the Single Board Bill, so ably presented by our Committee on Legislation, it is the sense of the Society that if enacted into law it will do more to unite the entire profession of our State than has anything in the near past. We believe it will do justice to all, and cannot see that it discriminates against any, and we desire the members of the Legislature to understand that in our endorsement of this measure we stand as a unit, and believe it is a step in the right direction which will do much to maintain the medical standards of our State.

Dr. Van Fleet moved its adoption. Seconded. Carried.

Dr. W. G. Macdonald offered a Resolution that the Medical Society of the State of New York continue the publication of the NEW YORK STATE JOURNAL OF MEDICINE. Seconded. Carried.

Dr. Wall offered the following amendments to the Constitution and By-Laws: Amend the Constitution by adding to Article VI., a Section 3, as follows:

The notices of the annual, regular and special meetings of the Medical Society of the State of New York, its House of Delegates, Council and Censors shall state the date, place and hour and shall be mailed in securely postpaid wrapper to each member at least ten days before said meeting. The affidavit of mailing by the Secretary of the Society to the last recorded address of the member, shall be deemed sufficient proof of the service of such notice upon each and every member for any and all purposes.

Amend the By-Laws, Chapter VII., Section 1—In place of "all Committees shall be elected by the House of Delegates unless otherwise provided," by substituting the following: The Chairman of all Standing Committees shall be elected by the House of Delegates. The remaining members may be elected by the Council at the recommendation of their respective Chairmen. Seconded by Dr. Rochester.

Amend the By-Laws, Chapter IV., by adding to Section 2 the following: The Council shall be empowered to fill any vacancies which may occur in any elective position. Seconded by Dr. Rochester.

The Chairman said that, according to the Constitution and By-Laws, the amendments would lie over for one year.

Dr. Townsend presented a Resolution from Oneida County:

"Resolved: That this Society instruct its Delegates to the State Society, to use their best endeavors to induce the State Society, through its House of Delegates, to maintain a detective department from which a detective may be secured by the Board of Censors of the various County Societies, to establish cases against illegal practitioners of medicine in their respective Counties; and a legal department to assist the District Attorney of any County in the prosecution of such illegal practitioner.

(Signed) WM. B. ROEMER, *Secretary.*"

Dr. Van Fleet moved that it be referred to the Counsel. Seconded. Carried.

Dr. Townsend read the following telegram from Drs. Redfield and Howell:

"MIDDLETOWN, N. Y., January 28, 1907.

"DR. W. R. TOWNSEND, *Secretary:*

"The delegates from Orange County being unable to be present desire to bring to the attention of the Society the advisability of the passage of legislation in regard to three evils, namely: First, the lack of mention of physicians in the present Garnishee Law. Second, the fact that a physician should be made a preferred creditor for his services in settlement of the estate of a deceased patient. Third, that some adequate provision be made for payment of more than the ordinary witness fees in enforced presence at court."

Dr. Wall moved that it be referred to the Committee on Legislation. Seconded. Carried.

Dr. Townsend read the following letter from the New York State Nurses' Association:

New York Jan. 25, 1907.

"DR. WISNER R. TOWNSEND, *Secretary.*

"MY DEAR SIR:—The New York State Nurses' Asso-

ciation desires to bring to the attention of the New York State Medical Association the existence of Correspondence and Short-time Schools for Nurses giving little or no practical training.

"The New York State Nurses' Association feels that these so-called schools are injurious to the public for several reasons, the chief ones being: First, The dissemination of the idea that a highly practical calling can be taught by theory alone, thus substituting a false for a genuine educational idea. Second, That such practical experience as women thus taught finally obtain when they begin nursing, must be gained at the expense of the patient, and that a kind of nursing will do for the poor which is not adequate for the rich, is a practical injustice to the general public.

"We respectfully ask to draw your attention to the fact that the names of reputable physicians are often found on the teaching staff of such so-called schools, and while we believe their motives often to be excellent, we would yet point out the similarity between such schools of nursing and the *quack* schools of medicine with which the medical profession has had from time to time to contend.

"We think it is quite possible that all the arguments brought in favor of such schools for nurses have also been advanced in favor of low grade medical schools, and we believe it may be found that they are capable of being advanced even more strongly in favor of the recognition of midwives, as the same economic factor, the need of providing for patients of small means, enters into the discussion upon midwifery.

"The New York State Nurses' Association feels no antagonism whatever toward any grade of women who are honestly earning their living, but they would like to see every such woman thoroughly and practically fitted to do her best.

"Feeling certain that these points need only be brought to the attention of your honored body to be properly dealt with, we beg to remain,

"(Signed) ANNA DAVIDS, *R. N. Pres.*,
"FRIDA L. HARTMAN, *R. N., Sec.*"

Dr. Bristow moved that a Committee of Three be appointed by the Chair to consider this subject. Seconded. Carried.

Dr. Townsend presented the resignation of Dr. E. E. Harris as Delegate to the American Medical Association, the term to expire in 1908. Dr. Le Fevre moved that this resignation be accepted. Seconded. Carried.

Dr. Crandall moved that when the House of Delegates adjourned they do so to meet to-morrow at nine o'clock and that the special order of business shall be the election of officers. Seconded. Carried.

The minutes of the meeting were then read and approved and the House of Delegates declared adjourned.

(Signed) WISNER R. TOWNSEND, *Secretary.*

MEETING OF THE HOUSE OF DELEGATES.

A regular meeting of the House of Delegates of the Medical Society of the State of New York was held at 9.15 A. M., January 29, 1907; Dr. Joseph D. Bryant, President, in the Chair.

The Chairman announced that under special business the first in order would be the election of officers to serve during the ensuing year. He first would entertain nominations for President.

Dr. Rochester nominated Dr. Charles G. Stockton. Seconded.

The Chairman asked if Dr. Stockton was in the city or State.

Dr. Rochester replied that Dr. Stockton was probably now on the ocean, but would return to this country in the spring.

The Chairman said that he could not regard Dr. Stockton as eligible for election because of his absence. He regretted exceedingly having to make this decision.

Dr. Rochester asked if that did away entirely with the candidacy of Dr. Stockton. The Chairman replied that he had so ruled.

Dr. Rochester then withdrew the name of Dr. Stockton, and offered that of Dr. Angell, of Rochester. Seconded.

Dr. Briggs said that, according to the Constitution, a member of the House of Delegates could not become a candidate. The Chairman upheld Dr. Briggs' contention. Dr. Rochester withdrew the name of Dr. Angell.

Dr. Briggs then presented the name of Dr. W. C. Krauss, of Buffalo. Seconded.

Dr. W. P. Macdonald said that he wished to place in nomination Dr. Frederic Colton Curtis, of Albany. Dr. A. Jacobi considered it an honor to second this nomination.

The Chairman appointed as tellers Drs. Briggs, Angell and Moriarta.

The Chairman cautioned the members of the Society against voting unless they were members of the House of Delegates.

(A two minute recess was here taken.)

The Chairman asked if a roll call should be made.

The House of Delegates wished it. The Secretary called the roll, and as their names were called the delegates deposited their ballots with the tellers.

While the tellers were counting the vote the following nominations were made: First Vice-President, Dr. J. C. Bierwirth, of Brooklyn, by Dr. Bristow. Seconded.

Second Vice-President, Dr. E. Torrey, of Olean. Seconded.

Third Vice-President, Dr. N. G. Richmond, of Fredonia, by Dr. Benedict. Seconded.

Secretary, Dr. W. R. Townsend, of New York, by Dr. Jacobi. Seconded.

Treasurer, Dr. A. Lambert, of New York, by Dr. Wall. Seconded.

Dr. Rochester said that there being but one nomination for each office named, he moved that the Secretary be directed to cast the ballot for each individual for the office named, except himself, and that the President be requested to cast the ballot for Secretary. Seconded. Carried. The ballots were so cast and the candidates declared duly elected.

The next nomination was for Delegate to the American Medical Association to serve for one year.

Dr. Wall said that the officers had all been elected. He asked for a ruling on whether or not a delegate could be elected to a committee or as a Delegate to the American Medical Association. The Secretary read Article Three, Section Two, which covered this point.

Report of tellers: Dr. Angell announced that the total vote cast for President was 72. Dr. F. C. Curtis, 54; Dr. W. C. Krauss, 17; defective ballot, 1.

The President announced the election of Dr. F. C. Curtis, of Albany, as President for the ensuing year.

For Delegate to the American Medical Association, Dr. A. D. Lake nominated Dr. R. Park, of Buffalo. Seconded. Dr. von Zierolshofen nominated Dr. Spencer, of Watertown. Seconded. Dr. Dunning nominated Dr. Moriarta, of Saratoga Springs. Seconded.

Dr. Rochester asked if the nominations were for one place only. The Chairman replied in the affirmative. Dr. Wall then asked that Dr. Park's name be withdrawn. Dr. Lake withdrew the name of Dr. Park. Dr. von Zierolshofen withdrew the name of Dr. Spencer. Dr. Thornton nominated Dr. Wall, of Buffalo. Seconded. The Chairman announced that Dr. Wall wished to have his name withdrawn. He so ordered it. Therefore, it was only necessary to ballot for Dr. Moriarta.

Moved and seconded that the Secretary be intsructed to cast the ballot. The Secretary cast the ballot, and the President declared Dr. Moriarta elected as a Delegate for one year.

For Delegate to the American Medical Association to serve two years, to succeed Dr. F. M. Crandall. Dr. Van Cott nominated Dr. Bartley. Seconded. Secretary was instructed to cast the vote and President declared Dr. Bartley elected.

For Delegate to the American Medical Association to serve two years, to succeed Dr. Ely. Dr. Angell renominated Dr. Ely. Seconded. Dr. Lake nominated Dr. Park, of Buffalo. Dr. Park's name was then with-

drawn. Secretary was instructed to cast the vote, and President declared Dr. Ely elected.

For Delegate to the American Medical Association to serve two years, to succeed Dr. Elsner, Dr. von Zierolshofen nominated Dr. Spencer. Seconded. Dr. Neuman nominated Dr. Elsner to succeed himself. Seconded. The tellers announced that 80 votes had been cast, as follow: Dr. Spencer, 32; Dr. Elsner, 48. The President declared Dr. Elsner elected.

For Delegate to the American Medical Association to serve two years, to succeed Dr. Park. Dr. Lake nominated Dr. Park to succeed himself. Seconded.

For Delegate to the American Medical Association to serve two years to succeed Dr. Bristow. Dr. Browning nominated Dr. Bristow. The Chairman announced that it had been moved and properly seconded that the Secretary be directed to prepare and cast a ballot electing each of these men to succeed himself. Secretary cast the vote, and the President declared Drs. Park and Bristow elected.

For Delegate to the American Medical Association to serve two years, to succeed Dr. Wey. Dr. Bush nominated Dr. Wey to succeed himself. Seconded. Secretary was instructed to cast a ballot for Dr. Wey and President declared Dr. Wey elected.

For Delegate to the National Committee on Legislature to succeed Dr. Harris. Dr. C. Cole nominated Dr. F. Van Fleet. Secretary was instructed to cast a ballot for Dr. Van Fleet, and President declared Dr. Van Fleet elected.

For Three Delegates to the Committee on Education of the American Medical Association. Dr. Neuman nominated Dr. Vander Veer, of Albany. Seconded. Dr. Lytle nominated Dr. Campbell, of Brooklyn. Seconded. Dr. Le Fevre nominated Dr. Fisher, of New York. Seconded.

Committee on Prize Essays to succeed Dr. Jacobi. Dr. Maddren nominated Dr. Jacobi to succeed himself. Seconded.

For member of same Committee to succeed Dr. Angell. Dr. von Zierolshofen nominated Dr. Angell to succeed himself. Seconded.

For member of same Committee to succeed Dr. Park. Dr. von Zierolshofen nominated Dr. Park to succeed himself. Seconded.

The Secretary was instructed to cast the vote of the Society for all these members of committees, and the President declared each one duly elected.

The members of the Committee on Scientific Work, Drs. L. H. Neuman, Chairman; A. T. Bristow, and W. W. Potter, were all renominated.

The members of the Committee on Legislation, Drs. A. G. Root, Chairman; E. Wende, and E. Le Fevre, were all renominated.

The members of the Committee on Public Health, Drs. J. L. Heffron, Chairman, H. D. Wey and H. R. Hopkins, were all renominated.

The members of the Committee on Arrangements, Drs. W. J. Nellis, Chairman; H. Bendell, A. G. Root, H. L. K. Shaw, H. C. Gordinier, W. C. Krauss, E. A. Vander Veer, and W. C. Phillips, were all renominated.

The Secretary was instructed to cast a ballot for all of the above candidates, each name being voted for separately, and the President declared them all elected.

It was moved and seconded that the House of Delegates endorse the candidacy of Drs. Beach, Creveling, Moore and Nellis for members to be presented to the Regents for the Board of Medical Examiners. Carried.

The Chairman announced that they would take up any new business.

Dr. Howe offered a Resolution that a Committee of Five be appointed to consider the advisability of having part of the annual meetings held in another portion of the State. The Chairman announced that the State law required that they meet in Albany. Dr. Howe said that, unless there were objections, such a Committee would be guided by instructions. Of course, the legal objection was something.

Dr. Rochester asked Dr. Howe what he meant by an annual meeting being held in a different part of the State. Dr. Rochester asked if such a Committee was to report this or next year. Dr. Howe replied next year.

Dr. Bristow asked if this would not require the passage of another law? They were now compelled by law to hold their annual meetings in Albany.

Dr. I. G. Harris offered an amendment to the Resolution, that this matter be referred to the Committee on Legislation and that they report upon it instead of having a new Committee of Five. This Committee would know the law. Seconded.

Dr. Howe said that he brought this up in order to determine what the House of Delegates wished in this matter. He thought that a special Committee could deal with it best. Dr. Thornton thought there could be no possible objection to referring this to a Committee.

Dr. Benedict said that a summer and fall meeting, meeting in rotation, should be considered, and the whole matter should be referred to a Committee to consider any objections. He hoped that Dr. Howe's motion would prevail. Dr. Cole moved that the amendment be laid on the table. Seconded. Carried.

The Chairman announced they then would vote on the original motion of Dr. Howe. Resolution carried.

Dr. Wall offered a motion that the Council be empowered to fill vacancies of elective officers occurring during the year. Seconded. The Secretary said that the Joint Committees on Conference had decided that there were but two vacancies, that of Secretary and Treasurer, to which this motion could apply. Dr. C. Cole contended that such a resolution was unconstitutional. Chair agreed with him.

Dr. I. G. Harris presented the following Resolution, which was read by Secretary,—*Whereas*, There are no psychopathic hospitals now connected with any of our Medical Schools in this State for the clinical and pathological study of psychiatry, *Resolved*, That it is the sense of this Society that our Medical Schools should inaugurate a system in their curriculum whereby the clinical and pathological study of psychiatry may be taught.

Dr. Jacobi said that he seconded that motion and for this reason, in connection with this question he wished to remind Dr. Harris of what the Medical Society of the State of New York stood for. The older men knew, from a study of the history of the State, that the colleges had never done anything for medical education and its advancement. It was always the Medical Society of the State of New York that showed the way and insisted upon improvement. Dr. Jacobi remembered the two years' course in medical colleges. This Society had been the cause of doing something in the way of lengthening the course to three, and then to four years. Since 1860 Dr. Jacobi had been connected with medical colleges in the State of New York; he therefore knew whereof he spoke. Psychiatry was especially necessary to-day. Craziness was on the increase, much more so than cancer. He was of the opinion that something should be done, and the schools invited or advised to add, as one of their clinical features, the teaching of psychiatry. The profession knew that a Section on Psychiatry had recently been started in the New York Academy of Medicine, which had been attended by crowds. He was in favor of passing Dr. Harris' resolution.

Dr. Macdonald said, that "Albany would not conceal its light under a bushel." The Albany Medical College had had for some time such a department connected with it, and there was associated with the Albany Hospital psychiatrical work, and during the past five years there had been delivered clinical lectures on diseases of the mind, and they were abundantly illustrated by material.

Dr. Rochester said that in the early '60s Buffalo had established a four-year-course for students, and they tried to carry this on. But the New York schools had only a two-year course, and their students fled to New York, and, therefore, their four-year-course had to be abandoned at that time. For at least ten years

they had had a department on diseases of the mind with lectures and clinics. He was very much in favor of the motion. Carried.

Dr. Macdonald asked for the endorsement of the House of Delegates on two Bills, No. 347 and 348. They were against the sale of poisons, and more particularly against the sale of cocaine. Dr. Root had made the request that the House of Delegates move the endorsement of both Bills. Dr. Rochester, in seconding the motion, said he wished to urge it upon them strongly. Carried.

Dr. I. G. Harris said he wished to speak on a subject that would interest every one, the after care of the insane. Under the leadership of a Society for the "After Care of the Insane" good work was being done in caring for the insane from State Hospitals. He offered the motion that such work meet with the approbation and have the backing of the Medical Society of the State of New York in a moral way. Seconded. Carried.

Dr. Bush moved that all reference to a single headed Board Bill be stricken from the minutes. Dr. Bristow rose to a point of order. They might consider this subject, but they could not expunge it from the minutes already adopted.

The Chairman announced that the motion required no action as Dr. Bristow's point was well taken.

The minutes were then read and the Chairman announced that the minutes as read stood approved. Meeting then adjourned.

(Signed) Wisner R. Townsend, *Secretary.*

MEETING OF THE COUNCIL.

A meeting of the Council of the Medical Society of the State of New York was held in the City Hall, Albany, on January 30, 1907, at 5 P. M. The President, Dr. F. C. Curtis, in the Chair. Dr. Wisner R. Townsend, Secretary.

Dr. Curtis called the meeting to order, and on roll call the following answered to their names:

Dr. F. C. Curtis, President; Dr. J. C. Bierwith, 1st Vice-President; Dr. E. Torrey, 2d Vice-President; Dr. W. R. Townsend, Secretary; Dr. A. Lambert, Treasurer; Dr. L. Neuman, Chairman Committee on Scientific Work; Dr. W. J. Nellis, Chairman Committee on Arrangements; Dr. W. H. Ross, President Second District Branch; Dr. J. T. Wheeler, President Third District Branch; Dr. D. Moriarta, President Fourth District Branch; Dr. N. Jacobson, President Sixth District Branch; Dr. DeLancey Rochester, President Eighth District Branch.

In the absence of Dr. Whitbeck, President of the Seventh District Branch, Dr. Ainsworth, the Vice-President of the Branch, was asked to be present, as a guest, at the meeting of the Council.

At the suggestion of the President, the Secretary read all the abstracts from the Constitution and By-Laws relating to the duties of the Council.

Moved by Dr. Lambert, seconded by Dr. Neuman, and carried, that the deliberations of the Council be governed by Roberts' Rules of Order.

Moved, seconded and carried:

Resolved, That no officer, chairman, or member of a committee, or councillor, shall incur any expense without permission of the Council, and be it further

Resolved, That a Committee of Three be appointed by the Council to authorize such expenditures as it may approve of, and that at each meeting of the Council it shall render a report of work done since the last meeting.

The following nominations were made for members of the Committee: Drs. Lambert, Rochester and Wheeler. Moved by Dr. Neuman that the nominations be closed and that the Secretary cast the vote of the Council for these members. Vote so cast, and Drs. Lambert, Rochester and Wheeler were declared elected.

Moved, seconded, and carried that the Treasurer be authorized to employ Mr. Wicks as expert accountant at $200.00 per annum.

Moved, seconded and carried:

Resolved, That the sum of $1,200.00 be allowed for the expenses of the annual meetings of the District Branches.

Moved, seconded and carried:

Resolved, That the Chair appoint a Committee of Three to supervise the publications of the Society, and that no editorials, excepting those relating to scientific subjects, be inserted in the Journal without the approval of this Committee, and be it further

Resolved, That no advertising contract be made until it has been approved by this Committee.

The Chair appointed Dr. Bierwith Chairman, Dr. Lambert and Dr. Townsend a Committee on Publications.

There being no further business, the minutes of this meeting were read and approved, the time and place of the next meeting were left to be subject to the call of the Chair. The meeting then adjourned.

(Signed) Wisner R. Townsend, *Secretary.*

RESOLUTIONS PASSED IN SCIENTIFIC SESSION.

Meeting of the Medical Society of the State of New York, Tuesday evening, January 29, 1907.

Dr. A. Jacobi offered the following resolution, seconded and carried.

Resolved, That the Medical Society of the State of New York has convinced itself of the immense importance of the studies continued a number of years in the Cancer Institute connected with the University of Buffalo by its publications and by the demonstration made at the meeting of January 29, 1907, and whereas in every country similar institutes have been established and the profession has become awake to the importance of the study of cancer, it is

Resolved, That the world is more than ever convinced of the necessity of continuing the investigations which have afforded already such striking results. In the interest of humanity the Medical Society of the State of New York asks the Legislature to continue the appropriations for this worthy institute.

Meeting of the Medical Society of the State of New York, Tuesday afternoon, January 29, 1907.

Dr. Wm. Browning moved that a Committee of Five be appointed from different parts of the State to consider the subject of medical libraries, and especially the matter brought up in the two papers read by Drs. Vander Veer and Smith Baker, and report at the next annual meeting. Seconded. Carried.

COMMITTEES APPOINTED.

The President, Dr. F. C. Curtis, has appointed the following committees:

Committee on Changing Place of Annual Meeting: H. L. Elsner, Chairman; L. Howe, G. McNaughton, F. M. Crandall, and W. A. Moore.

Committee on Disposition of Library at 64 Madison Avenue, N. Y.: E. B. Angell, Chairman; E. D. Fisher, and J. E. Sadlier.

Committee on State Aid for Libraries: Wm. Browning, Chairman; Smith Baker, A. Vander Veer, E. Le Fevre, and G. C. Madill.

Committee to Consider Training of Nurses: A. T. Bristow, Chairman; C. A. Wall, and G. A. Bellows.

Committee on Life Insurance: A. Jacobi, Chairman; E. G. Janeway, Charles Jewett, S. B. Ward, A. H. Briggs.

SCIENTIFIC SESSION.

Tuesday Morning, January 29, 1907.

The President, Dr. Joseph D. Bryant, in the Chair.

1. Prayer by the Rev. J. A. Jones, Madison Avenue Reformed Church.

2. Minutes of last meeting read by Dr. Wisner R. Townsend. Approved as read.

3. President's Address. By Dr. Joseph D. Bryant.

4. Paper: "Danger Signals from the Skin," by Dr. L. D. Bulkley. Discussed by Dr. F. C. Curtis, Dr. L. Bolton Bangs.

5. Paper: "The Importance of Aural Examinations and Functional Tests for Healthy People," by Dr. W. Sohier Bryant. Discussed by Dr. Busby Allen, Dr. E. Edward Davis.

6. Paper: "Practical Legislation for the Prevention of Blindness," by Dr. F. Park Lewis. Discussed by Dr. R. R. Ross, who moved that the recommendations contained in the paper be referred to the Committee on Public Health for consideration. Carried. Dr. Peter A. Callan, Dr. L. Bolton Bangs, who thought it was a wise thing to refer the paper and the allied paper to the Committee on Public Health, and that this Committee should present at the next annual meeting some means by which the propaganda could be extended.

7. Paper: "A Plea for New Methods in the Prevention of Blindness," by Dr. Lucien Howe. Discussed by Dr. Peter A. Callan, Dr. W. S. Bryant, who moved that Dr. Howe's paper be referred to the Committee on Public Health. Carried. Dr. A. Jacobi, Dr. Busby Allen, Dr. E. Edward Davis, Dr. F. P. Lewis, and Dr. L. Howe.

8. Paper: "Chloroma, with Special Reference to the Ocular Symptoms," by Drs. C. S. Merrill and A. J. Bedell.

TUESDAY AFTERNOON, January 29, 1907.

The President, Dr. Joseph D. Bryant, in the Chair.

9. Paper: "The Pathology of Non-Tuberculosis Joints," by Dr. E. H. Nichols.

10. Paper: "Pneumococcus and Typhoid Infection," by Dr. Roswell Park.

11. Paper: "The Symptoms and Diagnosis of Gonorrheal Affections of the Joints," by Dr. R. A. Sayre.

12. Paper: "Staphylococcus and Streptococcus Joint Infections," by Dr. Lucius Hutchkiss.

13. Paper: "Diagnosis and Symptoms of the Rheumatoid Diseases," by Dr. R. R. Fitch.

14. Paper: "Mechanical Treatment of Non-Tuberculosis Joint Affections," by Dr. H. L. Taylor.

15. Paper: "Operative Treatment of Non-Tuberculosis Joint Affections," by Dr. Walter Wood.

Discussed by Dr. Frederic R. Sturgis, Dr. J. P. Creveling, Dr. R. H. Sayre.

16. Paper: "The Medical Department of New York State Library," by Dr. A. Vander Veer.

17. Paper: "State Aid for Medical Libraries," by Dr. Smith Baker. Discussed by Dr. Wm. Browning, Dr. William C. Krauss, Dr. Frederic R. Sturgis, Dr. A. Jacobi.

18. Paper: "The Physiological Therapy of Sanitarium Treatments," by Dr. B. O. Kinnear. Discussed by Dr. E. B. Angell.

TUESDAY EVENING, January 29, 1907.

The President. Dr. Joseph D. Bryant, in the Chair.

19. Paper: "Syphilitic Lesions of the Eye-Lids," by Dr. F. J. Parker.

20. Paper: "The Spirochæta Pallida," by Dr. James Ewing.

21. Paper: "The New York State Cancer Research Laboratory," by Dr. Roswell Park.

22. Paper: "Parasitism and Infection in Cancer," by Dr. H. R. Gaylord.

23. Paper: "Immunity Against Cancer," by Dr. G. H. A. Clowes.

24. Paper: "Cancer as a Biological Problem," by Dr. G. N. Calkins.

Discussed by Dr. S. Strauss, Dr. G. N. Calkins, Dr. A. Jacobi.

WEDNESDAY MORNING, January 30, 1907.

The Vice-President, Dr. Frederic C. Curtis, in the Chair.

25. Paper: "Sahli's Desmoid Reaction," by Dr. H. W. Carey.

26. Paper: "Acute Septic Infection of the Receptaculum Chili and Thoracic Duct," by Dr. H. P. De Forest. Discussed by Dr. D. Rochester and Dr. H. P. De Forest.

Dr. L. H. Neuman moved that the privilege of the floor be granted Dr. Theodor Schott, of Bad-Neuheim, Germany. Seconded. Carried.

27. Paper: "Blood Pressure Study; Some Unexpected Revelations," by Dr. H. L. Elsner.

28. Paper: "The Classification of Blood Pressure Cases," by Dr. L. F. Bishop.

Discussed by Dr. T. Schott, Dr. D. Rochester, Dr. B. O. Kinnear, Dr. A. Jacobi, Dr. L. H. Neuman, Dr. H. L. Elsner and Dr. L. F. Bishop.

29. Paper: "The Criminal Lunatic; His Status and Disposition," by Dr R. B. Lamb.

30. Paper: "Visions of Mary Czajka," by Dr. F. E. Fronczak. (Read by title.)

31. Paper: "The Importance of the Routine Examination of the Urine for Indican," by Dr. J. D. Olin. Discussed by Dr. T. F. Woodworth, Dr. A. Jacobi, Dr. H. Stern, Dr. D. Rochester, Dr. F. C. Curtis.

32. Paper: "Underfeeding and Its Associated Ills," by Dr. D. D. Roberts. Discussed by Dr. H. Stern and Dr. D. D. Roberts.

WEDNESDAY AFTERNOON, January 30, 1907.

The President, Dr. J. D. Bryant, in the Chair.

33. Paper: "Ablation of the Breast," by Dr. Parker Syms.. Discussed by Dr. A. Bonner, Dr. J. D. Bryant, Dr. G. D. Gregor and Dr. P. Syms.

34. Paper: "Surgical Treatment of Goiter," by Dr. M. B. Tinker.

35. Paper: "Clinical Features and Operative Treatment of Thyroid Afflictions," by Dr. G. E. Beilby. Discussed by Dr. J. C. Bloodgood, of Baltimore.

36. Paper: "Intestinal Obstructions," by Dr. J. C. Bloodgood. Discussed by Dr. A. T. Bristow, Dr. J. C. Bloodgood.

37. Paper: "Toxic Nephritis Dependent upon Surgical Conditions," by Dr. N. Jacobson. Discussed by Dr. A. Jacobi and Dr. N. Jacobson.

38. Paper: "Contribution to the Casuistry of Foreign Bodies in the Uterus," by Dr. B. S. Talmey.

39. Paper: "The Surgery of Foreign Bodies in the Respiratory Tract," by Dr. W. G. Macdonald. Discussed by Dr. A. Vander Veer, Dr. Ward, Dr. A. Jacobi, Dr. W. G. Macdonald.

40. Paper: "Treatment of Diffuse Septic Peritonitis," by Dr. R. S. Fowler.

41. Paper: "A New Operation for the Radical Cure of Femoral Hernia," by Dr. A. V. Moschcowitz.

42. Paper: "Cyst of the Mesentary; Resection of Twenty Inches of Small Intestine," by Dr. E. A. Vander Veer. (Read by title.)

43. Paper: "The Abortive Treatment of Pneumonia," by Dr. G. L. Curtis. (Read by title.)

44. Paper: "Vaginal Cæsarian Section," by Dr. H. L. Lipes. (Read by title.)

(Signed) WISNER R. TOWNSEND, *Secretary.*

Adjournment.

AN ACT

TO REGULATE THE PRACTICE OF MEDICINE, AND TO REPEAL ARTICLE EIGHT OF CHAPTER SIX HUNDRED AND SIXTY-ONE OF THE LAWS OF EIGHTEEN HUNDRED AND NINETY-THREE AND ACTS AMENDATORY THEREOF.

The following bill, No. 160, introduced in the Assembly by Mr. G. H. Whitney, is referred to editorially in this number of the JOURNAL.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. Definitions as used in this act:

1 The Education Department means the Education Department of the State of New York, as provided for by chapter forty of the laws of nineteen hundred and four.

2. University means University of the State of New York.

3. Regents means Board of Regents of the University of the State of New York.

4. Board means the Board of Medical Examiners of the State of New York.

5. Medical examiner means a member of the Board of Medical Examiners of the State of New York.

6. Medical school means any medical school, college, or department of a university, registered by the Regents as maintaining a proper medical standard and as legally incorporated.

7. The practice of medicine is defined as follows: A person practices medicine within the meaning of this act, except as hereinafter stated, who holds himself out as being able to diagnose, treat, operate, or prescribe for any human disease, pain, injury, deformity or physical condition, and who shall either offer or undertake, by any means or method, to diagnose, treat, operate, or prescribe for any human disease, pain, injury, deformity, or physical condition.

8. Physician means a practitioner of medicine.

Section 2. Qualifications.—No person shall practice medicine, unless registered and legally authorized prior to September first, eighteen hundred and ninety-one, or unless licensed by the Regents and registered under article eight of chapter six hundred and sixty-one of the laws of eighteen hundred and ninety-three and acts amendatory thereto, or unless licensed by the Regents and registered as required by this act; nor shall any person practice medicine who has ever been convicted of a felony by any court, or whose authority to practice is suspended or revoked by the Regents on recommendation of the State Board. The conviction of a felony shall include the conviction of any offense which if committed within the State of New York would constitute a felony under the laws thereof.

Section 3. The State Board of Medical Examiners.—There shall be a State Board of Medical Examiners of nine members, who shall be appointed by the Regents, and who shall hold office for three years from August first of the year in which appointed. In constituting the first Board, however, to be appointed under this act, the Regents shall designate three members to serve for one year from August first, nineteen hundred and seven; three members to serve two years from August first, nineteen hundred and seven; and three members to serve for the full term of three years from August first, nineteen hundred and seven. Thereafter the Regents shall annually appoint three members to fill the vacancies caused by expiration of term of office, and may at any time fill vacancies on the Board caused by death, resignation, or removal from office. No person shall be appointed a member of the Board of Medical Examiners who has not received the degree of Doctor of Medicine from some registered medical school, and has thereafter legally practiced medicine in this State for at least five years prior to date of appointment. The Regents may remove any member of the Board of Examiners for misconduct, incapacity or neglect of duty. The Regents shall appoint a Secretary to the Board of Examiners, who shall not be a member of the Board, and who shall hold office during the pleasure of the Regents, and who shall receive an annual compensation of four thousand dollars, payable from the fees received under this act. The Secretary shall be a duly licensed physician.

Section 4. Certificate of Appointment; Oath; Powers.—Every Medical Examiner shall receive a certificate of appointment from the Regents, and before beginning his term of office shall file with the Secretary of State the constitutional oath of office. The Board, or any committee thereof, may employ counsel, shall have the power to compel the attendance of witnesses, and may take testimony and proofs concerning all matters within its jurisdiction. The Board may, subject to the Regents' approval, make all by-laws and rules not inconsistent with law needed in performing its duty; but no by-law or rule by which more than a majority vote is required for any specified action by the Board shall be amended, suspended or repealed by a smaller vote than that required for action thereunder.

Section 5. Expenses.—From the fees provided by this act the Regents may pay all proper expenses incurred by its provisions; and any surplus at the end of any academic year shall be apportioned equally among the members of the Board.

Section 6. Officers; Meetings; Quorum; Committees.—The Board shall annually elect from its members a President and a Vice-President for the academic year, and shall hold one or more meetings each year, pursuant to call of the Regents. At any meeting a majority shall constitute a quorum; but questions prepared by the Board may be grouped and edited, or answer papers of candidates may be examined and marked by committees duly authorized by the Board and approved by the Regents.

Section 7. Admission to Examination.—The Regents shall admit to examination any candidate who pays a fee of twenty-five dollars and submits evidence, verified by oath, and satisfactory to the Regents, that he

1. Is more than twenty-one years of age.

2. Is of good moral character.

3. Had prior to beginning the second year of medical study the general education required preliminary to receiving the degree of Bachelor or Doctor of Medicine in this State.

4. Has studied medicine not less than four school years, including four satisfactory courses of at least seven months each, in four different calendar years in a medical school registered as maintaining at the time a satisfactory standard. New York medical schools and New York medical students shall not be discriminated against by the registration of any medical school out of the State whose minimum graduation standard is less than that fixed by statutes for New York medical schools. The Regents may, in their discretion, accept as the equivalent for any part of the third and fourth requirement, evidence of five or more years' reputable practice, provided that such substitution be specified in the license, and, as the equivalent of the first year of the fourth course, provided that such college course shall have included not less than the minimum requirements prescribed by the Regents for such admission to advance standing. The Regents may also in their discretion admit conditionally to the examination in anatomy, physiology, hygiene, sanitation, and chemistry, applicants nineteen years of age certified as having studied medicine not less than two years, including two satisfactory courses of at least seven months each, in two different calendar vears, in a medical school registered as maintaining at the time a satisfactory standard, provided that such applicants meet the second and third requirements.

5. Has either received the degree of Bachelor or Doctor of Medicine from some registered medical school, or a diploma or license conferring full right to practice medicine in some foreign country, unless admitted conditionally to the examinations as specified above, in which case all qualifications, including the full period of study, the medical degree and the final examinations in surgery, obstetrics, gynecology, pathology, including bacteriology, and diagnosis must be met. The degree of Bachelor or Doctor of Medicine shall not be conferred in this State before the candidate has filed with the institution conferring it the certificate of the Regents that before beginning the first annual medical course counted toward the degree, unless matriculated conditionally as hereinafter specified, he had either graduated from a registered college or satisfactorily completed a full course in a registered academy or high school; or had a preliminary education considered and accepted by the Regents as fully equivalent; or held a Regents' medical student certificate; or passed Regents' examinations securing sixty academic counts, or their full equivalent, before beginning the first annual medical course counted toward the degree, unless admitted conditionally as hereinafter specified. A medical school may matriculate conditionally a student deficient in not more than one year's academic work or fifteen

counts of the preliminary education requirement, provided the name and deficiency of each student so matriculated be filed at the Regents' office within three months after matriculation, and that the deficiency be made up before the student begins the second annual medical course counted toward the degree.

Section 8. Questions.—The Board shall submit to the Regents, as required, lists of suitable questions for thorough examination in anatomy, physiology, hygiene, sanitation, chemistry, surgery, obstetrics, gynecology, pathology, including bacteriology, and diagnosis. From these lists the Regents shall prepare question papers for all these subjects, which at any examination shall be the same for all candidates, except that the examination may be divided as provided in section seven.

Section 9. Examinations and Reports.—Examinations for licenses shall be given in at least four convenient places in this State and at least four times annually, in accordance with the Regents' rules, and shall be exclusively in writing and in English. Each examination shall be conducted by a Regents' examiner who shall not be one of the medical examiners. At the close of each examination the Regents' examiner in charge shall deliver the questions and answer papers to the Board or its duly authorized committee, who, without unnecessary delay, shall examine and mark the answers and transmit to the Regents an official report, signed by its president and secretary, stating the standing of each candidate in each branch, his general average and whether the Board recommends that a license be granted. Such report shall include the questions and answers and shall be filed in the public records of the University. If a candidate fails on first examination, he may, after not less than six months' further study, have a second examination without fee. If the failure is from illness or other cause satisfactory to the Regents they may waive the required six months' study.

Section 10. Licenses.—On receiving from the State Board an official report that an applicant has successfully passed the examinations and is recommended for license, the Regents shall issue to him, if in their judgment he is duly qualified therefor, a license to practice medicine. Every license shall be issued by the University under seal and shall be signed by each acting medical examiner and by the officer of the University who approved the credential which admitted the candidate to examination, and shall state that the licensee has given satisfactory evidence of fitness as to age, character, preliminary and medical education, and all other matters required by law, and that after full examination he has been found properly qualified to practice. Applicants examined and licensed by other State examining boards registered by the Regents as maintaining standards not lower than those provided by this article and applicants who matriculated in a New York State medical school before June fifth, eighteen hundred and ninety, and who received the degree of Doctor of Medicine from a registered medical school before August first, eighteen hundred and ninety-five, may without further examination, on payment of twenty-five dollars to the Regents and on submitting such evidence as they may require, receive from them an indorsement of their licenses or diplomas conferring all rights and privileges of a Regents' license issued after examination. The commissioner of education may in his discretion on the approval of the Board of Regents indorse a license or diploma of a physician from another State, provided the applicant has met all the preliminary and professional qualifications required for earning a license on examination in this State, has been in reputable practice for a period of ten years, and has reached a position of conceded eminence and authority in his profession. If any person, whose registration is not legal because of some error, misunderstanding or unintentional omission, shall submit satisfactory proof that he had all requirements prescribed by law at the time of his imperfect registration and was entitled to be legally registered, he may on unanimous recommendation of the State Board of Medical Examiners receive from the Regents under seal a certificate of the facts which may be registered by any county clerk and shall make valid the previous imperfect registration. Before any license is issued it shall be numbered and recorded in a book kept in the Regents' office, and its number shall be noted in the license; and a photograph of the licensee filed with the records. This record shall be open to public inspection, and in all legal proceedings shall have the same weight as evidence that is given to a record of conveyance of land.

Section 11. Registry; revocation of license; annulment of registry.—Every license to practice medicine shall, before the licensee begins practice thereunder, be registered in a book kept in the clerk's office of the county where such practice is to be carried on, with name, residence, place and date of birth, and source, number and date of his license to practice. Before registering, each licensee shall file, to be kept in a bound volume in the county clerk's office, an affidavit of the above facts, and also that he is the person named in such license, and had, before receiving the same, complied with all requirements as to attendance, terms and amount of study and examinations required by law and the rules of the University as preliminary to the conferment thereof; that no money was paid for such license, except the regular fees paid by all applicants therefor; that no fraud, misrepresentation or mistake in any material regard was employed by any one or occurred in order that such license should be conferred. Every license, or if lost a copy thereof legally certified so as to be admissible as evidence, or a duly attested transcript of the record of its conferment, shall, before registering be exhibited to the county clerk, who, only in case it was issued or indorsed as a licensee under seal by the Regents, shall indorse or stamp on it the date and his name preceded by the words: "Registered as authority to practice medicine in the clerk's office of..... county." The clerk shall thereupon give to every physician so registered a transcript of the entries in the register with a certificate, under seal that he has filed the prescribed affidavit. The licensee shall pay to the county clerk a total fee of one dollar for registration, affidavit and certificate. The Regents shall have power at any and all times to inquire into the identity of any person claiming to be a licensed or registered physician and after due service of notice in writing, require him to make reasonable proof, satisfactory to them, that he is the person licensed to practice medicine under the license by virtue of which he claims the privilege of this act. When the Regents find that a person claiming to be a physician, licensed under this act, is not in fact the person to whom the license was issued, they shall reduce their findings to writing and file them in the office of the clerk of the county in which said person resides or practices medicine. Said certificate shall be prima facie evidence that the person mentioned therein is falsely impersonating a practitioner or a former practitioner of a like or different name. The Regents may revoke the license of a practitioner of medicine, or annul his registration, or do both, in any of the following cases:

(a) A practitioner of medicine who is guilty of any fraud or deceit in his practice, or who is guilty of a crime or misdemeanor, or who is guilty of any fraud or deceit by which he was admitted to practice; or

(b) Is an habitual drunkard or habitually addicted to the use of morphine, opium, cocaine, or other drugs having a similar effect; or

(c) Who undertakes or engages in any manner or by any ways or means whatsoever, to procure or perform any criminal abortion as the same is defined by section two hundred and ninety-four of the penal code; or

(d) Who offers or undertakes by any manner or means to violate any of the provisions of section three hundred and eighteen of the penal code. Proceedings for revocation of license or the annullment of registration shall be begun by filing a written charge or charges against the accused. These charges may be preferred by any person or corporation, or the Regents may on their own motion direct the executive officer of the Board of Regents to prefer said charges. Said charges shall be filed with the executive officer of the Board of

Regents, and a copy thereof filed with the secretary of the Board of Medical Examiners. The Board of Medical Examiners, when charges are preferred, shall designate three of their number as a committee to hear and determine said charges. A time and place for the hearing of said charges shall be fixed by said committee as soon as convenient, and a copy of the charges, together with a notice of the time and place when they will be heard and determined, shall be served upon the accused or his counsel, at least ten days before the date actually fixed for said hearing. Where personal service or service upon counsel cannot be effected, and such fact is certified on oath by any person duly authorized to make legal service, the Regents shall cause to be published for at least seven times, for at least twenty days prior to the hearing, in two daily papers in the county in which the physician was last known to practice, a notice to the effect that at a definite time and place a hearing will be had for the purpose of hearing charges against the physician upon an application to revoke his license. At said hearing the accused shall have the right to cross-examine the witnesses againt him and to produce witnesses in his defense, and to appear personally or by counsel. The said committee shall make a written report of its findings and recommendations, to be signed by all its members, and the same shall be forthwith transmitted to the executive officer of the Board of Regents. If the said committee shall unanimously find that said charges, or any of them, are sustained, and shall unanimously recommend that the license of the accused be revoked or his registration be annulled, the Regents may thereupon in their discretion, revoke said license or annul said registration, or do both. If the Regents shall annul such registration, they shall forthwith transmit to the clerk of the county or counties in which said accused is registered as a physician, a certificate under their seal certifying that such registration has been annulled, and said clerk shall, upon receipt of said certificate, file the same and forthwith mark said registration "Annulled." Any person who shall practice medicine after his registration has been marked "Annulled" shall be deemed to have practiced medicine without registration. Where the license of any person has been revoked, or his registration has been annulled as herein provided, the Regents may, after the expiration of one year, entertain an application for a new license, in the manner as original applications for licenses are entertained; and upon such new application they may in their dicretion, exempt the aplicant from the necesity of undergoing any examination.

Section 12. Registry in another County.—A practicing physician having registered a lawful authority to practice medicine in one county, and removing such practice or part thereof to another county, or regularly engaging in practice or opening an office in another county shall show or send by registered mail to the clerk of such other county, his certificate of registration. If such certificate clearly shows that the original registration was of an authority issued under seal by the Regents, or if the certificate itself is endorsed by the Regents as entitled to registration, the clerk shall thereupon register the applicant in the latter county, on receipt of a fee of twenty-five cents, and shall stamp or endorse on such certificate, the date and his name preceded by the words, "registered also in ..... county," and return the certificate to the applicant.

Section 13. Certificate Presumptive Evidence; Unauthorized Registration and License Prohibited.—Every unrevoked certificate and endorsement of registry, made as provided in this article, shall be presumptive evidence in all courts and places, that the person named therein is legally registered. Hereafter no person shall register any authority to practice medicine unless it has been issued or endorsed as a license by the Regents. No such registration shall be valid unless the authority registered constituted at the time of registration, a license under the laws of the State then in force. No diploma or license conferred on a person not actually in attendance at the lectures, instruction and examinations of the school conferring the same, or not possessed at the time of its conferment of the requirements then demanded of medical students in this State as a condition of their being licensed so to practice, and no registration not in accordance with this article shall be lawful authority to practice medicine, nor shall the degree of Doctor of Medicine be conferred *causa honoris* or *ad eundem* nor if previously conferred shall it be a qualification for such practice.

Section 14. Construction of this article.—This article shall not be construed to affect commissioned medical officers serving in the United States Army, Navy or Marine Hospital Service, while so commissioned; or any one while actually serving without salary or professional fees on the resident medical staff of any legally incorporated hospital; or any legally registered dentist exclusively engaged in practicing dentistry; or any maker or manufacturer who mechanically fits artificial eyes, limbs, or other apparatus or appliances; or any lawfully qualified physician in other States or countries meeting legally registered physicians in this State in consultation; or any physician residing on a border of a neighboring State and duly licensed under the law thereof to practice medicine therein, whose practice extends into this State, and who does not open an office or appoint a place to meet patients or receive calls within this State; or any physician duly registered in one county called to attend isolated cases in another county, but not residing or habitually practicing therein; or the furnishing of medical assistance in case of emergency; or the domestic administration of family remedies; or the practice of the religious tenets of any church. This article shall be construed to repeal all acts or parts of acts authorizing conferment of any degree in medicine *causa honoris* or *ad eundem* or otherwise than on students duly graduated after satisfactory completion of a preliminary medical course not less than that required by this article as a condition of license.

Section 15. Penalties and their collection.—Any person who, not being then lawfully authorized to practice medicine within this State and so registered according to law, shall practice medicine within this State without lawful registration or in violation of any provision of this article; and any person who shall buy, sell, or fraudulently obtain any medical diploma, license, record, or registration, or who shall aid or abet such buying, selling, or fraudulently obtaining, or who shall practice medicine under cover of any medical diploma, license, record, or registration illegally obtained, or signed, or issued unlawfully or under fraudulent representations, or mistake of fact in a material regard, or who, after conviction of a felony, shall attempt to practice medicine, or shall so practice, and any person who shall in connection with his name use any designation tending to imply or designate him as a practitioner of medicine within the meaning of this act without having registered in acordance therewith, or any person whall practice medicine or advertise to practice medicine under a name other than his own, or any peron not a registered physician who shall advertise to practice medicine, shall be guilty of a misdemeanor. Any person who shall practice medicine under a false or assumed name, or who shall falsely personate another practitioner or former practitioner of a like or different name, shall be guilty of a felony. When any prosecution under this act, or under sections three hundred and eighteen, two hundred and ninety-four, two hundred and ninety-five, two hundred and ninety-seven, four hundred and five-b of the penal code, and any amendments thereto, is made on the complaint of any incorporated medical society of the State, or any county medical society entitled to representation in a State society, any fines collected shall be paid to the society making the complaint, and any excess of the amount of fines so paid over the expense incurred by the said society in enforcing the medical laws of this State, shall be paid at the end of the year to the county treasurer.

Section 16. Article eight of chapter six hundred and

sixty-one of the laws of eighteen hundred and ninety-three, chapter three hundred and ninety-eight of the laws of eighteen hundred and ninety-five, chapter six hundred and thirty-six of the laws of eighteen hundred and ninety-five, chapter one hundred and eleven of the laws of eighteen hundred and ninety-six, chapter six hundred and forty-six of the laws of nineteen hundred and one, and chapter two hundred and forty-three of the laws of nineteen hundred and two are hereby repealed.

Section 17. This act shall take effect immediately.

Correspondence.

A SINGLE MEDICAL EXAMINING BOARD.

To the Editor:

Your suggestion of a single medical examining board for the State of New York is an excellent one.

I believe that the County and State Medical Societies should take official notice of this, and appoint committees to confer with homeopathic and eclectic medical societies, with the view of forming one medical body in the state and nation.

You very ably say, "A doctor whom the state recognizes should be simply a doctor. The state should know no eclectics, osteopaths or hydropaths." The public should know that there is only one way of treating and curing disease, and that is based on the fundamental principles of cause and effect. It matters not by what method the cause is removed, the effect is the same.

We have but one kind of dental college; we have but one kind of pharmaceutical college; we have but one kind of law school, though every lawyer tries his cases in his own peculiar way.

We must teach the public that the practice of medicine does not consist merely in the knowledge of how to administer drugs, but it also includes the knowledge as to when drugs are contraindicated. We must teach the masses that there is great danger in entrusting the science and art of medicine in the hands of ignorant, inexperienced and untrained persons.

There is another reason why more than one examining board is detrimental to the public welfare. The State, by recognizing three distinct schools, impresses the public that each school has a certain method of treating diseases which is unknown to the other schools. Thereby quacks are directly aided in palming off upon the public their secret nostrums. The cure-all charlatan points to the different schools, exclaiming, "Each school has its secret, how to cure disease, and I have discovered another secret."

My object in writing this is that, by advancing such arguments, we may convince the Legislature of the necessity of such a step; and by enlightening the public on this subject we will make another step toward eradicating the evil of the so-called cure-all humbug.

699 Madison Ave. L. W. ZWISOHN.

[This subject already had been well presented before its appearance in the JOURNAL. The ablest discussion of which we know is that by Dr. Frank Van Fleet, on "Needed Reforms in the Medical Laws of the State of New York," published in the *Post-Graduate* in October, 1906.—EDITOR.]

A BILL TO FACILITATE RECOVERY FOR MEDICAL SERVICES.

To the Editor:

On page 474 of the December issue there is, I observe, a reference to the case of Taylor v. Barker (108 App. Div., 21), in which it is held that 1391 of the Code of Civil Procedure does not apply to judgments obtained by physicians or surgeons for professional services. Hence an execution cannot issue in such cases against the salary or income of the judgment debtor exceeding twelve dollars per week. While the effect of the decision is unfortunate, its logic cannot be successfully attacked, for surely if plain words in the English language mean anything, the expression "necessaries sold" cannot be extended to cover physicians' charges. Be that as it may, however, it may interest you to learn that at the request of the Medical Society of the Borough of The Bronx, in the City of New York, of which I am counsel, the enclosed bill was drawn, and, after having been approved by James Taylor Lewis, Esq., counsel to the State Medical Society, and by Dr. Arthur G. Root, Chairman of the Committee on Legislation, was placed in the hands of a member of the Assembly for introduction at an early date.

I shall appreciate the favor if you will give publicity to the foregoing fact, as we wish to secure the co-operation of all medical associations throughout the State. A copy of the bill and any information desired will be gladly furnished.

You will observe that the present law has been changed only by adding the words "or for services hereafter rendered as a physician or surgeon."

January 14, 1907. H. GERALD CHAPIN.

AN ACT TO AMEND THE CODE OF CIVIL PROCEDURE IN RELATION TO EXEMPTIONS AND EXECUTIONS.

The People of the State of New York represented in Senate and Assembly, do enact as follows:

Section 1. Section thirteen hundred and ninety-one of the Code of Civil Procedure is hereby amended to read as follows:

SECTION 1391 ADDITIONAL PERSONAL PROPERTY EXEMPT IN CERTAIN CASES.

In addition to the exemptions allowed by the last section, necessary household furniture, working tools and team, professional instruments, furniture and library, not exceeding in value two hundred and fifty dollars, together with the necessary food for the team for ninety days are exempt from levy and sale by virtue of an execution, when owned by a person being a householder, or having a family for which he provides, except where the execution is issued upon a judgment received wholly upon one or more demands, either for work performed in the family as a domestic or for the purchase money of one or more articles, exempt as prescribed in this or the last section. Where a judgment has been recovered wholly for necessaries sold or work performed in a family as a domestic or for services rendered for salary owing to an employee of the judgment debtor, *or for such services hereafter rendered as a physician or surgeon,* and where an execution issued upon said judgment has been returned wholly or partly unsatisfied, and where any wages, debts, earnings, salary, income from trust funds or profits are due and owing to the judgment debtor, or shall thereafter become due and owing to him, to an amount exceeding twelve dollars per week, and where no execution issued as hereafter provided for in this section is unsatisfied and outstanding against such judgment debtor, the judgment creditor may apply to the court in which said judgment was recovered or the court having jurisdiction of the same, without notice to the judgment debtor, and upon satisfactory proof of such facts by affidavits or otherwise, the court, if not a court of record, a judge or justice thereof, must issue, or if a court of record, a judge or justice must grant an order directing that an execution issue against the wages, debt, earnings, salary, income from trust funds or profits of said judgment debtor, and on presentation of such execution by the officer to whom delivered for collection to the person or persons from whom such wages, debts, earnings, salary, income from trust funds or profits are due and owing to the judgment debtor, said execution shall become a lien and a continuing levy upon the wages, earnings, debts, salary, income from trust funds or profits due or to become due to said judgment debtor to the amount specified therein, which shall not exceed ten percentum thereof, and said levy shall be a continuing levy until said execution and the expenses thereof are fully satisfied and paid or until modified as hereinafter provided. It shall be the duty of any person or corporation, municipal or otherwise, to whom said execution shall be presented, and who shall at such time be indebted to the judgment debtor named in such execu-

tion, or who shall become indebted to such judgment debtor in the future, and while said execution shall remain a lien upon said indebtedness to pay over to the officer presenting the same, such amount of such indebtedness as such execution shall prescribe until said execution shall be wholly satisfied and such payment shall be a bar to any action therefor by any such judgment debtor. If such person or corporation, municipal or otherwise, to whom said execution shall be presented shall fail or refuse to pay over to said officer presenting said execution the percentage of said indebtedness, he shall be liable to an action therefor by the judgment creditor named in such execution, and the amount so recovered by such judgment creditor shall be applied toward the payment of said execution. Either party may apply at any time to the court from which such execution shall issue, or to any judge or justice issuing the same, or to the county judge of the county, and in any county where there is no county judge, to any justice of the city court upon such notice to the other party as such court, judge or justice shall direct for a modification of said execution and upon such hearing thesaid court, judge or justice may make such modification of the said execution as shall be deemed just, and such execution as so modified shall continue in full force and effect until fully paid and satisfied, or until further modified as herein provided.

Section 2. This act shall take effect immediately.

County Societies.

MEDICAL SOCIETY OF THE COUNTY OF ALBANY.

Regular meeting, held in the Alumni Hall of the Albany Medical College, December 12, 1906.

Dr. Hacker made the following motion: "That the Committee on Public Health investigate as to the existence of an ordinance in citv and county of Albany prohibiting the sale of ice for food or table purposes which is cut from bodies of water that are used for skating purposes or as skating rinks. If such ordinance does not exist, to request the Committee on Public Health to endeavor through our representatives in the Board of Aldermen of the Citv and the Board of Supervisors of this County to enact such an ordinance." The motion was carried and referred to the Committee on Public Health.

Dr. Hacker moved: "That the Committee on Public Health be requested to request the Commissioner of Public Safety of the City of Albany to place charity diphtheria antitoxin, after the office hours of the Department of Health in the office of the Chief of Police in the City of Albany; so that it can be had at all hours of the night readily by physicians and patients who will sign the proper blanks." The motion was carried and referred to the Committee on Public Health.

Dr. Hacker moved: "That the Committee on Public Health endeavor to secure the passage of an ordinance by the Board of Alderman in the City of Albany making fumigation of apartments compulsory in which cases of pulmonary tuberculosis have been treated, namely after removal from one apartment to another or after death. Also making it compulsory that physicians in attendance upon cases of pulmonary tuberculosis report such instances of removal from one apartment to another to the Health Department." The motion was carried and referred to the Committee on Public Health.

SCIENTIFIC PROGRAM.

Dr. C. F. Theisen read a paper on "The Importance of Waldeyer's Lymphatic Ring."

Dr. George S. Eveleth, of Little Falls, read a paper on "What Shall we Eat; What Shall we Drink, and How Shall we be Saved?"

Dr. Stillman moved that thanks be given to Dr. Eveleth.

Regular meeting held January 9, 1907, in Alumni Hall of the Albany Medical College.

The following papers were presented:

"The Evanescence of Physical Signs in Heart Disease," Prof. Henry L. Elsner, M.D. (by invitation), Syracuse University, N. Y.

"Electro-Therapy from a Physiological Standpoint," E. A. Bartlett, M.D.

Report of Three Months' Surgical Service at the Albany Hospital, E. A. Vander Veer, M.D.

An instructive series of Pathological Eye-Specimens was demonstrated by Arthur J. Bedell, M.D.

MEDICAL SOCIETY OF THE COUNTY OF ALLEGANY.

Regular meeting held at Cuba, N. Y., on January 17, 1907.

PROGRAM.

"Preventive Medicine or Municipal Milk Supply," by Dr. James Johnston, of Bradford, Pa.

"Feeding the Baby," by Dr. A. H. Lyman, of Fillmore, N. Y.

The papers brought out a lively discusion, which was participated in by several milk men who were present.

The next meeting will be held at Boliver April 25th.

Dr. J. C. Young, of Cuba, N. Y., was elected President of the Society, and C. R. Bowen was elected Secretary and Treasurer.

The following were elected to membership: Dr. Geo. B. Jackson, of Caneadea, Dr. E. M. Peate, of Black Creek, and Dr. N. P. Brainard, of Andover.

MEDICAL SOCIETY OF THE COUNTY OF CHEMUNG.

The annual meeting was held at Elmira December 18, 1906. The election of officers for the ensuing year resulted as follows: President, R. P. Bush; Vice-President, Arthur W. Booth; Treasurer, G. V. R. Merrill; Secretary, Ross G. Loop; Censors, John C. Fisher, C. W. M. Brown, H. D. Wey; Delegate to State Society, R. P. Bush; Alternate, H. D. Wey.

The retiring President, Dr. Theron A. Wales delivered an interesting address on the subject of foods, pointing out the inability of most physicians to give explicit orders for the preparation of foods for the sick, and emphasizing the need of such instructions to the average nurse, particularly those not trained in this important accessory of the healing art. Dr. C. W. M. Brown, of Elmira, read a paper on "Diet in Acute Disease," in which he contended for a more careful study of the needs and capacity to digest of the individual patient. He holds that many of the annoying symptoms in acute diseases, particularly typhoid and pneumonia, such as tympany, constipation, diarrhea, malassimulation, vomiting, etc., may be corrected by a proper diet, and that the toxemia and poor nutrition due to improper diet added to that of the disease, may determine the fatal termination of the case. The papers were freely discussed.

The Society endorsed the action of the Kentucky State Medical Association in regard to the fees for life insurance examinations, and a committee was appointed to secure signatures of all practitioners in the county, agreeing to make no examinations for less than $5.00.

MEDICAL SOCIETY OF THE COUNTY OF FRANKLIN.

The Sixtieth Annual Meeting was held at Malone, N. Y., on January 8, 1907. The following officers were elected for the ensuing year: President, Dr. H. M. Kinghorn, of Saranac Lake; Vice-President, Dr. F. F. Finney, of Burke; Secretary-Treasurer, Dr. G. M. Abbott, of Saranac Lake; Censor, Dr. Henry Furness, of Malone; Delegate to Fourth District Branch, Dr. E. S. McClellan, of Saranac Lake; Delegate to State Medical Society, Dr. A. E. Moody, of Dickinson Center

Program.

Paper: "Pneumonia, as it is Seen in the Aged," by Dr. F. F. Finney, followed by a general discussion.

Paper: "Renal Symptoms of Tuberculosis," by Dr. H. M. Kinghorn.

Report of an interesting case by Dr. A. L. Rust.

The next meeting will be held in Saranac Lake on the 2d Tuesday of June, 1907.

THE MEDICAL SOCIETY OF THE COUNTY OF GENESEE.

Regular meeting, January 2, 1907, Batavia, N. Y.

PROGRAM.

Annual address by retiring President, Dr. H. A. Morse, Batavia, N. Y.

Paper: "Intestinal Obstruction," by Dr. Marshall Clinton, Buffalo, N. Y.

Paper: "Is Vaccination a Duty or a Privilege?" Dr. J. W. Le Seur, Batavia, N. Y.

The following resolution was sent to the Legislative Committee of the State Society.

Resolved: That the Medical Society of the County of Genesee hereby requests the Chairman of the Legislative Committee of the Medical Society of the State of New York to consider the advisability of requesting the State, through proper legislative enactment, to assume the responsibility and expense of prosecuting infringements of the medical laws, in a similar manner to that assumed by the State in the prosecution of violations of the excise law, whenever information of such infringement of the medical law is furnished by the president and secretary of a county medical society.

MEDICAL SOCIETY OF THE COUNTY OF KINGS.

Eighty-sixth annual meeting was held January 15, 1907.

Section on Laryngology, Rhinology and Otology, January 17, 1907.

1. "Report of a Case of Foreign Body (Safety pin) in the Upper End of the Esophagus," by C. N. Cox, M.D.

2. Paper: "Some Facts Pertaining to the Surgical Anatomy of the Temporal Bone," by H. A. Alderton, M.D.

Section on Pediatrics.

"Clinical Observations of Diphtheria as seen in the Hospitals of the Department of Health," by Dr. Binford Throne.

"Diphtheria Antitoxin in Private Practice," by Dr. W. D. Ludlum.

Discussed by Drs. H. N. Read, W. A. Northridge and C. H. Goodrich.

LEWIS COUNTY MEDICAL SOCIETY.

Regular annual meeting held at Lowville, N. Y., January 8, 1907.

Routine business transacted. Election of officers: President, F. E. Jones; Vice-President, O. G. Harrington; Treasurer, I. D. Spencer; Secretary, H. A. Pawling; Delegate to House of Delegates, P. H. Von Zierolshofen.

MEDICAL SOCIETY OF THE COUNTY OF MONROE.

Annual meeting December 18, 1906, Rochester, N. Y.

Wisner R. Townsend, M.D., Secretary of the Medical Society of the State of New York, spoke on "The State and County Societies, and the Advantages of Membership."

The following officers were elected: President, W. L. Conklin; Vice-President, C. D. Young; Treasurer, R. R. Fitch; Secretary, C. R. Witherspoon; five Censors, J. W. Whitbeck, E. H. Howard, W. S. Ely, R. M. Moore, F. F. Dow; Delegates to State Society, E. B. Angell, W. R. Howard, J. C. Davis, H. T. Williams, W. M. Brown; Alternates to State Society, R. G. Cook, W. V. Ewers, C. R. Witherspoon, M. B. Palmer, W. T. Mulligan; Delegates to 7th District Branch, C. R. Barber, W. L. Conklin, M. S. Collier; Alternates to 7th District Branch, C. O. Boswell, C. V. C. Comfort, W. E. Bowen.

ONEIDA COUNTY MEDICAL SOCIETY.

Annual meeting January 8, 1907, Utica, N. Y.

President's address, Dr. Herbert G. Jones.

"Laboratory Aids in Gastro-Intestinal Diagnosis," Dr. W. S. Nelson.

"Oxyluria," Dr. W. J. Schuyler.

"Acute Fibrinous Bronchitis," Dr. R. L. Baker.

"Dementia Precox," Dr. G. H. Torney.

"Water and Its Purification," Dr. C. B. Tefft.

SARATOGA MEDICAL SOCIETY.

Regular meeting January 4, 1907, Saratoga Springs, N. Y.

Program.

"Treatment of Colles Fracture and Fractures of the Ulna and Radius, including Fractures of the Elbow Joint," by Dr. A. S. Downs. Discussion by Dr. J. T. Sweetman, Jr.

"Treatment of Fractures of Humerus and Clavicle, including Fractures of the Shoulder Joint," by Dr. J. B. Ledlie. Discussion by Dr. Frank Sherman.

Regular Meeting January 18, 1907.

Program.

"Treatment of Potts' Fracture and Fractures of the Tibia and Fibula, including Fractures of the Knee Joint," by Dr. Miles E. Varney. Discussion by Dr. A. W. Thompson.

"Treatment of Fractures of the Femur," by Dr. G. F. Comstock. Discussion by Dr. J. F. Humphrey.

MEDICAL SOCIETY OF THE COUNTY OF ULSTER.

Regular meeting, Kingston, N. Y., February 5, 1907.

Program.

"Surgery of the Extremities," by Geo. Gustave Lempe, M.D., Albany, N. Y.

"Resumé of Experience of the Newark City Laboratory," by R. M. Connolly, M.D., Newark, N. J.

"Work of the Poughkeepsie Board of Health," by John S. Wilson, Health Officer, Poughkeepsie, N. Y.

Deaths.

OTIS ALLEN, M.D., of Cuba, N. Y., died November 8; aged 38 years.

GROVER CRANE ARNOLD, M.D., died in New York City on November 29; aged 57 years. He had for many years been an instructor in anatomy in Bellevue Medical College.

FERDINAND BEACH, M.D., of New York City, died in Santa Barbara, Cal., Nov. 5; aged 69 years.

ORMOND E. BURDICK, M.D., of Little GENESEE, N. Y., died November 15; aged 56 years.

FLORENCE G. EMERSON, M.D., died at her home in Brooklyn, N. Y., on November 26.

ALFRED WILDE GARDNER, M.D., of New York City, died on December 10, of scepticemia following an infection received while performing an operation.

SAMUEL W. GLEASON, M.D., died in Brookport December 8; aged 87 years.

CHARLES GOULD, M.D., died in New York City November 22 of septicemia; aged 46 years.

THOMAS F. MCCLEARY, M.D., died December 15 in Brooklyn; aged 36 years.

EDWARD J. MCDONOUGH, M.D., of New York City, died November 29; aged 44 years.

ALEXANDER E. MCDONALD, M.D., of New York, died of tuberculosis on December 7; aged 61 years. He was superintendent of the insane hospital on Ward's Island and an ex-president of the American Medico-Psychological Association.

ALFRED EDWARD MEYER, M.D., an assistant in clinical Surgery in the New York Policlinic, died at his home December 5; aged 40 years.

SPURGHEIM P. MOORE, M.D., died at Munnsville, November 19; aged 67 years.

LEONARD FRANCIS NICOLL, M.D., died at his home, in New York City, of typhoid fever, on November 25; aged 30 years.

JOSEPH FRANCIS QUINN, M.D., died in Brooklyn, November 26; aged 41 years.

PETER W. RAY, M.D., of Brooklyn, died on November 27, of heart disease; aged 82 years. He was a founder of the Brooklyn College of Pharmacy.

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Original Articles.

VULVO-VAGINITIS IN CHILDREN.*

By J. RIDDLE GOFFE, M.D.,
NEW YORK.

VULVO-VAGINITIS in its simple form is not at all uncommon in girls between the ages of five and twelve in all walks of life. The etiology is well understood, being found in various forms of non-virulent germ infection when the soil for cultivation is supplied by low general vitality, insufficient baths and all uncleanness—a filth disease. But the form of vulvo-vaginitis which concerns us to-night is the virulent specific infection of the gonorrhoeal diplococcus, and the special phases of it that invoke the attention of this society are: the enormity of the primary offense that carries in its train this loathsome and dangerous scourge of child life; of the frequency of the latter; its mode of transmission, whether innocent or venereal; its communicability; its clinical history; and especially its duration.

It is interesting to recall that the term vulvo-vaginitis was devised and used first by Dr. H. Behrend in 1848, who on clinical grounds, Dr. Welt-Kakels says, described various forms of the affection but failed to mention the gonorrhœal variety. It was as recent as 1846 that the first mention was made of the transmission of a purulent genital discharge; and in the cases then presented we find the very form which affords the subject of our theme to-night, viz.: the appearance of a specific vulvo-vaginitis in two little girls, to whom the disease was conveyed in the bath by a woman suffering from acute blennorrhœa.

It was J. E. Atkinson, however, who, through his careful and persistent observation in a charitable institution of Baltimore, discovered and traced the source of contagion in six cases of vulvitis in children between five and twelve years of age. The children slept in the same dormitory and were in the habit of visiting each other in bed at night. About one year previously the institution had suffered from an epidemic of contagious ophthalmia, during which nearly all the inmates and several attendants were affected. Two or three of these cases had continued to the time of the appearance of the valvitis; at the same time some of the children suffered also from catarrhal and ulcerative stomatitis. Atkinson was so confident of the direct source of the contagion that he affirmed that, "the origin of the cases is as readily accounted for as if we knew that gonorrhoeal pus had been brought into contact with the vulvar mucosa of the children; and interest rests in the circumstance that there was here a vulvitis due to a specific contagion other than venereal."

We may be permitted to observe in passing that, it is most refreshing and stimulating to find a man among the very pioneers in this field of observation, so confident of his facts, and so clear in his deductions that he was able to affirm a great truth which has stood the crucial tests of a whole army of investigators.

Frequency.—Pott, during six years of service at the Children's Clinic in Halle, observed 86 cases of vulvo-vaginitis among 3,921 girls; more than 2.1 per cent. Of these, seven children were over ten years of age; twenty-three between five and ten years; and fifty-six under five years.

Leszynsky, in 1886, observed an epidemic of 35 cases of vulvo-vaginitis complicated by ophthalmia. Among 212 inmates, 100 were girls between eight and fifteen years of age, and 112 boys and girls under five years of age.

R. Skutsch, in 1890, at Posen, reported a most extensive epidemic of gonorrheal vulvo-viginitis. Two hundred and thirty-six school girls, from 6 to 14 years of age, were affected inside of eight to fourteen days. All of these contracted the disease in one bath house where, on account of limited accommodations, two or more children made use of the same bath tub.

J. Comby, in 1891, recorded 151 cases of vulvo-vaginitis, observed by him in children in the hospitals of Paris.

In 1892, Cohen-Bach noted 26 cases in children between the ages of 1½ and 12 years.

Berggruen reports 31 cases of vulvo-vaginitis, in only 11 of which he was able to demonstrate the gonococcus.

Cassel, in 1893, reported 30 cases of valvo-vaginitis in girls between the ages of 7 months and 11 years; 24 of them had gonococci.

*Presented in the Symposium before the meeting of the American Society for Sanitary and Moral Prophylaxis, October, 1906.

Koplik has recorded 24 cases of vulvo-vaginitis, in 17 of which the gonococcus was found.

In 1894, J. L. Morse reported 5 cases of vulvo-vaginitis in children between 2 and 5¾ years of age—all specific.

Fisher reports 54 cases of vulvo-vaginitis in little girls of whom 50 were gonorrhœic.

Sheffield, 1896, reports an epidemic of 65 cases occurring in the Hebrew Sheltering and Guardian Orphan Asylum of New York City, all of which were traceable to a child admitted while suffering from gonorrhœal vulvo-vaginitis. Ten years previously in the same institution 38 cases of leucorrhœa appeared, in 18 of which purulent ophthalmia developed.

Holt reports, in 1896, at the Baby's Hospital, New York, and its seaside branch, 9 cases of gonoccocus infection, 4 cases of vulvo-vaginitis; 1894, 11 cases; 1898, 5 cases; 1899, an epidemic arising from 3 cases which were admitted suffering from the disease, supplemented by 8 others which came later. Fifteen inmates contracted the disease from these; 1900, 6 cases were admitted and 18 inmates acquired it from them; 1901, 16 cases were admitted and 22 developed in the wards; and 1902, 8 cases were admitted, and 12 inmates acquired it from them. In November of that year the new hospital was opened, and as Dr. Holt expresses it, "into that paradise the serpent came," and from one case during 6 months, 8 new cases developed. In 1903, 10 cases were admitted, and 55 acquired the disease; and in 1904 there were 46 cases.

Romniciann and Robin reported, 1901, 150 cases occurring during 14 years in the surgical wards of a hospital in Bucharest, 130 of which were gonorrhœal.

Welt-Kakels, in 1904 reported that she had seen at the Children's Clinic of Mt. Sinai Hospital Dispensary, New York, in ten years 1893-1903, 190 cases of vulvo-vaginitis among 11,578 children.

Koplik says that when he took charge of Mt. Sinai Hospital Service for Children, there was not a female child in the service who was not a victim to this infection.

Modes of Transmission.—All observers are agreed that, as a rule, gonococcic valvo-vaginitis in young girls is not of venereal origin. We have seen that in the first case recorded a woman conveyed the disease to two little girls who had bathed in the same tub with her. Sachard, of Lavey, a sulphur spring in Switzerland, reported that twelve little girls who bathed in the same pool all developed acute valvo-vaginitis inside of six days. No other agent of communication was discoverable. Two months later, eleven girls were bathing in another pool at the same spring acquired the disease successively during ten days. Cases are recorded of children acquiring the disease by sleeping in the same bed with their mother who was known to be suffering from it. The generally accepted origin of vulvo-vaginitis neonatorum is the supposed contact of the baby's genitals with infected tissues of the mother as the child passes through the birth canal. This seems to me subject to grave doubt. Infected bed linen is undoubtedly a most frequent source of infection, as well as the use of a common wash cloth or sponge at the bath. The hands of an infected nurse—and who knows what baby's or child's nurse is not infected?—are undoubtedly the frequent source of infection in the isolated cases that occur in private households.

Duration of the Disease.—Atkinson naively remarked in his report that, "the treatment of the cases was very tedious." How expressive of the treatment of every practitioner who has had these cases to deal with! Welt-Kakels says: "The inflammatory symptoms in the gonorrheal form of valvo-vaginitis usually disappear at the end of four to six weeks; the discharge from being profuse and greenish becomes scant and milky, or serous. This condition will remain for a long time; on the whole the affection has a distinct tendency to chronicity, with occasional exacerbations." All the great authorities quite agree with this view, viz.: Fraenkel, Cohen-Bach, Koplik, A. Caille, Spaeth and Dusch. Holt says the duration is indefinite, and Epstein, according to Kakels, states that he has often seen cases of gonorrheal valvo-vaginitis, which were contracted during infancy, last to the age of nine or ten years. The same author reports a case in which the gonococci persisted in spite of vigorous treatment from the age of ten days to two years; and Bushke found gonococci in the discharge of a little patient after four years of medical treatment. Welt-Kakels sums up the situation quite completely and voices the opinion of the best authorities when she says: "From my own experience, I would venture to say that the cases of gonorrheal valvo-vaginitis reported cured after three to twelve weeks are far from being freed from the trouble; nor does it seem justifiable from the knowledge of the course of the affection to declare the patient cured at the end of two, three or four months; even if gonococci cannot be found in the discharge, as relapses after apparent recovery are very frequent, the latent gonococci being stimulated to renewed proliferation after treatment has been discontinued. I do not hesitate to say that I hardly know of any other ailment of early childhood of such tenacity in its course, so refactory to treatment and fraught with such grave consequences for later life."

When there is added to this picture the perspective of long years of chronic invalidism and suffering in the latent form of metritis and salpingitis that is grafted upon this youthful experience, the horrors of the situation multiply. Supplement this by the acute complications of purulent ophthalmia, single or multiple arthritis, and purulent peritonitis, the disease takes rank with the great scourges of the race.

The first two are to receive special attention here to-night, but of the third, perhaps, I may be permitted to emphasize the simple mention of it by calling attention to a few specific cases. Acute purulent and fatal peritonitis is not a rare complication of gonococci valvo-vaginitis. Baginsky reports a case in a girl twelve years of age in which a fatal peritonitis resulted from valvo-vaginitis; on post mortem, purulent salpingitis was found.

Mejia narrates a fatal case of a five-year-old girl with gonorrheal valvo-vaginitis and peritonitis. Post mortem revealed fibrino-purulent exudate in the abdominal cavity and a pyosalpinx from the abdominal end of which pus exuded on pressure. Hunner and Harris, of Johns Hopkins, report 3 similar cases which were subjected to operation: one recovered and two died. Gonococci were found in the peritoneal cavity in two and culturally in the blood of the third.

Dowd, of New York, operated upon a girl of seven years for acute gonococcus peritonitis. The child also had gonococcus valvo-vaginitis. Pus was found at the abdominal end of the Fallopian tube, which in smears revealed the presence of gonococci. This child recovered.

The literature contains many cases similar to those cited, the repetition of which is unnecessary. As we view in imagination this composite picture of these many authors, each and every one must be impressed with the horror of the scene, and the pity of it. But the picture can be effaced by the dissipating rays of the sunshine of intelligence. The campaign of education is on, and this Society is its standard bearer.

SCRATCHING AS A FACTOR IN THE ETIOLOGY, SYMPTOMATOLOGY AND TREATMENT OF SKIN DISEASES.*

By E. WOOD RUGGLES, A.M., M.D.

ROCHESTER, N. Y.

FAMILIARITY breeds contempt. What we know intimately, see, hear and feel, loses in our estimation, no matter how great its importance. This truism is also applicable to the human body. The deep-seated organs have always had something of the mystic and terrible about them, though this feeling has become somewhat lessened since the advent of aseptic surgery; the superficial parts, on the contrary, are hardly thought of as organs at all.

This is especially true of the skin. When healthy it is never noticed. It is only when wounded, painful, irritable, or revolting in appearance that we pay the least attention to it.

Yet it outranks in importance several of the deeper seated structures. For example, the whole spleen, the uterus, both ovaries or an entire kidney may be removed and life go on as usual. Recently the stomach has been taken out bodily and its functions performed by the intestine.

The skin, however, has several functions which are absolutely requisite to the perfect condition of the body. These are respiratory, including the absorption of oxygen and the elimination of carbonic acid, excretory, as taken advantage of in the sweating treatment of dropsy and diseases which result in impaired circulation, protective both from injury and from heat and cold, and heat regulating. The latter function is of especial importance. In the presence of cold the superficial blood vessels contract and perspiration ceases, thus causing less loss of heat by radiation and evaporation, while, when the surrounding atmosphere is overheated or there is an increased generation of heat within the body through work or exercise, the vessels enlarge and the perspiration is profuse, thus dissipating heat both by direct radiation and by evaporation.

Suppression of part or all of these functions may result fatally, as was proved by the experience of Pope Leo X, who had a boy gilded from crown to foot at some great ecclesiastical celebration, causing his almost immediate death. If a rabbit is shaved and varnished its death is certain, even if the whole surface is not covered. When totally covered death ensues quicker.

Burns of a large surface of the body are always serious. The rule is that if one-third or more of the body is burned, even superficially, death follows.

There are several different varieties of general dermatitis which produce extreme prostration and, if severe, death by exhaustion; such are pemphigus, dermatitis herpetiformis, pityriasis rubra, lichen ruber and impetigo herpetiformis.

The skin is the chief seat of the organs of touch and of the sensation of temperature. By the latter we are warned of dangerous extremes of heat and cold, and the pain at which we so often grumble is frequently the direct saver of life.

Taking into account the importance of the skin as an organ and its very abundant nerve supply, it is not surprising that oft-repeated mechanical insults, such as scratching, should be followed by serious consequences. Not only is the direct mechanical injury, often extending completely through the true skin, and the irritation of the superficial nerves to be considered, but the fact that the finger-nails are a culture ground for innumerable bacteria, of different species, many of them pathogenic. In addition to this, in the various parasitic skin diseases, the mycelia and spores, or the ova and even the living mites are removed bodily and transplanted to a fresh *terrain*, where their successful reinoculation is provided for by a breach of continuity in the epidermis and an incision into the deeper tissues.

But not alone in these diseases, where the evil results are so manifestly certain, but also in the most varying cases and degrees of pruritus do

*Read before the Rochester Pathological Society, January 11, 1905.

harmful results show themselves. The law of compensation is a far-reaching one and its results are often most incongruous. This applies particularly to the annoyance occasioned by itching. The more acute the discomfort the more delicious is the pleasure caused by scratching, and in some cases it amounts to positive rapture. In certain severe eczemas the patient, while tearing the skin till it bleeds, flies into a perfect frenzy of ectasy, closely simulating the sexual organism. This sense of gratification, combined with a lack of self-control, is a feature which makes the cure of very many cases of skin disease so difficult, for there is no surer means of inhibiting Nature from exercising her powers of healing than by repeated irritation of an inflamed part. All that has been gained by days of treatment and rest to an inflamed part is often lost in five minutes or less of self-inflicted mutilation.

Take for instance one of the most frequent skin diseases, infantile eczema. Judging from the certain and reasonably rapid results afforded by proper treatment, it is safe to assert that nine out of ten of these cases would amount to little if the children were protected from themselves at the onset of the disease.

Very many infants, soon after birth, develop seborrhœa sicca of the scalp, commonly called milk crust.

This is to be regarded as nearly or quite physiological and, by the exercise of very simple measures, it is generally easily overcome. If, however, it is neglected the crust becomes thicker and extends to the edges of the scalp, itching, at first trifling, in character, ensues and then the infant begins its deadly work with the fingernails, irritating and congesting the skin and transplanting the condition to new areas, until shortly a real eczema results. Then the itching becomes more intense and the scratching, in consequence, more frequent and violent, till now we have not merely a mild seborrhœa, but a more or less generalized infantile eczema.

Other cases start, from the onset, as a slight or moderately severe eczema of the cheeks or forehead, less often of the backs of the hands or wrists. This form is termed "nervous," and is due to auto-intoxication, resulting from some derangement of the alimentary tract, generally due to improper food, very often over-prolonged nursing or, in certain cases, to dentition. This form causes much more intense itching than the seborrhoic variety, consequently the scratching is keener and the development into a serious eczema much more rapid.

Simple chapping of the hands or face may become the starting point of an obstinate eczema when irritated by these never idle hands of infancy.

And infantile eczema, once fairly under way, the chances are decidedly against its getting well, without careful and persistent treatment, until the age of three or four years, or at the earliest until dentition is over.

The modern, ultra-scientific school of medicine ridicules the idea of a physiological process like dentition interfering with the general health. It is only necessary, however, to observe closely the course of an ordinary infantile eczema, to become convinced that as a rule a certain degree of exacerbation of the disease occurs preceding the eruption of each new pair of teeth, even during treatment; while, in untreated eczemas, there is a spontaneous effort at recovery after teething is completed.

Pruritus ani is generally considered a symptom and not a disease, although in very many cases it is impossible to discover the constitutional or local condition which accounts for the functional disorder. However, very few patients permit this symptom to remain merely a symptom, but, by the more or less vigorous use of their nails, soon convert it into a real disease, eczema ani. Needless to say, this increases the pruritus and aggravates the condition greatly, thus rendering successful treatment much more difficult.

There are certain individuals who really enjoy their possession of a hyperæsthetic skin. I have had quite a good many ladies say to me, upon cautioning them about scratching their arms or wrists when affected with pruritis: "O, Doctor, I wouldn't have that itching stopped for anything, I just love to scratch and rub it." Now some day there comes a change in the metabolism of these habitual scratchers, their intestinal digestion is disturbed, their colon is overloaded, or they become lithæmic or bilious, the absorption of toxic material of some sort or other ensues and their hitherto patient skin resents the repeated insults, and eczema ensues. These cases are apt to do badly, for an eczema in which the patient will give the skin no rest gets very little benefit from treatment. The habit is very hard to break and I have frequently, while chiding these patients for not following directions in this respect, had them answer: "O yes, Doctor, I have remembered what you said and really haven't scratched it at all," while all the while they were speaking they were scratching and rubbing the affected part. This also applies to very chronic complaints, like pruritus ani, and pruritus vulvæ, though these patients seek to make their efforts as little noticeable as possible when in company.

There is quite a large class of cases which comes to a specialist in skin diseases, in which he seeks in vain for some characteristic lesion or lesions by which he may be able to classify the cases or name the disease. He looks without avail for the macules, papules, vesicles or pustules which represent the original lesion in most skin diseases. The only apparent characteristic about these cases is that the lesions look self inflicted, whether an erythema, caused by rubbing, or excoriations, produced by scratching, or, less often, a papule with its summit dug off by the nails.

A certain group of these cases we can pick

out as scabies, by closely observing the characteristic location of the lesions, their linear arrangement, etc. Yet it is surprising to find how few lesions may be caused by even several weeks of scabies, when the pruritus has been mild and the patient has exercised self-control. I had a patient very recently under treatment who had had scabies two months before consulting me, yet with no deep lesions and not many excoriations.

After these cases of scabies have been eliminated, there remains a decided majority in whom the eruption corresponds with no recognized disease. If there is anything characteristic about it, it is that it looks to be secondary to irritation, and, in fact, the pruritus precedes the lesion as a rule. This is not always the case, as I firmly believe that an over-sensitive skin is capable of reproducing a lesion at a considerable distance from the original one, entirely through the nervous system, a lesion which would never have appeared without the irritation of scratching.

I have seen wheals as large and half as elevated as a pigeon's egg appear on a person suffering from flea bites, nearly a foot from any bite, and caused solely by the reflex irritation of scratching a lesion several inches away.

The predominating lesions in these cases are scratch marks, though there may be papules present in especially irritable skins. If, however, these cases continue without help they are apt to run on until they develop into an actual eczema and their cure is the more difficult the longer the habit of scratching has been indulged in.

These cases nearly all present the symptoms of vasomotor disturbance as well as a thin, delicate and sensitive skin. If one draws his fingernail or a dull pointed pencil rather sharply over the skin, in a short time a red line, more or less elevated, will appear, which persists a considerable length of time. This is the phenomenon called dermography, which is particularly pronounced in urticaria. These vasomotor disturbances of the skin, which occur so frequently, are given but scanty attention in any text-book on skin diseases and the treatment suggested for their management is most unsatisfactory. This may be because they are so little understood.

As regards the relation of scratching to treatment, it nullifies its effects almost entirely. No matter how appropriate the remedy or how thoroughly it is applied, its results will be almost or altogether nil if the scratching continues.

For instance, in the treatment of infantile eczema the management of the mother always gives me much more trouble than that of the child during the first week or two. Very few mothers have the good sense to realize that what is an apparent hardship for the child is really for its best interest, and so, no matter how much you preach or scold they *will not* see to it that either the eczematous surface is thoroughly and constantly protected or the hands restrained or both. Only after the influence of repeated suggestion can they be induced to follow out your advice to the letter. And until they do you may be sure that all the progress you have succeeded in making, even in several days of treatment, will be completely obliterated some day in two or three minutes during which the child digs itself to its heart's content.

The same is true, though to a lesser degree, of adults. No matter how strongly you impress upon them the great importance of rest for the affected parts, the chances are ten to one that they will consciously on unconsciously gratify their craving desire to scratch. And even if they do severely exercise self-control while awake, the hands are very apt to resume their old bad habit while the patient is sleeping or only dozing. It would be easier to cure a good many such if we could treat them exactly like infants, bandaging the skin and tying the hands.

The history of a recent case will illustrate better than any argument what the simple withholding of external irritation will accomplish.

Mr. I. B. H., 37 years old, was referred to me by Dr. Keeler. The patient's heredity is good, and his general health fair aside from his present condition. He was an alcoholic for a long time, but has been a total abstainer for several years. Has still some of the nervous stigmata of alcoholism. His bowels are regular as a rule. When not, he "takes a pill." Of late has taken many salines and cathartics.

Six months ago he began to be troubled with pruritus, which he promptly relieved by scratching. On its reappearance the same treatment was applied. Very soon an eruption appeared. At the beginning it was the worst upon the scalp, though it extended over the shoulders and arms, and was quite severe on the palms. It never extended to the legs or feet. He says that the appearance of each fresh lesion is marked by a "puffing up" of the skin, which at the same time becomes pink, each such lesion itching intensely.

The patient's skin, where not diseased, looks delicate and irritable. He presents the symptom dermography to perfection, a slight scratching sufficing to raise a red welt which lasts for a long time. On the forearms and palms of the hands are a good many pinkish macules, slightly elevated, varying from a pinhead to one-half inch in diameter. A few such lesions are also to be found in the eyebrows. In appearance these lesions most resemble urticarial wheals, but are not urticaria. Beside they are too persistent.

I was disinclined to use any alterative or cathartic treatment immediately, as the patient's stomach was pretty well upset by the use of arsenauro.

I advised him to take a hot bath at bedtime containing one-quarter pound of bicarbonate of soda, and to apply locally an ointment containing menthol and carbolic acid two or three times daily. I then gave him the most stringent directions about absolutely refraining from scratching, and told him to set the ointment box by his bedside, and whenever he felt the least bit like scratching himself to rub some of the ointment upon the itching areas, and to follow up the same treatment by day.

Two days later he returned to tell me that the itching had ceased absolutely after lasting for six months. It has never returned since, and the pink macules soon faded away and disappeared.

It is idle to say that the ointment cured this man. Its only action was in helping him to resist the desire to scratch himself, and thus aiding Nature in her efforts to restore the equilibrium

of the inflamed and irritated skin. Abstinence from scratching was the real therapeutic measure and without it the disease would have persisted indefinitely.

THE RADICAL TREATMENT OF MIDDLE-EAR CARIES: A RESUME OF SIXTY-TWO CASES.

By GEORGE F. COTT, M.D.

Clinical Professor of Otology, University of Buffalo, Buffalo, N. Y.

RADICAL middle-ear operations are comparatively new, as far as the general public is concerned; it is not yet aware of the dangers of suppuration in this region nor of the benefits derived from operation. Sixty-two cases are sufficient to draw fair conclusions as to general results; an experience which certainly admits of discrimination in future cases and makes one feel that an unbiased opinion may be given for future guidance.

The principle involved here is first to stop the discharge and remove danger to life by putting the bone in a nonreceptive condition when exposed to bacteria. It is certainly a fact that a temporal bone once operated on is not so prone to infection as the healthy organ on the other side.

Those coming under my observation were from seven months to fifty-one years of age,—two or three acute and about the same number treated according to Stacke, but generally complete exenteration was practised.

CASES FOR OPERATION.

Cases of suppuration following zymotic diseases are numerous, and death follows more often than statistics show. Many deaths ascribed to meningitis may be traced to the middle-ear; the bone separating it from the brain is often very thin and sometimes deficient. Acute inflammation is seldom dangerous to life but the chronic form, going on for many years and designated by laymen as running ear, is gradually liable to invade the cranium insidiously and do great mischief before a physician is called, and if it is still overlooked, passes beyond human aid. Every case of deep-seated and constant pain, more or less fever, vomiting, dizziness, chills or chilly sensations, sleeplessness, principally due to pain, etc., should at once direct attention to the ear. I have seen patients forcibly snatched from the grave almost against their wills by a timely operation.

Every case of running ear which resists treatment, say for three months, should submit to operation; not only cleaning out the drum cavity or removal of ossicles, but all diseased bone. Removal of ossicles is generally farcical and commonly invites a second more radical operation. This was forcibly brought to my attention several times by a radical operation disclosing intracranial complications without any symptoms whatever, but which sooner or later would surely have caused death. In two patients I found sinuses extending 2½ inches into the temporal lobe. Both patients complained only of occasional headache. One developed a brain abscess later, the other, after fourteen months, is quite well.* A remote danger is erosion of the carotid artery followed by fatal hemorrhage. Twenty-three cases have so far been reported.

After having treated a case several months without much benefit, operation is advised. In all such cases the cells are opened first; if found sclerosed, a grove is formed to the antrum and all dead bone removed, no matter where found. Danger lurks wherever a focus is left behind.

PROMISE TO PATIENTS.

The question of result is of vital importance to the patient. What can the surgeon promise? I size up my patient closely, as to family history, habits, character, surroundings, specific or strumous history, excesses in drink and tobacco, condition of kidneys, blood, bowels, muscular activity, etc. If all is favorable, prognosis is good, and one can safely tell the patient that in all probability recovery will take place in six weeks or two months; an unfinished operation, however, is excepted.

SOURCE OF DISCHARGE.

When healing is not perfect, discharge will not cease altogether; there might be a slight focus left or a salpyngitis from a wide-open Eustachian tube. The discharge is sometimes difficult to stop, and occasionally it defies all treatment, excepting, perhaps, a second operation which is seldom permitted. However, with persistent treatment, it is generally held in check, and discomforts the patient but little. It is more easily handled by using the Andrews (Chicago) method of cutting a flap quite into the concha and stitching it to the scalp behind the ear, thus drawing open the normal meatus and making it large enough, after healing, to admit the tip of the little finger. In that way all the parts may readily be inspected.

DANGER OF OPERATION.

As far as immediate results are concerned there is no danger to the patient; all recover. When there is failure it is always due to previous complications, never to operation. The internal ear may inadvertently be disturbed and total deafness follow.

The gravest danger, it seems to me, is an incomplete operation; thereby placing the pa-

*Fifteen months after operation this patient developed cerebrospinal meningetis and died three days later. Post mortem examination found pus over medulla and cerebellum.

tient in a condition similar to that in which he was before interference, or opening a way to infection of brain membranes.

Does the end justify the means? is the great question. As long as there is carious bone near the brain it is a source of constant danger and should be removed. The fallacy that when an ear has been dried all danger is past, is a grave mistake. It is a nice point to discriminate when the disease is in a quiescent state, whether to operate or not. In a case of several years' standing it is better to remove all diseased bone, otherwise new infection may readily pass up the Eustachian tube and cause irreparable damage.*

Two or three attacks of inflammation followed by suppuration may happen years apart and should always be treated expectantly. When the bone is already crippled, as is generally the case in long standing suppuration, it is most hazardous to heal it; the tendency is always to reinfection by the slightest irritation.

The cures obtained after a radical operation are varied. In Germany recurrence or failure to heal is observed in about seven per cent. of cases which require a second operation. Causes of failure may be struma, syphilis, tuberculosis, diabetes or incomplete removal of diseased bone. After the radical operation, most of the danger has been removed, even though the discharge has not ceased. It can, however, be held in check. When an opening in the skull is found, this must be enlarged and the membranes or the brain explored. Of the sixty-two patients I found twenty in which, directly or indirectly, the brain was affected: of these, three were cases of septic sinus thrombosis; one was fatty thrombosis; three were cases of sinuses dipping into the temporal lobe; seven were epidural abscess; one was fibrus adhesion of dura to skull; one was cyst in temporal lobe; one was cold abscess, involving bone membranes and brain; two were cerebral abscess; one was cerebellar abscess; and one was epidural with cerebellar abscess.

Pus was found in the lateral sinus twice; one case recovered. In another case a cerebral abscess followed a radical operation in which a sinus was primarily found. A third case had a cerebellar abscess found post-mortem after evacuating an epidural abscess, the former manifesting no symptoms whatever.

EFFECT ON HEARING.

One can never tell at time of operation how the hearing will be affected. Our duty is to leave alone the region of the oval and round windows, when there is a fair amount of hearing present. That is an absolute rule, more especially so if the opposite ear is deaf. In the case of a young man, age 17, a double radical operation was done on the same day; quite good hearing was preserved in both ears. In another young man, age 19, one ear was first operated upon with resultant facial paralysis and intermittent heart; the other ear, five days later; he could hear the following day, and then became totally deaf, and has remained so ever since. He was markedly hysterical, but it was hoped that he would improve as he grew stronger. This final hope, however, was never realized. In the intracranial cases now alive and well, hearing is good in some, but those which were deaf at the time of treatment made no improvement in this respect.

In the other uncomplicated cases, the majority had hearing restored so that deafness could hardly be detected.

When hearing is fair it may be preserved by careful handling, but occasionally it becomes worse after operation, no matter what care is taken.

Paralysis may occur, no matter how careful one proceeds, but always recovers after several months. "Where the nerve is accidentally severed paralysis is complete and generally remains so. The facial has been united with the hypoglossal and spinal accessary, but results were not promising; in fact, the effect in addition was a cessation of functional activity of the other nerves. In one case the two ends of the nerve were immediately united but paralysis continued" (Gradenigo). Clark and Taylor prove the opposite, and claim very satisfactory results by this operation.

Pus was found in the lateral sinus twice, due to a broken-down thrombus; one case recovered. Thrombus was removed in two cases; both recovered. In cases of brain abscess or sinus thrombosis, the condition is always serious and requires the utmost caution regarding prognosis. It is, of course, impossible to be sure that all infective material has been removed, and two weeks ought to be allowed to pass before feeling fairly confident that the issue will be favorable. When a variable temperature follows a week after operation, the patient should be closely watched, and if no other symptoms appear but the high and low temperature, even though 105° F. is reached, no anxiety need be felt, for the patient usually recovers.

Timidity in treatment must be absolutely discarded. When once the radical operation has been commenced, no one can tell where it will end. It may be simple, or it may require removal of the cochlea or semi-circular canals and lead under the dura or into the temporal lobe, or the cerebellum, of one of the sinuses. One must be prepared for any emergency, otherwise the patient's life will be put in jeopardy. No man ought to undertake a radical operation unless he is prepared to follow wherever a sinus leads; a half-completed operation is a most dangerous procedure and will surely end in disaster.

WHEN TO OPERATE RADICALLY.

This is a most important question, especially

*As in appendicitis it is always good surgery to operate between attacks and thus assure a good result.

to the patient. There is practically no danger and but one or two weeks of confinement with more or less expense. According to our present knowledge of caries of the middle-ear which has been treated faithfully for two or three months, if the discharge is not controlled by that time, operation is indicated. When the ossicles are still intact, their removal may bring about a good result; if, however, caries extend to the attic and antrum, more radical measures must be adopted.

The Schwartz operation is applied in acute cases only, unless the case has been neglected and great destruction of bone has taken place.

The Stacke operation may be performed in cases having no other symptoms but discharge, without pain, temperature, irritability or constant headache. Any or all of these symptoms being present, precludes a Stacke operation and necessitates a radical operation in nearly all cases.

A grave question occasionally arises when the patient is deaf in one ear and the other is carious. Unless the condition is serious, palliative measures should be adopted. If operation becomes necessary, *the internal wall of the tympanum must not be disturbed,* or total deafness may result. When the radical operation is completed a longitudinal flap is cut from the posterior lining of the external canal and cut well into the concha, drawn backward and stitched to the scalp (Andrews), so that when the wound is healed the external opening will be large enough so that through this opening the parts can easily be seen and the more thoroughly treated.

In women it is important not to remove too much hair. In men the head may be shaved. When the hair is long, a circle of 1½ inches around the ear is shaved, and then the hair is drawn over the head. At the point where the hair has been left ½ inch breadth of collodion is applied which effectually plasters down the hair and keeps it away from the wound. If this precaution is omitted, stray hairs may work into the aseptic wound and produce suppuration. With collodion the hair will be kept fastened down for a week or more; it may, however, cause it to fall out. Latterly I have discarded collodion and use instead an adhesive strip; the rubber cap is perhaps preferable.

After-treatment may take several weeks or months. Occasionally it requires treatment continually by the patient. All things being equal, six weeks ought to be sufficient.

When an ear has been healed without operation, there is always danger of recurrence and sometimes with more violence, and even danger to life. Such patients should be cautioned to call the attention of their physician to the slightest symptoms referable to the ear. Septic sore throat is a most prolific cause of violent inflammation of the temporal bone causing intracranial mischief, and yet very little evidence may be found in the middle ear.

If all dead bone has been removed and the wound closed and packed, healing will be found to have been by first intention, at the first dressing four or five days later, and after-treatment is then carried on through the meatus.

RESULTS.

When the round and oval windows are disturbed, deafness may result; this ought to be avoided, but when there is much or constant bleeding the deep parts cannot be observed and therefore great caution is necessary, especially when one feels inclined to use the curette in this region.

Discharge usually ceases after some weeks. When it continues it is due to one of several causes: 1st, focus left after operation; 2d, Eustachian salpingitis, which may produce a mucus or muco-pus discharge for a short time, or, if not treated, continue and finally reinfect the old site and become fetid. In one case there is a mild discharge occurring synchronously with the menses; another had muco-pus for five years, then the ear became quite dry. In a third case, a nasal cold produced a slight watery discharge. In one patient the floor of the middle-ear was deficient, and the jugular bulb was distinctly seen protruding.

In one patient, having had discharge from both ears, deafness was apparently complete in one ear; all diseased bone was removed. In the other the drumhead seemed intact and hearing was good; a sinus led to the attic; this was enlarged and curetted, but the middle-ear was not disturbed; healing occurred in a very short time, and hearing was preserved. After several months he began to hear in the other ear which is steadily improving.

Although a second operation is seldom permitted in this country on private patients, if discharge does not cease it should be done. When there is pachymeningitis or something more severe patients seldom object, in fact, often urge its performance, principally on account of pain. Results prove its wisdom.

The general health always improves when the drain on the constitution has been interrupted. This is the case whether the discharge ceases altogether or only partially.

Skin grafting and blood clot have both been tried without result, but will be employed again whenever suitable cases present themselves. They are not appropriate in all cases.

It is surprising how many serious results due to neglect are encountered. When once the public become educated to a recognition of the point where danger lurks, operations will be more frequent, and death will be robbed of a most fruitful harvest.

BIBLIOGRAPHY.

Zaalberg: Zur Technik der Mastoid Operationen; *Cent. für Chir.*, 1898, V. 25, 346.

Laurens: Traitement chirurgical d'urgence d'une mastoidite suppurée; *Presse med.*, Paris, 1898, V. 2, 345-47.

Timberman: Mastoiditis: when to operate and how; *Ann. Otol., Rhinol. and Laryngol.*, St. Louis; 1898, V. 7, 664-75.

Gruening: Remarks on mastoid operations with a case of Bezold mastoiditis; *Arch. Otol.*, N. Y.; 1898, V. 28, 23-25.

Knapp: Case of acute mastoiditis (Bezold) without perfora-

tion of the drum membrane: operation; *Arch. Otol.*, N. Y.; 1898, V. 28, 26-28.
Tomka: Csecsnynjvany-operatio (Mastoid-process operation); *Orvosi heti Szemle*, Budapest; 1898, V. 26, 304.
Quintela: Un caso de mastoiditis de Bezold curato sin trepanacion; *Rev. med. d'Uruguay*, Mastevideo; 1903, V. 6, 39-41.
Moss: Radical treatment of mastoiditis, with report of cases; *Louisville Jour. of Med. and Surg.*, 1902, V. 9, 484-86.
Moss: Radical treatment of mastoiditis, with report of cases; *Internat. Jour. of Surg.*, N. Y., 1903, V. 16, 204-06.
Thomas: Mastoidite suppurée chez une diabétique de soixante-sept ans, etc.; *Rev. heb. de laryngol, etc.*, Paris; 1903, V. 2, 1-6.
Compaired: Otitis media purulenta y abscess mastoides agdnos de naturaleza desconocida antrectomia curacion; *Siglo med.*, Madrid; 1903, V. 1, 570.
Bacon: Report of case of double acute mastoiditis, followed by sinus thrombosis and other complications; *Tr. Am. Otol. Soc.*, New Bedford; 1903, V. 8, 276-82.
Bishop: The mastoid operations; *Internat. Clin.*, Phila., 1897, V. 2, 348.
Moure: Sur quelques cas d'évidement petro-mastoidien; *Jour. de med. de Bordeaux*, 1897, 27, 148-152.
Braquehay: Choles teatome de l'apophyse mastoide gauche trépanation de l'antre et de l'orcille moyenne; guérson; *Arch. internat. de laryngol., etc., Paris*, 1897, 10, 119-125.
Goureau: De l'osteo périostosléite mastoidienne; *Acualité med.*, Paris, 1897, 5, 449-502.
Reynier: L'évidement petro-mastoidien dans les suppurations anciennes de l'oreille;; *Med. orient*, Paris, 1898, V. 2, 17-21.
Turnbull: An historical sketch of the operations upon the mastoid process; *Jour. Am. M. Assn.*, Chicago, 1898, V. 30, 535-37.
Kenyon: A case of acute mastoiditis (primary) bilateral without ascertainable causes, occurring in a patient with slight sclerosis of middle ear; cured by operation; *Laryngoscope*, St. Louis, 2, 269-274.
Kenyon. Ditto; Manhattan Eye and Ear Hosp. Rep., N. Y., 1897, 4, 64-69.
Munger: Acute disease of the mastoid: its relation to the middle ear and its surgical treatment; with cases; *Yale Med. Jour.*, N. Haven; 1896, 3, 318-27.
Roberts: Suppurative mastoiditis; *N. Y. Med. Jour.*, 1897, 65, 695.
Stillson: Report of case of double mastoid disease, followed by abscess of spleno-maxillary fossa and neck; *Langsdales Lancet*, Kansas City, 1897, 2, 51-53.
Stillson: Ditto; *Ann. Otol. Rhinol and Laryngol*, St. Louis, 1897, 6, 151-54.
Stillson: Ditto; *Laryngoscope*, St. Louis, 1897, 3, 115-19.
Bacon: What symptoms should we consider most important in deciding as to the advisability of operation in mastoid disease; *Med. News*, N. Y., and *Trans. Am. Otol. Soc.*, New Bedford, 1897, 6, 481-88.
Bissell: Some indications for the different operations of opening the mastoid; *Homeop. Eye, Ear and Throat Jour.*, N. Y., 1897, V. 3, 369-89.
Pringle: Trephining of the mastoid for mastoid disease: no relief; subsequent treatment with antistreptococcic serum-recovery; *Brit. Med. Jour.*, London, 1897, 287 pages.
Böke: Sequester eltavolitas a cseconyutvány ból (Removal of sequestra from mastoid process); Budapest, 1898, V. 42, pg. 10.
Lavrand: Ouverture chirurgicale de l'apophyse mastoide; *Pratique jour.*, Lille, 1897, V. 2, 1-16.
Lavrand: Abcès fistuleux retro auriculaire gauche; trépanation de la mastoide-curettage de l'oreille moyenne; guérison; *Jour. d. Sc. Med. de Lille*, 1897, V. 1, 595-97.
Malherbe: De l'évidement petro-mastoidien appliqué en traitement chronique sech; *Poiton med. Poitiers*, 1897, V. 11, 201-07, V. 2, 337-43.
Cordero: Contributo allacura chirurgica delle mastoiditi suppurati e sue complrianze; *Progresso med.*, Torino, 1903, V. 2, 193-205.
Knapp: A case of mastoiditis with features of osteomyelitis: extension to the occipital bone, etc.; *Tr. Am. Otol. Soc.*, New Bedford, 1903, V. 8, 185-196.
Potter: A case of radical mastoid operation for chronic otorrhœa with subsequent grafting; *West London Med. Jour.*, 1903, V. 8, 312.
Batut: Mastoidite chronique gauche: trépanation de l'antre mastoidite de Bezold, etc.; *Bull. Soc. med. chir. de la Drome-Valence et Paris*, 1903, V. 4, 228.
Trifiletti: Mastoidite eburnea dolorosa-Scalpellamento profondo; guargione; *Arch. ital. di otol*, Torino, 1903, 1904, V. 15, 53-57.
Vacher: Mastoidite de Bezold compliquée d'érysipèles de la face; évidement injections intra veinenses de collargol guérison; *Presse to-laryngol belge.*, Brux., 1904, V. 3,13-18.
Segura: Sur un cas de double mastoidite de Bezold; opération; guérison; *Ann. de mal de l'oreille de larynx* (etc.), Paris, 1904, 30, 135-42.
Briggs: Mastoiditis; with especial ref. to surg. treat.; *Va. Med. semi-monthly, Richmond*, 1904, 1905, 9, 5-8.
Brunschoig: Mastoidite de Bezold; *Revue hebd. de laryngol*, Paris. 1904, 2, 209-11.
Ellis: Reports on mastoid cases; *So. Calif. Pract.*, Los Angeles, 1904, 19, 303-09.
Oppenheimer: Report of two cases of mastoiditis with paralysis of facial nerve: recovery of paralysis following operation; *Med. Rec.*, N. Y., 1904, 66, 409-11.
Macewen: Purulent mastoiditis, sinus thrombosis threatened cerebral abscess; recovery after operation; *Ann. Surg.*, Phila., 1904, 40, 348.
Angerias: Traitement de l'osteite condensante à forme nevralgique par l'évidcment mastoiden; *Rev. hebd. de Laryngol.*, Paris, 1904, 2, 162-170.
Dunn: Superperiosteal abscess over the mastoid fossa, where the bone of the fossa has been softened and absorbed, and antrum full of pus; *Va. Med. semi-monthly*, Richmond, 1904, '05, 9, 273.
Canzard: Carie des deux rochers: ablation de toute la partie pétreuse de la base du crane après un double évidement petro-mastoidien permettant la transfixation endocramenne transmoidienne; guérison opératoire; mort par tuberculose généralisée des deux poumons; réflexions sur la technique oper de l'ablation de rocher; *Rev. hebd. de laryngol*, Paris, 1904, 2, 337-46.
James: Surg. treatment of mastoid abscess; *Med. Herald*, St. Joseph, 1904, 23, V., 510-17.
Lawrence: Notes of a case of mastoid abscess five weeks after measles; *Brit. Med. Jour.*, London, 1904, 2, 1230.
Leimer: Operative Eröffnung des Warzenteiles in 80 Fällen von Otitis media purulenta acuta mit Empyem in den Warzenzellen während Jahre 1892-1901; *Zeitschr. f. Ohrenh.*, Wreib, 1904, 48, 231-257.
Canzard: Carie des deux rochers, suite d'otite chronique suppurée: ablation des deux rochers, c'est-à-dire de toute la partie pérense de la base du crane après un double évidement petro-mastoidien, avec resection de l'écaille temporale à gauche; transfixation intra-cranienne transmastoidienne; guérison; *Bull de laryngol. otol. et rhinol.*, Paris, 1904, 7, 229.

PRONATION OF THE FOOT.*

By J. M. BERRY, M.D.,
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LOVETT and Cotton define pronated foot as, "that vicious attitude of the foot in which in habitual standing position, it rolls over inward, the inner malleolus projects, and abduction of the front part of the foot occurs." This is the condition commonly known as weak ankles. In a paper, read before this society in January, 1906, entitled, "The Flat-foot Series of Disabilities and Deformities of the Foot,"† it was pointed out that pronated foot was the first stage of a progressive disability and deformity of the foot, *i. e.*, it is a weakness and not a deformity. An early type of this condition is well shown in the accompanying photograph (Fig. 1).

In a series of sixty-seven cases, taken from my case cards, and representing the flat-foot series of disabilities and deformities of the foot, only eight cases were diagnosed as simple pronated foot. The sixty-seven cases can be classified as follows:

GROUP I.	Pronated foot,	8 cases.
GROUP II.	Pronated foot with weakened arch,	28 "
GROUP III.	Pronated foot, Loss of arch with weight bearing,	14 "
GROUP IV.	Flat-foot, Non-rigid,	3 "
	Flat-foot, Rigid,	5 "
GROUP V.	Morton's toe, Anterior Metatarsalgia, etc.,	9 "
		67 cases.

A classification of this kind presents some difficulties. It is not always an easy matter to distinguish between a simple pronated foot and a pronated foot with weakened arch: in fact, as has been demonstrated by various writers, abduction of the foot (which is an element of pronation) in itself, weakens and slightly lowers the inner longitudinal arch. There are many border line cases; but in the above classification, Group II is made up of those cases in which the

*Read at the October, 1906, meeting of the Medical Association of Troy and vicinity.

†*Albany Medical Annals*, April, 1906.

lowering of the arch seems greater than could be accounted for by simple pronation.

What is clearly shown by the classification is this: the majority of cases do not come for treatment during the stage of simple pronation. The cases are either unrecognized or neglected, and so allowed to develop into a more advanced weakened condition in which the discomfort to the patient becomes so pronounced as to *demand* attention. Anyone doubting the frequent occurrence of pronated foot, should stand in front of any public school as closing time and observe the feet of the children as they come out.

Etiology.

Pronated foot is very common at puberty and is somewhat more prevalent in girls than in boys. The cause of the condition is muscular and ligamentous weakness; the chief etiological factor of which is faulty attitudes of the foot both at rest and when in use. Excessive weight and diseases such a rheumatism, gout, etc., are etiological factors which more often play a part in later life.

Fig. 1.—Weakened foot. Note the slight rolling downward and inward of the ankle; the slight turning outward (abduction) of the foot, and the presence of a well-formed arch.

Pronation of the foot is an exaggerated or faulty use of what Whitman has called the "passive attitude," and the importance of correct foot posture is daily being more and more realized. It is not the province of this paper to enter into a discussion of the mechanics of correct foot postures, correct walking, etc. I wish to simply call attention to one of the chief points which is, that the feet should be held parallel and straight in front both in standing and walking (Fig. 2).

A very important etiological factor in the causation of pronated foot, is a faulty shoe. A faulty shoe holds the foot in an improper position, predisposes to faulty attitudes and by constant strain, weakens and breaks down the foot.

Pathology.

There are no pathological changes in pronated foot other than a weakening and stretching of the muscles and ligaments and the inflammatory reactions resulting therefrom.

Symptoms.

The symptoms of pronated foot are such as would be expected from a weakened condition at the ankle joints. The patients complain of running their shoes over on the inside. There is great difficulty or impossibility in performing certain athletic exercises, such, for example, as skating. The foot tires easily, and long walks or running may be impossible. There is frequently pain in the ankles and a feeling of instability; only in the more advanced cases is there pain in the arch of the foot with tenderness and œdema. Such cases are border line cases between pronated foot and falling arch. Frequently there is an awkwardness and stiffness to the gait; the feet are rotated outward and occasionally a slight limp may be present.

Fig. 2.—*A*, Outline drawing of a foot held straight ahead. Note that the line of body weight and progression (*c d*), both in standing and in walking, falls over the center of the foot, the part of the foot adapted for it. *B*. Outline drawing of a foot held rotated outward. Note that the line of body weight and progression (*c d*), both in standing and in walking, falls to the inner side of the foot, a part of the foot not adapted for it.

Diagnosis.

The diagnosis is easy. A proper regard for the symptoms of the patient and a careful examination of the feet cannot fail to make clear the condition. Oftentimes, simply to observe the walk is all that is required; the outward rotation of the feet and the rolling downward and inward of the ankle are unmistakable. It sometimes happens, however, that during the examination, the patient is, so to speak, in a position of "attention," and unconsciously exerts more mus-

Fig. 3.—Outline drawing of a pronated foot. Note that line of body weight falls to the inner side of the foot.

cular strength than usual and the weakness is not at once apparent to the examiner.

The shoes should be examined to detect evidence of running over on the inside. The shoes and stockings should be removed and the foot inspected, both when at ease and with the full weight of the body thrown upon it. In this connection, the examiner should note where the line of body weight would fall (Fig. 3).

Grasp the foot and determine the amount of pronation that occurs on passive motion. A normal foot should admit of only a small amount of pronation.

Prognosis.

Prognosis is most favorable with proper treatment. Every uncomplicated case should be promptly relieved and ultimately recover.

Prophylaxis.

The practice of prophylaxis in this condition applies chiefly to the growing child, but adults would do well to adopt the same rules. The prevalence of weakened conditions of the foot in modern life is astounding, and undoubtedly the beginning of that condition, in a great majority of cases, is made in early life. The feet have a most important function to perform, but in spite of this and their complicated structure, they will, sometimes, tolerate an enormous amount of abuse. The chances are that an individual reaching adolescence with strong, well-formed feet will get through life without any foot trouble despite the fact of increase of weight, lack of exercise, and improper foot-wear. Nevertheless the feet are susceptible to improper usage. Hoffman* has recently shown that bare-footed savages when made to wear shoes, begin to develop deformities in a few weeks. In like manner, a growing child from the use of an improper shoe and faulty attitudes of the foot, acquires a weakened condition, which, while it may not cause trouble at that time, later in life, when the bodily energies are on the decline and an extra strain is thrown upon the feet, the weakened condition shows itself and the foot breaks down.

In regard to foot wear, the ideal method is to provide the child with a properly constructed custom-made shoe; but as the foot is continually growing, necessitating the frequent purchase of new lasts, this is rarely practicable. The next best thing is to try and provide shoes that allow of normal adduction of the foot. Fortunately there are ready-made shoes on the market whch comply with this requirement fairly well.

The child should be trained in correct foot attitudes and correct walking. The old position of standing at attention with the heels together and toes turned out is giving place to the straight-foot position. Taylor writes, "the child, the youth and the soldier should be plainly told that straight-foot standing and walking are strong, natural and correct; the everted foot, weak, inefficient and degenerate."

The proper use and exercise of the foot should be encouraged at all times, and the child should be carefully watched and so soon as symptoms of pronation occur, immediate appropriated treatment should be begun.

Treatment.

There are two main results to be attained in the treatment of pronated foot. The first is to *correct* the tendency to deformity, and the second is to strengthen the foot, *i. e., cure* the tendency to deformity. The correction of the tendency to deformity can be best accomplished by the use of a proper brace.† The brace holds the foot in a correct position, and then by use the foot tends to strengthen itself. Unfortunately

American Journal of Ortho. Surg., October, 1905.

†Berry: A brace to aid in the treatment of flat or weakened feet; *Albany Medical Annals*, September, 1906.

for the patient, the simple use of a brace is not sufficient to effect a cure. It is usually necessary to go through a long course of gymnastics. The patient should first be instructed in the use of proper attitudes and walking, *i. e.*, stand with the feet straight ahead and cultivate the heel and toe walk, holding the feet straight ahead and throwing the weight to the outer side of the foot. Following this, there are several important gymnastic movements which are described by Whitman. These are as follows:

Flexion of foot on ankle,
Extension of foot on ankle,
Adduction of foot to limit,
Abduction of foot to limit.

Stand with the toes turned in, rise up on tip toe as high as possible and come down on outer side of foot.

These exercises should be performed twenty to forty times night and morning. In addition, the patient should have two boards set up at an angle of 160 to 165 degrees, like a roof board of a house, and walk along these night and morning. In order to walk along the boards, the feet must be rotated in, and the tendency is just the opposite to that present in pronated foot.

In conclusion, it may be stated that nothing that is new has been presented in this paper. The purpose has been to emphasize certain points and to bring again to the attention of the profession some things that are apt to be lost sight of or neglected. It should be remembered that pronated foot is the first stage of a progressive weakness and deformity; that it is often overlooked or neglected; and that it can be readily relieved by proper treatment. The patients must *cure* themselves; the physician can correct the tendency to deformity, but the patient by the use of proper gymnastics and exercises must strengthen the foot.

TYPHOID: WHAT ARE WE GOING TO DO ABOUT IT?

By SAMUEL HOPKINS ADAMS.*

WITHIN a few years a number of our American cities have awakened to the discovery that typhoid fever is expensive. Cleveland found that the prevalence of the disease was giving the city a bad name and hurting business; Chicago discovered that the daily boiling of germs occupied the kitchen range to the exclusion of more appetizing cookery; Pittsburg, every time a new wave of industrial prosperity swept over it, perceived with dismay its resultant influx of population, which had not been brought up on sewage, passing swiftly from the water faucet to the hospital to an extent that crippled the commercial output. Even Philadelphia decided that, on the whole, assorted germs were too dear a diet. These and other cities, each in its own way, set about getting a better water supply. Cleveland and Chicago are now arranging at enormous expense to give other communities the benefits of their sewage which they have hitherto taken care of by swallowing it themselves. Philadelphia and Pittsburg have undertaken filtration on a sufficient basis and with every prospect of brilliant success, and now New York, through its Commissioner of Health, declares for the only form of protection which has proven, on a large scale and in continuous trial, locally adequate. All indications point to the fact that in a few years the principal cities of the United States will be furnishing to their citizens water that is fit to drink.

What then? Shall we have conquered the water-borne diseases? I think not. For these diseases are no respecters of municipal boundaries. New York City, filtering a water supply already protected as far as possible from pollution, may practically guarantee immunity so far as its own product is concerned. But just when Father Knickerbocker is getting ready to pat himself on the back over a decreased typhoid rate, comes vacation time, and the eager citizen goes away to a health resort and comes back, full of restored energy and bad water, to vitiate the local statistics. Or his boy goes swimming in the filthy Hudson off 155th Street or at Bath Beach and contributes his mite to the detriment of the percentage. Later the months with the R arrive and the worthy Jerseyman who has been fattening his oysters at the mouth of some rich-flavored sewer tacks another figure to the mortality. Long Island and upstate districts send in polluted green-stuffs for the metropolis to eat, and though Dr. Darlington could secure a water as germ-proof as sulphuric acid, yet the typhoid figures, while reduced, would still be unpleasantly in evidence. All of which has a meaning, if we can read it; typhoid is like political corruption in this respect, that, no city sins unto itself alone. When every city of 25,000 or over in this State shall have established its filtration plant, there will still be this typhoid problem: how to prevent water pollution in the country districts—for the usual course of typhoid is from the country to the city—and how to save our river system from becoming a network of sewers.

If I had a scheme, here is where I would propose it. But I have not. All that I can do is to suggest some means of enlisting the force that lies behind all plans of general betterment, public opinion. First of all, we have too little sense of responsibility regarding the crime of homicide. If I put arsenic in my neighbor's soup Mr. Jerome will get me. But if I poison the city of Butler, Pennsylvania, I shall be in no danger. The physician who by his disobedience of the

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law, failed to report my typhoid case, is in no danger of arrest, nor does any one see fit to arraign the water company which, in its criminal negligence, transmits my disease to many hundreds of helpless people. "Wherever," says Professor Vaughn, "there is a death from typhoid, some one ought to be hanged for murder." Two instances of personal responsibility, well proven, afford so remarkable a contrast as to be worth pondering in this connection. One is the Ironwood epidemic, which, so far as I know, has been strangely neglected in medical annals. The general facts of the epidemic I have verified; for the dramatic outcome I cannot vouch positively, but can only give it as I had it from a mining superintendent who took part in the events. In 1891 there appeared in the mining town of Ironwood, Mich., an epidemic of typhoid so virulent that the local physicians were helpless in the face of it. Men drinking the city water were prostrated within a few hours; many died, sometimes after only three or four days' illness. The public buildings were turned into hospitals; Chicago sent a special train with physicians and nurses. The town and Hurley, its neighbor across the river, were terror-stricken. Before the outbreak there had been leakage below the intake in the water pipe which carried the river water up into a reservoir. The break was located at the mouth of a gully where a settlement of foul-living Huns drained direct into the river. The water company's superintendent, a man who had fallen into evil ways and was known to have been neglecting his business, had reported that the leak had been repaired. This proved later to be a lie. When the epidemic broke out he insisted that the water was not to blame. A committee of citizens sent for Prof. Victor Vaughn, of the University of Michigan, to come there. He made an investigation, took specimens of the water, had the reservoir drawn off and found a deposit of vile-smelling slime, of which he took samples, promising to send a report by telegraph. His telegram came one evening. Ironwood gathered in the public square to hear it, an ominously quiet crowd. The report stated briefly that the supply from the reservoir was simply a liquid poison.

Some one threw a rope in the air. The crowd hesitated, wavered, and then marched across the river to Hurley, where the water company's superintendent was known to have been spending his time in a house of doubtful repute. There they found him; and thence they took him and hanged him.

It is not a pleasant story, this grim revenge of an outraged community; but is the story of another epidemic with which we are all familiar any more pleasant? By the terms of the contract the water company which supplied Ithaca, N. Y., was made responsible for the guardianship of the watershed. Testimony taken after the death roll was completed, showed that not only were the rural conditions about the watershed unclean to the last degree, but that the company's own workmen had built their sinks on the very slope of Six Mile Creek, the source of supply. The tragic result everybody knows. Yet, when it was all over and the dead were buried one "yellow" newspaper aroused genuine public indignation against itself by hinting that the president of the water company should be held legally responsible. The water company represented the best citizenship, so-called, of Ithaca. That rendered it exempt from justice under our singular system of public morals, which regards the man as commentary on the deed, instead of vice versa. Yet the company's guilt is different in degree rather than in kind from that of the man who paid for lives sacrificed by the sacrifice of his own life in Ironwood. I am not in any sense advocating lynching; but one cannot but wish that the spirit which worked through lawlessness in the crude mining town might have worked through law in the cultivated college city.

Ithaca has its filtration plant now. The lesson was learned at a terrible price, yet that is the price which most cities must pay. I talked not long since with the health official of an upstate city which has been academically considering water reform. This particular official is a crank, a busybody and a trouble-maker (in the estimation of the average easy-going citizen of the town) because he wants to shut the stable door before the horse is stolen. Personally I am convinced, by the way, that a good health officer is always something of a crank. This particular doctor had been dinning pure water into the ear of indifference for many months. His patience was about gone. "What we need here," he said to me in a sudden outbreak of exasperation, "is a good epidemic. And if we don't get it, it's only because the Lord treats us better than we deserve." To cross the continent for a parallel: Two years ago a professor of the University of California discovered a dairy farm using the water from a small creek which drained off the refuse of the sand filter. Thinking in the innocence of his soul that he had made a discovery of genuine public interest, he reported the matter to the Oakland Board of Health, which controls the stream. The Board of Health was duly obliged to him, and said that when any typhoid cases appeared which could be traced to that cause they would take measures to remove the nuisance. Until they had that basis to work on, public opinion would not back them. I have been unable to discover that the Oakland Board of Health ever took any steps to arouse public opinion.

And in the cause of pure water public opinion, except when incited by terror of an epidemic, must be stimulated artificially, so to speak. Seeing is believing to the general mind. Nothing looks so clean as water, and the bad is often as clean as the good. Disease-bearing organisms, unfortunately, are not impressive to the lay view, even through a powerful microscope. If only the

bacillus were as he is pictured in the comic paper supplements, with a swordfish bill, dragon-neck, horns and a stinger, a terrified public would swiftly send him to join the dodo and the great American bison in the limbo of the extinct. So, too, if the water board of a city like Binghamton, for instance, or Auburn could quietly contrive to muddy up the supply way three times a week, or put something in it that smelled bad, I fancy that the *argumentum ad hominem* would do more to win the day than any array of unpicturesque typhoid statistics.

Thus far, I am convinced, most of our reform in water supply has come through economic considerations. Pittsburg, Cleveland and the other cities aroused themselves to a consideration of the matter, because they found that typhoid costs money. Bad water costs money anywhere; the tax is indirect, it is true, but it is all the heavier, because the citizen is paying his money to the physician, the druggist, and the undertaker. If the medical profession, whose noblest work is the education of the public in the science of right and clean living, could put in provable form what it knows to be true concerning the relation between bad water and disease, the problem would be half solved

Yellow fever, while not a water-borne disease in the direct sense, is transmissible only through a water-born insect, the mosquito. More than a year ago Dr. Quitman Kohnke, health officer of New Orleans, fathered a city ordinance providing that all cisterns be screened to guard against the emergence of the mosquitoes. This would have cost, according to one estimate, about $150,000. But, New Orleans, at the time when Dr. Kohnke's plan was formulated, had just recovered from an excess of hygienic piety consequent upon one of its periodic yellow fever scares. The screening ordinance was received with indignation as an example of sinful extravagance. It was enthusiastically voted down. Consequently the mosquitoes continued to multiply unmolested in their private hatcheries, and in the course of time became the active agents of the recent epidemic. How many millions this scare has cost New Orleans in trade alone is beyond reckoning, but as a cold business proposition I am inclined to think that any citizen would now regard the rejection of the $150,000 screening scheme as poor economy.

New Orleans, by the way, offers a rich field for the student of water supplies. The water company (private) seems to be entirely free from any control or supervision. It is doubtful whether it has even a legal existence, but it continues to operate at exorbitant prices to the public. Nobody, I believe, drinks the water. For drinking water the better class of citizen either orders from his grocer, or filters the cistern-caught drainings from his roof. Now the city is raising money for a municipal drainage and sewer system and water supply.

New Orleans has done a good deal to educate the country regarding the importance of the mosquito as a factor in hygiene. Proper supervision of water conditions will probably prove an efficient defence against yellow fever. Malaria, too, is or should be conquerable by so guarding the afflicted localities that mosquitoes can no longer breed there. New York City has requested its physicians to report malaria, so that, as a newspaper happily put it, the Health Department may "hunt the mosquito that bit you." When we shall have reached that plane of civilization where we protect our water from the surface downward against the insect as well as the germ, the city that suffers the pestilent mosquito within its borders will be ranked in public disesteem with the hotel that harbors the bedbug.

How are we to attain to this plane of civilization? Only by slow, patient, popular education such as is beginning to tell in the fight against a spectre far more formidable than the evil genius of foul waters—the spectre of tuberculosis. Here, as there, the public must look to the medical profession for leadership. Teach us that it is cheaper in the long run to pay increased taxes than to settle the bills for typhoid fever; that it is sounder economy to buy our pure water from a municipal filter, wholesale, than from the Aqua Proprietary Company, Incorporated, by the dozen bottles. Teach us that no city having secured a safe drinking supply for itself has a moral right to pollute the lake or stream from which another community must drink, and we will see to it that the legal right is withdrawn. Teach us that the water company's charter makes interesting and sometimes surprising reading, and that even the ordinances controlling municipal supply may contain something to our advantage or disadvantage. Teach us that this problem is not of a part but of the whole; that New York City may protect and filtrate until doomsday, and still have typhoid fever as long as Chicago continues to foster the germ; and that Troy and Binghamton with their bad water will inevitably menace Rochester and Ithaca, no matter how careful those cities may be of their own supplies. Finally, din it into our unwilling ears that the water-borne infections are, from a civic point of view, as immoral as they are expensive, and as unclean as they are unnecessary. "Typhoid; it's a bad thing; pass it along," has been the motto of the American city long enough. Enlist the intelligent working citizenship of the country as a whole, and this offspring of ignorance and negligence will fall, as have fallen smallpox and diphtheria, victim to the weapons of medical science.

The treatment of chronic constipation by purgative medicines, now so popular, is the survival of a medieval, humoral pathology which we should forever discard. Aloes, podophyllin, bitter waters and salts, and castor oil, in this condition do more harm than most physicians realize, and should be relegated to oblivion.—*Boas.*

THE MEDICAL CHARITIES OF MANHATTAN AND THE BRONX.

By FLORENCE LARRABEE LATTIMORE,
PHILADELPHIA, PA.

(*Continued.*)

DISPENSARIES.

THERE were sixty-six dispensaries in Manhattan and The Bronx in 1903-4. Two, connected with churches, were closed during the year, but four new ones were opened; of the four added, two were public dispensaries for contagious diseases, one was the clinic for communicable pulmonary diseases at the Department of Health, and the other the dispensary of the Italian Benevolent Society, making sixty-eight in 1904-5.

The general dispensaries are composed of many departments, and they are constantly adding others. Like the hospitals, the dispensaries existing in 1904-5, forty-eight were general dispensaries, eleven for diseases of the eyes, nose and throat, four for women and children, one for babies, two for the ruptured and crippled, one for tuberculosis, and one for skin and cancer cases. Sixty-five of the dispensaries were open six days a week, one was open five days, one three days, and one seven days. Eleven of the dispensaries had evening hours for certain departments: the Demilt, women only; the West Side German Dispensary, men only; St. Bartholomew's, its nose and throat division; the House of Relief, an emergency hospital on the lower west side of the city, receives out-patients every day and every evening; the New York Post-Graduate, six evenings a week for consumptives; and the Skin and Cancer Dispensary, two evenings a week. These evening classes have been formed not only for the convenience of the patients, but because there is not sufficient room to hold all the dispensary classes in the day hours. The average number of dispensary days in a year is 303.

A weekly clinic for the study and treatment of atypical children was opened at the Cornell University Medical College Dispensary in the spring of 1906. It is the only one for this purpose in New York, and forms an important link in the co-operation between the hospital, the dispensary and the school. Dental work is done by a number of dispensaries, but the statistics of such work cannot yet be obtained. Since the medical inspection of schools was introduced, the demand for such service has been very great.

In the public dispensaries of the city no charge is made for medicines, but in all the others, with a few exceptions, the usual charge is ten cents for those who can pay; the registration fee of the New York Eye and Ear Infirmary is twenty-five cents, and from fifteen to thirty cents are charged for medicines; in the Dispensaries of the Orthopædic Hospital and the Hospital of the Society for the Ruptured and Crippled, where large numbers of braces have to be supplied, the patients pay as much of the cost as they can afford. Many dispensary patients, who cannot afford to pay even the reduced price of eyeglasses or of orthopedic braces, are supplied with these articles through the various charitable agencies of the city.

There were on the staffs of these dispensaries about 1,530 physicians in 1903-4, and 1,580 in 1904-5. The staffs of dispensaries which are connected with medical schools are variable, and can be estimated only by an average. Like the hospitals, the dispensaries divide the staff into the consulting and attending physicians, and thirteen of the sixty-eight dispensaries have externes, viz., physicians who make visits to the homes of dispensary patients when they are too ill to come out for treatment. The Demilt, the Good Samaritan, the Northern, the Northeastern, and the Northwestern Dispensaries restrict their externes and visiting nurses to districts, the cases coming from beyond their districts being referred elsewhere.

In the Beth Israel and Mt. Sinai Hospitals the externes examine patients who are waiting for admittance to the hospitals. The two externes of the French Benevolent Society Dispensary are for the French patients only. Of the staff of 1,580 physicians, the average number in attendance at the dispensaries was 736 in 1904-5.

Cases registered:

1903-4.		1904-5.	
Manhattan ..	861,021	Manhattan ..	860,214
The Bronx .	19,680	The Bronx .	23,117
Total	880,701	Total	883,331

Treatments given to the cases registered:

1903-4.		1904-5.	
Manhattan ..	2,389,993	Manhattan ..	2,397,838
The Bronx .	31,787	The Bronx .	34,817
Total	2,421,780	Total	2,432,655

It is to be regretted that the number of patients treated at their homes is not more carefully recorded in order that it may be used in comparison with the number of patients receiving treatment at the dispensary or hospital, and the growth of this important feature of medical charities is not made known. Of the fourteen dispensaries, having out-door physicians, twelve reported a total of 25,520 cases, and 52,879 visits, in 1903-4, and 21,476 cases, with 55,084 visits, in 1904-5.

Of the fifteen dispensaries having visiting nurses, from six of the largest no statistics could be obtained of the number of visits made, and ten did not give the number of cases visited in 1903-4 and 1904-5. The nurses of the Demilt, the Northern, the Northwestern,

the Presbyterian and the Wilkes Dispensaries visited 4,115 cases 17,941 times in 1903-4, and 6,579 cases 26,350 times in 1904-5—an average of four visits for each home case in the two years.

It should be understood that the term "case," as used by the dispensaries, is not necessarily a "patient," but is generally intended to mean one illness or one disease. Thus, at the Demilt Dispensary a certain baby was in one year reported as twelve different "cases," because every month it needed attention for a new disease. The number of cases treated are, in most of the dispensaries, handed in by the physicians to the registrar at the close of a day's work, and one patient, who has visited the eye department, the throat department, and the general medicine department, will be put down as three cases, on account of having three separate diseases, treated by three different physicians, and recorded in three departments of the dispensaries. In dispensaries where all the entries are made by the registrar, the number of "cases" has a meaning synonymous with "patients," and represents the number of persons treated at such dispensaries. As instances, in the New York Ophthalmic and Aural Institute, the registrar gives the applicant a permanent card, which is presented at each visit, but no record of treatments has been made by the physicians. All receiving new cards in a year are recorded as "new cases"; in the Manhattan Eye, Ear and Throat Hospital Dispensary, the cards given to applicants are good for twelve months only, and an old patient becomes a "new patient" when his card is replaced at the end of the year; at the Bloomingdale Dispensary the "new cases" are those entered since January first of each year; at the Bellevue Dispensary, the German Hospital Dispensary, the New York Skin and Cancer Hospital Dispensary, and others, a "new case" is one which has never before been entered on their books. Any patient, as long as he presents the admission card given him, even though he comes back with a different disease, continues to be an old case. A common mistake has been indefinitely repeated of estimating the proportion of the population receiving dispensary treatment from the official reports of dispensaries. Such estimates should not be made until the number of persons treated at a dispensary is kept separately from the number of cases; the latter is always larger than the former, since one person is often recorded as several cases—therefore from the number of cases treated a correct estimate cannot be given; the proportion to the population must remain mere conjecture until the number of persons treated at dispensaries is recorded alike in all of them.

An excellent system is in use at the New York Ophthalmic Hospital Dispensary. At the time of application the registrar makes out a card which contains the important data of the applicant's economic condition, and the applicant is given a ticket valid for the current year. All such tickets presented after the following September 30th are called in and new ones given instead.

The number of the patient is entered in the physician's book, where the number of the prescriptions issued, together with the details of the case are also entered, all of which is filed away on the card in the catalog system so that the full history of any patient treated at the dispensary is readily available for furture needs. Patients are given checks for the various dispensary departments, which are returned at the end of each day by the physicians, thus the exact number of patients and treatments is on file at the desk of the registrar.

The rules of the State Board of Charities in regard to dispensaries have greatly altered the management of these institutions. Under the rule which created the office of a registrar has come a new responsibility in the admittance of patients. There are rules for the guidance of the registrar in approving or disapproving applicants, such as: all emergency cases shall be admitted and receive prompt treatment and care; all applicants, who in the opinion of the registrar are deserving poor, shall be admitted for treatment; those persons who are suspected by the registrar of not being proper charity patients shall be given a first treatment, provided they sign what is called a "representation" card, certifying that they are proper objects for charity. The registrar is then to cause an investigation to be made to determine whether or not such patients shall be admitted for further treatment and the report is to be recorded in the dispensary books. Applicants who refuse to sign the "representation" card are not admitted even to a first treatment. The character of applicants differs greatly according to the location of the dispensary. In one large dispensary on the East side, the registrar states that he used to investigate all applicants who were in any way doubtful, but he never found any who, in his opinion, could afford an outside physician, and therefore he now seldom investigates beyond an interview.

The types of the "pecuniarily unfit" who apply for dispensary treatment have been classed as follows: 1, Those ignorant of hospital usage and not only able but willing to pay for treatment; 2, Those who, under the pretence of poverty, seek service for which they are able to pay; 3, A class known in institutions as "rounders," who go from one dispensary to another for advice and treatment; 4, Those who are able to pay a small fee, and who, instead of being sent to a physician who would charge a fee in keeping with their means, were referred to a dispensary.

To the first class, those able and willing to pay for treatment, the registrar explains the mis-

sion of the dispensary and why they cannot be admitted to it. To the second, those pretending poverty, he finds out as much as possible by interview and then either sends them away or admits them for a first treatment after they have signed the "representation" card. To the third class, the rounders, if the patients are known to be under treatment in some other dispensary, they are referred back to it, unless there is some good reason for retaining them. To the fourth class, those able to pay a small fee, the registrar frequently gives a printed list of the physicians on the dispensary staff, in alphabetical order, with addresses and hours.

The steady stream of young and old, strong and feeble, that stop at the desk of the registrar to be passed upon by him does not give the opportunity for a satisfactory investigation of the applicants who apply for dispensary treatment. The Charity Organization Society, which had offered its services for this work, has been asked by thirty-four of the dispensaries in New York for reports on the financial standing of their applicants, seven depend altogether upon the dispensary chief, who, in some of the smaller dispensaries acts as registrar; two depend upon their own visitors; one upon the United Hebrew Charities; and the rest upon the registrars. From only dispensary in which the number of persons dispensaries was it possible to learn the number reported for investigation as to ability to pay, together with the results of the investigation. The only dispensary in which the number of persons so reported exceeded forty—according to the figures given by the registrars—was the dispensary of the Presbyterian Hospital, where, out of 737 reported in 1905, 368 were judged able to pay, and, therefore, refused treatment. In the New York Eye and Ear Infirmary, which treated 36-280 cases in 1903 and 37,606 in 1904, a trained social worker is employed as registrar and investigator. In her experience, covering several years, the number of those applying at the dispensary, who could afford to pay a private physician, is very small indeed. It must be realized, however, that these were persons who had to be judged as to their ability to pay the fees of a specialist. As yet this registrar has not found time to give this number definitely, but the result of the investigations are kept in a card catalogue readily available. It is true, however, that the limit of inquiry usually is to ask a suspected applicant to sign the affadivit that he is an object of charity.

TUBERCULOSIS.

It was not until Robert Koch discovered the germ of tuberculosis in 1882 that this disease began to be generally considered communicable. The sputum of persons suffering from consumption—which is now known as pulmonary tuberculosis—is considered to be the principle source of infection, while tuberculosis of the bones, joints and glands, when covered with unbroken skin, is not considered an immediate source of infection.

In order to guard against the infection from consumption, special hospital departments and special hospitals have been organized for the exclusive care of pulmonary tuberculosis. Such patients were formerly cared for in the medical wards of the general hospitals. The total number of free beds for cases of tuberculosis in the two boroughs is stated as follows:

	Number of free beds.	
	1903	*1904*
State Hospital for Incipient Tuberculosis (New York City's quota)		85
Metropolitan Hospital	416	580
Riverside Sanatorium	80	83
Bellevue Hospital	24	60
Post-Graduate Hospital		12
St. Joseph's Hospital	373	410
St. Vincent's Hospital		70
Seton Hospital	206	380
Lincoln Hospital and Home	40	45
Montefiore Country Sanatorium	162	171
Montefiore Home (City)	30	44
Mt. Sinai Hospital		10
House of Rest for Consumptives	40	39
Seaside Camp of A. I. C. P. (non-pulmonary)		54
Totals	1,371	2,043

This shows the public hospital provision existing in the Metropolitan Hospital on Blackwell's Island, the Riverside Hospital on North Brother's Island, and Bellevue Hospital. Being under three city departments the statistics of these cases appear in three different reports, and in somewhat different form. The general statistics given for the city institutions include the tuberculosis figures. In 1904 the Department of Public Charities supported 3,959 tuberculosis patients in its own hospitals and 9,456 elsewhere. The number of beds for which the city pays—outside of the three above-mentioned hospitals—number 990, distributed as follows:

State Sanatorium at Ray Brook (New York City's quota)	85
St. Joseph's Hospital	410
Seton Hospital	380
St. Vincent's Hospital	70
Lincoln Hospital	45

The patients who are regarded as hospital cases have been classified as follows:

1. Advanced or bedridden cases, who will not take precautions against infection and whose presence at home is a menace to the family.

2. Cases able to get about but not able to work, who are dependent on their earnings for support.

3. Incipient cases with a good chance of cure if removed to a country sanatorium.

4. Cases who are homeless, or who live in lodging-houses. The inadequacy of the provisions for institutional care of the tuberculosis patients has led to extensive plans for additional accomodation. The Department of Health is to have a sanatorium with a capacity for 500

patients at Ottisville, Orange County; the Department of Public Charities has arranged for a hospital of 800 beds for consumptives adjoining the New York City Farm Colony on Staten Island, and an addition of 125 beds is to be made to the existing provision at Riverside Hospital, under the Department of Health, and Bellevue is planning an additional 96. It is hoped that in the near future the general hospitals will be entirely relieved of tuberculosis patients.

The first dispensary class, exclusively for the treatment of tuberculosis, was started in 1894 at the New York Throat, Nose and Lung Hospital. The Presbyterian Dispensary began special tuberculosis work in June, 1895; the Post-Graduate in March, 1898; the Vanderbilt Clinic in January, Gouverneur Dispensary in October, and Bellevue in December of 1903. The Clinic of the Department of Health and the Harlem Hospital Dispensary began March 1, 1904. In establishing its Clinic for the treatment of communicable pulmonary diseases, the Department of Health took a step in advance of all other such departments known by appointing three nurses to make home visits to needy consumptive patients. These nurses, at first, worked chiefly along lines of prevention and cared for only certain advanced cases; later, however, they were given the actual supervision of all destitute cases of pulmonary tuberculosis. It is stated that two-thirds of the nurses in the United States, whose entire time is given up to tuberculosis patients, are employed in New York City. The Clinic, which adjoins the headquarters of the Department, is open daily, except Sundays and holidays, from nine to four o'clock and from eight to nine in the evening. It is worthy of special remark that the effort is made to have this Clinic open at hours which do not interfere with the work of wage-earning patients. Three nights a week colored physicians are in attendance to treat colored patients only. Circulars of information are furnished in English, German, Yiddish, Italian, Chinese, Ruthenian, Polish, Hungarian, Russian; paper sputum cups and paper handkerchiefs are also supplied free. Tuberculosis patients, discharged from the public hospitals, are kept under observation by the Department, through its staff of visiting nurses, who visit such patients at their homes and promptly report to the various charitable organizations any cases needing their attention. Besides the dispensary treatment and supervision the Department furnishes the most destitute of its patients with milk and eggs.

In July, 1904, a tuberculosis department was opened in the Bellevue Dispensary, with three special nurses on its staff. Milk and eggs are supplied here also for the poorest patients, and the nurses see that the physician's orders are carried out in their homes.

Other dispensaries which have special departments for tuberculosis are the Presbyterian, the New York Post-Graduate—which has evening hours from seven to eight as well as day hours—the Vanderbilt Clinic, Gouverneur, and Harlem Dispensaries.

Those supplying nourishment to their patients, in addition to those above mentioned, are the Presbyterian Dispensary and the Vanderbilt Clinic, which give milk and eggs to a small number. Many of the dispensaries give orders on the diet-kitchens which are located in different parts of the city.

A general campaign against tuberculosis was inaugurated by the Charity Organization Society in the winter of 1902-3, which included provision for a nurse to visit among the tuberculosis cases. The United Hebrew Charities and the Association for Improving the Condition of the Poor have also been influential in rousing the public to a sense of its responsibility in the future prevention of the great white plague.

The ravages of tuberculosis seen in the crippling of children through the destruction of bones and joints; and the long period of home or institutional treatment needed to arrest the destructive processes in them, and to effect the cure which too often leaves the patients in a condition that hampers their future efficiency, and makes them ready subjects for the various charitable agencies, have added sociological factors to the medical problem involved in this blighting disease.

The New York Association for Improving the Condition of the Poor, in the summer of 1904 opened an Experimental Seaside Hospital for Tuberculous Children, as an extension to its work at Sea Breeze Home, West Coney Island, for convalescent women, children, and babies. This was the first experiment in America to apply the fresh salt air treatment to tuberculosis of the glands, bones, and joints. The children were housed in tents from June 6 to October 31, 1904, and continued through the winter in a large cottage. Forty-nine patients were under treatment the first year, of whom seven were discharged as apparently cured, two as unimproved, and two children died. The success of the experiment has resulted in a fund of $250,000 to establish in the near future a permanent hospital for such cases as have been received at the Sea Breeze Hospital.

The New York Society for the Relief of the Ruptured and Crippled, incorporated in 1863, has as yet no place of its own for the out-door treatment of tuberculous children, although Sea Breeze has cared for several of its patients, and other agencies have provided summer outings for them. The New York Orthopædic Dispensary and Hospital, incorporated in 1868, has built a country sanitarium, open the entire year, at White Plains, for fifty-six patients. Here a graded school with carpentry, sewing, mechanical drawing, etc., has been started, and it is planned to have, later on, a trade school, that the patients may be prepared for self-support at the time when they are discharged.

In 1900, the Legislature established the New York State Hospital for the Care of Crippled and Deformed Children, moved from Tarrytown to West Haverstraw in 1905, but as this is a state institution New York County is entitled to only a limited number of patients. In 1904, fourteen of the forty-two treated came from New York County and, in 1905, twenty-two out of the total fifty-six. The capacity is forty-five beds, and the waiting list contains the names of more than 300 applicants.

In the Children's Hospitals and Schools on Randall's Island (the name of which was changed from Randall's Island Asylums and Schools and Infants' Hospital to its present title in 1903) there may be found almost every type of the physically unfortunate child. Any child physically unfitted for the care of any of the local institutions or from the city at large may be sent to the Children's Hospital. The Infants' Hospital, which treated 542 babies in 1903, treated 345 in 1904. The thirty-one babies remaining December 31, 1904, were discharged during the next year, the last one leaving the hospital September 8, 1905. No more infants were received, and the building formerly used by them was arranged to form part of the Children's Hospital. This room was needed that a more strict classification might be used among the children suffering from contagious skin diseases, eye troubles, etc. All the children who are able attend the schools which are provided for them by the public system. The School for the Feeble-minded and the Custodial Asylum are also in the same group of buildings as the Children's Hospital.

A Joint Committee of the State Charities Aid Association and the New York Association for Improving the Condition of the Poor was established in April, 1889, to co-operate with the Department of Public Charities in boarding motherless babies and foundlings who would otherwise become public charges. The percentage of such children when sent to the Infants' Hospital on Randall's Island who died before they were two years old was nearly 100 and the Committee undertook to board out such children in good homes, where special attention would be given to proper nourishment and care. 253 babies were in the care of the Committee in 1903-4, and 327 in 1904-5, with a death rate of about ten per cent. Sixteen were placed in hospitals for special treatment in 1903-4, and twenty-six in 1904-5. The Guild of the Infant Savior and the Hebrew Infant Asylum have also appointed committees to co-operate with the Department of Public Charities in this work. The expense of these committees is borne entirely by private funds.

The Babies Hospital, 55th Street and Lexington Avenue, is the only one in New York City which is exclusively for infants under two years of age. The city pays subsidized hospitals for these cases only when the infant has been resident in New York City for twelve months, consequently there is much private charity for this class of patients.

Much important summer work is done for sick babies. St. John's Guild started, in 1875, a Floating Hospital, and in 1887 the Seaside Hospital was opened at New Dorp, Staten Island as a regular hospital. It has a present capacity of 500 beds. Tickets are given out for trips on the Floating Hospital boats through the Department of Health, the day nurseries, dispensaries and other agencies which come into contact with the poor. The Floating Hospitals carry sick children with their mothers and any brothers and sisters who are under six years of age. The babies that are found to be seriously ill are taken from the Floating Hospital on a launch to the Seaside Hospital where they stay—the mother also if necessary—until a cure is affected. The Hospital is open only from June until the middle of September, but an effort is now being made to raise sufficient funds to continue the work throughout the year. To this Guild the City of New York pays a yearly subsidy. 1139 were treated at Seaside in the summer of 1903, and 1191 in 1904.

A Fresh Air Camp for Sick Babies in New York City was opened on the river front in July, 1906, under the auspices of the Association for Improving the Condition of the Poor to demonstrate that fresh air work need not necessarily involve transportation from the city. It is hoped that further development of this work will soon be seen.

(To be concluded.)

HISTORY OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK.

BY JAMES J. WALSH, M.D., Ph.D.,
NEW YORK.

(Continued.)

PART II.

CHAPTER X.

A SYSTEM OF MEDICAL ETHICS.

The Medical Society of the State of New York very early concerned itself with questions of ethics. There are examples of the expression of the feelings of the presidents of the Society, evident reflections from those held by the members, even in the early presidential addresses. It was evidently felt, however, that a system of ethics to serve as a guide in doubtful questions and as a manual of instructions for those who are entering upon the practice of the medical profession to be drawn up. Accordingly a committee consisting of Drs. James R. Manley and John H. Steele, both of whom were to be afterwards presidents of the Society, and Dr. Pascalis, who had been a prominent member, were appointed a committee for this purpose. They drew up a

system of medical ethics which was reported to the Society in February, 1823, and unanimously adopted.

The most interesting feature of this system of medical ethics is the lofty spirit of professional honor in the relation of the physician to brother physicians, to patients and to the State which it breathes. It is a monument to the lofty aims of our forefathers in medicine here in New York with which every modern physician in the State should be familiar. While not transient or radical in its declarations it points out with no uncertain language the dangers that beset professional life, and suggests how they may be best avoided. There is scarcely a circumstance in the physician's relation to others which is not touched upon and illuminated in this comparative brief document. For this reason and because later so much of the history of the Medical Society of the State of New York was to be occupied with questions of a medical code, it has seemed only fitting to reprint this system of medical ethics once more.

It is interesting to find that, in the same volume of the transactions of the Medical Society of the State of New York, 1861, in which this code of printed, the code of medical ethics of the American Medical Association, adopted May, 1847, is also republished. The reading of the two codes makes it clear that that of the National Association was founded to a considerable extent on the system of ethics of the New York State Society. This is not surprising if we recall that the American Medical Association originated from the efforts of the State Society of New York. While there has come considerable development in the professional aspect of many duties of physicians in the early quarter of a century that separates the two documents, there is no doubt at all about the influence exerted by the original system of ethics, and no ethical document adopted by any other State Society had anything like the same influence. This is, of course, all the more interestng in the light of the fact that when the further development of medical ethics was to come after another fifty years, New York was again to be a leader in the evolution. The following is the code of Medical Ethics adopted by the Society:

A SYSTEM OF MEDICAL ETHICS.

A System of Medical Ethics comprises all the moral principles and regulations which should govern physicians and surgeons in the exercise of their professional avocations with the public in general, in private and confidential cases, as well as in their intercourse with other medical men, and before magistrates and courts of justice.

Such a system may be reduced to the form of a code of medical police, exhibiting maxims and precepts in five respective divisions of medical ethics, under the following heads:

1st. Personal Character of Physicians.
2d. Quackery.
3d. Consultations.
4th. Specifications of Medical Police in Practice.
5th. Forensic Medical Police.

First Division.

Personal Character of Physicians.

It would be difficult to determine which of the three learned professions in society requires the most virtue or the most purity and perfection of personal character. Those only can judge who are themselves acquainted with the difficulties to be surmounted in the study of medicine and surgery, and the labor and extent of the long course of experimental observation which it is necessary to pursue, before the confidence of the public can be attained. The life of a physician is, on the whole, a continual struggle against prejudices and erroneous habitudes of the mind, and not infrequently against ingratitude, exclusive of the personal hazard among the sick, the fatigue, and the loss of ordinary comfort and rest which it necessarily involves.

1. A physician cannot successfully pass through his career without the aid of much fortitude of mind, and a religious sense of all his obligations of conscience, honor and humanity. His personal character should therefore be that of a perfect gentleman, and, above all, be exempt from vulgarity of manners, habitual swearing, drunkenness, gambling, or any species of debauchery, and contempt for religious practices and feelings.

2. The confidence of the public cannot be awarded to a physician who has rendered himself notorious for felony or misdemeanor, or who has incurred penalties for crimes.

3. A physician in indigent circumstances is not permitted to embrace or exercise any business which would degrade the character of his profession, such as keeping a tavern, lottery offices, gambling, victualing or playhouse. Any low trade or servile mercenary occupation is incompatible with the dignity and independence of medical avocations. In such extreme and derogatory situations a physician forfeits the privilege of his profession.

Second Division.

The importance of the medical profession requires that it should be exercised with fidelity to its scientific principles and approved doctrines, with honor to all its members, and with justice and humanity to the sick. A departure from the above principles constitutes

Quackery,

which degrades the medical character by ignorance, artifice, unapproved methods of practice, and by the use of remedies dangerous to life.

4. Any physician or surgeon who divides his responsibility with a known quack and associates with him in medical consultations, receiving a fee or the usual charges for such services, or practices with nostrums, secret medicines, or patent remedies, is guilty of quackery.

5. The right of a patent medicine being incompatible with the duty and obligation enjoined upon physicians to advance the knowledge of curing diseases. it constitutes quackery and cannot be professionally countenanced.

6. Public advertisements, or private cards, inviting customers afflicted with defined diseases; promising radical cures; engaging for no cure no pay; offering advice and medicines to the poor, gratis; and producing certificates and signatures even from respectable individuals in support of the advertiser's skill and success, and the like, are all absolutely acts of quackery, which medical institutions should always repress, and punish by the rejection or expulsion of those who commit them.

Third Division.

Consultations.

All the individuals composing the colleges and medical societies constituted by the Legislature of this State, are by them, qualified physicians and surgeons. The two professions of medicine and surgery are blended by the law, both in the schools and in practice. The examinations by the censors of the County and State societies of candidates for the degree of license, and by the professors of colleges for the degree of doctor are equally directed to embrace in their exercises the elements and

doctrines of both sciences, establishing thereby the candidate's proficiency, not only in medicine, but in surgery. There are no degrees of qualifications, nor are different rights assigned to the members of the same profession, but such as result from their individual choice, skill and fitness. Practical surgery is more properly attended to by the younger members, but the more experienced should be deemed competent to direct or inspect either the theoretical or practical departments.

These remarks are offered, to show that the distinction frequently adopted in practice, and especially in consultation, between physicians and surgeons, confining each other to surgical or medical, external or internal cases, has no foundations in propriety, and, if adhered to, arises from the wish to indulge in personal or interested motives. It is admitted, however, that when the question is merely to perform some operative process a practical surgeon should be selected in preference; but this exception is only applicable, when a physician declines (on such accounts as he may think proper) to perform a necessary operation, and by no means invalidates the principle established in the State of New York, in conformity to medical ethics.

7. A consultation of one or many physicians is like a deliberating committee, over which a senior in age or experience presides, each one, however, being equally responsible for the trust assigned to him, of the cure or relief of the patient. The attending physician is exclusively charged with the execution of the treatment from day to day, nor is any consulting physician ever allowed to visit or inspect, unless it be with his colleagues, or by agreement, or in cases of emergency.

When a surgical operation is required, it devolves upon the senior practitioner of surgery in the consultation, or one especially appointed.

8. A diversity of opinion in consultation is to be regretted; for, if unavoidable, it must cause much delay and many inconveniences before a medical umpire can be obtained. It is needless to point out what a correct sense of delicacy will in this sense require from a gentleman who in spite of his opposition finds himself in the minority; he should politely retire from the the consultation, and if he be the family physician, he should consistently resign his deliberate vote.

9. A great reserve, and even secrecy respecting the deliberations of a consultation, is indispensible. No communication is to be made to the patient or friends but by unanimous order or consent; because, whatever opinions are emitted become subject to frequent alterations or inversions from mouth to mouth, and many become a source of contradiction perhaps injurious to some of the physicians in attendance.

10. It is the duty of a consulting physician to take care that his visits be not multiplied without necessity. He is, through courtesy, at liberty to decide when to discontinue his attendanec. A consulting physician, however, cannot be dismissed without the consent of the patient as well as the attending physician.

11. Physicians are justly censurable if their patient be in danger and they do not in time procure advice and responsibility beside their own. Whatever be the motive that induces them to dispense with a consultation, they certainly may expose their reputation by an incorrect judgment of misapprehension of their patient's case and weaken the confidence reposed in them. And a physician does not acquit himself correctly toward his patient if he does not benefit him with the best advice that can be procured. Poverty or the narrowness of means to remunerate an additional practitioner is no reasonable excuse, for he can scarcely deserve the name of a practising physician who can not find at least one medical friend to consult when the life and limb of a fellow being is in jeopardy.

Fourth Division.

Specifications of Medical Ethics in Practice.

12. Physicians are often requested to declare to the patient his danger and to urge his observance of religious and testamentary acts; but medical aid in extremely dangerous cases would seldom be of any avail if, in place of composing the mind of the sufferer, physicians were to doom it to despondency and despair. Such services are incompatible with their duty of administering hope and comfort, without the influence of which many doubtful cases of disease might at once become positively fatal.

To a Christian minister alone, or to some other authorized person, therefore, appertains the task of disclosing to the patient his alarming situation and preparing his mind to meet with composure that event, which to his friends may appear inevitable.

Physicians should not interfere in the final settlement of their patients' worldly affairs. These are eventually composed of various family claims and pretensions, and a physician's interference in their distribution may be taxed as arising from interested motives or be thought by those concerned to be a disgraceful violation of the confidence reposed on his humane functions as medical attendant.

In order to protect himself and to place his name beyond the reach of any implication he should,

1st. Give timely and explicit information of the dangerous situation of the patient to those who have the best right to advise him in his religious and temporal concerns.

2d. He should inform them of the possibility of a change in the prognostic in order to prevent any relaxation of care and attention on the part of nurses and others. that no chance of the patient's recovery be lost through neglect.

3d. The physician in such a case, should continue his personal attendance, which is the more proper, as he entertains or has acknowledged some hope of a favorable change; should he be dismissed from pecuniary motives, his responsibility nevertheless requires a friendly or gratutious attention.

13. It is not intended in this system of medical ethics to instruct physicians and surgeons upon every felonious act of infanticide, murder, etc., for which the penal statutes of this country have made sufficient provision. It is incumbent upon medical authorities to consider, condemn and punish as criminal, such acts of medical practitioners as offend the respective obligations of married persons, or the chastity and modesty of the youth of both sexes. This restrictive definition is to be applied:

1st. To the personal conduct of medical men, who abuse the confidence of families and become exposed to legal damages for crim. con.,* or seduction, &c.

2d. To those who, with a view of curing diseases or correcting certain natural imperfections, prescribe remedies or advise remedial means that must interfere with matrimonial rights and the observance of a chaste and moral life.

The scope of opinion on this subject may be wide, and the pretexts in palliation numerous, but the dependence of the public upon our labors, for the preservation of health, and the cure of diseases, ought to be held sacred; nor can confidence be granted to a profession that should allow any of its members to violate hospitality, to promote immorality, or to be accessory to vicious and criminal conduct.

14. Honor and justice particularly forbid a medical practitioner's infringing upon the rights and privileges of another who is legally accredited, and whose character is not impeached by public opinion, or civil or medical authority; whether it be a native or a stranger settled in the country. There is no difference between physicians but such as results from their personal talents, medical acquirements, or their experience; and the public, from the services they receive, are the natural judges of these intellectual advantages. In all probability, every good physician would receive a merited share of patronage, were there not many who usurp a portion through artful insinuations, and slanders of others, or combinations against, or improper interferences with the more worthy practitioner. Any physician

*Criminalis conversatio. The apparent hesitation to use the word adultery here, and the employment of the Latin legal term instead, and that only in abbreviation, is an amusing comment on a certain prudery of the time.

thus molested or injured is justifiable in applying for redress to the county medical society to which he is attached.

15. A physician is not to visit a patient placed under another practitioner's care, without previous and ostensible friendship or business, nor without first informing the attending physician; if then he thinks it proper to advise he may do it, but it must be in conformity to the rules of consultation as above explained.

16. Libelous attacks among physicians are no doubt subject to the same mode of redress by damages as the law points out to other citizens; but we hold that matters of libel include professional and practical acts, whether true or false, published or stated to any person who is not a competent judge, with a view to injure the professional reputation of a physician. This identical principal was adopted by the Supreme Court of Pennsylvania, in the trial of Benj. Rush vs. Wm. Cobbett, alias Porcupine, in which a verdict of $4,000 damages was awarded to the plaintiff for a libel founded on a malicious representation of the plaintiff's practice, made to the public by the defendant.

17. If medical controversies are brought before the public in newspapers or pamphlets, by contending medical writers, and give rise to, or contain assertions or insinuations injurious to the personal character or professional qualifications of the parties, such papers are unquestionably disreputable to the medical community; for those who should be foremost in the pursuit of truth ought to be the last to set an example of an illiberal, indecorous and revengeful deportment, so contrary to what is expected from literary and scientific gentlemen. Such papers are therefore to be reported by the censors to their respective county medical societies, and the authors are liable to such punishment as the case may require.

It is a matter of justice, necessity and propriety, that the business of a physician and surgeon should be always considered of a confidential nature. Even secrecy in certain circumstances, as will be explained hereafter, is the privilege of the faculty, and inviolable even in a court of justice. In ordinary practice, common sense, decency and delicacy should in familiar conversation with females and persons uninstructed in medicine, always exclude such topics as patients, diseases, remedies, operations and the like. A display of terrific and wonderful relations and diseases, remedies, wounds, operations and cures, is frequently indulged in, no doubt, *ad captandum,* yet in most cases they produce but an equivocal admiration for the narrator, and prove, beside, his very imperfect knowledge of human nature. Those who are not familiar with the subjects of medical art and study, are liable to draw mistaken and contradictory inferences from what they hear concerning them Hence, many people suppose that a physician is an unfeeling man; and assimilate a good surgeon to a butcher. The more talk, therefore, the more numerous the misrepresentations set afloat, and the greater the diffidence, distrust or disrespect excited.

18. The exposure of the nature of the complaint, which a physician is called upon to judge or cure, subjecting the patient to public shame or impeaching his moral character, is an unpardonable breach of medical ethics.

19. "The poor," says Boerhaave, "are the best customers, because God will be the paymaster." Instead of fee, they give in exchange the benefit of experience, of useful observation, and, subsequently the gratification of successful advice, which is more exactly followed by them than by the rich, who too often spoil the best directions by their whimsical notions and love of comfort. The most lucrative and extended patronage a physician can enjoy, far from being an honorable pretext for not affording some attention to the poor, stands as a proof of his selfishness or want of humanity.

20. In urgent cases of sickness, or of injuries occasioned by accidents, a call for medical or surgical help should be obeyed immediately, unless such compliance be to the detriment of some other sufferer. It often happens in such cases that many physicians, and more than are required, meet on the spot. Courtesy then assigns the patient to the first physician or surgeon who arrives, and if he should want assistance he has a right to request it from a physician or practical surgeon present, according to the nature of the case. But if the physician or surgeon who usually attends the family or patient be of the number then the present urgent case is assigned to him.

In the event of concurring attendance of many medical gentlemen no fee is to be exacted for the trouble of coming, unless called upon by some authorized person. An accidental injury is distress, and help for a fellow being in distress is claimed by the laws of nature.*

21. The fees for the compensation of medical services are regulated by the value of currency and the price of necessaries in different countries and cities; by the customs approved and established among experienced and reputable practitioners, and sometimes by a recorded rate of charges such as individuals belonging to any trade or profession adopted by general consent. Public opinion in civilized nations and among the more enlightened classes of society will always highly estimate and liberally compensate medical services.

A strict sense of justice and honor towards each fellow member of the profession should prevent a physician from undervaluing his services by items and charges in his bill beneath the customary rate with a view to draw patronage by exciting comparisons. A practitioner may settle his demands with his patrons on whatever terms he pleases, but he has no right to make the low charge an established usage to the prejudice of his brethren. The reputation of a cheap doctor, after all, is neither dignified nor enviable.

Others will follow quite a contrary method. They will place an exhorbitant value on their time and labor and exact oppressive demands for their services. The conduct of such has a very injurious influence upon the lower and middle classes of society, who, needing medical aid, are deterred from applying to any physician lest they should incur ruinous charges. These expensive doctors should be reminded that whenever a person pays a bill which he thinks extravagant and unreasonable, he easily repays himself and gratifies his vanity if not his resentment by divulging how much money he has been willing to bestow; what liberality he has exercised, or to what imposition he has been exposed.

Some physicians more intent on acquiring wealth than a good name exact from their patients their charges, whether great or small, with unrelenting severity, refusing time to procure the necessary means, often having recourse to law suits, disregarding the plea of low circumstances, or absolute want, thus creating much distress; such conduct is as disreputable to the physician as it is disgraceful to humanity, for the highest aim of the profession is to reach its utmost requisitions. These extortioners, as they dishonor the medical profession by a single act of such oppression, deserve a public reprimand, if not a prompt expulsion from their county medical society.

Whenever a physician is reduced to obtain his professional fees by compulsory measures, it is his first duty to propose, and to refer the settlement of the matter in contention by a reference to arbitrators.

22. It is enjoined in the sacred obligations which Hippocrates imposed upon the pupils of the noble science of medicine and surgery, which is also the model of the like engagement offered to the candidates for graduation in this and other countries, that they shall respect and assist their preceptors and masters, their seniors by experience or age, and shall contribute as far as in their power, to the honor,

*Dr. Gregory says (p. 179) "that under such circumstances, considerations of benevolence, humanity and gratitude are wholly set aside: for when disputes arise, they must be suspended or extinguished; and the question at issue can alone be decided on the 'principle of commutative justice.' If a physician would therefore contend for remuneration, it could not be as a medical fee, but an indemnity only for the expenses of transporting himself there, where he might be wanted. The question is the more easily settled, as it has no further reference to medical service."

improvement and utility of their professions. According to this precept, physicians and surgeons have something more to do, than to procure their livelihood. As they are indebted to the labors, talents and experience of their predecessors in the healing art for all that constitutes its admirable body of doctrine, so present and future generations look to them for some additional improvement, because much can yet be done to extend its usefulness. This obligation is unbecomingly violated by many physicians who pretend to eminence; they estrange themselves from medical associations—never have any observation or improvement to communicate—their degree of skill and experience always remains unknown and mysterious—they screen themselves from scientific labors and controversies; and, if competent, never contribute by any effort, however small, to the advancement of the medical character. Such practitioners, although they are frequently popular and wealthy, are, nevertheless, only comparable to drones in the beehive; medical associations should refuse to confer upon them offices, appointments, or even employments in committees; on the principle that proofs are wanting of their talent, zeal, judgment and professional emulation.

Fifth Division.

Forensic Medical Police.

23. There are numerous accidents and offenses, the nature and degree of criminality of which are determined by medical opinion. Human passions daily occasion acts of violence which fall under the cognizance of public justice; and diseases of the mind, whether arising from vice, intemperance, sickness or accident, have also their share of influence in the commission of crime; and often lead their unfortunate victims to suicide and murder. Crimes so originating could be perpetrated in ways so disguised as to conceal the author, or the means by which they were accomplished, were it not that juries can be assisted by medical men in evidence related to physiology. A physician should always be in readiness to answer in these judicial inquisitions, and to give an opinion, on facts referred to his judgment, according to the approved practice of medicine and surgery, as far as these are ascertained. Ignorance or an imperfect knowledge upon matters which place life, honor and innocence in a fatal predicament, is unpardonable, and should subject any physician, so illiterate, to disqualification for the privileges of his profession.

24. To well instructed physicians only two rules need be recommended. The one relating to their conduct when they are called upon to give professional evidence; and the other, to the nature and extent of the secrecy which they are bound to maintain in relation to their patients.

1st. When physicians, engaged in the decision of a forensic question, are unbiassed by the parties, and have no interest for plaintiff or defendant (being well informed of all the facts alleged in evidence), they have only to decide by known medical principles, and, therefore, can rarely disagree. It is their duty to obtain every possible information upon the case, and, before giving in their declaration, candidly and conscientiously canvass each other's opinions, so that erroneous ideas may be removed, and information participated.* Two or more physicians, on one side of the question, should in the same manner freely communicate, in order to guard against versatile and contradictory declarations, for which the trivial sarcasm, "doctors differ," is no excuse, and they always invalidate their opinions, authority, decision and respectability.

2d. The second rule is that the secrecy upon facts with which physicians become professionally acquainted, or invited to ascertain; such as, whether an apparent pregnancy be real; the gestation and birth of a child; its parentage, color and age; the judgment and treatment of syphilitic and gonorrhoeal diseases; the able or disabled state of a person, in limb and constitution; the fallacy of virginity and other circumstances, to the confession of which a degree of shame, and the idea of exposure are attached, and which are never mentioned but with an engagement to secrecy.

This duty has been defined by comparing it to that of the Catholic confessional, which admits of no disclosures except in cases of treason or murder.*

This inference has been acknowledged by the judiciary of New York, and in its application to medical matters admitted by that of Pennsylvania, in the year 1800.†

The Revised Statutes of our State have, however, prescribed the duty of the physician on this point. In the second volume (page 406) is the following enactment:

"No person duly authorized to practice physic and surgery shall be allowed to disclose any information which he may have acquired in attending any patient in a professional character and which information was necessary to enable him to prescribe for such patient as physician, or to do any act for him as a surgeon."

(To be continued.)

*When two or more gentlemen of the faculty are to offer their opinion or testimony, it would sometimes tend to obviate contrariety, if they were tc confer freely with each other, before their public examination.—T. Percival, Med. Ethics, ch. 4, p. 107.

*The sacred duty or privilege of a Catholic priest not compellable to disclose the secrets of auricular confession was maintained by a decision of the Court of Sessions of New York, 14th of June, 1813, in the case of the Rev. Mr. K., refusing his testimony in a matter of felony. Vid. Cathol. quest. report, by Wm. Sampson, Esq.

†Many persons would rather suffer or die, than be exposed to shame or disgrace from the complaints they are laboring under. It is a law of nature that they should seek for cure or relief, and be protected by profession secrecy, even if a matter of prosecution should arise therefrom.

The symptoms are not the disease; it follows, therefore, that logical treatment consists in removal of the cause and not simply of its manifestations.—*F. Forschheimer.*

Disease may be compared to a spirited team which has broken loose—a smash-up often follows. The harness breaks, the gearing gives way, the horses are demoralized and desperate. The driver who can keep cool, and keep his seat, too, who is equal to the control of the runaways in the emergencies that occur, and who finally ends up the breakaway with little or no damage, is a genius. But such a feat of skill is not in comparison with that of the physician who takes you with safety through typhoid, or pneumonia, or urethritis. The effects of disease, apart from the results of drugs, may leave you wrecked and marred for the remainder of life, and want of skill and efficiency in the management of those vital processes at this critical time may be disastrous in the extreme. And the doctor who carries your child through scarlet fever or hip-joint disease, and gives you back the little fellow sound and well afterwards, is a scientist and an artist, whom you should appreciate, and to whom you owe more than the fees you have paid him.

Joseph Clements.

In the world of letters, learning and knowledge are one, and books are the source of both, whereas, in science, as in life, learning and knowledge are distinct, and the study of things, and not of books, is the source of the latter. All that literature has to bestow may be obtained by reading and by practical exercise in writing and speaking; but I do not exaggerate when I say that none of the best gifts of science are to be won by this means. On the contrary, the great benefit which a scientific education bestows, whether as training or as knowledge, is dependent upon the extent to which the mind of the student is brought into immediate contact with facts, upon the degree to which he learns the habit of appealing directly to nature and of acquiring through his senses concrete images of those properties, of things which are, and always will be, but approximately expressed in human language.

Huxley, Lay Sermons.

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Editorials.

THE PRACTICE OF MEDICINE LEGALLY DEFINED.

AN adequate definition of what constitutes the practice of medicine has long been a desideratum whereby to determine compliance with the medical practice law or violation of the same. The Appellate Division of the Supreme Court of this State has rendered a decision which supplies this want, and which, so far as determining the legal right to practice goes, must have a very salutary effect. It is one of the most important medical decisions that has ever been rendered by any court in this State. This decision affirms the judgment of conviction in the case of one E. Burton Allcutt, who styled himself "Doctor" and advertised his specialty as that of mechano-neural therapy. The evidence established the facts, that this individual maintained an office where he was consulted, where he examined patients and administered treatment to the sick; that he made visits upon patients at their houses; that he stated that he could cure without drugs any disease which any physician could cure and some diseases which physicians could not cure; that he stated that he had practiced medicine, and that he had given up the use of drugs; that he held himself out as being able to diagnose and successfully treat diseases; and that he charged and received fees for these services. The only internal medication which it was shown he used was warm water containing sodium chlorid. He was a graduate of the College of Mechano-Neural Therapy, of Atlantic City. It was conceded that this institution was not recognized by the Regents of the State of New York. The defendant was convicted of practicing medicine without being lawfully authorized and registered, and the Appellate Division of the Supreme Court sustained the conviction.

The appeal was based upon the contention that he was not guilty of practicing medicine within the meaning of the law, in that he neither gave nor applied drugs or medicines or used surgical instruments. The judgment of the Appellate Court is, that, to confine the definition of the words "practice of medicine" to the mere administration of drugs or the use of surgical instruments would be to eliminate the very cornerstone of successful medical practice, namely, diagnosis. This court holds that it would rule out of the profession the eminent men whose work is confined to consultation and diagnosis. Diagnosis is an integral part of both the study and the practice of medicine. The court, citing the instance of consumption, which may, if discovered in time, be arrested and eradicated by simple hygienic treatment, and that in the treatment of this disease drugs have been practically given up, propounds the question, "Would the physician, in such a case, who by his skill discovered the incipient disease, advised the open air treatment and refrained from administering drugs, not be practicing medicine?" The court refers to the statement of another court in a similar case to the effect that, "the day has passed when it was thought that a physician's advice was of no use unless he ordered a dose of medicine."

It is held that the man who uses drugs and the man who does not use drugs are each engaged in the art of healing human diseases, and that the purpose of the medical law is to protect the people against charlatanism, ignorance and quackery, and that it is not the legislative intent to restrict the examination of those desiring to practice medicine solely to that class of the profession who may prescribe drugs. This decision was arrived at after a study of the authorities throughout the country, and from examination into the history and growth of our own public health laws.

This man, in question, was actually engaged

in the practice of medicine; he had avoided complying with the requirements for such practice, and had avoided examination by the Regents to determine his knowledge of the human body and its diseases. This ruling at once becomes the strongest weapon against quackery that could have been placed in the hands of the people.

The Medical Society of the County of New York and its counsel, Mr. Andrews, prosecuted this case and perfected the evidence which enabled the Supreme Court to hand down this decision.

THE TYPHOID EPIDEMIC IN SCRANTON.

THE State Board of Health in Pennsylvania showed its efficiency by taking hold of the typhoid problem in Scranton before the local authorities had awakened to action in the recent epidemic. The water supply of the city was suspected from the first; but as this was owned by a corporation of influential and much respected citizens, as has been the case in other afflicted towns, there was much local delicacy about indulging in any incriminations. In compliance with the suggestion of some unusually bold spirit, the water company did shut off one reservoir which was notoriously polluted. This did not stop the epidemic because, as was discovered later, there was a frequent flow from one reservoir into the other.

When the fever had been epidemic for nearly a month, the State Board of Health came upon the scene and discovered the typhoid bacillus in the city water. People were instructed to boil the water and, the source of the infection being positively known, the epidemic began to abate. In the meantime, during the month of December, there were nearly a thousand cases of typhoid, and seventy-five deaths. The money loss in that single month alone would have been sufficient to have constructed an entirely new water system.

The interesting feature is that there were men in Scranton who knew the danger and warned against it. The negligence of the municipalities in connection with this disease has become notorious. Some day a court will be convinced of the negligence; and then the door with be open for the recovery of damages, and perhaps the municipalities will prize more highly the monetary cost of the negligence than they do the health of their citizens, and we shall witness a general cleaning up of water supplies.

PULMONARY GYMNASTICS IN TUBERCULOSIS.

DEEP breathing in pulmonary gymnastics has long been regarded as one of the universal measures to be employed in the treatment of tuberculosis of the lungs. The general public has been given this impression; but medical men are not altogether agreed as to its usefulness or as to the field of its employment. Its use has been often in a vague and indiscriminate fashion. The value of deep breathing has been studied recently more carefully by phthisologists, and the subject placed upon a better basis.

At the Massachusetts State Sanatorium for Tuberculosis, groups of patients were taken, and for varying periods some were instructed to breathe deeply, and others were instructed to restrict their respirations. Almost all of these patients expressed themselves as feeling better during the period of deep respirations. Another group was given, for a long period, class gymnastics and deep breathing exercises, after which for a period the exercises were discontinued. No material difference in the progress of the disease was observed in the two periods, but, as in the other series of cases, the patients generally expressed themselves as feeling better and eating better during the exercise period. No ill effects could be attributed to the exercises. While these experiments do not add a great deal to our knowledge of the subject, Otis, under whose direction they were made,* concludes that, in cases which are free from fever, acute inflammation of the lung, recent pleuritis, hemorrhage, and large cavities, pulmonary gymnastics can be employed to advantage. However, in many patients, the value of deep breathing can be determined only by trial.

Those who have advised against deep breathing, and have counseled pulmonary rest, have erred in comparing tuberculosis of the lungs with tuberculosis of the joints. The joints are not vital organs, and may be completely removed without harm to the system; but the body depends upon the oxygen-supplying function of the lungs as necessary for its vitality and resistance; and in tuberculosis the local disease is of minor consequence in comparison to the general vitality.

*Boston Med. and Surg. Jour., July 19, 1906.

Observations.

ON THE RATIONALIZATION OF THERAPEUTICS.

Outside of the drug-store are many valuable remedies. Vastly more important than drugs in the treatment of diseases are fresh air, sunshine, cleanliness, diet, exercise, rest, optimism, and cheerfulness. It is the *absence* of these that has *caused* most ills, and they, instead of drugs, should have the first consideration in the treatment. The teaching of the patient about his disease so that he may co-operate with the doctor is often necessary for the successful treatment. The doctor's life in the future is going to present even more responsibilities than it ever has. The time is approaching when he must give more of his personal attention to the sick. He shall not escape his duty by dashing off a prescription, and leaving the rest to God and the druggist. He is becoming too useful and too learned a man for such shirking of responsibility. In this work the trained nurse and the assistant to the doctor are destined to play an important rôle. There are directions to be carried out, and instructions to be given, and an in-touchness with the patient to be maintained, which can best be done through the agency of such assistance.

The foundation stones of therapeutics are pathology, etiology, and diagnosis. The physician must get at the root and the cause of the malady before he can treat it intelligently. Next, he must eliminate the cause; and when he has done this he has progressed so far in the treatment that the cure is already in sight. There is many a doctor who stands well in his profession, whose waiting room is crowded, and who gives only sufficient attention to each case to ask a few hasty questions, write a prescription, and say, "Take this, and let me see you again one week from to-day." The chances are that the patient will be better, but the wise man knows that this physician has not stood in the proper position in the tableau of doctor and patient. Already the doctor's duty to the man with consumption is no longer ended with a prescription for cod liver oil and creasote. This evolution we have witnessed in the last few years.

The new therapeutics demands of the physician that when a patient comes complaining of a headache she shall not be dismissed with a prescription for a drug, but that the cause of the complaint shall be determined and the stuffy bedroom in which she sleeps shall be flooded with fresh air day and night. When a patient seeks help for his loss of appetite, he shall not be cast aside with a prescription for a bottle of drugs, but the cause shall be discovered, and he shall have prescribed for him a walk to his office instead of a ride, instructions in deep breathing, and an omission of the preprandial cock-tail. When the doctor is consulted for the pain in the leg of a child, he shall not have fulfilled his duty by sending the parent to the drug-store for salicylic acid, but he shall learn the cause of the pain, and upon determining that it is coxitis, apply the rational treatment. Therapeutics is becoming something more than a few kind words and a bottle of medicine.

The old therapeutics kept the children with tuberculosis of bones and joints in the hospital ward, where they might not get cold, and depended upon treating them with hypophosphites and cod liver oil, while abscess after abscess was evacuated. The drugs are now omitted, and the children are put out in the fresh air and sun—anywhere—on the roof, in the garden, on the balcony—and there are fewer abscesses to open.

Most diseases are preventable, and most diseases will subside when the cause is removed. Consumption is a product of a combination of the violations of the laws of natural living which we boastfully designate by the name of civilization. The only treatment that is successful is no treatment at all, for it simply consists in taking the patient out of the pernicious and unnatural environment, in which he contracted the disease, and compelling him to live naturally; that is, in the open air, and on simple and nourishing food. Had he lived this way before, he would not have had consumption. *In all the practice of medicine there is no more pitiful sight than that of a doctor, who knows better, dealing out pills to a patient who needs to be told how to live; and in all the practice of medicine there is no more glorious sight than that of a doctor, who knows how, discovering and removing the cause of a disease.*

* * *

There is not an inate desire for drugs; we are not born with a taste for drugs. The medical profession has fostered it, and upon the medical profession devolves the duty of curing the drug addiction. The physician, uneducated in the nature of diseases, is the one most given to the employment of drugs. They are the lazy man's expedient. The educated physician gives drugs often as a placebo, while he corrects the cause, and patiently waits for nature to cure the disease. But in doing this he is placing his stamp of approval upon a practice which he knows is wrong. The American public drinks $75,000,000 worth of patent medicines a year. Who taught them that the remedy for illnesses is drugs? And who but the medical profession endorsed the use of drugs as the sovereign remedy for disease?

One of the most amusing contributions to medical literature that has appeared in many a day is an article in a prominent medical journal, entitled, "Why are we Poor, the Remedy." If we have any notion that there is no such thing as the drugs fetish we need only to read this to have our minds disabused of the idea. It says that the author has already protested against the habit of certain members of the profession saying, what he calls, "nasty things about the prac-

tice of medicine;" and the man whom he now accuses is Osler; and the reason that Osler is accused is because in his writings he has mentioned certain diseases which he says are not favorably influenced by drugs. Osler is, therefore, guilty of saying "nasty things" about his profession! A certain journal of osteopathy has gone through Osler's works, and culled out the instances in which, in speaking of treatment, he has not advised the employment of drugs, or has said that there is no known *internal remedy* that is of service in influencing the course of the disease. It is a rather extensive list of diseases, and Osler's therapeutic comments are interesting as well as instructive. The list includes typhoid fever, scarlet fever, measles, whooping cough, cerebro-spinal meningitis, lobar pneumonia, diphtheria, erysipelas, rheumatic fever, yellow fever, tuberculosis, chronic rheumatism, diabetes mellitus, cirrhosis of the liver, chronic bronchitis, exophthalmic goiter, paralysis, spinal meningitis, sciatica, neurasthenia, pericarditis, endocarditis, and acute Bright's disease. For this Osler is visited with calumny and condemnations most severe,—for having, in the words of this author, "furnished our enemies with more powder with which to blow us up than any man living." He is accused of playing the part of "the bird that defiles his own nest." The author then goes on to show the perniciousness of such teaching, and how that, as a result, eminent judges, governors, and senators become adherents to osteopathy. In other words, Osler is accused because he has advanced scientific medicine by contributing the results of his experiences with drugs in certain diseases! If honest investigation shows that drugs do not influence these diseases so much the worse for the drugs, and so much glory for the investigator. Medicine does not live by drugs alone. It is the truth that must make us free. If the medical profession measured up to Osler, osteopathy would not only not be making inroads into medical practice, but it never would have been born. If the general impression did not prevail that the medical profession is irretrevably committed to the treatment of diseases by means of drugs the eminent judges and governors would be less prone to go to the charlatan, whom they know will not give them medicine.

The very name of our profession is an unfortunate one. It is outgrowing medicine, and is taking its place as the science of sanitation, of hygiene, of health. Medicine began by efforts to make the sick well: to that it has added its efforts to preserve the well in health. Sanitary science is what modern medicine means, and sanitary science is what it should be called.

It repeatedly has been ruled that the practice of medicine consists in administering drugs, and that, if no medicine is given, it is not the practice of medicine. Happily, a broader interpretation has recently been placed upon this subject by the courts in several states.

The law in many states, however, allows an irregular practitioner to see a case of typhoid fever through his disease, and calls him blessed, provided he does not give any medicine; and yet, cases of typhoid fever are recovering every day in our hospitals without having received a drop of medicine. The real advances in medication, the antitoxins, have been worked out upon the basis of etiological pathology.

In the public mind our profession is inseparably committed to the administration of drugs. This has hindered the securing of a National Board of Health and a doctor of medicine in the cabinet of the President. The public thinks it means drugs. Happily our profession is outgrowing the drug habit, but the public has not yet found it out.

If we could imagine that for fifty years the manufacture and internal medical use of 95 per cent. of the drugs now employed were discontinued, it is conceivable that the science of therapeutics would advance to a position which it now will take more than a century to attain. Therapeutic measures and hygiene, now neglected, would be seized upon, and when fifty years had rolled round, we should be surprised to find how poorly we prized our old friends of the apothecary shop, and how well the practice of medicine had prospered without them. If there were no quinine or arsenic for malaria, we should witness a campaign of extermination against the mosquito that would accomplish more in ten years than will be accomplished now, under the present conditions, in twenty years. However, I do not suggest the discontinuance of these most potent and valuable remedies; I make these statements to call attention to the other and more important side of therapeutics.

I beg not to be understood to advocate drug nihility, for the plants and the minerals and the laboratory furnish invaluable therapeutic aids; but I do insist that rational therapeutics begins with pathology and prophylaxis and the restoration of physiological conditions, and that medicine has too slowly grasped the simple and natural principles of therapeutics.

The therapeutic aids of the greatest value are the simplest and cheapest and most accessible. Most of the illnesses against which therapeutics is aimed are due to violations of the simple rules of right living. To restore the patient to normal living is treatment of double scientific value; it offers cure for the present, and prevention for the future. Let us felicitate ourselves that in our day have we witnessed the dawn of the new therapeutics, and the decadence of the fetishism of drugs.

Items.

MARY PUTNAM JACOBI FELLOWSHIP.—The Women's Medical Association, of New York, has undertaken the establishment of a fellowship in honor of the memory of Dr. Mary Putnam Jacobi. This fellowship is to enable women physicians to secure post-graduate work. It is planned that the appropriation of the fund shall be as broad as possible. Any qualified woman graduate of an American medical school shall be considered eligible for the fellowship. In order to have an adequate income it is necessary to raise $25,000.

This is a fitting memorial to this eminent woman, who gave so freely of her time to the many movements for advancing the educational, economic and legal status of women. Among these were The League for the Political Education of Women, The Consumers' League, The Equal Suffrage Association. She won an international reputation and recognition as a woman physician by opening the Ecole de Médicine of Paris to women medical students. She did pioneer work in gaining admittance to a number of medical societies, thus establishing a precedent for other women. As Professor of Materia Medica and Therapeutics in the Women's Medical College of the New York Infirmary, she was an honor to the institution and an inspiration to her students.

Her spirit of helpfulness which led her to seek every opportunity for women in medicine, seems to make it especially appropriate that a permanent tribute to her memory should be along these lines. This particular form of endowment was decided upon partially in view of the fact that Dr. Jacobi herself felt most keenly the meagre and unequal opportunities for women in post-graduate hospital work.

Contributions to this fund should be sent to Eleanor Tomes, M.D., 136 East 30th Street, New York.

PUBLIC HEALTH DEFENSE LEAGUE, which was organized in November last, has sent out the following appeal, which it is earnestly hoped will be well supported. The work which it has undertaken is of pressing importance:

For years the medical profession has been conducting an organized warfare to protect the people of our city from quacks and charlatans of all sorts who flourish because of inadequate and unenforced laws.

This work has grown until it includes opium and cocaine preparations put forth under the guise of non-injurious "patent medicines" for the cure of simple ailments, strong alcoholic mixtures sold as simple tonics, and so on.

You perhaps do not know that the thoughts of the youth of our land are being perverted by lying and obscene literature calling attention to and tending to inflame those passions, which, for the common good, ought to be kept under control, and that the fiends who do this work flood our institutions of learning, both male and female, with their reading matter.

These and other influences detrimental to the public health should be at least controlled, but the task has assumed such magnitude that the medical profession is no longer able to cope with it unaided.

The growing sentiment that a national body, composed of public spirited citizens generally, was necessary to carry on this great work, has finally culminated in the organization of the Public Health Defense League. We desire the support of all good people, and to this end I enclose you literature which will inform you of what has been done, and ask your co-operation.

By sending your name to the Secretary, 37 Liberty Street, New York, which binds you to nothing except your moral support, and as much active support as you may feel disposed to give, with the payment of annual dues not to exceed one dollar in any year, you will aid a cause which I am sure will appeal to you.

FRANK VAN FLEET.

NEW YORK ACADEMY OF MEDICINE.—At the annual election of the Academy of Medicine the following officers were chosen: President, John A. Wyeth; Vice-president, Algernon T. Bristow, for three years.

THERAPEUTIC MEDICINE, a new journal, under professional control, and devoted exclusively to therapeutics, makes its appearance with the new year. Dr. William J. Robinson, of New York, is the editor. We trust that it will fill a large field of usefulness and receive the support of the profession.

LONG ISLAND MEDICAL JOURNAL, the official organ of the Associated Physicians of Long Island, published by this association, presented its first number in January, 1907. The editor is Paul M. Pilcher, A.M., M.D. This journal takes the place of the annual volume of Transactions which the Association heretofore has published. It contains an interesting series of original articles, editorials, etc. Transactions of Long Island medical societies and medical news are also features of note. The literary and scientific merit of this journal are of a high order; and the Association is to be congratulated upon its auspicious change from the publication of transactions to journalism.

WILLIAMSBURGH MEDICAL SOCIETY.—The physicians of the Eastern District of the Borough of Brooklyn, New York, have formed a new medical society, to be known as the Williamsburgh Medical Society. The organization meeting was held December 5, 1906, and forty-eight physicians were enrolled as members. The following officers were elected for the ensuing year: President, Leon Louria; Vice-president, Wm. Linder; Cor. Sec., Marcus J. Levitt; Fin. Sec. Ed. L. Friedman; Treasurer, A. Hayman.

THE NEW YORK CITY TUBERCULOSIS HOSPITAL.—A site consisting of 1300 acres in Otisville, Orange County, New York, has been selected by the municipal authorities upon which to build the proposed hospital for the reception and treatment of incipient and convalescent cases of tuberculosis. The site is situated at an elevation of 1300 feet above sea level, and there will be ample means for the accommodation of 200 patients.

TO COMBAT CONSUMPTION.—The Committee on the Prevention of Tuberculosis of the Charity Organization Society, composed of

physicians and laymen, makes this eloquent appeal to the people of New York for help:

Consumption or tuberculosis can be prevented; it is being prevented. The death rate in Manhattan has been reduced 45 per cent. since 1881. Thousands of lives have thus been saved. But still thousands of lives are each year wasted.

Although it is now definitely known that this disease is preventable, yet 10,194 persons died of it in this city last year; it is a curable disease, and yet nearly 10,000 of the 40,000 who now have the disease will die of it this year; it is a communicable disease, but because of the present ignorance and indifference of the community thousands now in good health will become infected.

Your help is needed to carry on and continue an organized, systematic and energetic educational campaign. Our funds are entirely exhausted.

Checks should be made payable to the order of the Charity Organization Society and addressed to the Secretary of the Committee, Paul Kennaday, at 105 East Twenty-second Street, New York.

Dr. Roswell Park, of Buffalo, has been elected to membership in the Association of French Surgeons, he being the fourth American surgeon upon whom this honor has been conferred.

Ship's Nurses.—One of the great transatlantic steamship lines has added trained nurses to the medical personnel of its vessels. This opens a sea career for the trained nurse. Undoubtedly other lines will do the same, and the nurse will become as indispensable an adjunct to the first-class passenger vessels as the ship's doctor is.

No Ambulance Surgeons for the Dead.—The Commissioner of Police of New York City has issued an order to the effect, that, when a policeman finds a person already dead, he shall immediately notify the coroner's office and not call an ambulance surgeon. Heretofore it was necessary to have a surgeon pronounce the patient dead, in order that the case might be so considered by the police, and an ambulance was summoned on this errand.

A Magazine for the Blind.—Mrs. William Ziegler has furnished funds to be used in publishing a magazine for the sightless. This will be the first of its kind in this country, and the second in the world. It will contain news items, stories, and special articles of interest to the blind, and will circulate in institutions as well as before the public.

England Also Has Patent Medicines.—The annual traffic in patent medicines in England represents an outlay of three millions of pounds sterling for forty millions of packages. Thus it is evident that not all of this industry is confined to the United States.

A New System of Medicine will soon be published under the editorship of Dr. William Osler. Dr. Osler has enlisted the services of the leading medical thinkers throughout the civilized world, and the work will represent the theory and practice of medicine in its most modern aspects.

Decrease of Birth-Rate in France.—The vital statistics of France for 1905 have been published. There were 10,937 fewer births than in 1904, although there was a slight increase in the number of marriages. The National Association has decided that it is necessary to inculcate the idea that any couple that raises more than three children merits public gratitude and protection.

Drug Consumption During Japanese War.—Statistics show that 100,000 ounces of quinine were called for by Japan early in the war, and that stocks of bismuth and sodium salicylate were exhausted. The demands for adhesive plaster, gauze, cotton and other surgical dressings were enormous. The army pill works turned out two million pills a day; and for the prevention of dysentery each soldier was supplied with a can of ninety pills of beechwood creosote and was required to take one a day. One order for one hundred thousand pounds each of carbolic acid and corrosive sublimate was recorded.

Sanitation in New York.—A sanitary map of the State is being prepared under the direction of the State Health Commissioner, and a systematic study of water-sheds, and an investigation of stream pollution, are being carried on. The pollution of the streams of the State must cease, and no permits to discharge sewage into the waters of the State will be granted except for cogent reasons. It is urged that the Commissioner should also have authority to order sewage taken out of a stream when necessary and within a given time. It is suggested that a commission be created to cooperate with the Health Department in so important a matter as the pollution of the waters of New York. The Merchants' Association has filed a protest with the Secretary of War, declaring that unless the Government stops the dumping of sewage into the Hudson River the harbor of New York will be ruined for shipping purposes. They protest against the construction of the Bronx Valley sewer. This contemplated sewer would drain the Bronx Valley, providing for the disposal of sewage and manufacturing waste of a population of 850,000, and would empty into the Hudson River north of Spuyten Duyvil. Inspection of the packing houses, slaughter houses and meat markets by the State Board of Health show many to be in bad condition. These have been directed to be put in sanitary shape at once, and frequent inspection is urged. Particular attention will henceforth be paid to food stuffs manufactured in this State. A campaign for pure milk throughout the State is urged. During the month of August of 1906 there were 2,339 deaths under two years of age due to diarrhea and enteritis. The necessity for inspecting the eyes of school children is pointed out, and it is recommended that the subject of car sanitation receive attention.

Medical Society of the State of New York.

Appropriation for the Committee on Legislation.

The following should be added to the minutes of the Council, as printed on page 83 of the February issue of the JOURNAL:

"Moved, seconded and carried, that the sum of $700.00 be appropriated for the use of the Committee on Legislation for the year 1907."

The name of Dr. A. G. Root should also be added as present at the meeting.

Advertisements for "Journal" and Directory.

At a meeting of the Publication Committee, held March 1, 1907, it was resolved that any member of the State Society who secures advertisements for the STATE JOURNAL or Directory, which shall be accepted by the Committee on Publication, shall be entitled to the same commission as is paid to advertising agents. For further particulars apply to the Secretary of the State Society.

THE PRACTICE OF MEDICINE DEFINED BY THE SUPREME COURT.

SUPREME COURT, APPELLATE DIVISION,
First Department, December, 1906.

EDWARD PATTERSON, *P. J.*
GEORGE L. INGRAHAM,
FRANK C. LAUGHLIN,
JOHN PROCTOR CLARKE,
FRANCIS M. SCOTT, *JJ.*

PEOPLE OF THE STATE OF NEW YORK, *Respondent,*
vs.
E. BURTON ALLCUTT, *Appellant.*
No. 239.

Appeal from a judgment of the Court of Special Sessions convicting the defendant of the crime of practicing medicine without being lawfully authorized and registered, in violation of Section 153 of Chapter 661 of the Laws of 1893, as amended by Chapter 398 of the Laws of 1895.

MR. TERENCE J. MCMANUS of counsel (Black, Olcott, Gruber & Bonynge, attorneys) for appellant.

MR. ROBERT C. TAYLOR of counsel (William Travers Jerome, District Attorney) for respondent.

CLARKE, *J.:*

The evidence tended to establish that in the window of the defendant's residence was exhibited a sign, "Dr. E. Burton Allcutt, Mechano Neural Therapy"; that on the bell outside the door was the name of "Dr. Allcutt"; that in the office building on 22nd street in which the defendant had an office, there appeared upon the directory in the hall, "Dr. E. Burton Allcutt"; that he had and distributed a card reading, "Phone 3192 Riverside, Dr. E. Burton Allcutt, mechano neural therapy, 27 East 22nd Street, room 55, Office hours 9-12 A. M. 336 West 95th Street, Office Hours, 2-6 P. M., New York City." That his receipt for services rendered was signed, "Dr. E. Burton Allcutt," that the complaining witness visited the defendant at the office address given; that defendant said that he was Dr. Allcutt, "I usually see all my patients up town in the afternoon and I am down in this office in the morning." That the witness having said that she was troubled with severe headaches, was nervous and had frequent spells of vomiting, the defendant told her he wished her to remove her corsets in order to examine her thoroughly to find out what her trouble was; he examined her chest, heart and back by placing his ear to her heart; he tapped with his fingers; that the witness said, "Doctor I also have a very severe pain in my left arm, do you think it is rheumatism?" He said, "You are entirely too young to have rheumatism; it is from your stomach; you have malaria and stomach disease." She said to him, "Can you cure me?" The defendant said, "Certainly I can. You will have to take twelve treatments which will cost $25 in advance"; that he said he gave no medicine at all, but quieted the nervous system. That the defendant was asked if he called at patient's residences; that he replied, "Certainly. As she resides in the Bronx I would have to charge her $5 a visit." Witness said, "Doctor, can you cure all kinds of diseases without drugs?" He said, "Yes; I find I can cure without drugs, I can cure all diseases that any physician can cure without drugs, and also diseases that they cannot cure with drugs." He said that he had practical medicine; that he had given up drugs; that he could cure anything that physicians cured; and that she then paid $5 for the examination and received a receipt; that subsequently the defendant called at her residence in response to a telephone call; that witness told him that she felt ill all day, that she had a chill and had been vomiting, had a pain in the region of her abdomen, that defendant took hold of her hand, felt of her pulse, looked at her tongue, examined her throat and said: "It is all from your stomach. I want you to drink a quantity of lukewarm water with salt in it." He gave it to her in spoonfuls. He said, "You must not eat pork or potatoes or any kind of sweets," and then said, "I will give you a treatment." Witness testified that defendant started to treat her back with his fingers; he said he was treating her nerves; he treated her spine by putting the fingers upon her spine, the ends of the fingers, a touching sensation, nothing like kneading; he did this for about an hour. He varied that treatment, on the neck, breast, heart and stomach in the same way, just by his fingers. He advised her, in case she had pains in the night, if the pain in her abdomen were severe, to place an ice bag on it and one on her feet, and if her bowels troubled her to place a hot water bag on her back and go to bed, not to lie on the couch, and if she got any worse to send for him. That her husband said to him, "Doctor, what are you doing?" He replied, "I am treating her nerves. Don't you see how quiet she is now?" and that $5 was paid for that visit. The witness testified that as a matter of fact there was nothing the matter with her, and that she was acting during these interviews as a detective.

The defendant in his own behalf testified that he practiced the art of mechano neural therapy and that he was a graduate of the college of Mechano Neural Therapy of Atlantic City, New Jersey, having received its diploma in the first of November, 1902. It was conceded that the College of Mechano Neural Therapy was not recognized by the Regents of the State of New York and that a diploma of that institution will not give the right to practice nor to an admittance to an examination to determine the fitness of such a person to practice medicine, and that defendant was not registered as a physician in the County of New York. The defendant testified, "I started into the practice of this profession on the 11th day of November, 1902, at the present address. I have practiced ever since in the City of New York and elsewhere"; that prior to his attendance at said college he had been practicing massage, and was a graduate of the Mills Training School, attached to Bellevue Hospital, and had engaged in his profession as a nurse; that the statement of the complaining witness was substantially correct; that he had not studied medicine, except from the standpoint of a nurse; that mechano neural therapy means mechanical nerve treat-

ment, a gentle pressure on all parts of the body; that the whole theory of this science is that disease comes from the lack of blood circulation, and that the treatment proceeds upon the theory of assisting the circulation back into the normal condition.

The defendant was convicted of the crime of practicing medicine without being lawfully authorized and registered.

The contention of the appellant is that, conceding all the facts proved, he was not guilty of the crime charged, inasmuch as he was not practising medicine within the meaning of the statute, in that he neither gave nor applied drugs or medicines nor used surgical instruments. Section 153 of the Public Health Law (Chap. 661 of the Laws of 1893) provides as follows: "Any person who, not being then lawfully authorized to practise medicine within this State and so registered according to law, shall practice medicine within this State without lawful registration * * * shall be guilty of a misdemeanor."

To confine the definition of the words "practise medicine" to the mere administration of drugs or the use of surgical instruments would be to eliminate the very cornerstone of successful medical practice, namely, the diagnosis. It would rule out of the profession those great physicians whose work is confined to consultation, the diagnosticians, who leave to others the details of practice. Section 146 of the Public Health Law provides that persons desiring to practise medicine must pass a Regents' examination made up of "suitable questions for thorough examinations in anatomy, physiology and hygiene, chemistry, surgery, obstetrics, pathology and *diagnosis* and therapeutics, including practice and materia medica." Diagnosis would, therefore, seem to be an integral part of both the study and practice of medicine, so recognized by the law as well as common sense. The correct determination of what the trouble is must be the first step for the cure thereof. It is a well-known fact that the disease popularly known as consumption may, if discovered in time, be arrested, if not entirely eradicated from the system, by open air treatment in the proper climate, and that in such cases use of drugs has been practically given up. Would the physician, in such a case, who by his skill discovered the incipient disease, advised the open air treatment and refrained from administering drugs, not be practising medicine? It may be difficult by a precise definition to draw the line between where nursing ends and the practice of medicine begins, and the Court should not attempt, in construing this statute, to lay down in any case a hard and fast rule upon the subject, as the Courts have never undertaken to mark the limits of the police power of the State or to have precisely defined what constitutes fraud. What the Courts have done is to say that given legislation was or was not within the limits of the police power, or that certain actions were or were not fraudulent.

The appellant relies upon the case of Smith vs. Lane (24 Hun. 632), decided by the General Term, in May, 1881. That case was an action brought to recover the price which it was alleged the defendant agreed to pay the plaintiff for the treatment of himself and his wife for certain bodily disabilities. It consisted entirely of manipulation of the hands; it was performed by rubbing, kneeding and pressure. The evidence given by the plaintiff was to the effect that he was employed by the defendant to perform these services for a specific consideration, and that he had performed them until the amount due to him was the sum of $149. The referee dismissed the complaint because it appeared that the plaintiff was not a graduate of any medical school, and had no license permitting him to practice either medicine or surgery. Mr. Justice Daniels, in writing for a reversal of this judgment, said: "The act did not in terms prohibit any person from following an occupation of this description, and without some prohibition, it would seem to be as lawful as any other in which one person might render services at the request of and for the benefit of another. * * * The practice of medicine is a pursuit very generally known and understood, and so also is surgery. The former includes the application and use of medicines and drugs for the purpose of curing, mitigating or alleviating bodily disease, while the functions of the latter are limited to manual operatons usually performed by surgical instruments or appliances. * * * What he did in no just sense either constituted the practice of medicine or surgery. He neither gave no applied drugs or medicine or used surgical instruments. He was outside of the limits of both provisions, and neither one of the schools or societies mentioned in the Act had jurisdiction over him or had authority to restrain, restrict or prevent him in the occupation he was engaged in the following. While his services may have offered no benefit to the persons receiving them, he was not prohibited from performing them by anything in this Act, and no other law was violated by him which the evidence tended to show had been entered into." It will be noted that there was a private action between the parties to a contract, for services rendered, and that the public were not represented.

We do not consider the remarks of the learned Judge, above quoted as being an exhaustive or exclusive definition of the term "practice of medicine." In the same volume in which Smith vs. Lane was reported appears the case of Grattan vs. Metropolitan Life Ins. Co. (24 Hun, 43), where the question of the admissibility of the evidence of a physician under Section 834 of the Code of Civil Procedure was under consideration. The physician did not prescribe, but took a sufficient diagnosis to enable him to prescribe. His evidence having been admitted over objection, Learned P. J., in writing for reversal, said: "The defendant insisted that there was no relation of physician and patient * * * because G. did not consult him as to a prescription and the doctor did not prescribe, *but the day has passed when it was thought that a physician's advice was of no use unless he ordered a dose of medicine.* * * * Next, the defendant insists that the doctor did not act in a professional capacity because he gave no prescription and no advice, but it is plain enough that there are cases where a physician could examine a patient, see that medicine will do no good, and that there is no advice to give him except just what the doctor gave to G., to make the best of the present because he would not remain here very long.

The appellant cites five cases in other states as in harmony with Smith vs. Lane, supra. State vs. Lifring (61 Ohio St., 39) was under the peculiar language of the statutory definition which was held to require the use of drugs in order to constitute the practice of medicine. There was subsequently an amendment of the Ohio statute, and the subsequent cases of State vs. Gravett (65 Ohio St., 289) and State vs. Marble (72 Ohio St. 21) were decided the other way. State vs. Herring (70 N. J. L., 34) was also decided upon the wording of the statute. Nelson vs. State Board of Health (57 S. W. Rep., 501), a Kentucky case, and State vs. McKnight (131 N. C., 717) are not entitled to be considered authorities in this jurisdiction, inasmuch as they proceed upon the proposition that in those States it would be unconstitutional for the Legislature to limit the right to practice medicine—a doctrine counter to that held in the rest of the Union. There remains but one case, that of State vs. Mylod (21 R. I., 631), a case of a Christian Scientist.

The Court pointed out that not only the defendant did not attempt to treat disease but he denied its very existence. In contrast with this last case is People vs. Pierson (176 N. Y., 201). Pierson believed in "Divine Healing." His child had catarrhal pneumonia and died. Pierson did not call in a physician, but believed the child could be cured by prayer. He was convicted under Sec. 288 of the Penal Code for wilfully omitting to furnish "medical attendance" to the child. Judge Haight concludes that the medical attendance required by the provision of the Penal Code could be furnished only by physician duly authorized to practice under the Public Health Law, and conviction was sustained.

As opposed to the cases following Smith vs. Lane,

the Courts of Massachusetts, Maine, Michigan, Iowa, Missouri, Colorado, Nebraska, Illinois, Ohio, Alabama, Indiana, New Mexico, South Dakota and Tennessee, refuse to restrict the "practice of medicine" to the administration of drugs or the use of surgical instruments.

In Bragg vs The State (134 Ala., 164), decided on June, 1902, upon provisions of the Civil Code of that State (3261-3266), and of the Criminal Code (5333) in effect identical in language with the provisions of the statutes of this State, the Court in a most exhaustive and instructive opinion, declared that both the man who used and the man who did not use drugs were yet engaged in the art of healing and curing human diseases; that the purpose of the medical law was to protect the public against charlatanism, ignorance and quackery, and that it was not the legislative intent to restrict the examination of those desiring to practice medicine to that class of the profession who may prescribe drugs. In that case and in the note to O'Neill vs. State (3 L. R. A. N. S., 762), may be found collected the cases in the several states as indicated, supra, which did not follow the definition of practice of medicine, as limited and restricted in Smith vs. Lane.

We are of the opnion, from the general current of the authorities throughout the country and from examination of the history and growth of our own public health statutes, that we should not apply the rule as claimed to have been laid down in Smith vs. Lane. When we find, as in this case, a defendant holding himself out by sign and card as a doctor, with office hours, who talks of his patients and gives treatments, who makes a diagnosis and prescribes diet and conduct and remedies, simple though they be, and who asserts the power to cure all diseases that any physician can cure without drugs and also diseases that they cannot cure with drugs, and who takes payment for a consultation wherein there was an examination and determination of the trouble, that is, a diagnosis, as well as payment for subsequent treatment, even if no drugs are administered, we must hold that he comes within the purview of the state prohibiting the practice of medicine without being lawfully authorized and registered.

The judgment of convction should, therefore, be affirmed.

VENERAL DISEASE.

I venture to say that if any of the animal industries of our country should suffer from such a scourge as the venereal diseases place on the human family, every resource would be taxed to eradicate it speedily and completely.—ALBERT H. BURR, M.D.

What barriers are raised to stay this tide of disease and degradation? Practically none. We hide our heads in shame and prudery before the naked truth of it. In silence our tongues cleave to the roofs of our mouths lest we violate the proprieties by the mention of these things, while the suffering and mutilation and slaughter of the innocents goes relentlessly on. It is a disgraceful anomaly in state medicine in the United States of America that the most persistent of all contagions, the most prevalent of all, excepting measles, the most costly and dangerous of all in the aggregate, barring none, should have no official existence. It is a fact that no national, state or civic boards of health or commissions are taking any account of venereal contagions. No appropriations of money or measures are made for their suppression. We can learn much of the Scandinavian nations who handle these matters more effectually. Over thirty years ago they placed gonorrhœa and syphilis among the reportable contagions and required physicians to make weekly returns concerning them; with the result that during this period these social pestilences have been reduced by thirty-four per cent.

ALBERT H. BURR, M.D.,
—*Jour. Am. Med. Assoc.*, XLVII, 23.

Progress of Medicine.

PRACTICE OF MEDICINE.

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THE SIGNIFICANCE OF ALBUMIN AND CASTS IN THE URINE.

Regarding the significance of albumin and casts in the urine, which is a topic so widely discussed at present, Dr. S. J. Meltzer says that there is in the first place this one difference between the albuminuria and cylindruria brought on by normal, abnormal or pathological stimulations of the normal kidney and the albuminuria and cylindruria due to a disease of the kidney itself. It is only of a temporary nature in the first instance, and it is of more or less permanent character in the latter instance. And there is another important difference. The albuminuria and cylindruria are a good deal more extensive when they are caused by a disease of the kidney itself than when only an increased stimulation is at the bottom of their occurrence. He agrees with the view that in making the diagnosis of Bright's disease reliance upon the presence of albumin and casts in the urine might be indeed fallacious in the extreme, but only when employing too fine methods and relying upon single examinations. The continuous presence of good traces of albumin and casts of different varieties after the patient is put to rest and withdrawn from injurious influences, speaks for Bright's disease. That we should not rely upon albuminuria and cylindruria alone for the making of a diagnosis goes without saying. They are not pathognomic symptoms; they should form one link of a chain of signs and symptoms which lead to the diagnosis of Bright's disease.—*New York Medical Journal*, July 28, 1906.

PERCUSSION OF THE SKULL TO DETERMINE INCREASE OF CEREBRO-SPINAL FLUID.

Henry Koplik, of New York, in a recent article advises percussion of the skull as a means for determining the indication for lumbar puncture, and especially as applied to cerebrospinal meningitis of the epidemic type. The first result of intracranial pressure, as in a case of meningitis, is an acute, subacute, or chronic distention of the ventricles of the brain with fluid, and it is the early detection of this fluid which gives the absolute indication to relieve distention by lumbar puncture. The mode of detecting acute hydrocephalus is by percussion of the skull along the basal level of the frontal bone and the squamous portion of the parietal, whereby, as

McEwan has shown, a peculiar tympanitic note which gives the idea of hollowness may be elicited This evidence of pressure, associated with the typical symptoms, calls for the performance of lumbar puncture, thus enabling the patient often to tide over a crisis in the disease or enabling the physician to make a diagnosis as to the nature of the meningitis in a doubtful case. In the cases of meningitis associated with pneumonia or the infectious diseases, and stimulating meningitis it will be found that the tympanitic note is absent, and in such cases lumbar puntcure is without benefit.—*Medical Record,* Sept. 29, 1906.

THE COATED TONGUE.

A coated tongue, says Rollin, can depend entirely upon pathological processes in the mouth or nasopharynx. Aside from this, however, certain conclusions may be formed regarding the function of the stomach. In hyperacidity of the stomach one sees as a rule a dark-red, moist, clean tongue. With a lack of hydrochloric acid; however, there is a pale thick-coated tongue. Rollin explains that in hyperacidity the blood is nourished above normal, circulation in the tongue is very vigorous, and shedding of the superficial epithelium proceeds very rapidly, whereas in an acidity there is an anemia with the consequence that the circulation lacks in force to cast off the epithelium. In spite of the many statements to the contrary it is the opinion of this author that the coated tongue may often be of considerable diagnostic import.—*Berliner Klinische Wochenschrift,* 1906, No. 18.

PROGRESSIVE PARALYSIS FOLLOWING ELECTRIC SHOCK.

Adam writes of a case of progressive paralysis following an accident by electric shock. A 34 year old man, till then healthy and not syphilitic, received a shock from an alternating current of 10,000 volts and 200 amperes. He was rendered unconscious and severely burned. After about a year he began to show signs of mental weakness and of disturbances of speech, and soon after this he had a paralytic stroke. The typical symptoms of paralysis developed more and more until death came. The autopsy showed no syphilitic changes. Only three similar cases are known.—*Zeitschrift für Psychiatrie,* Vol. 63, Nos. 3 and 4.

THE PULMONARY LYMPH GLANDS IN DISEASES OF THE LUNGS.

Piery and Jacques have studied the conditions of the pulmonary lymph glands in diseases of the lungs. In every infectious disease of the lungs, be it teberculous or of other nature, the more the lymph glands are affected, the more severe is the process in the lungs found to be. A calcareous condition of the glands indicates an old and safely healed tuberculosis; sclerotic spots make the condition of a healed pulmonary sclerosis seem only probable, while cheesy degeneration indicates a florid process. With the help of the X-rays, as demonstrated by these authors, an opinion can be formed as to the condition of the glands, and therefore as to the progress of the disease.—*Revue de méd.,* 1906. No. 6.

VIRULENT MENINGITIS.

A case of epidemic meningitis of so short a duration as twenty hours, as reported by McCrae, is rare in medical literature. At the autopsy meningococci were demonstrated in all the organs, accompanied by streptococci and a bacillus which was not identified. The fluid obtained by lumbar puncture was especially remarkable. It was so rich in meningococci that under the microscope it did not look like cerebrospinal fluid, but appeared like richly infected gonorrheal pus.—*Montreal Medical Journal,* 1906, No. 8.

PICRIC ACID POISONING FROM A DRESSING.

Bevers reports a case of picric acid poisoning followed by severe constitutional symptoms. A 14 year old girl was burned rather extensively and her wounds were bound for seven days with dressings saturated with picric acid solution. Prostration, fever, retarded pulse, yellow discolorations of conjunctiva and skin, and an exanthema resembling measles were the symptoms which followed. The urine was at first slightly green, and later was dark orange colored. In the blood the red cells were considerably diminished, and the eosinophiles were slightly increased.—*Lancet,* April 28, 1906.

UNUSUAL COMPLICATIONS OF TYPHOID.

Three cases of typhoid fever with unusual complications are reported by Molson and Gordon. In the first there were evidences of blood destruction, and convulsive attacks. Hemoglobinuria and icterus were the signs of the blood changes. In all the organs were parenchymatous changes, especially in the kidneys, which led to a uræmic attack. Through the loss of the property of the red blood cells to take up oxygen followed dyspnœa. Apparently this case was a mixed infection of typhoid and bacterium coli. In the first hemoglobinuria is most rare, but in the latter is more frequent.

The second case showed inclination to multiple hemorrhages. The hemorrhages from the nose, mouth, stomach, kidneys and intestines were caused by a secondary infection. Such hemorrhages, when they occur, generally take place in the second week, and but rarely in later weeks.

In the third case, the most noteworthy factor was the occurrence of attacks of cramps, which at length caused death. These were lacking during high fever, but occurred again with a fall of temperature.—*Montreal Medical Journal,* 1906, No. 8.

THERAPEUTICS.

EDITED BY

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COCAINE AND ITS SUBSTITUTES. (TROPACOCAIN, HOLOCAIN, EUCAIN, STOVAIN, ALYPIN, NOVOCAIN.)

Prof. Hugo Wintersteiner in *Wiener Klinische Wochenschrift,* Nov. 8th, 1906, treats the question of cocaine and its substitutes, from the standpoint of ophthalmology. Recalling the enthusiastic reception of cocaine upon the ground of its evident value, he notes that reactionary criticism of its weak points has been carried too far and made to contribute to commercial ends, in the exploiting of many preparations as substitutes. He asks whether cocaine is really so dangerous and unreliable a remedy as to occasion an urgent need of a substitute. The objections to cocaine are discussed under these headings:

1. Its toxicity and consequent danger of its use.
2. Its inefficiency in inflamed tissue.
3. Its action on the pupil and on accommodation, i. e., dilatation and paresis.
4. Its injuriousness to the corneal epithelium.
5. Its influence on intraocular pressure.
6. The difficulty of sterilizing its solutions.

1. The admitted toxicity of cocaine the author regards as so important a factor as to require thought even when the smallest dose is used, as the individual sensitiveness to the drug varies and is sometimes extraordinary. Fortunately serious accidents are very exceptional, and he regards as exaggerated and unproven the assertion of Sternberg: "That the method of subcutaneous anesthesis by cocaine has, with time, shown itself to be as dangerous as chloroform narcosis." And he considers it unjust to attribute to cocaine every slight ailment or weakness occurring during or after its use, which occur frequently under similar conditions without cocaine. When decided nervous symptoms are occasioned by the drug they can usually be relieved by stimulation, as with cognac, or by inhalation of one or two drops of amyl nitrite. In the direction of lessening the danger we have learned to use weaker solutions with efficiency, and the addition of suprarenal preparations contributes greatly to this end, as they greatly increase the action of the cocaine and diminish its dangers, through limiting its absorption into the circulation by reason of the ischemia induced by the suprarenal action.

2. The fact that cocaine has a weaker action in hyperemic tissues is an admitted disadvantage that brings into question its use in operations upon inflamed eyes or in acute glaucoma. But repeated applications of a suprarenal preparation may so far remove the hyperemia that the action of a succeeding application of cocaine will usually be satisfactory. The author prefers to use a mixture of two drugs, having gained the impression that anesthesia can thus be more easily and completely induced.

3. Upon pupil and accommodation cocaine has some action, in the way of widening the former, without injuring its reaction, and weakening the latter. These effects are transitory, lasting a few hours at the most, and are not regarded as constituting an important objection to the drug.

4. Regarding its influence upon the corneal epithelium, it is asserted that harm can come in two ways—by direct drying up of the epithelium, and by cell degeneration—the result of direct toxic action upon the protoplasm. The drying of the epithelium caused through diminution of secretion and removal of reflex response on the part of the eyelids, may easily be prevented by keeping the cocainized eye closed until the beginning of the operation and moist during the same. But it is not within our power to prevent degeneration of the epithelium. As this occurs especially with prolonged cocainization, we should be careful to shorten the same as much as possible, both before and during operation. Observing this, the loss of much epithelium, with resulting erosions, will seldom occur.

The parenchymatous clouding of the cornea, seen especially after cataract operations under cocaine, the author believes is not due to this drug, as has been charged, but to the action of sublimate solution used in rinsing out the anterior chamber, the cocaine contributing so far only as it damages the cells and thus prepares the way for the sublimate action.

5. Discussing the influence of cocaine upon intraocular pressure, it is noted that this will vary according as the eye is normal or disposed to glaucoma. In the normal eye a transient rise of pressure is followed by a more prolonged fall, which in certain cases may become quite marked. The author here digresses to note that cocaine is also objected to as exerting an unfavorable influence upon healing of wounds of the cornea, through lessening the tension of the tissues, whereby primary closure is hindered. But Dalen's observations under the microscope have shown that healing occurs as readily with the use of cocaine as without. The author believes that age, with its lessened vitality of tissues, is mostly responsible for disturbance of the healing process in wounds of the cornea, as it is observed that healing occurs quickly after operations upon the eye in children and young persons. Returning to the question of intraocular pressure, caution is advised as to the use of cocaine in old persons and where a tendency to glaucoma is apparent. While opinions do not agree in this regard, the author holds that cocaine may now and then provoke an attack of glaucoma; but he thinks that those go too far who absolutely interdict its use as an anesthetic in cases of glaucoma.

6. Concerning sterilization of cocaine solutions, it is recognized that the heat of repeated or pro-

longed boiling can break up cocaine into methylalcohol and ecgonin, with loss of anesthetic action. To avoid the necessity of boiling, the plan employed by Sidler is approved, of having a concentrated alcoholic solution of the drug as a stock solution, from which to prepare the solution of proper strength to use as it is needed, by diluting with boiled water. However, in the author's opinion the loss in activity by once boiling, for the short time required for sterilization, is slight and can easily be provided for by beginning with a stronger solution.

While admitting that cocaine is not faultless, there is little hope expressed that a substitute of equal utility, with less objectionable qualities, will be found. There follows a review of the substitutes named, from which the following points are summarized:

Tropacocaine. Great claims have been made for this substance, but it is more irritating than cocaine, its anesthetic effect is weaker and shorter, and damage to the corneal epithelium from its use has been noted. For the same degree of effect as with cocaine, it requires double the dose, which fact brings its toxicity into comparison with that of cocaine.

Holocaine. The claim that this agent is more active than cocaine, while better tolerated and presenting less danger in glaucoma, has not been borne out by experience. It is more irritating and more toxic than cocaine and Dalen's experiments showed it to be equally detrimental to protoplasm.

Eucaine. A-eucaine having early been found wanting, attention is given only to b-eucaine, which is nearly equal to cocaine in anesthetic power. Its combination with adrenalin is inferior, as its activity is less increased thereby than is that of cocaine. While less toxic, it is more irritating than cocaine, so that even a 1 per cent. solution in the eye irritates strongly. Instead of the slightly soluble hydrochloride the author has used the very soluble lactate, but on account of its irritation has discontinued it and returned to cocaine.

Stovaine. The solution of this drug is acid, and it is easily decomposed by a trace of an alkali. It is one-half to one-third less toxic than cocaine, but larger doses are needed for the same effect. It is therefore less efficient, while it is more irritating, than cocaine.

Alypine. The author finds this substance more useful and with fewer objections than the above. According to his experience, its anesthetic action is satisfactory, being nearly equal to that of cocaine, and, in 2 per cent. solution, scarcely more irritating. While he has employed small doses, no ill effects have been noted, though he does not venture final conclusions as to its freedom from toxic or unfavorable properties. He considers it useful for slight operations and to precede the application of caustics. As it causes some hyperemia it is inferior to cocaine for larger operations, where hemorrhage is a factor; and it is stated that bleeding has been relatively free after its use in superficial operations and not so easily controlled by adrenalin as when cocaine is used. In a limited field the author regards alypine as a proper rival to cocaine, but not as the ideal local anesthetic.

Novocaine. This substance is non-irritating and causes no hyperemia. It may be applied to the cornea or conjunctiva in solution of any strength or in powder. It is 5 to 6 times less toxic than cocaine and 2 to 3 times less than stovaine. In anesthetic power it is inferior to cocaine, as a much larger quantity is needed for the same effect. Its action is also more transient and superficial, the cornea being easily anesthetised as with cocaine or alypine, while the conjunctiva may remain slightly sensative even after repeated strong applications. Its action is increased by adrenelin.

The author's final conclusion is that cocaine is still the souvereign local anesthetic in ophthalmology.

SURGERY.

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APPENDICITIS IN THE NURSLING.

Kermisson and Guimbellot report a case of acute appendicitis is a nursling, aged 11 months, brought up on the bottle which, with the exception of some diarrhea had had no other illness. Habitually had three passages a day. On the day of the attack the infant had a stool about four in the afternoon. In the evening he commenced to fret, then to cry, and had an air of suffering. During the night he vomited. Sunday morning the belly was swollen; pain persisted. During Sunday he did not vomit, but his bowels did not move; and Monday, being seen by a physician, was sent to the hospital.

The abdomen was enormously swollen, the skin tight, and blue veined. Pressure on the abdomen was painful, particularly in right iliac fossa. Percussion tympanitic, with elimination of liver dulness. Rectal examination negative. Operation: On opening the peritoneum, serous effusion of fecal odor escaped. The cecum was quickly found and the appendix, gangrenous at its tip, removed. It was very friable and the ligature cut through. A fine silk suture closed the cæcal end, and drains were introduced, one in the pelvis, a second in the lumbar region, and a gauze tamponade of the wound completed the dressing. The child died at five o'clock in the afternoon. No autopsy allowed. The appendix was between six and seven centimeters in length, increased in size and very vascular—gently curved in the direction of the mesentery. Within

the lumen was a fecal concretion the size of a pea. Near this were two perforations. The authors cite twenty-six other cases from literature of appendicitis, occurring in very young children of the age of two years and under. Thus there have been reported three cases occurring in children 6 weeks old; one of 8 weeks; two of 3 months; one of 5 months; two at one year; one at 14 months; one at 15 months; two at 18 months; one at 19 months; two at 20 months; one at 21 months, 4 at 22 months; one at 23 months; and three at 2 years.

The authors divide these 26 cases into two groups, 9 occurring during the first year and 17 during the second year. The only cases saved were those in the second class, and over the age of 18 months. Thus there were 7 recoveries and 10 deaths in this second group.

The authors make the following observations: During the first year there is always a general purulent peritonitis or at least multiple foci of suppuration; and in certain cases lesions of liver, kidney, lung and endocardium. Between the first and second years of life the cases of localized peritonitis, with encysted abcess, in which lays the appendix, predominate. This is almost always adherent. In five out of eleven operations, the search for the appendix was abandoned. Perforation occurred sixteen times. In three cases complete perforation was absent. In one case a black-headed pin was found in the lumen of the appendix. No parasites were found in any of the cases. Most of the children seemed to have had antecedent gastro-intestinal irritation, in which the appendix had participated. In eighteen cases, where it was possible to inquire concerning the history, ten times there were found troubles of variable intensity, ranging from habitual constipation to severe enteritis. As to the influence of the mode of alimentation, in twelve observations on this point three of the children were breast fed. In the nine other cases the children were fed on the bottle, on broths, on malted milk, but never on meat. The twenty-six observations, in fact, contradict absolutely the views of those who ascribe appendicitis to an exclusive meat diet.

There are two forms in which this disease attacks the infant: In the first, the onset is marked by gastro-enteric troubles. There has been for some time fetid diarrhea or constipation. The child vomits, has a little fever, and grows thin. The symptoms become aggravated without its being possible to say just when the appendicitis commenced. The vomiting increases, the temperature rises, the pulse accelerates. The impossibility of questioning the child, the cries which it continually emits, prevent us from localizing the point of greatest pain. The belly distends, general peritonitis becomes established and the child dies without appendicitis having been even dreamed of.

In the second form, the onset is, on the contrary, abrupt, supervening during a period of good health, or after very slight intestinal troubles.

The infant suddenly commences to cry, has one or two attacks of vomiting, some fever, a tender and painful abdomen and rapid pulse. Beyond the tender age of the subject and the difficulty of the examination, the diagnosis is easy. The writers insist upon the obstinate constipation as a symptom. They have often remarked on the frequency of this symptom at the onset of an appendicitis and the difficulty of distinguishing it from certain cases of intestinal obstruction, but it seems to the authors that in obstruction the obstruction to the passage of fecal matter and gas is more complete. If there were not fever and were not bloody discharges absent one might think of intestinal invagination. This error has, in fact, been made, and is with difficulty avoided. In fact, the diagnosis is surrounded with difficulty, because of the impossibility of questioning the child, the difficulty of palpating a struggling infant, the difficulty of establishing a point of greatest tenderness in a patient who cries constantly. This explains the variety of intervention which alone offers any hope.

The authors draw the following conclusions:

1. Appendicitis in the first two years of life is not so rare as has been supposed.

2. Its evolution is rapid; its prognosis very grave.

3. The only cases of cure, up to the present time, are those in which prompt operation has been done.

4. The difficulty of coming to the conclusion to operate depends on the difficulty of the diagnosis. Hence it is valuable to collect and publish all such cases.—*Rev. de Chirurgie,* Oct., 1906.

OBSTETRICS.

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LABOR AFTER VAGINAL CAESAREAN SECTION AND VAGINAL FIXATION.

Westphal denies that vaginal Cæsarean section or vaginal fixation of the uterus, if performed in accordance with recent methods, necessarily complicates subsequent labor. Vaginal Cæsarean section, he holds, compares favorably with rapid delivery with the aid of Bossi's dilator. The latter operation exposes to accidental lesions which may be followed by extensive unyielding scars.

In two cases operated upon after the later method of Dührrsen, subsequent labors were entirely normal. Several Cæsarean sections reported by von Bardleben, Hammerschlag and by himself were attended with only insignificant complications in confinement, or, with none at all.

To unfavorable criticism of vaginal as compared with abdominal Cæsarean section he replies that even after the latter operation, conditions likely to complicate subsequent confinements are sometimes observed.

Vaginal fixation by the old method of Mackenrodt he grants may lead to firm fibrous union between the corpus uteri and the vagina and to dystocia, and he cites an instance in point. No such results are likely to ensue in vaginal fixation properly performed.

Westphal had published a case of eclampsia in a iii-para of 23 years which he had treated successfully by vaginal Cæsarean section. Pofuse hemorrhage occured after expulsion of the placenta, which necessitated packing the uterus. Because of exhaustion following the hemorrhage and of cardiac complications the wound had to be closed hurriedly and imperfectly. The wound healed in part by granulation. Four months later the woman presented herself with general œdema and albuminuria. She was found two and a half months pregnant. She miscarried at the end of the third month in consequence, he believed, of the nephritis, not of the operation. Some montths after the Cæsarean section she became pregnant again. This pregnancy ran a normal course and the woman was delivered at term after an easy labor.

The author holds, with Olshausen, that severe eclampsia in which there are no indications of beginning labor or in which labor has only just begun is best dealt with by abdominal or vaginal Cæsarean section.—*Zentralbl. f. Gyn.,* No. 29, 1906.

CONCERNING LUMBAR PUNCTURE IN ECLAMPSIA.

In the *Zentralbl. f. Gyn.,* No. 22, Thies reports fourteen cases in which lumbar puncture had been practised in Zweifel's clinic. Except to a limited extent no practical result was obtained. The coma was apparently not so deep but no constant effect was observed on the number of convulsions.

Thies found, as other observers had done, that in eclamptic women the pressure in the subarachnoidal space estimated by Quincke's apparatus was constantly increased. In seven cases it ranged from 150 to 200 mm., in one it varied between 210 and 390 mm., in another the pressure rose to 600 mm. during an interval between paroxysms; in four others it fluctuated between 250 and 300 mm., the normal pressure being 100 to 120 mm.

In fourteen women who had died of puerperal eclampsia histological examinations were made at the neurological institute of the Vienna University. Marked alterations in the nerve structures were found, in the cell plasm, and also in the cell nucleus. This was true not only of the spinal cord but also of the cerebral motor nerves, and what is of special importance, in the cells and nuclei of the respiratory center.

In three of Thies' cases respiration just before death gradually became intermittent without assuming the Cheyne-Stokes type, and ceased altogether with no evidence of pulmonary œdema, which is the usual cause of death in eclampsia. Artificial respiration and respiratory stimulants were of no avail. Thies thought the puncture was a factor in the fatal issue.

Pollack observes that the quantity of the subarachnoidal fluid withdrawn was too small to have reduced the pressure below the normal and that the lumbar puncture could not alone account for the result. He thinks it more probable that the deaths ensued from degenerative changes in the respiratory nerves; that the influence of these degenerations was too great to be successfully combatted by lowering the cerebrospinal pressure.

The belief formerly entertained that the respiratory failure is the direct result of the convulsions and the coma is no longer tenable. The essential cause of the respiratory symptoms is rather the alterations in the respiratory nerve cells. The blood becomes overcharged with CO_2 and this may happen in eclampsia without convulsions.

Whether the changes in the nerve cells are due to an as yet unknown toxin or to the high pressure cannot at present be determined. Possibly both these causes are concerned.— Emil Pollak: *Zntralbl. f. Gyn.,* No. 31, 1906.

ABSORPTION OF FIBROID TUMOR DURING PREGNANCY.

McArthur reports a case in which a fibromyoma of the uterus was believed to have undergone absorption in course of utero-gestation. The woman was 30 years of age and was four months pregnant with her fourth child. Since the birth of her youngest child, three years before, she had not been well. An attack of severe pain and rigors led to examination. A mass was found in the left broad ligament which was believed to contain pus. Explorative incision revealed a fibroid tumor in the left broad ligament springing from the lower uterine segment and the cervix. The case was allowed to go to term to be then delivered by Cæsarean section. At labor the tumor had wholly disappeared, and the woman was delivered *per vias naturales* of a seven pound child.—*Intercolonial Medical Journal of Australia,* July 20, 1906.

HYPEREMESIS GRAVIDARUM.

O. Tuszkai refers true hyperemesis gravidarum to irritation of the perimetrium, due to overstretching and to consequent improper nutrition of the peritoneal coat. The doctrine of peritoneal irritation as a cause of the vomiting he thinks is rational since the reflex paths are simple and direct. That excessive vomiting is not always present in large pregnant uteri, such as those of multiple gestation and hydramnios, he explains by the assumption that the elasticity of

the peritoneum differs in different cases. That it ocurs most commonly in the first half and seldom in the latter half of pregnancy he accounts for by the fact that the uterus increases tenfold in the first four and a half months and only doubles its size in the remaining period.

Consistently with this theory it is assumed that an antecedent metritis or peritonitis may be a predisposing factor.

Distinction must be made between the vomiting of pregnancy and vomiting during pregnancy. The former is exceedingly rare. Nonspecific vomiting may ensue from toxemia of intestinal origin, affections of the stomach, meningitis, peritonitis and other organic diseases.

Williams' views with reference to the value of the ammonia coefficient the author rejects. In two cases under his observation the ammonia coefficient was estimated. In one the coefficient was 4.1 per cent., in the other it was high, but did not fall after the vomiting had ceased.

Diagnostic evidence of specific hyperemesis in pregnancy is undue sensitiveness of the peritoneal covering of the uterus as revealed by bimanual examination.

Treatment consists of local applications of heat or cold, rest and the free use of opium. The pregnancy is terminated if these measures fail. —*Berlin Klin.*, August, 1906.

GYNECOLOGY.

EDITED BY

SAMUEL W. BRICKNER, M.D.,
Adjunct Gynecologist, Mount Sinai Hospital, New York.

KRAUROSIS VULVÆ.

Jayle contributes an interesting paper on Kraurosis and contrasts it with leucoplacia of the vulva. He states that no specific anatomical lesion is to be found in cases of kraurosis; the disease represents a clinical syndrome, which is the expression of different causative factors which tend to produce the appearances characteristic of the disease: the retractile or contractile sclerosis of the tissues about the muco-cutaneous borders of the vulva—especially the labia minora—of the clitoris, and of the introitius. Kraurosis is not synonymous with leucoplacia, they may both exist simultaneously, or the former may precede or follow the latter. The kraurosis of Breisky (who first described the condition), Jayle calls "white" or "leucoplastic" kraurosis. When the disease is accompanied by inflammatory conditions, the author calls it "red" kraurosis, which includes the vascular or hyperæmic form and the follicular variety. When the condition appears after castration, Jayle gives it the name "post-operative" kraurosis. It appears that the lesion is sometimes seen in women suffering from sclerosis of the ovaries, and the senile and presenile forms of kraurosis apparently are connected with these ovarian changes or diseases.

About ten per cent. of all published cases of leucoplastic kraurosis are complicated by carcinoma, although the post-operative form does not appear to favor malignant degeneration. The senile or presenile variety sometimes accompanies or is accompanied by cancerous disease.

CALCIFICATION OF FIBROID TUMORS.

Greenbaum discusses the clinical aspects and the diagnosis of calcification of fibroid tumors of the uterus. The diagnosis may be facilitated by the passage of concrements of lime. It is made probable by the extremely hard consistency of the tumor, upon the age of the patient—which is usually at or beyond the menopause—and by the symptoms of pressure upon the bladder and intestines. There is often an increase of pain without increase in the size of the tumor. Metrorrhagia is not common; but these tumors are unusually susceptible to infection, and, when infected, cause a putrid and exceedingly offensive discharge. —*Archiv für Gynaekologie*, vol. 80, Bd. I.

THE OVARY OF THE NEW BORN AND OF CHILDREN.

Runge has examined fifty ovaries of newborn infants and of young girls. In full term infants he was able to recognize a proliferation of the follicles. In the first year of life, the growing follicles attain a decided size; minute cysts are occasionally seen, and sometimes corpora albicantia are found. In the second year of life, the follicles are found still further developed, some of them containing ovula of a diameter as great as 135 micra, and showing other signs of ripeness of the ovule. In general, all ovaries at this age contain typical follicular cysts and corpora albicantia. In the third year, still further progress toward the adult type is noted. The promordial follicles become diminished in number, and the stroma takes on the adult appearance. With advancing years, the changes take place in corresponding degree: the whole appearance of the ovary assumes more and more that of the adult being, only of smaller size. It follows from these investigations that the growth and ripeness of the follicles in general in the ovaries of the newly born and of children is a physiological procedure. All these processes, usually supposed to take place at or just before puberty, in reality appear normally and in chronological and progressive order one after the other in the fetus, the newborn infant and the child in the first years of life.—*Archiv für Gynaekologie*, vol. 80, Bd. I.

DERMOID CYST OF UNCERTAIN ORIGIN.

Czyzewicz demonstrated at the Lemberg Gynecological Society the right appendages removed by laparotomy. There was a dermoid cyst of the ovary, and a second dermoid cyst was found attached to the posterior layer of the broad ligament which was not connected

with either the tube or the ovary. It may have arisen from the parovarium, from an ovarian rudiment of a second ovary, or possibly from the broad ligament itself. The origin of extra-ovarian cysts of this kind has not been determined, although these growths are very rare.—*Zentralblatt für Gynaekologie,* November 17, 1906, p. 1283.

New Books.

Atlas and Text-Book of Human Anatomy. By Johannes Sobotta, Professor of Anatomy in the University of Würzburg. Edited by J. Playfair McMurrich, A.M., Ph.D. Vol. I. Bones, Ligaments, Joints and Muscles. Philadelphia, W. B. Saunders Company, 1906.

This work, in the German editions, has the atlas and the text in different volumes. The English edition, published by Saunders, combines the two, and intersperses the pictures with the appropriate text descriptions. As it is intended mainly for the use of the student in his dissections, this gives a much more handy work. A good atlas is a great help, but most of these have been so expensive as to be beyond the reach of the average student. The expense of this work has been kept down by the use of multicolor lithography and the half-tone process. The result has been plates of great beauty. Practically all of the pictures have been made from preparations and dissections made by the author. The atlas is therefore accurate, and the pictures, especially of the muscles, lifelike and natural.

The descriptive part of anatomy has been learned only when one can call up a mental picture of the parts; and descriptions of parts are of little help compared with the great value to be derived from dissections and accurate illustrations. This atlas helps to fix the anatomical picture by reproducing for the student what his dissections have shown and should show.

The translation of the text from the German has been well done by Dr. W. Hearsey Thomas. The nomenclature employed is that of the Basel Committee.

This first volume is particularly adapted to dissection work.

Indications for Operation in Disease of the Internal Organs. By Prof. Hermann Schlesinger, M.D.,Extraordinary Professor of Medicine in the University of Vienna. Translation by Keith W. Monsarrat, M.B., F.R.C.S. Ed. New York, E. B. Treat & Co. 1906.

This is a unique book. It is by a clinician of large experience. The author takes up systematically the diseases of each organ or part which sometimes requires to be dealt with surgically. First is described briefly the etiology, pathology and clinical course of the disease; then the differential diagnosis; and finally the indications for operation. The operation and the operative technique are not described. It is distinctly a book for physicians, and gives a very clear view of the surgical side of cases which begin with medical indications.

The author shows a thorough familiarity with the possibilities of surgery. The references are plentiful, and not open to the criticism that they are chiefly continental, and, therefore, surgically provincial. Concerning appendicitis, the author naively says that the mortality among cases not operated upon varies from 6 to 30 per cent. "By different arrangements of figures the surgeons seem to arrive at the high percentages, the physicians at the low percentages!" His discussion of indications for operation in this disease is eminently sane and sound.

This book will be a great aid to medical men not in hospital practice to arrive at an independent opinion on the advisability of operation in cases of internal disease. The great value of this work hangs upon the fact that it is written by a physician of enormous clinical experience who has drawn upon his own observations for his conclusions, and who is in full sympathy with the standpoint of the surgeon in his efforts to cure diseases.

This book should be in the hands of every general practitioner. If there is any reproach due to him it is that he defers surgical treatment too late; and this book will go a long way in helping him arrive at a conclusion.

A Text-Book of Human Physiology. By Dr. Robert Tigerstedt. New York, D. Appleton & Company, 1906.

This work, which since 1897 has been a standard text-book in Germany, has been translated and made accessible to American students by John R. Murlin, of New York. The author of this book, for many years professor of physiology in Helsingfors, is one of the few practical physiologists who have written text-books. He does not attempt to add the subject of histology to his text, as is so commonly done, nor does he attempt to go far into chemistry, but leaves these to the anatomist and chemist.

The methods of physiological observation are described in an introductory chapter. The author then takes up the cell and its vital phenomena, and gives an admirably clear chapter on this subject. The physiology of metabolism and nutrition are then described. Following this come the blood and the circulation. In this latter subject Tigerstedt is recognized as one of the greatest authorities. Digestion and absorption are chapters of great clearness. The physiology of respiration has its salient points presented. Chapters which are noteworthy as beng more definite and authoritative than usually are found, are those on the lymph and its movements, the influence of the organs on one another, the final decomposition of food-stuffs in the body, the excretions and animal heat and its regulation. The chapter on the functions of muscles closes with a section on the reciprocal relations between the muscles and other organs of the body. The sensations in general and each of the special senses have chapters. The other chapters of importance are on the physiology of the nerve cell and of the spinal cord, the physiology of the brain-stem, physiology of the cerebrum physiology of the special nerves, and reproduction and growth.

This work presents the modern physiology as based upon the observations of the author. It is not only didactic and scientific, but it is written in such an attractive style that the study of the wonders of physiology is made most fascinating. Such a book as this should be studied, not by the medical student alone, but it should be made a part of the study of every person who wishes to lay claim to education; and we have no hesitancy in expressing the belief that a fundamental and fairly complete knowledge of physiology will be required of all pupils in the higher schools in the not very distant future.

International Clinics. Edited by A. O. J. Kelly, A.M., M.D., Philadelphia. Vols. I, II and III; Sixteenth Series. J. B. Lippincott Company, 1906.

This work has been reviewed in these pages, and is so well known that little need be said of these three last volumes. They maintain the high character of scientific and literary excellence which the previous volumes have displayed. Vol. I is divided into sections, devoted respectively to Treatment, Medicine, Surgery, Obstetrics and Gynecology, Pathology, and the Progress of Medicine during 1905. Vol. II adds sections on Pediatrics, Neurology and Laryngology. Vol. III contains sections on Rhinology and Otology, not found in the others.

Studies in the Psychology of Sex. Erotic Symbolism. By Havelock Ellis. F. A. Davis Company, Philadelphia, 1906.

This volume is devoted to the study and revelation of the psychology of sex as manifested in erotic symbolism, the mechanism of detrinescence, and the psychic state in pregnancy.

This book is dedicated to the proposition that, the

one physiological act in which two individuals are lifted out of all ends that center in self and become the instrument of those higher forces which fashion the species, can never be an act to be slurred over as trivial or unworthy of study.

THE TECHNIC OF OPERATIONS UPON THE INTESTINES AND STOMACH. By ALFRED H. GOULD, M.D., of Boston, Mass. Philadelphia, W. B. Saunders Company, 1906.

This book describes by text and pictures the technique of operations upon the intestines and stomach. In fact the illustrations are so good that one scarcely needs the text to elucidate the steps of the operations described. There are some hundred and ninety, mostly original, illustrations. Several are in colors, and the colored anatomical plates are from Sobotta's Atlas of Anatomy.

The repair of intestinal wounds embraces the accepted operative procedures. A valuable and much needed chapter is on suture materials, needles, tying knots, sutures, and clamps. A chapter is given to the anatomy of the intestine. The author then describes operations upon the intestine and operations upon the stomach. The operations described are those of which modern surgery has approved and which are in constant use. They are the operations which the author recommends.

The work represents the best surgical knowledge and skill, and merits a wide circulation.

A TREATISE ON THE MOTOR APPARATUS OF THE EYES. By GEORGE T. STEVENS, M.D., Ph.D. F. A. Davis Company, Philadelphia, 1906.

This book embraces anomalies of the ocular adjustments and their treatment, and enters into the anatomy and physiology of the eye muscles and their accessories. The work is a sequel to that by the same author on "Functional Nervous Diseases." Both of these works contend that difficulties of adjustments of the eyes are a source of nervous trouble, and more frequently than other conditions constitute a neuropathic tendency. To Stevens belongs the credit of first having enunciated this proposition; and the wide-spread acceptance which has been accorded it is testified to by the important place it has taken in the literature of medicine.

This book is divided into parts devoted to the anatomy of the motor muscles of the eyes and of the parts accessory to them, to the physiology of the eye, to anomalous conditions of the motor muscles of the eyes consistent with the physiological state, and to anomalous conditions of the motor apparatus of the eyes not consistent with the physiological state. It is illustrated with one hundred and eighty-four engravings.

An interesting historical introduction throws some light upon the work and character of John Taylor, "The Chevalier," a notorious charlatan of the eighteenth century, presumably the inventor of the operation for squint, and of whom Samuel Johnson said: "Taylor was the most ignorant man I ever knew, but sprightly. He was an example of how far impudence could carry ignorance." The scientific men who advanced this branch of ophthalmology are given due credit, and the work contains much of historic interest.

A most important feature of the work is in reference to the causal relation of anomalies of the eye muscles to the position of the head and body and to the general health. The author calls attention to the class of boys and girls who habitually throw their forehead far in advance and retract the chin upon the breast. Their shoulders bend with their heads and they stand and sit in a round-shouldered position. He says that if these young people are examined with the tropometer it will be found they all have the eyes adjusted for a plane much higher than the horizon. "It is often the penalty for a head in which the process of evolution has carried the axis of the orbits too far from the original low plane of the distant ancestors of these young persons." He says that this pose can be changed by a slight relaxation of the superior recti muscles, or by a correction of the inclination. When this is done the chin will lift as if by magic. He calls attention to the fact that this is the attitude of many consumptives, and justly argues that if the eye defect had been corrected, the restrictions of breathing due to faulty position would not have invited the tubercle bacillus.

This book contains some handsome colored plates from drawings by the author. It is written in an admirable style; and displays a high degree of scholarship and a vast amount of experience and observation.

Correspondence.

THE SINGLE BOARD BILL.

EDITOR NEW YORK STATE JOURNAL OF MEDICINE:

Year after year the medical profession of New York has been called upon to oppose the passage of laws creating State Examining Boards in Osteopathy, Dermapathy, Optometry, and so on.

Year after year we have succeeded in convincing the Legislature that the passage of such laws would be unwise, but in answer to the inquiries of Senators and Assemblymen, "What are you going to do with these people who besiege us each year?" we have answered, "Let them comply with the present law and then practice any method they choose."

Then has come the second pertinent query: "The homeopaths have a separate board; why should not the osteopaths be granted the same privilege if they will comply with all the requirements excepting treatment?" As the result of all this a bill has been drawn up which is endorsed by the State Department of Education and many leading members of the Legislature accurately defining the practice of medicine and providing for a single examining board, before which all who desire to practice the healing art must come and pass a common examination, eliminating the subject of practice, assuming that all who have the other necessary qualifications will be able to practice intelligently the method which seems to be indicated in the cases they meet.

It is not expected that the enactment of this law is going to bring about an immediate levelling of all the barriers now existing between allopathic, homeopathic, and other "pathic" physicians, although doubtless that will be the ultimate result. Nor will it prevent the demands in the future of peculiar classes desiring separate recognition for commercial and other reasons. It will, however, place the Legislature in a position to say when future efforts to secure class legislation along medical lines are made that the State of New York recognizes only the ordinary educated physician, and the method of practice is something the individual physician must determine for himself. It will place medical practice on a higher plane than has heretofore been accorded it, and it will accomplish what our present law was designed for and has failed to do, namely: properly protect the people of the State of New York from incompetent physicians.

Will you please publish this letter in full in your next issue requesting your readers to write their representatives in the Legislature at once urging the defeat of osteopathy, optometry, and all similar bills, and the passage of the Single Board Bill, which is Senate Bill No 154; Assembly Bill No. 160, and to use these numbers when writing.

FRANK VAN FLEET, M.D.,
Chairman Committee on Legislation of the Medical Society of the County of New York.

The day must come when the suppression of the gonococcus shall rank in sanitary importance with the destruction of the mosquito; when the culture beds of the "red light districts" shall be looked after as carefully as the drainage of stagnant and polluted waters.

—*Jour. Am. Med. Assoc.* xlvii, 23.

County Societies.

COLUMBIA COUNTY MEDICAL SOCIETY.

At a Special Meeting of the Society, held January 26, at Hudson, N. Y., the following Resolutions were adopted:

Whereas, Many of the life insurance companies have notified their medical examiners of reduction of exam ining fee from $5 to $3; and

Whereas, We, as physicians, realizing the responsibility incident to proper examination of the individual, believe such reduction to be unjust; therefore, be it—

Resolved, That the Columbia County Medical Society, and the medical profession in sympathy with them, in session assembled, do hereby declare such reduction to be unjust, and respectfully request that no physician legally authorized to practice medicine in New York State accept such reduction of fee; and further, that any physician accepting such reduction be guilty of a breach of professional courtesy.

Resolved, That it is the sense of this Society that hereafter in each examination for life insurance in which urine analysis is required the minimum fee shall be $5.

Resolved, That the several component societies forming the State Association be requested to adopt these resolutions.

That the above rates shall not apply to industrial medical inspections, without urinary analysis, for amounts less than $1,000.

That no member of this Society enter into any contract or agreement with any corporation, society, association, company or individual, to examine applicants for insurance for any stated salary or lump sum, thereby evading the spirit and instinct of the foregoing resolutions.

That the payment of all fees shall be authorized by the home office of the society or corporation to which such application is made, and under no circumstances shall an examiner receive or accept any part of this fee from an agent or any other person or corporation, unless the full fee be paid by authority of the home office.

That each member of this Society pledge himself or herself, in case a fellow-member be removed from the position of examiner for any corporation or society solely because of this action of the medical profession, that he or she will not accept an appointment from such corporation or society as examiner, nor make any examination for same in New York State.

That each member of this Society bind himself or herself, by a pledge to be presented by him or her to the Secretary, to abide by these resolutions.

That these resolutions be printed in the New York State Journal of Medicine, and a copy forwarded to *The Journal* of the American Medical Association.

MEDICAL SOCIETY OF THE COUNTY OF ERIE.

A special meeting of the Medical Society of the County of Erie was held at the University Club, Buffalo, N. Y., February 19, 1907, for the purpose of considering the bill creating a single State Board of Medical Examiners. After a discussion of the bill it was moved by Dr. Hubbell, seconded by Dr. Lytle, and

Resolved, That the Medical Society of the County of Erie is unanimously in favor of the enactment of Senate Bill No. 154 and Assembly Bill No. 160, which provides a single Examining Board for the licensing of practitioners of medicine in the State of New York.

The resolution was unanimously adopted.

On motion of Dr. Krauss, the Secretary was directed to send a typewritten copy of this resolution, by special delivery, to every member of the Public Health Committee of the Senate and Assembly.

On motion of Drs. Hubbell and Benedict, Dr. Edward Clark and Dr. William C. Krauss were appointed delegates to represent this Society at the hearing in Albany. Dr. A. A. Hubbell and Dr. F. E. Fronczak were appointed alternates. On motion of Dr. Bennett, it was decided that the actual expenses of the delegates be paid by the Society.

MEDICAL SOCIETY OF THE COUNTY OF KINGS.

Stated Meeting, February 19, 1907.

Scientific Program.

1. "Medicine, Education and Social Work: Their Necessary Relations," by Richard C. Cabot, M.D., of Boston, Mass.

2. "On the Treatment of Chronic Heart Diseases," by Theodor Schott, M.D., of Nauheim, Germany.

Section on Pediatrics.
February 15, 1907.

Program.

"The Province of the Pediatrist in Diseases of the Eye," Henry Mitchell Smith, M.D.

"The Care of the Ear in Children," Burnett C. Collins, M.D.

"Some Phases of Nevous Diseases in Children," Frederick Tilney, M.D.

Discussion by Drs. Henry A. Fairbairn, William N. Belcher and LeGrand Kerr.

Section on General Medicine.

Program.

1. "Presentation of Clinical Histories, for Discussion," "Aortic Regurgitation, with Clinical Findings, Pulse Tracings, Blood Pressure, Etc.," Dr. J. A. Longmore.

2. "The Fundamental Principles of Immunity," by Dr. J. M. Vancott.

Discussion by Dr. E. H. Bartley.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, Friday Evening, December 28, 1906.

Scientific Session.

I. "Notes on the Urine in Early Life," by Henry D. Chapin, M.D.

II. "Significance of Albumin and Casts in the Urine of Children," by Frederic Sondern, M.D.

III. "The Urine in the Infectious Diseases," by Floyd M. Crandall, M.D.

IV. "The Urine in Pregnancy," by Dr. J. Clifton Edgar.

Regular Meeting, January 30, 1907.

Scientific Session.

"Presentation of a Specimen," by Eden V. Delphy, M.D.

"The Medical Staff and Its Functions: A Study in Hospital Organization," S. S. Goldwater, M.D.

Discussion.

a. "The Medical Staff in Relation to the Needs of the Patient," Dr. A. Alexander Smith, Dr. Wm. P. Northrup, Dr. Geo. E. Brewer, Dr. S. Lloyd.

b. "The Medical Staff in Relation to Medical Education," Dr. Samuel W. Lambert, Dr. Egbert LeFevre, Dr. William M. Polk.

c. "The Medical Staff in Relation to Hospital Economy," Dr. A. G. Gerster.

d. "The Medical Staff in Relation to the Rights of Its Members," Mr. Leo. Arnstein.

MEDICAL SOCIETY OF THE COUNTY OF RENSSELAER.

The Annual Meeting was held at Troy, N. Y., Dec. 11, 1906. The following officers were elected for 1907:

President, Dr. John B. Harvie.
Vice-President, Dr. Emmott Howd.
Treasurer, Dr. R. Brockway Bontecou.
Secretary, Dr. H. W. Carey.
Delegate Third District Branch, Dr. Hiram Elliot.
Delegates State Society, Dr. C. E. Nichols, Dr. C. Howard Travell.
Censors, Dr. C. B. Sprague, and Dr. J. A. Barnes.

SARATOGA MEDICAL SOCIETY.

Regular meeting February 1, at Saratoga Springs, N. Y.

Program.

"Malnutrition in Children," Dr. M. E. VanAerum.

Discussion, opened by Dr. Dudley R. Kathan, Corinth, N. Y.

"Infant Feeding," Dr. F. J. Resseguie.

Discussion, opened by Dr. T. F. Bullard, Schuylerville, N. Y.

REGULAR MEETING, March 1, 1907.

Program.

Symposium: Influenza, "La Grippe."

1. "Etiology and Pathology," by Dr. H. R. Bently.
2. "Symptoms and Diagnosis," by Dr. M. E. Van Aernem.
3. "Complications," by Dr. T. J. Leonard.
4. Treatment, by Dr. M. E. Varney.

Discussion: Drs. H. L. Loop, Cornthwaite, G. Scott Towne, J. B. Ledlie.

Obituaries.

DR. LEROY M. YALE.

At a regular meeting of the Society of the Alumni of City (Charity) Hospital, held on October 10, 1906, unanimous action was taken in executive session directing the Secretary to draw up a resolution embodying the deep regret of the Society at the death of Leroy M. Yale, A.B., A.M., M.D., one of its oldest and most esteemed members.

Dr. Yale was distinguished by the unusually high character of his work, by his contributions to literature, and by his unselfish devotion to his duties. He had by his genial comradeship and by loyalty to his associates endeared himself to all who knew him; therefore be it

Resolved, That we extend to the bereaved family our heartfelt sympathy; and be it further

Resolved, That a copy of these resolutions be sent to the family and also be published in the medical press.

DR. CHARLES WILMOT TOWNSEND.

At a regular meeting of the medical staff of the S. R. Smith Infirmary, held February 6, 1907, the following resolutions were adopted:

WHEREAS, Death by the cruel hand of the assassin has suddenly taken from our midst our friend and coworker, Dr. Charles Wilmot Townsend, in the vigor and prime of manhood and fulness of his professional career;

Resolved, That we recognize in Dr. Townsend a physician of high rank, distinguished for the unusually good quality of his work, his unselfish devotion to duty, and genial fellowship, which traits not only endeared him to us, his colleagues, but to a multitude of devoted and admiring friends. Ties of intimacy that bound most of us to the deceased make his death a subject of personal loss and bereavement;

Resolved, That words cannot adequately express our sorrow at the loss of such a man, nor our detestation of the dastardly act that snatched him from us. He filled so large a place in the affairs of the Infirmary that the loss to this institution seems well-nigh irreparable. The memory of his high aims and ideals will ever remain with us as an incentive to better work;

Resolved, That to the stricken wife and fatherless children we extend our deepest sympathy and condolence; that these resolutions be spread upon the minutes of this meeting and a copy, suitably engrossed, be forwarded to the bereaved family

Deaths.

HENRY MARSHALL BOURNE, M.D., died at his home in Corning, N. Y., from chronic nephritis, October 24; aged 54 years.

WILLIAM J. BRUNNER, M.D., died suddenly of heart disease in New York City, November 9.

CLINTON COLGROVE, M.D., died in Holland, N. Y., October 19; aged 80 years.

ARNON LYON COMSTOCK, M.D., died in Ilion, N. Y., October 18; aged 26 years. Death was due to pulumonary tuberculosis.

L. W. CORNWELL, M.D., died in Alden, N. Y., October 18; aged 64 years.

FRANK CORTAN, M.D., died in Brooklyn, N. Y., October 17; aged 50 years.

E. HOWE DAVIS, M.D., died in Elmira, N. Y., November 3; aged 88 years.

H. H. RODMAN, M.D., formerly of New York City, died in Buffalo, on November 12.

JOHN J. ROONEY, M.D., of Brooklyn, died on November 24.

WILLIAM STEWARD, M.D., an active worker in the Brooklyn City Mission, and a graduate of Bellevue Hospital, died December 24.

JOHN HENRY TRENT, M.D., born in the Isle of Wight, died in Brooklyn, on December 4; aged 60 years.

HERMAN J. ABEL, M.D., died at his home at Honeoye, N. Y., January 30, from tuberculosis; aged 36 years.

WILLIAM E. ARD, M.D., a practitioner of Westchester, N. Y., died in New York City January 24th after an illness of two years; aged 40 years.

ROBERT BELL, M.D., died in Monteray, N. Y., on Saturday, January 12th; aged 90 years.

EDWARD J. BRYANT, M.D., of New York City, died on January 8th; aged 39 years. For several years he had been connected with the Willard Parker Hospital.

FRANK H. DE CAMP, M. D., died in Elmira, N. Y., December 22d.

ELSNER CHRISTIAN GUNTHER, M.D., of New York City, died January 31st; aged 42 years.

QUINCY ADAMS HOLLISTER, M.D., died in Mount Vernon, N. Y., February 10th; aged 69 years.

SAMUEL B. IRWIN, M.D., died in West Hebron, N. Y., December 16th; aged 64 years.

J. F. KRUG, M.D., died in Buffalo, N. Y., Monday, December 31; aged 56 years.

HENRY KOST, M.D., of New York, died January 12th; aged 76 years. He served in the German Army during the Crimean War.

JESSE B. LUNG, M.D., died at his home in Brooklyn, February 9th, after a short illness; aged 71 years.

J. D. MONTMARQUET, M.D., died in Cohoes, N. Y., Monday, December 17th.

AUGUSTUS A. MOLONY, M.D., died at his home in New York City from heart disease January 31st; aged 59 years.

ALFONS MULLER, M.D., of New York, died January 9th; aged 45 years. Although suffering from pneumonia, he was attending to his practice two hours before his death.

OLIVE F. MCCUNE, M.D., of Brooklyn, died January 4th in Binghamton, N. Y.; aged 78 years.

F. B. Ryan, M. D., died in Moravia, N. Y., December 18th, of appendicitis.

ARNOT SPENCE, M.D., Major and Surgeon of the Ninth Regiment N. Y. National Guard, died at his home in New York City January 26th; aged 43 years.

FRANCIS L. STONE, M.D., at one time President of the Genesee County Medical Society, died at his home in Le Roy, January 22d; aged 72 years.

CHARLES WILMOT TOWNSEND, M.D., was shot and fatally wounded at his home in New Brighton, Staten Island, January 26th; aged 40 years.

DAVID B. WARD, M.D., City Bacteriologist, Poughkeepsie, N. Y., died in that city January 24th; aged 53 years.

NEW YORK STATE JOURNAL OF MEDICINE

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Address

TO THE MEDICAL SOCIETY OF THE STATE OF NEW YORK.*

By JOSEPH D. BRYANT, M.D.,

PRESIDENT OF THE SOCIETY.

Fellow Members of the Medical Society of the State of New York:

AGAIN it has become my duty and pleasure to address you at this the opening of the session devoted to scientific work. One year ago the constructive duties of the *ad interim* House of Delegates were not completed, therefore in accordance with a provision of the joint agreement an extension of time for further labor in this regard was unanimously granted. Now I am gratified to be able to announce that the duties of the *ad interim* House of Delegates are completed and that the body itself no longer has existence. It has fulfilled its obligations to the cause that gave it birth, and like autumn leaves paid its vital toll to the inexorable law of completed duty. The creative and protective responsibilities of the late *ad interim* House of Delegates is now vested in the representatives of your own choice who this day have been elected in due form, and made the custodians of the affairs of the society, for the ensuing year.

I congratulate you on the auspicious beginning of the new organization and earnestly admonish you to maintain its integrity with tireless zeal. Select from year to year as your representatives in the House of Delegates men of conservative character, those who are prompted by disinterested motives and are unalterable in wise purposes. Avoid the selection of those whose self-seeking inclinations constitute the reverse of the virtues of trustworthy servants, as you would a withering pestilence. A year ago I said to you, and I now repeat: "The medical profession of the State can now take hold with a firm confident grasp in the support of wholesome, public-spirited propositions and of medical advance, with the full consciousness of the fact, that their united desire will constitute a bulwark of moral force, not to be misjudged nor indifferently considered by opposing influences. So long as the medical profession shall contribute its part to the public good, the servants of the public will heed its admonitions and respect the logic of its appeals. But when unwise personal desires and ambitions will have proselytized patriotic and disinterested effort then will the hold on public esteem be loosened and the appeals of medical men to public confidence and support will be of less avail or respectful consideration may be entirely forfeited." These expressions of a year ago, then were true, and now are true, but now they bear the force of a present organized duty that can neither be wisely deferred nor possibly gainsaid.

You may recall that one year ago Dr. Lewis S. McMurtry the then president of the American Medical Association, greeted us as follows: "I beg to extend, in behalf of the American Medical Association, a cordial greeting to you and a welcome to the councils of a united profession." My friends, in testimony of the wisdom of this invitation you should have heard the joyful welcome given to your representatives as they entered the hall of the House of Delegates in Boston last June.

These manifestations were inspiring to those who not until then had appreciated the full significance of medical union in the State on the profession at large. Their exalted sentiments should stimulate us to align ourselves on all public and beneficent professional questions so as to merit commendations of our own consciences and the hearty approval of all those of our convictions.

Since scientific labor awaits with patient expectancy the opportunity of being heard, I will not long detain you by preventive remarks. I cannot, however, omit speaking to you regarding the importance of utilizing in the advancement of scientific attainment the opportunities afforded by the forthcoming district meetings of the State Society. There are eight district organizations, and each of which will hold during the coming year a separate and independent meeting. It is to be hoped that the scientific labors of each will be so co-ordinated that the final outcome in this respect will secure finished products of a type worthy of the highest commendation in all regards. It is through fields of action of this kind that the dignity of character and re-

*Delivered at the Annual Meeting at Albany, January 29, 1907.

spectability of station of the profession can be placed and maintained upon a firm and unassailable foundation.

I am of the opinion that the scientific issues of these sessions will afford abundant opportunity for the betterment of medical conceptions, the matured products of which will find a field of profitable and comprehensive consideration at the annual meetings of the State Society. It may not be unwelcome at this time that you should be informed that the expenses of these meetings will be borne in a large degree at least, and perhaps entirely, by the State Society.

Finally, please kindly pardon me for a moment and join with me in the paying of a tribute to the memory of one whom I had known much longer and better than did most of you. We were students together in the same medical class and received our diplomas at the same time. As friends we each went forth into the professional world in different directions, and although differing not a little of late in matters of medical policy, yet we remained friends throughout. The trust and confidence begotten by the thus early and the renewed intercourse, exercised a potent influence in the final adjustment of medical union in this State. The late Dr. Ferguson was an earnest and active exponent of whatsoever cause he embraced. He was an able and fearless man and we have to thank him for having pointed out in a convincing manner early legal errors in consolidation. Also, we have to thank him for having used the full weight of his influence with his colleagues in the final adjustment of partisan differences. Dr. Ferguson was my friend and he trusted me, and because of this trust and the outcome of its influence, union of the profession of this State was moved forward apace. Therefore, my friends, let us who hope not soon to be forgotten, long remember one who was an honored member of our profession, tireless in his efforts in relieving the afflicted and dilligent to the last moment of his crippled life in beneficent thought and action for the alleviation of human suffering. While he at times differed from many of us in matters of medical policy, still, let those of us who have in the past differed from others, willingly measure Dr. Ferguson's motives of difference by the same standard of justice, which we ourselves would willingly accept.

SYMPATHY.—Sympathy more than any other quality wins the hearts and confidence of patients. The cold, calculating man, even though he be exact and skilful in his science, has never a warm welcome in the sick-room. To be only "a case," however interesting, and not a suffering fellow-being, is what a patient particularly abhors, and rightly. The physician should be hopeful and encouraging without being untruthful, flippant or insincere. He must have a keen sense of appreciation of exactly what it is that people most need in a physician. They call him when they are in pain, in trouble or in alarm. Besides physical relief, they want a certain moral support, some one to lean on, to allay their fears if they are groundless, as more often than not they are found to be.—L. E. HOLT, *Jour. A. M. A.*, xlviii, No. 10.

Original Articles.

PRACTICAL LEGISLATION FOR THE PREVENTION OF BLINDNESS FROM OPHTHALMIA NEONATORUM.*

By F. PARK LEWIS, M.D.,
BUFFALO, N. Y.

A generation has gone since Professor Crede demonstrated clinically that two drops of a two per cent. solution of nitrate of silver dropped in each eye of the child at birth, would reduce from 8.2 per cent. to .2 per cent. the number of cases of ophthalmia neonatorum occurring in several thousand births, and of this fractional number practically every one could be cured if the same treatment were used soon enough after the first manifestations of the disease. Ophthalmia neonatorum is therefore an almost absolutely preventable or curable disease. Nevertheless I have photographs in my hands of five of the twenty-two children newly registered this year at the New York State School for the Blind. The cause of the blindness of these children was ophthalmia neonatorum. I have another group of fourteen from the same school; all blind as a result of this same prventable disease. I have another of thirty-nine, blind from the same cause, out of the total number of one hundred and forty-nine in the school. Possibly some of the latter may have lost their eyes from some other form of suppurative conjunctivitis, but there is no doubt whatever that practically all of them are *unnecessarily* blind.

The reason then for this paper is its necessity. Notwithstanding all of the careful studies that have been made of ophthalmia neonaterum—notwithstanding all of the efforts that have been made to control it—children continue year after year unnecessarily, to go blind. For the four years ending in 1905 the annual proportion of blind children entering the State School of this State as pupils was twenty-five per cent. of the whole number of each new class. In 1906 the admission in the Kindergarten were rather more numerous. Twenty-six per cent. of the whole new class had been blinded because some one did not know enough or did not care enough to use the right prophylaxis and treatment. There are 39 such pupils in the school to-day out of a total of 149 children. There is probably as large a proportion in the Institution for the Blind in New York City. Heaven only knows how many more have had their lives circumscribed and their possibilities limited by corneal scars leaving defective vision and which can never be cleared away. It is not my purpose here to enter into a discussion as to the cause, of the amount or the dangers of infantile ophthalmia. All of this has been considered and reconsidered until it is well understood. We know that in each case the child comes into the world through an infected medium. If the

*Read before the Medical Society of the State of New York, January 29, 1907.

vaginal microbes are allowed to find entrance into the child's eyes and they are not gotten out again, or their virility destroyed, the infant's eyes are seriously menaced. We know that they can be gotten out and they can be destroyed, if taken early enough, and it is of little consequence whether this is accomplished by lavage with a solution of boracic acid—by instilling Crede's 2 per cent. nitrate of silver—or by one per cent. of the same silver salt. Whether the gonoccocide is argyrol or protargol—or bichloride of mercury—so that *something* be done to give the child a chance to save a possession which is often more valuable than life itself.

Nöggerath may or may not be right when he says that eight-tenths of the adult male population of New York City have at some time in their lives had gonorrhea, but the gynecologist is inclined to agree with him when he considers the large number of pus tubes that he removes as sequelæ. The pedologist is apt to agree with him when he reports, as Snow and Colton do, epidemics of infantile vulvo-vaginitis. At one time there was not a female child in the service of the former at the Buffalo General Hospital in whose secretions the gonococcus was not found.

According to the statistics gathered by Weeks, infantile ophthalmia occurs in from .50 per cent. to 2.1-2 per cent. of the births according to the figures taken. In 80 per cent. of the cases both eyes were affected while of 400 cases of ophthalmia sixty or seventy suffered permanent impairment of vision.

So much to show that notwithstanding improved methods in hospital practice the virulence of gonorrhea is in no wise abated. The mucous membrane still offers a ready culture bed, and eyes are still destroyed because proper protective measures are not taken at the right time.

Indeed, they cannot be until something further is done. Over 9,000 children were born in the city of Buffalo last year. If Week's figures hold good for that end of New York State at the lowest estimate forty-five children had gonococcic infection of the eyes, and nine of those suffered permanent impairment of vision. As a matter of fact from five to seven blind children each year enter the State School as a result of this preventable disease.

It has been demonstrated over and over again that in a large proportion of cases almost absolute prophylaxis is possible. In the relatively few cases in which the cocci escape lavage or the first installation of the drug employed, early subsequent treatment destroys them so that it is only in intra-uterine cases, or those infants of exceedingly low vitality, that the loss of an eye is ever necesary. Then what is to be done? The time has fully arrived when a scientific profession may no longer permit such fearful waste of human eyes without taking active measures to prevent it. It is the purpose of this paper briefly to emphasize four points: 1st—That the infant is entitled—as a minor—to legal protection from the danger of blindness with which he is menaced by gonococcic infection. 2—That the State is entitled to protect itself from the burden imposed of caring for those unnecessarily blind. 3d—That this can be secured only by placing the means of protection in the hands of those in attendance on the mother and child. 4th—That having been given warning of the danger and the means of its avoidance those responsible should be held strictly accountable for damage resulting from its neglect.

If the rights of person or of property of a minor child, and more especially of an infant, be put in jeopardy, the law, representing the State, takes upon itself to stand between that child and the danger with which he is threatened. His parents or guardians may not maltreat, or starve or otherwise abuse him; they may not misappropriate his estate if he have one. He is not even permitted to labor while of school age lest he be deprived of the privileges of education while still a child and lose thereby a right to which the State considers him entitled. Neither should negligence, nor indifference, nor ignorance rob him of his most precious possesion by putting out his eyes while still too helpless to protect himself. The child then is entitled as a right to protection in his weakness by the State. How can this be done? So long as half of the births are attended by partially trained midwives and many more by not over careful physicians, one thing is necessary; the widest dissemination of information as to the importance—the danger and the prevalence of infantile ophthalmia. The story must be told and repeated in plain language until the subject is fully understood by the general public. It is not enough that it be discussed in medical societies. Propaganda among the people is imperative until the mother shall demand when the attendant is neglectful, that the eyes of the infant be safeguarded. Information leaflets should be distributed on the registration of the birth certificate to both the accoucher and the mother of the new-born child. These should give warning of possible dangers—advice as to preliminary care on the part of the mother—care to be taken for the child, and the urgency of seeking medical aid should inflammation of the eyes develop. Here the excellent midwife law obtained through Howe's efforts finds its greatest value and it should be invariably enforced. These leaflets should be issued by the authority of the Health Department but should be absolutely impersonal. There should not be a suspicion even that any individual could benefit by their dissemination. If gonococcic inflammation were eliminated as a cause of blindness one-fifth of all the blind schools in the United States would be unnecessary.

The State is to be asked for $50,000.00 or $60,000.00 to build a kindergarten at Batavia be-

cause the School for the Blind is overcrowded. It will be built practically, for children who should never have been blind. The prevention of unnecessary blindness does then concern the State. It is an economic question: Which is cheaper for the State, to provide a gonococcocide and distribute it freely and gratuitously at a trifling expense, or by neglecting this simpler measure to assume a burden the extent of which no one can estimate?

While a special prophylactic should be provided by the Health Board it is not insisted that this be invariably used. In the discretion of the physician some other may be preferable. He should have the right of selection. If on every birth certificate is a statement as to the special gonococcocide employed in a very short time the records themselves will determine which is the most effective.

But—and this is the fourth point, the failure to use any means to save the child from the results of indifference—for ignorance cannot then be urged—when they are gratuitously provided and when their omission means life-long disaster should be followed by penalties that would compel by fear those to whom science and humanity could not appeal.

To accomplish the great end aimed at—the saving of a host of infants yet unborn from possible blindness—the co-operation of the public must be secured. It is not enough that papers be read in Medical Societies. It is to act!

A great movement is now under way. The President of the American Medical Association has appointed a committee consisting of one ophthalmologist, one obstetrician and one sanitarian, with the invited co-operation of a sub-committee consisting of the president and secretary of each State society with instructions to formulate and make effective the details of a plan that may give uniform legislation and definite instruction to the profession and laity concerning the prevention and treatment of this disease. That committee is already actively at work. It desires the co-operation of this Society by the appointment of the sub-committee of this State. That committee should also consist of an ophthalmologist, an obstetrician and a sanitarian. But to make this movement effective the help of the public is essential.

The prevention of unnecessary blindness with its resultant economy, the preservation of the personal rights of the infant and the protection of the public make it a concern of the State. It is urged therefore that the Governor be also asked to appoint a committee of citizens, they to co-operate with the Legislative Committee of the Society in securing such legislation and other effective action as will protect the infant wards of the State from needless blindness and the State itself from the burden which such blindness must entail.

(For discussion, see page 164.)

A PLEA FOR NEW METHODS FOR THE PREVENTION OF BLINDNESS.*

By LUCIEN HOWE, M.D.,

BUFFALO, N. Y.

Professor of Ophthalmology, University of Buffalo.

THE plan of this short paper is,—First, to show that ophthalmia of infancy is the most important cause of blindness, and what that means in cost to this State; second, that from data thus far obtained the best preventive of this disease is a 2 per cent. solution of silver nitrate (Crede); third, that recently we have had furnished to us several other silver compounds (some of these are said to have the advantages of silver nitrate without its disadvantages, most of them are probably overestimated as germicides, and concerning all of them there is a vast amount of ignorance); fourth, obstetricians, and not oculists, are the practitioners who can best decide on the value of any of these drugs as prophylactics; fifth, the plea is to obstetricians to test the value of these various compounds of silver in a large series of cases, in order to decide what superiority any one may present over silver nitrate; the plea is also to general practitioners to combine also in their efforts for the prevention of other contagious eye diseases.

In order to discuss any question relating to the prevention of blindness it is desirable to glance for a moment at its causes. These have been found to be practically the same in all countries. In order to appreciate what these are, it is worth while to glance for a moment at the statistics gathered by an examination, in 1896, of 306 children, in the two largest schools for the blind in the State of New York. A more recent, though more superficial, examination of 123 pupils at the New York State School at Batavia, in June, 1905, shows that at least the largest and most important problem remains practically the same as it was ten years ago. It is safe to say, therefore, that these causes are the same now as before. This investigation, like others, shows that the principal cause of blindness—in fact, the one which gives us about one-fifth of all the blind in these schools—is ophthalmia of infancy. This is no new observation, as I have already called attention to it in this Society. It is estimated also that there are a little over 50,000 blind in this country, and probably over 5,000 in New York State. Among these there are probably 6,500 blind from ophthalmia of infancy in the United States, or over 600 in this State. The economic importance of this statement should be

*Read before the Medical Society of the State of New York, January 29, 1907.

mentioned. An estimate published in 1898 showed that at that time the minimum cost to the State of New York was something over $58,000.00 each year because of persons made blind from ophthalmia of infancy. The cost now is undoubtedly larger than at that time.

The second point to which I would call attention is that the Crede method of using silver nitrate is, altogether, about the best means at our command for preventing ophthalmia of infancy. The figures in support of this fact need not be repeated, especially as statistic tables are seldom read and still less frequently remembered. It is instructive to present the facts by means of a diagram, drawn to a scale. The distance from above downwards to show the number of newborn children into whose eyes a given solution of a given drug was instilled, immediately after birth; the distance horizontally to show the percentage of such children in whom a distinct ophthalmia of infancy developed in spite of the use of that drug.

This diagram shows that, in 17,767 children who had no treatment, 9.2 per cent. developed ophthalmia of infancy; whereas, in 24,724 infants who did receive the Crede treatment, that disease developed in only 0.65 per cent. The diagram also shows the effect of other solutions. Among them it will be noted that 0.1 per cent. solution of sublimate proves quite as effective as silver nitrate, but it produces in general more reaction, and its poisonous qualities make it inferior to silver nitrate.

Perhaps some objector may say that he has had a large experience, and has already made up his mind on this point. Any such statement must always be counted at its value. Let us see what that value is, as compared with the collective testimony here given. Let us suppose he has two obstetric cases a week, or, roughly, a hundred cases a year, or a thousand in ten years; let us suppose that an accurate record had been kept in each case, and that as a result one-half of one per cent. developed ophthalmia of infancy. If we represent this, on the chart before us, we find that it makes hardly more than a broad line.

In the third place, I wish to call attention to the more recent silver compounds. As the use of silver nitrate, as described by Crede, is often followed by some pain, swelling and increased secretion, or occasionally by hemorrhage, it is evidently desirable to find some form of silver or other drug which is equally effective as a germicide, but which has not the disadvantages of silver nitrate. Therefore, manufacturing chemists have of late years placed these various silver salts on the market. The medical profession has grasped at them so eagerly that they were found to be enormously profitable, and their number has increased rapidly. A few practitioners of experience have spoken without hesitation in praise of some of these drugs. These statements have been spread broadcast by the manufacturers, and have been magnified by them whenever that was possible. On the other hand, we have a statement of the conservative few that silver nitrate is the best preventive of ophthalmia of infancy. As the profession in England was as much confused as we are by this question, the British Medical Association appointed on its Therapeutic Committee two eminent students of this subject, C. R. Marshall and E. F. Macleod Neave. Their report has recently been made, and is published in the *British Medical Journal* of August 18th, of last year. Their findings are shown below:

Powerfully Bactericidal.

	Percentage of Ag.
Silver fluoride	81.7
Silver nitrate	63.6
Itrol	60.8
Actol	51.5
Argentol	31.2
Ichthargan	27.1
Albargin	13.4
Largin	9.4
Novargan	7.9
Protargol	7.4
Argentamine	6.4
Argonin	3.8

Moderately Bactericidal.

	Percentage of Ag.
Nargol	9.6

Practically Without Bactericidal Action.

	Percentage of Ag.
Collargol	86.6
Argyrol	20.0

These observers say:

"The experiments show that as regards bactericidal action the various compounds investigated fall into three groups: (1) Those which are powerfully bactericidal; (2) one—nargol—much less powerfully bactericidal; (3) two—argyrol and collargol—which possess practically no bactericidal action whatever. The first group includes most of the substances investigated, namely, silver nitrate, silver fluoride, actol, itrol, argentamine, argentol, albargin, argonin, ichthargan, largin, novargan, and protargol. The bactericidal action of these in solutions containing the same percentage of combined silver is closely similar, and it is practically impossible to place them in any order of activity which would be true under all circumstances."

"As argyrol and collargol are not bactericidal, it is evident that the amount of silver which a compound may contain is no criterion of its bactericidal power. Moreover, in view of the results obtained with argyrol, it seems impossible to attribute the good effects which many clinicians have obtained with it to its bactericidal action."

Fourth, we should remember that obstetricians, and not oculists, are those who decide clinically whether any better preventive exists than silver nitrate. The former do not usually appreciate the importance of this

question, because they do not see much of the children after they have become more or less blind.

These preliminary statements were necessary in order to show the reason, indeed the urgent reason, for a plea which now can be made in a few words. This is an appeal to obstetricians to investigate, singly or collectively, the bactericidal action of these silver compounds, and also of other germicides, such as the weaker solutions of corrosive sublimate, carbolic acid, tricresol, sodium aureate, etc.

Now the important fact is that every obstetrician, whether his practice is large or small, can contribute some data to this important question. If he is in charge of a large service, at a large hospital, with trained assistants and nurses, his contribution to the subject can be proportionately large. Large contributions can also be made by a number of obstetricians, who are members, for example, of some obstetrical society, or the different members of some county society who work together; or, to paraphrase an axiom in economics, the collective experience of the many, in this respect, is larger than the individal experience of the few. The experiments can be easily made by any one who will simply take the trouble to record his cases exactly and keep his statistics honestly. So much for what can be done.

Moreover, this work ought to be done, if we are to make any progress in saving an enormous yearly cost to the State, and in saving these unfortunate children from lives of darkness and misery. This plea is made to obstetricians, that they may show the truth of the statement of Herman Cohn, one of the most prolific writers on this subject, who frequently closed the reports of his investigations by saying that "ophthalmia of infancy can be, and should be, wiped out from every civilized community."

It goes without saying that it is equally the duty of the physician of to-day to join in the crusade which is now being made against trachoma and allied contagious diseases of the eyes. To enlarge on this subject would be simply to repeat what has been said frequently. Additional polemics on this subject are useless. It is evidently the duty of the health physicians of various localities to establish such stirct regulations in regard to the detection and treatment of these cases as to make real progress in the control of these various diseases. Until that is done argument will take the place of action, and meanwhile the number of those who are unnecessarily blind will slowly, but surely, increase.

(*For discussion see page* 164.)

SYMPTOMS AND DIAGNOSIS IN THE STAPHYLOCOCCUS AND STREPTOCOCCUS JOINT INFECTIONS.*

By LUCIUS W. HOTCHKISS, M.D.,
NEW YORK.

THE acute pyogenic joint infections, due to the staphylococcus and streptococcus, form an important and interesting group of cases. As their course is rapid and generally highly destructive, a knowledge of the symptomatology and diagnosis is of the greatest importance. Most of these cases, at least in their early stages, come under the care of the family practitioner, and it is of great importance for him as well as the surgeon to be familiar with their symptoms and the methods of diagnosis.

Although most of the cases of acute pyogenic arthritis are due to a direct implantation of the micro-organisms into the joint cavity, through a punctured wound or a compound fracture involving the joint, many cases are due to infection through the blood stream, or result from the extension of an overlying inflammatory process, as an erysipelas, or a phlegmon in the adjacent tissues. All these cases call for early and accurate diagnosis as a sound basis for rational treatment.

The sero-purulent forms of synovitis, seen occasionally in the course of the acute infectious diseases, though often acute, are not as a rule so destructive, and should be differentiated from the acute pyogenic infections with which we are especially concerned.

The fact that joints which are the seat of acute articular rheumatism resemble in many features the early stages of a septic synovitis, may excuse, perhaps, some of the errors in early diagnosis, but should not condone the serious error of continuing to treat in a routine manner with salicylic acid, those acute cases of joint inflammation which are not promptly and favorably affected by it, and in which prompt incision and drainage is the clear indication.

Although the larger joints are still held as sacred territory and exploratory puncture is still deplored by many physicians, from the fear of infection which still survives as a legacy from preantiseptic days, it must be admitted that exploratory diagnostic joint puncture has as well defined a field of usefulness as exploratory laparotomy, where the diagnosis is doubtful. Many of the acute pyogenic joint infections, in their early stages at least, have symptoms in common, and only a careful bacteriological examination of the aspirated joint contents can furnish an exact diagnosis and indicate at once the proper method of treatment.

Roughly speaking, all the acute joint infections may be divided into two great groups: Those that yield promptly to salicylic acid and are clearly rheumatic, and those which do not.

*Read before the Medical Society of the State of New York, January 29, 1907.

The routine use of salicylic acid as a touchstone to differentiate the rheumatic from the non-rheumatic joint infections, is much in vogue among dispensary and hospital surgeons, and up to a certain point is a most valuable practice, but beyond this point we must look to the more exact results obtained by careful bacteriological examination of the joint exudate.

The gravity of treating an acute septic synovitis as an acute rheumatism is at once apparent, and were it not for the fact that in the acute joint inflammations the rheumatic cases were so overwhelmingly in the majority, it is highly probable that many more joints and lives would be sacrificed by routine treatment based upon insufficient diagnostic data.

Cases of acute pyogenic joint infections are not uncommon in the surgical wards of our general hospitals, and they all possess certain symptoms in common, though differing rather widely in intensity and gravity, but as a class, representing the most serious and destructive variety of joint inflammations, and all requiring prompt and efficient surgical treatment.

The symptoms are both local and general, and it is important to go carefully into the history of each case, its onset and course, and to determine if there is any coexistent disease or condition which may be a contributory factor. All have an acute onset and a peculiarly rapid and destructive course as has been detailed in preceding papers.

The intensity of the symptoms, both general and local, vary somewhat as to the joint or joints affected, as to the virulence of the infecting agent, its mode of introduction and as to whether it is distinctly a local infection, or a part of a general septicæmia.

Pain, increased heat, redness, joint distention, and obliteration of its contour, with altered position and function, are common to all.

Some forms of acute pyogenic arthritis are comparatively mild, but where the streptococcus or the staphylococcus pyogenes aureus are the infecting agents, the severest forms of arthritis are apt to be encountered. The constitutional symptoms are generally severe and consist briefly, in elevation of the temperature, rapid and feeble pulse, headache, malaisse, and sometimes delirium and coma.

A study of the blood shows a high leucocyte count, and an examination of the joint exudate which is sero-purulent or purulent, shows the characteristic organism or organisms where the infection is a mixed one.

Acute pyogenic joint infection embracing as it does the milder as well as the gravest forms of arthritis, may vary in its local symptoms from those of the metastatic joint of septicæmia, with its frequent absence of local pain, to the intense local manifestations observed in a fulminating case of acute septic arthritis, following a punctured wound of a large joint, as the hip or knee.

The acute sero-purulent forms of synovitis, not specifically due to the streptococcus or staphylococcus, as in puerperal sepsis, erysipelas, rheumatism, and some cases of acute osteomyelitis, as well as in the gonorrheal forms, and the catarrhal suppurative forms of arthritis, as described by Volkmann, should be carefully differentiated from them by a careful inquiry into the history, course and onset, and if at all in doubt by aspiration of the joint and a bacteriological study of the exudate.

Acute suppurative arthritis, due to the introduction of pus organisms through a punctured wound, or to an acute septic osteomyelitis, or to an extension from an overlying erysipelas or phlegmon, has a symptomology and course, distinctly different in many points from the cases just alluded to. The tissues about the joint are swollen and edematous, the capsule of the joint is distended, softened, infiltrated and later perforated, with the formation of abscesses and fistulæ in the neighborhood of the affected joint, or by erosion of the cartilages, spreading infection to the adjacent spongy tissue of the bones.

In ordinary joint effusions the contour of the joint is altered or lost just as when the joint is experimentally distended with fluid. If the bursæ about the joint are in direct communication with its cavity, they also may be distended and add to the alteration in shape. In the case of the knee-joint, for example, fluctuation and patellar ballottement will vary with the size of the effusion. When this is very great, the patella click is lost, and full extension is difficult or impossible. Pain may be absent or inconsiderable, and fever as a rule, is not present in cases of traumatic origin, where the joint effusion is entirely free from fibrin, although it is present as a rule in the monarticular joint infections, as rheumatism, when it corresponds, of course, to the general disease of which it is a part. High temperature in joint infections generally, when not accounted for by complications elsewhere, should arouse suspicion of pus in the joint, and if the local conditions do not promptly improve, an exploratory aspiration may not only be justifiable but imperative. The richer the joint exudate is in leucocytes, the earlier the tissues of the joint are involved, and destructive changes ensue. High fever, chills, excessive pain and tenderness, even on the slightest movement, flexion and outward rotation, as in the case of the knee, hot, glossy, reddened skin over the joint, œdema of the tissues in the neighborhood, which conceals the form of the distended capsule and renders it difficult to elicit fluctuation, except under general anesthesia, furnish a typical picture of the local phenomena which frequently obtain, in cases of acute septic arthritis of the larger joints. When perforation of the joint capsule occurs, and periarticular abscesses form, the whole extremity may be swollen. The constitutional symptoms, always severe, correspond, as a rule, to the height of the temperature. Headache, delirium, vomiting, and in the worst

cases, diarrhea, delirium and coma, usher in the fatal termination. It seems as if one need never fail to make a diagnosis before such a state is reached, for when it is reached, the diagnosis, as a rule, is utterly unavailable. Only an early recognition of the true condition in such cases of acute septic arthritis, can be of the slightest help in averting certain disaster.

Under the title of catarrhal suppuration in joints, Volkmann has described an acute form of purulent synovitis in children, of unknown origin. Many of the cases were reported before the days of bacteriological examination of joint exudates, and it is not improbable that these cases may be definitely classified later. In some of the latter cases corresponding to Volkmann's description, various pus organisms have been reported, so that while these cases may not all be due to the strepto- or staphylococcus, they all certainly belong within the class of acute pyogenic joint infections. They have also an acute onset, fever, pain, alterations in posture and joint function. There is, as a rule, only slight periarticular œdema in these cases and aspiration yields a tenacious pus, rich in fibrin. The symptoms in short are less severe than in the cases of acute pyogenic arthritis already described, and in some of them, good function has followed simple aspiration without resort to incision and drainage, which, however, is generally necessary.

The acute metastatic joint infections, seen in the course of a septicæmia, differ very markedly from cases of acute pyogenic arthritis where the pus organism has been directly introduced into the joint. Early diagnosis in these cases, however, is most important, as rapid destruction is the rule.

During the course of a septicæmia, one or more joints may become distended with a seropurulent effusion. There may be little or no pain to call attention to the joint, until it is found to be loose or dislocated. Destruction follows so rapidly on infection in these cases, and with so little local disturbance, that it should be the rule to examine the joints daily, and aspirate for diagnosis, as soon as fullness of a joint is evident, and follow this by prompt incision and drainage of the joint cavity as soon as the diagnosis is made. The symptoms differ in degree merely, in the different joints which may be the seat of acute pyogenic arthritis, and vary in severity somewhat according to the size of the articulation, as well as to the virulence of the infecting agent. The hip and knee show notable examples of the destruction and danger of these severe infections but are by no means the only joints affected. The shoulder, elbow, and wrist, the ankle, and the metatarsophalangeal joint of the great toe, as well as the smaller joints of the fingers and toes, may all be the seat of the infection, and furnish constant examples in our surgical wards.

In the hip joint, the primary synovial suppurations are to be differentiated from those secondary to foci of osteomyelitis. Primary purulent synovitis occurs in the hip, as in the other joints, in the course of the acute infectious diseases, and is due in these conditions to the specific germ of the general disease which it complicates or follows; or there may be mixed infections occasionally wherein the staphylococcus and streptococcus may play an important role, and lead to very severe and destructive joint lesions.

The purulent forms of acute coxitis, however, are more apt to follow the catarrhal type of suppuration already described, although some of these cases may prove destructive and even fatal. Acute articular rheumatism is a term still applied to various forms of acute coxitis, but it would be well to limit the term to those cases which yield distinctly to salicylic acid. König will not classify these purulent forms of acute coxitis with acute rheumatism, merely because they happen to be clinically similar at times. He points out that there may often be a hidden focus of infection behind most of these cases, as a small furuncle or a concealed diphtheria. The majority of the cases of acute primary synovial coxitis developing in early infancy have an unknown etiology. Syphilis, gonorrhea and the exanthemata can, in most cases, be definitely excluded. The effusion develops acutely, with pain, fever, swelling, and general redness of the surrounding soft parts. This is either incised or perforation occurs. The pus is viscid, the synovia deeply congested and swollen. The course of these cases is often favorable, and recovery with slightly impaired function not uncommon. Spontaneous dislocation sometimes occurs. The prognosis in short, is generally quite different from that of tubercular coxitis, from which, of course, it is to be carefully differentiated. This type corresponds to Volkmann's catarrhal form of joint suppuration. These cases occur generally in the first year of life and rarely after the fourth, according to Krause, who found streptococci in two instances where the exudate was examined. In one of my own cases the pneumococcus was found, and the course was rapid, intense, and finally fatal, through a secondary hemorrhage from an eroded femoral artery. Many of these infantile cases can undoubtedly be explained by the presence of small pus foci in the femur. In penetrating wounds of the hip where infection is introduced through a wound the picture of an intense and destructive septic arthritis is rapidly developed and here, as in the knee, the fate of the patient depends absolutely upon early diagnosis and prompt surgery.

Though the diagnosis of acute pyogenic joint infections, may often be simple, the differential diagnosis between etiologically different forms of the disease is often very difficult. It is not sufficient to diagnosticate a serous or

catarrhal synovitis, for example, but we should endeavor to find out the cause, in every case though this may necessitate the help of the bacteriologist, and, in the cases where a focus of septic osteomyelitis is suspected as a causal factor, aspiration combined with the use of the X-Ray, may be necessary to unravel the mystery. Above all, if the diagnosis is to be practical and useful in the saving of life and limb, let it be made promptly.

THE SYMPTOMATOLOGY AND DIAGNOSIS OF THE RHEUMATOID DISEASES.*

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NEARLY all, if not quite all, non-tubercular joint diseases have, at one time or another, been classed under the heading of rheumatoid arthritis. This paper will have to do with the commoner forms of non-tubercular joint diseases exclusive of the infectious group. Of such diseases we have three large classes, for which the names suggested by Dr. Goldthwait, of Boston, will be used here.

The first class to be considered is the one called atropic arthritis, more commonly known as arthritis deformans. This latter name has been so abused, and made to include so many types of disease, that it is practically worthless.

Atrophic arthritis is a slowly progressive disease, occurring in the great majority of cases in young women. It is most commonly first manifested in some of the smaller joints, usually in the proximal row of the phalangeal articulations. At first one, or at most a few joints, are affected, but slowly other joints become involved until, in many instances, every joint in the body is included in the destructive process. Such progress extends over a period of years.

The diseased joint becomes swollen owing to an increase of the synovial fluid and an infiltration of the periarticular tissues, giving the joint a spindle shape. Even at this early stage there is an atrophy of the articular cartilage. This atrophy continues until the cartilage is entirely destroyed, and the bone becomes similarly involved. The external appearance, corresponding to the later stage, is an abnormally small joint, with a depression in the skin over the joint line. With the further progress of the disease come muscular contractures, associated with partial or complete subluxation of the joint and bony ankylosis. During the active stage of this disease pain is almost constantly present, unless relieved by treatment.

In atrophic arthritis the lymphatic glands are not enlarged, the blood is singularly normal, and the urine shows nothing characteristic of the disease. X-ray negatives are valuable in differentiating this condition from certain forms of infectious anthritis where there are spindle-shaped swellings, or ankylosis, but not the characteristic atrophy.

The next class of cases has been termed hypertrophic arthritis. This type of disease was formerly called osteoarthritis. It is a slowly progressive disease, occurring commonly in both men and women, but in later life than does the atrophic type. The most common place for this disease to appear first is in the terminal row of phalangeal joints, in contradistinction to the atrophic form, which first involves the proximal row. The joints become slightly enlarged, painful and tender. The pain however is less acute than in the atrophic type, and is often absent excepting upon motion of the joints. The enlargement of the joints has not the spindle character of the atrophic form but is localized definitely near the joint line. This enlargement is due to a hypertrophy of tissue at the line where the joint cartilage and bone merge. As this process continues the newly formed tissue becomes calcified, forming what have been known as Heberden's nodes. In course of time the periphery of these nodes becomes broken down, destroying at least a portion of the joint line. An X-ray negative taken at this time will show a very irregular disorganization of bone, which can be easily differentiated from the more or less symmetrical destruction seen in the atrophic type.

Hypertrophic arthritis may occur in any joint in the body. In the feet it is often associated with flat-foot, and makes the relief of the latter condition much more difficult than is ordinarily the case. In the knee the hypertrophy comes in its characteristic place, that is, at the line of juncture of the articular cartilage and bone, on either the femur, tibia or patella, forming the so-called spurs which interfere with motions of the joint, especially with that of extreme extension.

The hip joint is where hypertrophic arthritis produces its most disabling results. Starting with the small spurs of the early stage, which produce only a slight limitation of joint motion, the process continues until large bony tuberosities are formed, which encircle the head of the femur. Coming, as they do, in this position, the nodes limit or prevent rotation, abduction and adduction of the thigh, while flexion of the thigh on the body is preserved excepting in very marked cases where there is ankylosis of the joint. When the disease affects but one hip the patient may still get about with comparative ease, but when it is bilateral the disability is great.

Associated with the formation of these nodes on the head of the femur there is frequently a rarefication of the bone forming the neck of the femur. The neck becomes shortened, and the

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angle between it and the shaft of the bone becomes more acute. This same change in the neck and in the angle may take place after injury to the hip without apparent fracture or hypertrophic process being present.

Hypertrophic arthritis of the spine differs from the same disease occurring in other joints, in that it frequently occurs in young adults, especially in men. The spurs start from the edges of the intervertebral cartilages, usually on one side of the spinal column. As they grow larger they bridge over the spaces between the cartilages and vertebrae, eventually producing an ankylosis of the vertebrae. At first the patient complains of backache, especially on stooping over. Later on come the so-called referred pains. These pains are due to pressure of the hypertrophied tissue upon the nerves as they emerge from the spinal canal. The pain occurs in the course of the nerve or nerves, which are pressed upon. Thus we get pain referred to any part of the body. Not infrequently these cases are diagnosed as intercostal neuralgia, renal or hepatic colic. Such pressure upon the lower lumbar and sacral nerves is one of the most common causes of sciatic pain.

A patient with hypertrophic arthritis of the spine walks in a guarded manner. The normal antero-posterior curves of the spine are lessened or obliterated. Forward bending is much limited, in advanced cases the spine moving as one piece. Lateral bending is limited usually much more on one side than on the other, owing to the unilateral lipping of the vertebræ.

The two conditions most likely to be confused with hypertrophic arthritis of the spine are infections arthritis of the spine and mechanical lesions of the sacro-iliac joints. In the former the lateral motions of the back are equally limited, and there are not the referred pains. In mechanical lesions of the sacro-iliac joints the body is listed to one side, and the limitations of back motions may be diminished immediately by supporting the sacio-iliac joints with lateral pressure over the thighs at the level of the great trochanters.

The last type of disease to be considered is known as chronic villous arthritis. It is not an entity by itself, but rather a result of previous disease or injury. This condition is often spoken of as the dry joint.

Whenever a joint is distended by fluid, the result of disease or injury the synovial membrane is stretched to accommodate the increased amount of fluid. When this fluid is diminished in amount the synovial membrane is thrown into folds, which become bruised by being pinched when the joint is fully flexed or extended. This internal trauma produces a further thickening of the membrane which taken on a villous formation. The villi so formed may go on to fatty or calcareous degeneration. The knee is by far the commonest location for this form of joint trouble, but other joints are sometimes involved.

There are no general symptoms dependent upon chronic villous arthritis. It is simply a mechanical condition producing swelling of the joint with crepitus and varying degrees of pain on motion.

The prevention of, and relief from, non-tubercular joint diseases is a problem not easily solved, but the division of such diseases into distinct types is the first step toward rational therapeutics.

(*For discussion, see page* 165.)

THE MECHANICAL TREATMENT OF NON-TUBERCULOUS JOINT INFECTIONS.*

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THERE are several reasons why the value and importance of mechanical treatment in joint infections is not fully appreciated by the profession. The indications for its employment are not always clearly understood, the technic of its application is often faulty, and the fear of atrophy and ankylosis is frequently exaggerated. As the net result mechanical treatment is omitted in many cases where it should be used, while in others it is used in an ineffectual way.

In general terms what we have to do in joint infections is to improve general and local nutrition, prevent injury and prevent or correct deformity. Support and motion, the two master functions, work injury in the active stage of joint infections; they may be controlled by splints, apparatus, and traction appliances; to these it is often necessary to add crutches and recumbency. Strapping and bandaging are also of use as mechanical aids in many cases. In a word, as a joint is a mechanism, in disordered states its mechanical management and restoration to mechanical competence, must be our chief concern.

Treatment of the primary focus and of the toxæmia, when they exist, is, of course, presupposed, and is aided by proper hygiene of the joint.

Proper and timely mechanical control of joint function will usually relieve pain, allay joint irritation, prevent deformity and favor recovery. The joint pain during the onset and earlier stages of some infections is often severe and sometimes agonizing, and the prompt relief regularly afforded by fixation and traction *in bed and in the line of deformity,* is as striking as anything in surgical therapeutics. When the joint is hypersensitive and the process is acute, walking is injurious and recumbency must be added to traction and fixation appliances, since, owing to the enveloping soft parts, fixation is never complete.

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Plaster splints are convenient for fixation, and may be made effective by observing certain precautions. Padding should be moderate in amount and covered by firm even bandaging. For strict immobilization the splint should include not only the joint affected, but those nearest to it. To fully immobilize the hip, the long spica should include the trunk, pelvis and affected limb to the toes. The short spica, including only pelvis and thigh, is mainly useful to retain position and limit motion. In splinting the knee, the plaster or appliance should reach from the foot to the groin; many knee splints are made without a firm base of support when they slip, or include only a part of the thigh, when they permit motion. Splinting should be so applied as to prevent deformity, or at least prevent its increase, and in many instances it may be made to effect a gradual correction.

Even in acute rheumatism, splinting is being used with the happiest results, and there are few measures which give the patient greater relief.

The principal exceptions to the rule that physiological rest gives relief in infected joints are the following:

1. When active suppuration is present prompt surgical interference is indicated. This will usually need to be followed by mechanical treatment to get the best results.

2. When the original nidus of infection, as in gonorrhea, or the general infective process, as in syphilis, is of primary importance, the treatment will be primarily directed to these, and the management of the joint complications will be secondary though often important.

In the subacute and chronic cases careful splinting with traction when needed will usually give complete relief from pain and initiate a return to normal conditions. In the lower extremity splinting may be combined with suspension of the limb, by means of crutches and a high shoe on the sound side, or the splint may take the weight of the body, in standing and walking, from the ischium upon the perineal straps or upon the padded ring of a steel and leather apparatus. Such appliances are both more convenient and more efficient than plaster splints in chronic cases. They may be quickly and easily removed or adjusted, and are more comfortable and more durable. If desired, limited motion may be permitted by placing stops on the joint of the apparatus, and as the affected articulation improves it may be permitted to resume by degrees its supporting function.

Infections of the spine which are often painful and seriously disabling, are frequently relieved and ultimately cured by fixation in a supporting jacket, corset or brace. In infants, a light gas-pipe or wire frame, which may be made very narrow and covered with canvas, is usually preferable to a jacket. Recumbency in bed alone is insufficient, as it does not immobilize the spine.

In chronic cases of joint infection constant exposure to fresh air and sunlight and attention to diet and general hygiene, are very important. It is one of the advantages of the treatment by apparatus, that confinement to the bed is shortened, and the patient enjoys the benefit of protected locomotion. In a word, the brace supplants the bed.

During convalescence local nutrition and natural drainage may be aided by vibration, massage, and exercise, and splinting may be used to favor the protected use of the limb, and also to correct deformity.

A young man came a year ago with a stiff knee, following gonorrheal infection two years before. There were 30 degrees of motion and no pain, but he was still wearing a stiff splint, and was advised by eminent authority to undergo an operation. It was quite evident that all irritation had long since subsided and that the joint was convalescent. A steel and leather jointed brace, with side bars as long as the leg, was applied, and motion was permitted up to the amount present in the knee. The object was to encourage the use of the knee in support and motion, but without strain. As the motion in the knee increased, the stops on the brace were moved to correspond. In four months motion had increased to 90 degrees, or trebled, and this without pain or manipulations of any kind, other than the protected use of the limb. The joint may often be coaxed back towards normal function in this way, when the attempt to use it unaided would result disastrously. This protected and adjusted use of the joint is often the most important feature of the management of the stage of joint convalescence.

Splinting is often rejected or rendered inefficient by the patient's or the surgeon's fear of atrophy and stiffness. Infected joints are early complicated by atrophy of adjacent muscles and to a considerable extent of all the tissues, irrespective of treatment. If the bone is involved, bone rarification may be made out in the second week and is soon noticable in adjacent bones. In chronic joint tuberculosis and probably in other chronic bone infections, all the tissues of the affected lower limb, including the pelvis of that side, become atrophied and retarded in growth. Nevertheless, as soon as the infectious process has ceased, the neuro-muscular apparatus is always adequate *up to the capacity of the previously affected joint.* If the patient recovers with a stiff joint the muscles controlling it will remain wasted; if with limited motion they will develop up to the point of controlling the motion present; if with normal motion the muscles will develop and utilize that motion. *The permanent* disability is not due to atrophy but to stiffness or deformity.

This is well illustrated by the voluntary control regained over joints, such as the knee, which have been ankylosed for years, so soon as these joints have been rendered mobile. Efforts to combat atrophy, secondary to joint infections,

by electricity or massage during the active stage of the joint infection are both useless and pointless, while the rejection of splinting and employment of movements to the same end may be exceedingly harmful. What we have to do is to allay irritation, prevent deformity, and later, if possible, restore motion. In a word, while atrophy does take place, it is harmless, except for the unnecessary fear which it excites.

The situation in regard to stiffness is somewhat similar. It has repeatedly been pointed out that the stiffness observed after joint infections is due to adhesive inflammation and not to splinting. Rough movments and neglect of splinting in cases prone to fibrinous deposits and ulceration, will certainly increase rather than diminsh the ultimate stiffness. The more one fears ankylosis, which is often a misfortune and cannot always be prevented, the more strictly should the infected joint be splinted to prevent injury and deformity and to allay irritation, and the more cautious one should be regarding forced movements. The way to cause certain ankylosis of a tender but somewhat movable joint is to use forcible movements of wide extent at frequent intervals. This point is well illustrated by the case of a young man who on April 3, 1906, sustained a compound fracture of the external tuberosity of the tibia, involving the knee, which together with the surrounding tissues became infected. In spite of his miserable general condition and continued local infection, he was etherized in a Western hospital on May 30, June 15, and July 7, and on each occasion the knee was forcibly flexed to a right angle. His general and local condition became serious, and when seen in September it was precarious. There was a large amount of hard infiltration about the joint and extending above and below for several inches. There was a bare trace of motion, but the X-ray showed that the joint surfaces were destroyed and that ankylosis was taking place. It was explained that ankylosis was inevitable, a fixation apparatus was applied, and attention was paid by his physician, my friend, Dr. C. P. Bennett, to building up his nutrition and to the state of his kidneys. The swelling soon diminished, symptoms of irritation disappeared, and ankylosis has taken place in good position. His general health is excellent, and he has gained over twenty pounds. He will have a useful leg. Passive and even forced movements have a place in breaking up adhesions and increasing motion, in cured cases, but their use calls for ripe judgment and conscientious reserve. The tendency is to mobilize too early, too long, and too often, and to push the manipulations too far, and the results of such management are frequently disappointing. Having decided that forcible movements are indicated one should not try to do too much at one sitting. If after reaction has subsided, the joint is tender or stiffer than before, it is apparent that the limit of utility has been exceeded. For the prevention of ankylosis then, conditions favorable to the allaying of irritation and healing of the lesion should be adopted, namely strict splinting in the active stage, and modified splinting in the later stages. Time does not permit me to elaborate the important subject of the treatment of stiffness and deformity following infectious arthritis, it is sufficient to say that even long-standing deformity can usually be overcome by mechanical or surgical means, and the limb restored to usefulness.

RESUMÉ OF MECHANICAL TREATMENT.

Acute Stage: Strict immobilization, often with traction and recumbency.

Subacute Stage: Fixation and crutches, sometimes with short periods of recumbency, and often traction.

Chronic Stage: Support with limited use of joint, often with pendency of the limb.

Convalescence: Increasing use of joint under mechanical control, with active and passive movements.

Sequelae: Stiffness—vibration, active, passive and forcible movements. Deformity—mechanical or surgical correction.

Hygienic and mechanical, medical and surgical methods have their clear indications in the management of joint infections, and one who would do justice to his patients must be well grounded in all, and apply them in a definite manner according to the varying indications.

(*For discussion, see page* 165.)

THE OPERATIVE TREATMENT OF NON-TUBERCULAR JOINTS.*

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THE proper consideration of this theme involves the contemplation of many and diverse conditions, and therefore it will be probably more profitable to restrict the subject to the operative treatment of acute suppurative joints. An endeavor will be made to answer two questions: When to operate; and, How to operate.

In answering the first question, the subject will be considered as a whole. In answering the second question, some of the practical points concerning the methods applicable to several of the more important joints will be mentioned.

A prominent surgeon of this State—who as an operator is second to none and as an author has an international reputation—in 1903 wrote as follows:

"The diagnosis rests upon the proof of the facts, that the joint is distended and that the distending material is pus." He then continues, "When such distention is accompanied by intensely septic general symptoms of growing severity even to the so-called typhoid state;

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when at the same time, the local disability, tenderness to touch, the exquisite pain and œdema of the integument, all point to a destructive process—the crucial question of pus or no pus should be immediately put by means of the aspirating needle."

It is sad to acknowledge the fact that in many a case of acute suppurative joint disease, the question of operation is not determined until this advanced destructive stage, so ably pictured by the writer quoted, has been reached. Yet the time for operation, the best time, has already passed. A "timely operation" (to quote a phrase used years ago by Abraham Jacobi, in writing about appendicitis) should prevent such an extensive destructive process in an acutely inflamed joint. Why wait for any such development of general and local symptoms? If in a case of pleurisy with effusion, we note an increasing temperature with sweating, or if we even suspect that the serous effusion is changing to a purulent one, we "put the question," or rather answer it by the use of the aspirating needle. But in a joint case, the *noli-me-tangere* idea exists to such an extent that often we fear the aspirating needle more than the early stages of an unrecognized suppuration. Our orthopedic friends have taught many a most important lesson concerning the non-operative treatment of tubercular joint disease, but they have never taught, nor intended to teach, that an acute suppurative joint should be left to its own destruction until such a stage is reached that the "diagnosis makes itself." But their unconscious influence, together with the wholesome fear of infecting a joint, and the firm and all-pervading belief that a rheumatic diagnosis is the correct explanation of most joint inflammation, seem to combine in quieting any suspicion of pus until its presence becomes self-evident.

To advocate a promiscuous use of the aspirating needle in swollen joints is far from my purpose. But, to paraphrase the statement of a German surgeon concerning the use of iodoform, there is no danger in the use of an aspirating needle in a joint if we know there is danger in its use. The dangers are three: First, infection on the needle. But we all can boil a needle. Second, infection from the skin of the patient. We cannot all disinfect the skin absolutely, but we can do it approximately and then with a small knife make a skin incision one-half inch long, through which we can insert the needle, and thus avoid carrying skin infection into a joint. Third, late infection because of leakage of synovial fluid. This can be avoided by closing the small skin incision by a sub-cuticular purse-string suture of absorbable material. However, very rarely will we not find pus when we suspect it. More often does it exist when it is not suspected.

But what is the advantage of such an early diagnosis? There are three factors that determine the prognosis of a suppurating joint: First, The intensity of the infecting agent; Second, The vitality of the individual; Third, The stage of the process. The virulency of the organism causing the infection is in great part beyond our control. Whether we have to deal with a severe type of streptococcus infection, or one of the milder mixed gonorrheal infections, is not a matter of choice. Yet, just as truly as the force of an explosive is increased by confinement, so is the intensity of an infection increased by delay in drainage. We cannot change the organism, but often we can lessen its effect on joint surfaces by prompt relief of pressure.

The degree of vitality a patient may chance to possess on the day of the onset of the inflammation, is, of course, not ours to choose. Yet his index of vitality is materially lowered by the absorption from the unrelieved septic focus. So quickly does this at times occur that it is truly startling. And even more unheralded is that lightning-like metastasis to other joints or organs, or the endocardium. He has at best a hard struggle and should not be handicapped by the weight of constitutional septic symptoms.

The stage of the process is one that cannot be determined by the clock. Theoretically every suppurative appendicitis case should recover and with a peritoneal cavity free from adhesions, although we may not have the ability to correctly estimate the urgency of prompt surgery nor the opportunity to apply it. In the same way, theoretically at least, in every septic joint case, there is a time when the synovial membrane can still return to normal, when the cartilages are not eroded nor the ligaments infiltrated. In solving the appendicitis problem, we have made much progress in the last decade, but the profession as a whole does not yet realize that many a suppurative joint can be restored to nearly if not full activity, provided the diagnosis of suppuration is determined sufficiently early.

While the appendicitis problem of pus or no pus is hard to solve, and the aspirating needle is a most dangerous and long since discarded means of investigation, still, in many joints, the suspicion of pus can be confirmed or disproved without detriment to the patient, if, perchance, the suspicion is not confirmed by the aspirating needle used along the lines indicated. I do not wish to be considered as believing that all suppurating joints can be restored to activity. This ideal result will come about the time that all appendicitis cases are cured and cured without adhesions. But if, as the result of two determining factors, viz.: the intensity of the infection and the resistance of the patient, we have been achieving three classes of results, ankylosis, amputation, and occasionally death, we add a much more *prompt time* of operation, we shall achieve many a case of movable joint, in place of ankylosis, many a useful ankylosed joint in place of an amputated limb, and fewer amputa-

tions and deaths. All that is needed to insure this improvement is an assured and convincing belief throughout the profession that early suppuration in a joint is not signalized by "intensely general septic symptoms of growing severity," nor by the complete local picture of a typical and advanced pan-arthritis.

Having determined without doubt, that we have an acute suppurative lesion, the method of operation best suited to the case depends upon what joint is involved and the extent, stage, and intensity of the infection.

The operations indicated usually fall into two classes: Incisions, or incisions with removal of bone. To these may be added under exceptional conditions the more simple procedure of aspiration with irrigation.

The Ankle Joint.—In reference to this joint it is worthy of note, that not infrequently, when suppuration seems imminent, it can be arrested by the liberal use of ice. The incisions for drainage usually advised are two in front on either side of the extensor tendons, and two behind parallel to the tendo-Achillis. It has been my experience that simple incisions have failed to control any marked degree of sepsis in a considerable number of traumatic cases that have come under my care, and since 1898 I have not relied upon that method of operating. In December of that year, in a case of double compound fracture of the astragalus that became badly infected at the time of injury, I removed the astragalus on both sides and was most agreeably surprised at the good functional results.

In both traumatic and non-traumatic cases, I believe that this method not only insures a better control of the sepsis, avoiding the frequent amputations made necessary by an extension of the process into the smaller joints of the foot and the muscles of the leg, but gives quite an appreciable degree of motion at the ankle and an avoidance of the long continued pain which so often accompanies an ankylosis of this joint. An article, by Percival B. Bolton, in the *Annals of Surgery for October,* 1906, on "A Method of Drainage of the Ankle Joint," confirms this view in all particulars, and by excellent illustrations showing the anterior and posterior synovial sacs, explains one reason why removal of the astragalus is advantageous. A second reason why extension of sepsis from this joint to the extra-articular tissues is so frequent lies in the fact that the anterior and posterior ligaments are extremely thin, and the tendon sheaths, which carry sepsis so readily, are in close apposition to the anterior ligament. While it may be best to remove the bone through an existing traumatic wound, an external curved incision with strong adduction of the foot seems to give a most ready access. Pure phenol, followed by alcohol, as commonly used after an operation on suppurating tubercular cases, seems to be useful in this joint in the non-tubercular types of suppuration.

Knee Joint.—Concerning this joint much has been written. There is no joint in the body that is more often the seat of suppuration, and none that better illustrates the great advantage of prompt surgical intervention at the very beginning of the process. In that type of gonorrheal infection with effusion, which shows a cloudy synovial fluid just changing into a purulent condition, aspiration and flushing with hot sterile salt solution or, in slightly more advanced cases, flushing through small incision above the patella and very moderate drainage with a few strands of silk-worm gut or rubber tissue will stop the process and give a movable joint. It may be argued that such cases will subside without incision. This is doubtless so in a large proportion, but it is equally true that a greater or lesser degree of ankylosis results. Three cases under my care this season illustrate this fact. In the two that I drained early, the joints are rapidly approaching full normal motion; while in the third which began in August, and which was not treated surgically, I have just done an excision to lessen as far as possible the disability of a right angle bony ankylosis. In this case, the under surface of the patella, a part of the articular surface of one condyle and the corresponding tibial surface were destroyed; showing that the inflammatory process must have been severe; which view is confirmed by the temperature record and history of suffering. Yet the physician in charge did not suggest surgical drainage, and his course is that of many able practitioners.

In the average case of suppuration of the knee, it is not sufficient to make incisions in the classical way if one has any hope of producing a movable joint. The usual method of two long incisions on either side of the quadriceps tendon and two incisions on either side of the patella tendon fail to drain the posterior pockets, and thus fail to check the suppuration before erosion of the cartilage takes place. This has been recognized by many writers. Continuous irrigation and additional drainage by a posterior tube through the popliteal space, or long incisions the whole length of the joint just above the lateral ligaments, have all yielded some successes, and have many advocates. Mr. Brainard, in the London *Lancet,* April, 1903, dwells especially on the importance of posterior drainage, basing his argument on the fact, that in no other way can the posterior pouches, which in the extended position are shut off from the main joint, be drained. If they are not drained they become perforated and sepsis passes up the thigh. He advises cutting down on the posterior parts of the superficial surfaces of the condyles on either side and inserting tubes in front of tte heads of the gastrocnemius.

Flexing the leg at the moment of insertion aids the insertion of the tubes, and by the blunt dissection between the skin and the capsules, danger to the internal saphenous and external popliteal nerves is avoided. These posterior incisions are in addition to the usual anterior incisions. He

reports prompt cessation of sepsis and movable joints in many cases. George D. Stewart recognizes the same necessity for posterior drainage and obtains it at the same location by inserting blunt pointed scissors through the anterior drainage openings backward, beneath the corresponding lateral ligaments to the most dependent part of the condylar pounches and cutting down on the scissors from outside. He treats the limb in a semi-flex position, thus avoiding shutting off these pouches from the general cavity. The limited experience I have had with the drainage of these pouches leads me to consider it better than the method of draining through the popliteal space. It is to be noted that the simi-membranous bursæ not infrequently require a direct incision.

For the more advanced cases of knee joint suppuration when once resection would have been the operation chosen, and perhaps for certain well-marked cases but not quite so advanced, the operation proposed by Mayo and strongly endorsed by Gerster and others is now the method of choice. It consists in making a transverse incision entirely across the joint above the patella (through the patella, Whitehead), well into the lateral ligaments and thus opening the entire joint when the limb is strongly flexed. Thus the cavity in all its parts can be cleansed and packed, with a surprising prompt cessation of the sepsis. The limb is kept flexed until suppuration ceases and is then extended with suturing of the wound. Mayo adds: "Not all the cases are followed by ankylosis. If the cartilage is not eroded considerable motion may be obtained." This statement, although I have not had occasion to confirm it, I firmly believe, for it simply endorses the position taken earlier in this paper, that motion may be obtained in a suppurating joint if adequate drainage is provided before destruction has taken place. I think that resection of the knee joint for sepsis will in the future be restricted to those cases originating as an osteomyelitis, but that amputation will still remain as a last resort when delay has permitted marked infiltration of the thigh with impending death.

Elbow Joint:—This joint has so many pockets that the usual incision on either side of the triceps tendon, with perhaps an additional incision at the radial head, fail to produce an aseptic condition except in mild infections. Thus the method of von Brun, viz.: resection of the lower end of the humerus, is in general use for well-developed cases. This gives a useful joint, as is well known. I have recently had three patients under my care in whom the elbow joint had become infected through a compound fracture of the olecranon process. In these patients I removed the process down to its base, carefully preserving the lateral facia of the triceps, and treated the arm in the acute flexed position. In all three cases the sepsis promptly ceased, and the ultimate motion and strength of the arm nearly approach normal. One man continues his work as a member of the salvage corps and has full use of the arm. I am not aware that this method has been used by others, nor have I had occasion to use it except as mentioned, but it probably gives a more useful arm than resection of the humeral extremity, and where the septic process is not too advanced is probably worthy of trial.

The Shoulder Joint:—While the traumatic and osteomyelitic cases are true examples of septic arthritis, I have found that apparent sepsis of this joint when pyæmic in origin is not infrequently a septic inflammation of the sub-deltoid bursa, and that the joint itself is not involved. In the early stages I have not been able to distinguish between this bursitis and arthritis, but a knowledge of this fact should lead to caution in operating, so that a healthy joint may not be opened when a periarticular inflammation alone is present. Even in mild infections of the joint, I have not been able to obtain motion, yet the free movement of the scapular will compensate in some measure for the ankylosis, and the functional result seems to be still further improved by procuring the ankylosis in a slightly abducted position.

The approved methods of drainage are an incision behind to which may be added one in front, and in protracted cases of suppuration an excision of the head of the humerus.

To these methods I have nothing to add.

The time limit does not permit further detailed consideration of other joints.

In closing permit me to call attention to the importance of the mechanical and manipulative treatment of joints that have been the seat of acute suppuration.

(*For discussion, see page* 165.)

INFLUENZA IN CHILDREN.*

By HENRY HEIMAN, M.D.,

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NEW YORK.

WE shall limit ourselves in this paper to some practical points regarding the occurrence, clinical course, diagnosis, and treatment of influenza in children.

As in some of the other infectious fevers, there seems to exist in very young children a partial immunity from influenza, which has been explained by the fact that infants are warmly clad and cuddled and little exposed to the inclemency of the weather. It may also be that this exemption arises from greater resistance to infection because of the greater number of red blood cells and leucocytes in infants.

Influenza has, however, been frequently observed in very young children during epidemics, and these cases have been of two types. In one

*Read by invitation before the Eastern Medical Society, New York City, November 9, 1906.

class of cases there were hyperpyrexia, bronchitis or broncho-pneumonia and marked cerebral symptoms; in these cases of the nervous type the mortality was low. In the second type there were slight temperature elevation, but great prostration, cyanosis, and rapid and feeble respirations, with no definite signs on examination of the lungs;—in these cases of the toxic type the mortality was high.

The disease as it occurs during an epidemic in children from two to ten years of age is generally of the respiratory type. The onset is sudden; there may be a chill, cyanosis, or convulsions. The attack is ushered in with catarrhal symptoms, the conjunctivæ become injected, the throat red, and the tonsils swollen. The face is flushed. The tongue becomes coated. The height of the temperature is variable, generally above 103 degrees F. In older children headache and pain in the back and limbs are complained of. Earache resulting from a catarrhal or purulent otitis is a frequent symptom in young children suffering from adenoids. The signs of bronchitis often develop, and sometimes those of broncho-pneumonia. An important symptom occurring in a considerable number of cases is one first described by Forchheimer; we refer to the pseudo-paroxysmal cough, which can be recognized as a whoop and which is followed by vomiting and expectoration. The pneumonia which occasionally develops in older children is very severe, but atypical in its course and physical signs; the temperature is high but intermittent, the cough and expectoration are constant, and the toxemia is intense; yet the signs are indefinite—seldom those of a lobar pneumonia, which the symptoms would lead one to expect. When pleurisy occurs, it is very severe, and frequently followed by empyema; in these cases of mixed infection in the lungs, the organisms are prone to pass from the pulmonary alveoli through the visceral pleura and into the pleural cavity. While vomiting and diarrhea do occur, influenza in children is less likely to be of the gastro-intestinal type than in adults.

The intense prostration at the onset and the anemia, which is a frequent sequela, bear witness to the infectious nature of the disease. The duration of the grippal attack itself is generally less than a week, but the disease is treacherous because of its sequelæ, which, as is well known, in number and intensity are likely to be out of all proportion to the original attack. Otitis and adenitis are common complications. Pneumonia as a complication has already been spoken of. The urticarial, scarlatiniform, and morbiliform eruptions sometimes met with make the diagnosis in these cases difficult. In severe cases the poison of the disease has attacked the red cells and results in marked anemia. The acute exudative nephritis seen in adults is rarely met with in children. Before we knew as much about meningitis as we do to-day, cases of influenza in children were said to be complicated by meningitis; probably in most of these cases there was present merely what we to-day designate as meningism, or serous or symptomatic meningitis. Though there be present headache, pain in and rigidity of the muscles of the back of the neck, vomiting, delirium, stupor, and general convulsions, yet these cerebral symptoms exist only during the acme of the attack and disappear rapidly after a few days. In a case of influenza with cerebral symptoms severe and persistent, we should not hesitate to-day to perform lumbar puncture, thus satisfying ourselves as to diagnosis and at the same time relieving the symptoms of increased intracranial pressure. In one such case in Dr. Koplik's service at Mount Sinai Hospital influenza bacilli were found in the cerebro-spinal fluid.

No hard and fast rules can be laid down for making the diagnosis of influenza. This is apt to be especially difficult in young children, depending as largely, as it does in older people, upon subjective symptoms which cannot be elicited from infants. We should remember that the disease occurs epidemically and endemically, but seldom sporadically; and we should hesitate in diagnosing influenza without the presumptive evidence of an epidemic. Bacteriological diagnosis is impracticable for the reasons that the Pfeiffer bacilli do not as a rule appear in the sputum or nasal discharge till the third day of the illness, and that during an epidemic the organisms are frequently found in those who have not contracted the disease. Of course common colds and tonsillitis are often falsely called influenza; in extenuation of this practice it may be said that in a severe case of acute follicular tonsillitis few of the symptoms of influenza are lacking, and here we should be guided by the course and duration of the disease. From measles the disease may be differentiated by the absence of Koplik's spots. In the occasional cases of influenza with an erythematous rash, only time will enable us to exclude scarlet fever; the leucocyte count may be of aid, for in influenza the white blood count is practically normal, while in scarlet fever there is a well marked leucocytosis. When the pseudo-paroxysmal cough leads us to suspect pertussis, we exclude the latter by the presence of physical signs in the chest, which are generally absent in whooping-cough; moreover, the whoop in pertussis does not usually appear till about the end of the second week. Examination of the blood, course of the temperature, and absence of marked enlargement of the spleen will differentiate it from malaria and typhoid fever.

While influenza is a self-limited disease, it is nevertheless a serious one, calling for careful treatment. To avoid complications and sequelæ, the patient should be confined to bed till the temperature has reached the normal; where, however, there is persistent post-pneumonic fever it may be advisable to get the patient out of bed on solid food. In children as in adults the treatment

should be supporting and symptomatic. Because of the tendency to recurrences, a change of climate may be indicated during convalescence.

THE MEDICAL CHARITIES OF MANHATTAN AND THE BRONX.

By FLORENCE LARRABEE LATTIMORE,
PHILADELPHIA, PA.

(*Continued.*)

CONVALESCENTS.

The inadequacy of the provision for the proper care of the convalescent poor seems to be due in large measure to the mistaken assumption that, after the patient is discharged from a hospital, the home is the best place where he can be. Investigations of the conditions existing in many of the homes of the poor, made by those charitable agencies to whom the discharged patient is often referred, have revealed the need of provision beyond the hospital beds for such poor as live in unsanitary tenements, and for those who must either work or be given institutional care.

The lack of provision for convalescents has been supplied to a very limited extent. The hospital superintendents, the visiting nurses, the officers of dispensaries and charitable organizations, all speak of the need for convalescent sanatoriums. The crowded condition of the hospitals and the number of applicants suffering from acute diseases sometimes force the discharge of patients who are not cured, but who may not longer need the constant supervision of physician and nurse or the expensive equipment of the modern acute hospital. Indeed, the convalescent patient, while requiring the rest and nourishing food which the hospital can give, needs certain other things which are beyond its power. He needs, in addition, the proper environment for his recuperation, the out-of-doors, which includes fresh air, sunshine, and pleasant diversion. In fact, it is being urged more and more insistently by physicians that sanatorium care should be given the convalescents. It is plain that all those factors which delay full recovery increase the number of readmissions to the hospitals and lead to over-crowding.

The hospital, with its expensive equipment, should, as all agree, be kept for acute cases which need its fulness of resource, but the convalescents who may be cared for simply and inexpensively with satisfactory results, should be moved from the general wards at the earliest desirable moment and placed in an environment better suited to their condition. This, however, cannot be done until the convalescent sanatorium is established. The convalescent homes do not, under the existing rules, fill this gap. The alternative is, that the patient must either be exposed to a relapse, with consequent readmission to the hospital, and perhaps forcing the discharge of another half-cured patient, or the hospital must continue to house him in an environment no longer suitable to his best physical welfare. There is a link missing between the hospitals and the convalescent homes which convalescent *hospitals,* having medical and surgical staffs, and accepting cases which do require modified hospital treatment, as regards medical attention, would supply.

It would seem self-evident that no acute hospital could properly confine its plant to the care of acute cases or even do its full duty to those recovering from depressing and devitalizing diseases without making some arrangement for the suitable care of convalescent patients. The work of the poor is often so exacting that they are deprived of their earning power by comparatively slight disabilities,—disabilities which frequently would not interfere with the earning capacity of those who support themselves by brain work—and their recovery must be complete if they are to continue to be independent. If the mission of hospitals is to cure the sick, there would seem to be some responsibility upon these institutions to see that so long as a patient remains too ill to do his ordinary work because of a temporary disability, and has no home in which he can recover, he should be cared for in a suitable convalescent sanatorium in some way connected with the hospital. The bed in such an institution as the convalescent needs can be furnished for about half the cost of a similar bed in an acute hospital.

There are only three homes where convalescents were cared for in Manhattan and the Bronx, in 1903-4 and 1904-5: the Isabella Heimath, a large institution at 190th Street and Amsterdam Avenue, which contains about 170 beds for convalescent men and women, besides being a home for aged and indigent men and women, and a home for chronic invalids (vacancies in its convalescents' wards are rare); The New York Home for Convalescents, at East 118th Street, which has a capacity of twenty-one beds for women only, with an average of about six inmates; and the St. Andrew's Convalescent Hospital on East Seventeenth Street, which has thirty-five beds, also for women, which beds are usually full. Only those persons are eligible to these beds who do not need the constant attention of a nurse, and who are approved under the rules of the home by the admitting physicians. The patients are admitted free for a period of two weeks, after it has been determined that they are unable to pay for care elsewhere. At the end of that time their stay may be lengthened, if it be necessary. These homes refuse to receive patients who have wounds which require dressing, or any who need medical care. They exclude the consumptive, the cancerous, the paralyzed, and those whose infirmities might make them objectionable neigh-

bors for the other inmates of the homes. In the winter of 1905, a factory girl living in a crowded lodging house had bronchitis from which the physician said she could not fully recover until she had proper rest and sufficient nourishment. An application was made for her at these three homes in succession, which revealed the fact that they could not receive her if she coughed at night, as that would disturb the other patients. Medically, she was a suitable case for any of the convalescent homes. but was not ill enough to be received at an acute hospital.

Lebanon Hospital has a ward for the convalescent patients from the other wards of the hospital, and vacant beds may be occupied by outside convalescents who have no other place to go. The New York Hospital has provision for its convalescents at White Plains, New York. It is the only hospital in New York City which has such provision for convalescents. One hundred and thirty-seven men and women convalescents were sent to the cottages at White Plains in 1904-5. These patients were maintained for 1,885 days. There was no record which was available for the years of 1903-4.

The Montefiori Home sometimes receives convalescent patients, but its main object is to provide for invalids with chronic diseases.

As will be noticed, nowhere in Manhattan and The Bronx is sanatorium care provided for convalescents. The existing convalescent homes in these boroughs have a total capacity of but 226 beds, and these are not often full as the majority of the applicants are refused under the rules. The New York Home for Convalescents sends out cards to the hospitals, stating its purpose and the terms of admittance, and the St. Andrew's Convalescent Hospital sends a visitor to inform the various institutions through which convalescents might come, of the care provided by the hospital; but those in charge state that most of their applications come from patients who have heard of the homes from the nurses at the hospitals, from physicians, or have been sent by the charitable organizations.

The Henry Street Settlement has a home for convalescent women and children at Grand View on the Hudson, where about fourteen patients are cared for in winter and summer under the supervision of a trained nurse. There is the Presbyterian Rest at White Plains, for convalescent women; St. Eleanora's Home at Tuckahoe, New York; St. Elizabeth's Home for Convalescent Women at Spring Valley, New York, open all the year round; and various other organizations open homes in the summer for health-giving purposes.

In recognition of the further needs of convalescents the Solomon and Betty Loeb Convalescent Home was opened at East View, Westchester County, in July, 1906. It has pavilions for men, women and children, and is free to the needy, while those who can pay are charged a moderate sum. The average stay is to be about three weeks. This home will be open all the year.

The Board of Estimate and Apportionment appropriated, in April, 1905, $100,000 for a hospital of 100 beds for convalescents near Coney Island. At present the City has no provision for this class. There is a building in the Metropolitan Hospital group, on Blackwell's Island, known as the Convalescent Building, but the pressure upon the hospital has never permitted the use of this building for convalescents.

The work done for convalescents cannot be measured by institutional records, as accurately as the work for acutely and chronically sick persons. The Working Girls' Vacation Society, and other societies and clubs do a great deal of individual work in this line which is never made public. The winter care of the convalescent is a matter to which much attention is being directed and more provision promised.

CHRONIC INVALIDS.

The institutions for chronic invalids in Manhattan and The Bronx outnumber those for the care of convalescents, having 789 beds for such cases, exclusive of those in the Montefiori Home, which has 272 for chronic invalids and convalescent cases. The City has accommodation for about 280 incurables in the wards of the hospital connected with the New York City Home for the Aged and Infirm. The largest institution for chronic cases, in the two boroughs under consideration, is the Home for Incurables in Fordham, a private subsidized institution of 300 beds which reserves one third of them for "charity patients," that is, patients who are not themselves able to pay for the attention they receive. This institution has so long a waiting list of applicants that many hospital superintendents have ceased to inquire for vacancies. At the institution the number of applications is not made a matter of record.

Here again, if the number of applicants turned away could be given, with the kinds of diseases from which these applicants suffered, definite knowledge could be had as to the further provision needed by these persons.

A special hospital, which had expressed the need for a place where persons suffering with incurable forms of the disease which it treated could go, was, in 1905, offered a sum of money for this purpose, provided the hospital would raise a like amount by a given date. In forming its appeal to the public, the hospital discovered that it had no definite facts to present in proof of the need for such special provision, inasmuch as the number of persons discharged "unimproved" had not been counted. Since this discovery the records in the hospital referred to have been kept with reference to the future use of data.

The Montefiore Home receives many chronic cases, but the pressing needs of the convalescents have led to the reception of cases of this

sort which were formerly refused. The House of the Holy Comforter, Free Church Home for Incurables (139th Street and Riverside Drive), for women and children, under the auspices of the Episcopal Church, but unsectarian in its charity, has a capacity for fifty inmates. The House of the Annunciation for Crippled and Incurable Children (West 142d Street), under the care of the Sisters of the Annunciation, has twenty beds. And there are two homes where destitute women with incurable cancer are nursed until death—The House of Calvary (on Perry Street) having thirty beds, and St. Rose's Free Home (on Cherry Street), with a capacity for nine inmates. The St. Rose's Free Home is under the Servants of Relief for Incurable Cancer, a sisterhood which maintains a much larger home for the cancerous poor of both sexes at the Rosary Hill Home, Hawthorne, New York. This home has a capacity for 100 patients. The average number of patients both in the St. Rose's Free Home and the Home at Rosary Hill is thirty-eight. These three homes for destitute incurable cancer patients report no overcrowding, although a City home where men could be received seems desirable.

In the year 1904-5, for which detailed statistics could not be gathered, a number of important changes took place in the hospitals of New York City. In The Bronx the bed capacity has been increased by the opening of the new St. Francis Hospital, with more than 400 beds, at 142d Street and St. Ann's Avenue, leaving the old hospital on 5th Street for chronic invalids and the aged, with fifty beds for emergency cases; the building of the new Fordham Hospital to accomodate 150 patients instead of the fifty-five which is the maximum it can care for in its present building at 190th Street and Aqueduct Avenue; Lebanon Hospital, at East 150th Street and Westchester Avenue, is soon to add about thirty beds, and the New Washington Heights Hospital, Broadway and 179th Street, expects to begin a new building with room for about seventy beds in a few months' time. A new Harlem Hospital at 136th Street and Lenox Avenue will soon be open with 150 beds instead of its present fifty two, and the Greater Bellevue, one building of which is already started, will have a capacity of 2,000 beds. A New York Red Cross Hospital with a training school for Red Cross Sisters is nearing completion, with sixty or seventy beds, at 100th Street and Central Park West; and the Flower Hospital, New York Post-Graduate, Columbus, St. Gregory's, the Manhattan Eye, Ear and Throat Hospital, the Ophthalmic and Aural Hospital, the New York Infirmary for Women and Children, and practically all the other hospitals, have plans, near or remote, for extending their work.

(*To be concluded.*)

HISTORY OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK.

BY JAMES J. WALSH, M.D., Ph.D.,
NEW YORK.

(*Continued.*)

PART II.

CHAPTER XI.

HONORARY DOCTORS OF MEDICINE.

The Medical Society of New York soon came to the realization that many of its members who had entered into the practice of medicine under the old regime, by which study with a physician and examination before a Committee of a Medical Society were sufficient for a license, would wish to possess the degree of Doctor in Medicine. Many of these men had in the course of long years of practice shown their thorough fitness for such a degree and had kept themselves constantly abreast of what was latest and best in medical progress. For the sake of these men whose early opportunities had not allowed them to obtain a degree in course in a regularly constituted medical school, the Society appointed a committee at the annual meeting of 1826 to ask the privilege of selecting certain physicians each year and presenting their names to the Board of Regents of the University of the State of New York for the Honorary Degree of Doctor in Medicine.

The Committee presented to the Regents the following memorial which was drawn up by Dr. T. Romeyn Beck:

To the Honorable the Regents of the University:

The Medical Society of the State of New York, now in session, have, in the course of their deliberations, been induced to address your honorable body on a subject which they deem of some interest to the profession that they represent.

It will be readily understood that medical education during the last thirty years has been not only increasing in importance, but also becoming more and more diffused. The number of individuals who have availed themselves of its advantages has greatly augmented, and we cannot present a more striking proof of this than the fact that in 1796 there were only five medical schools in the United States, with one or two hundred pupils, whereas at present there are seventeen medical schools, with two thousand pupils attending them.

The results of such a state of things are favorable to the cause of general education, and through it to that of liberty and civilization.

The medical profession, which in every European country has held a distinguished rank in science, promises to take the same stand in this favored country, and thus in a small degree to repay the benefits it derives from the institutions devoted to its prosperity.

But while the effects of extended medical education are so benign and useful, there are some minor and contingent evils attendant on its rapid diffusion. One of these has come under the notice and appears to deserve the attention of the Society.

The course of medical education has varied greatly during the last quarter of a century. At the commencement of that period it was generally the custom (with, however, exceptions) to complete the required term of study in the office of some respectable practitioner, and then in a very small proportion of cases, if pecuniary and other circumstances favored, to attend lectures at

some of the widely scattered medical institutions. The preliminary attendance for the degree of doctor of medicine was expensive; the time to be consumed in its attainment was deemed too valuable; and as it was not sought for except among the residents of our larger and more populous cities, so its absence was not considered as a mark of the want of medical knowledge. The number of gentlemen who held the degree of M.D. in this State thirty years ago probably did not exceed thirty.

Now, however, from the number of medical schools and the requisition of the laws throughout nearly the whole of the United States demanding attendance as a preliminary requisite for the practice of medicine and surgery, and above all from the force of public opinion, which justly views a proper education as indispensable in this as in every other profession, nearly two-thirds of the medical students in the United States attend lectures, and of these a number every year obtain the degree of doctor of medicine. They go into practice and settle by the side of those who have only a license, although the latter in their day complied with all the legal requisitions, availed themselves of all the advantages which their institution at that time permitted to them, and have since, in many instances, pursued the profession with honor to themselves and benefit to the community.

That some unpleasant feeling should result from this state of things is natural. True, it is a consequence of the improved state of medical education, but it sometimes operates unfavorably not only on that, but also on individuals who are thus placed in contact. The young man with the degree of doctor of medicine may presume on his newly obtained honors, while the aged physician, practising under a license only, may be disposed to repress or underrate his youthful competitor. This effect, however, can only continue for a single generation, and it has occurred to the Society that much of the practical evil may be obviated by the interposition of your honorable body.

The Regents have the sole power in this State of granting the honorary degree of Doctor of Medicine. In other States the medical colleges possess this power, and they have accordingly exercised it—and particularly in some of the New England States, as Connecticut and Massachusetts, in granting the honorary degree to aged and respectable practitioners and thus obviated the very difficulty which has been noticed. In Connecticut it is understood, there is every year a number recommended by the medical convention (equivalent to the State Medical Society)) to Yale College, for this honor. In Massachusetts, Harvard University annually confers the honorary degree on a number of individuals; and in other States, medical institutions are more or less in the habit of giving it.

The proposition, therefore, of this Society is, that the Regents be pleased annually to confer the honorary degree of Doctor of Medicine on a certain number of individuals, not to exceed six, to be recommended by the State Medical Society at its regular meeting, by the votes of two-thirds of the members present. In this way, it is believed, a sufficient guarantee is offered, that the individuals will be deserving of the honor, since every profession is the best judge of the talents of its members, and at the same time a mark of distinction will be bestowed, and that will be at once a reward for a life of honorable usefulness, and an incentive to promote the cause of medical education.

All of which is respectfully submitted,

T. ROMEYN BECK, Chairman.

This communication was received after the meeting by the Regents of the University and as might have been expected was acted upon favorably by that body. What the text of the Regent's communication was, however, there is no means of knowing, though its purport can be readily gleaned from subsequent notes in the transactions. Evidently the Board of Regents replied that they considered it either improper or inadvisable to state absolutely that they would confer the degree on all nominated by the Society, but they suggested that if the Society would each year present the names of those upon whom it wished the degree to be conferred the Board of Regents would probably act favorably upon them. In the Report of the Transactions at the annual meeting of the following year there is under date of February 8th, 1827, the following note with regard to the matter:

> The committee to whom was referred the communication from the Regents of the University, report, that as a preliminary to their nomination, it is deemed necessary (in conformity to the application to the Regents) to consider age as a requisite, as well as professional standing; and therefore, that it is inexpedient to offer any name, where the person has not attained the age of 45 years. With the desire of discharging their duty conformably to the intentions of the Society, both in respect to qualification and age, the following gentlemen are nominated to the Society for recommendation to the Regents, for the honorary degree of Doctor of Medicine:
>
> (The names are omitted until the pleasure of the Regents be known).

At the annual meeting of the following year, 1828, the President reported that in compliance with the request of the Society, the Regents of the University, had conferred the honorary degree of Doctor of Medicine, on the following gentlemen, nominated by the Society at its last meeting, viz: Drs. John Onderdonk, New York; Jonathan Eights, Albany; Laurens Hull, Oneida; James Stevenson, Washington; Thomas Fuller, Otsego; Gain Robinson, Wayne.

At the same time a committee was appointed to nominate to the Society six gentlemen to be presented to the Regents for the honorary degree of medicine during the following year.

The six men who were first to receive this honorary degree of Doctor of Medicine at the request of the Medical Society of the State were distinguished members of the organization, of whose medical skill and liberal education there could be no doubt. Two of them were subsequently to receive the honor of being elected President of the State Society and the others were to be widely and honorably known in their professional capacity. It is evident that they were selected from different parts of the State deliberately in order that there might be no possible ground for the complaint that perhaps personal influences had had much to do with the selection. In spite of the fact that it was suggested that the committee should select six names to be recommended to the Regents during 1828, the Transactions of 1829 only report three men as having received the degree. They were Drs. Thomas Broadhead, of Columbia; John B. Henroy, of Monroe, and Eleazor Gedney, of Orange. Whether the three other names proposed were rejected by the Regents there is no way of determining from the transactions of the Society.

CHAPTER XII.

MEDICAL CURIOSITIES OF OPINION AND OBSERVATION.

The volumes of the transactions of the State Medical Society for the first half century of its existence, do not contain many direct contributions to the science of medicnie. The reading matter is mainly composed of minutes of the meetings with addresses of the Presidents for the first twenty-five years, and then, prize essays and addresses of various kinds with a few medical articles in the stricter sense. Some of these articles have quaint medical notions not yet gone, some contain observations of great clinical value, and some of them describe distinct rarities in medicine and surgery. As the earlier volumes of the Transactions are now not easy to obtain and very few people have the opportunity of consulting them, it has seemed wise to select certain notable contributions to the medicine of these early years in order to call attention to a fruitful field in which information for the history of medical and surgical progress in America may be obtained. Only the more striking observations have been selected.

MALARIA VERSUS CONSUMPTION.

Those who are interested in the history of American Climatology as it relates to pulmonary tuberculosis especially will find matter for reflection in the following notes, to the anniversary address as President of the Medical Society of the State of New York, by Dr. John Stearns in 1819.

"The proportion of deaths by consumption in the bills of mortality in New York and Boston are 1-4, in Philadelphia, 1-5, while all accounts concur in representing it to be a very rare disease in Kentucky, Ohio, Indiana and up the Missouri. A knowledge of this fact has induced some consumptive patients to seek relief in that section of the country. The success equalled their most sanguine expectations. This peculiar salubrity, probably, originates from the marsh miasmata with which the atmosphere is surcharged, and which recent experience has proved to be highly salutary in this disease. May we not anticipate the period when our western deserts will become the Montpelier of America, and be as much resorted to for health as they are now for subsistence?"

SELF-PERFORMED CESAREAN OPERATION.

One of the most striking stories in the Transactions gives the details of a Cesarean operation performed by the patient upon herself under circumstances that would seem to preclude all possibility of recovery, yet with an uneventful convalescence. Most of these stories have been discredited, but the present instance rests on such good authority and is so thoroughly substantiated that it does not seem possible to doubt, in any way, of its occurence.

In the year 1823, when President of the Rensselaer County Medical Society, to which office he had been elected the second time, Dr. McClellan communicated to that Society that singular case of self-performed Cæsarean section on the person of a mulatto girl living in Nassau. Twins were extracted, the wound cleansed and properly dressed and the girl recovered. The time she chose for the operation was while the family were at dinner; the place, behind the barn on a snowbank; and her instruments, her master's razor and a darning needle. The case was copied in several medical journals. It was first published in the *New York Medical and Physical Journal* for March, 1823, page 41, to which journal it was sent by order of the Rensselaer County Medical Society. It was also published in the London *Medico-Chirurgical Review,* vol. 5 (1823), page 236. The editors of the latter journal doubted the correctness of the story. It was nevertheless true, and only tends to show how tenacious of life the human body sometimes is, and to what extreme injuries it may be subjected, and still, life continue and health be restored. Dr. Bassett, whose patient she was, is still living, as the subjoined letter will prove:

NASSAU, N. Y., January, 1857.

My dear Doctor:

The obstetric case referred to in yours of the 11th inst. occurred January 29, 1821. The wound healed by the first intention. Bleeding was resorted to once. There was suppression of urine which required the use of the catheter for about a week. She left Nassau the May following perfectly well. Six years after I saw her in Troy. She was living with a Mr. Rogers in the capacity of a servant girl. Since then I have not heard of her. With respect, truly yours,

E. D. BASSETT.

Dr. T. W. BLATCHFORD.

FATAL RUPTURE OF VEIN IN BROAD LIGAMENT.

In Volume IV of the Transactions, Page 334, Dr. James McNaughton, who was afterwards President of the State Society, reported a sudden death from rupture of the spermatic vein which is probably one of the first of these cases on record. The patient was not as might be expected from the title a male, but a female, and in the broad ligament there were a series of tortuous varicose veins, one of which ruptured. The account reads very much like that of a case of ruptured extra-uterine pregnancy, but the autopsy was made very carefully and it is explicitly noted that there was not pregnancy, uterine or extra-uterine. All the observations in this case were made with the greatest care and it is an excellent example of the diligent study which the men of these early times gave to their cases.

EQUIVOCAL GENERATION.

In Volume VI there is a medico-legal article on Equivocal Generation by Thomas W. Blatchford, who was subsequently a President of the Society. He had been summoned in a case of slander to give a medical opinion. The slander consisted in a declaration by the defendant that the plaintiff had given birth to a creature that partook of the nature of a dog. The whole subject of the possibility of such equivocal generation is discussed very conservatively and with a thoroughness of scientific treatment that is a little surprising seeing that the interest in biological subjects generally had not as yet been aroused by the coming of Darwinism and that medical men particularly dabbled much more in botany, mineralogy and other sciences allied to the therapeutic side of medicine at that time, rather than in the biological sciences. Some of the authorities quoted, however, lay down rather amusing principles in the light of our modern knowledge.

EARLY REMOVAL OF OVARIAN TUMOR.

In the Volume of Trancactions for 1849 which is bound in with those for the preceding years, 1847 and 1848, Dr. Alden March, who was to be subsequently a President of the Society, reports the successful removal of an ovarian tumor weighing some eighteen pounds. The tumor was an ovarian cyst of the monolocular variety and had not as yet contracted any adhesions to surrounding structures. Dr. March considers that he would prefer to operate without previous tapping except in as far as the tapping might be done for diagnostic purposes. In discussion the case he suggests that where adhesions exist the operation would be very difficult. He hints in conclusion that the ease with which certain of these operations may be done will almost surely tempt physicians to do more of them than is absolutely necessary. This operation was performed December 10, 1849, and is one of the very early successful cases of its kind.

FEMALE DRESS AND DISEASES.

It is not surprising to find that one of the principle articles in Volume VII of the Transactions treats of that very interesting subject Dress and Disease in Females. It is, however, of the nature of a surprise to find that just exactly the same faults were found at that time with woman's dress as at the present time and that notwithstanding the protests of physicians for considerably more than half a century, there has been so little amelioration of the faulty condition. Dr. William D. Purple, who writes the article, complains that by the decree which comes down from fashion's throne the female must be moulded into a more angelic form and be made to approximate by an hour glass constriction to the sylph-like form of the ant upon the mole-hill. After the corset he finds the most objectionable feature of women's dress the hanging of heavy skirts from their waists rather than from their shoulders. No man, he considers, would be able to go on with his work if he had to wear the heavy petticoats of those days dragging down as a burden from his waist.

The evils that Dr. Purple considers to flow from these unfortunate mistakes of dressing according to the dictates of fashion are just those which have been emphasized ever since. The displacement of the abdominal organs, leads to interference with the blood supply of the uterus, affecting the the veins more than the arteries and so causing congestion with all its train of attendant pathological conditions. After the genital organs the most important affection is that of the bowels, and the constipation, which even then was so common among women, Dr. Purple does not hesitate to ascribe to a considerable extent to faults in dress. Of the liver he has less to say, though there is a hint of congestion here also. The increased pressure within the abdomen he thinks must interfere with the movements of the diaphragm and constantly with respiration. For him many of the anemic conditions which develop especially in young women must be attributed to this concatenation of circumstances.

SECRET NOSTRUMS.

In the Transactions for 1851 there is a special prize essay which because of recent developments can scarcely but prove of great professional interest. Dr. Alonzo Clark, of New York, offered a special prize for an essay on the subject, "The Pernicious Effects of Nostrums or Secret Remedies upon the Morals and Health of the Community." The prize was awarded to the essay written by Dr. John G. Sewall, of New York. The main features of the essay are exactly those which come up in the discussion of the same subject in our own time more than half a century later. Dr. Sewall complains of the formation of drug habits, of the exploitation of the poor and of those suffering from chronic ailments, and does not hesitate to say that many of the certificates of cures issued by the nostrum people were false. In the matter of morality the most serious thing is the advertising in public newspapers, where young folks may read them, of all the hideous details with regard to private diseases; and he registers his complaint that newspapers which expect to circulate in a family should be allowed to admit such advertising material to their columns.

The conclusions of his essay are far in advance of his time and show a conservative estimate of the real value of drugs that is rather surprising considering our usual ideas as to the evolution of medicine before the middle of the nineteenth century. Dr. Sewall says:

"First: That, the idea that there is any necessary and direct connection as of cause and effect between the administration of drugs and the eradication of disease, is idle and visionary, by which it is not implied that they are of no utility when in wise hands, but always of subordinate utility, the best never being substitutes for but adjuvants of nature. Second: That, no treatment of disease can be a rational one save such as follows the indications of nature founded upon an earnest and persevering study of her laws as manifested in health, and in those irregularities of normal life in which disease consists, with their application to the individual constitution; a study which finds that the nearer the arcana of nature are aproached the more simple are these elements with which she deals and the greater the confidence that should be yielded to her own restorative powers."

INEBRIETY AS A DISEASE.

A very interesting passage from the inaugural address of Dr. Fordyce Barker, of New York, at the meeting held in February, 1860, referred to the recent establishment of an inebriate asylum, and called the special attention of the State Medical Society to the good that might be accomplished by such an institution. It is the custom sometimes to say that the recognition of inebriety as a pathological condition is much more recent than this. But Dr. Barker's declaration will help to show that even in the middle of the nineteenth century physicians were definitely of the opinion

that dipsomania should be treated as a disease rather than as a malicious mental condition. He said:

"It is now an accepted opinion of the medical profession that inebriety is a constitutional disease, sometimes hereditary, sometimes acquired, as much as any malady which man is heir to. To that untiring philanthropist, Dr. J. Edward Turner, belongs the merits of first having called the attention of the profession and the public to the necessity of an asylum where the inebriate could be morally and medically treated, with sufficient restraint to control the patient. The State of New York has the honor of having chartered, in 1854, the first inebriate asylum in the world. At the laying of the corner stone of this institution, Mr. Everett remarked that 'in laying the foundation of an asylum for this State, if it succeeds, you have laid this day a corner stone for a similar asylum in every State of this Union, in every kingdom of Europe.' Already has this prophecy partially become history, for efforts are now being made to establish similar institutions in other states and in some parts of Europe.

"It is characteristic of the profession that more than fifteen hundred leading physicians were petitioners to the Legislature for an appropriation for this institution, and that nine hundred physicians of this State subscribed $10 each for building the hospital. The State Medical Society has also unanimously recommended it to the favor and earnest support not only of the Legislature of the State, but of the public at large. I am informed by Dr. Turner that since the institution was chartered, the trustees have received three thousand one hundred and thirty-two applications for admission as patients to the asylum, although the walls of the hospital are not yet completed. The trustees state in their appeal, that 'among the applicants are twenty-eight clergymen, thirty-six physicians, forty-two lawyers, three judges, twelve editors, four army and three naval officers, one hundred and seventy-nine merchants, fifty-five farmers, five hundred and fifteen mechanics, and four hundred and ten women who are from the high walks of life.' The above statement is alone a comprehensive argument for the zealous and continued interest of the profession in this institution."

(To be continued.)

The Treatment of Constipation in Children.—Here the causes can be arranged under the readings: (a) *Contents of the Intestine.* Insufficient quantity of food always produces constipation in infants, unless the food has decidedly laxative qualities or the bowel is diseased; the first symptom of inadequate feeding is constipation; improper foods, too many carboydrates, too little fat, and changes in albumin also may be followed by constipation. Nothing produces constipation so frequently as the various methods employed to serve milk; whether this is due to destruction of bacteria, which otherwise produce changes in the intestine that stimulate peristalsis (chaedle), or to the fact that albumin is converted into less stimulating products is immaterial. The best treatment in these cases is to give raw milk, which in and of itself is a normal stimulant to peristalis. As this is impossible under many circumstances, cream may be added to the preserved milk as a laxative—oatmeal water, sometimes malt preparations, beef juice. Feeding with starches should be avoided. For the treament of this class of patients the proper quantity of food should be sought.

(b) The *muscular wall* of the intestine is frequently insufficiently developed, so that the normal peralistis becomes impossible. Here gentle massage may be tried; as a rule rectal measures are indicated.

(c) *Increased resistance to evacuation.*—Here the anomalies found in the colon, and so well described by Jacobi, must be taken into consideration. They are much more common than is accepted by the profession at large. The only remedy is to empty the bowels by rectal means. Hernia in children, without becoming incarcerated, frequently produces constipation; a well fitting truss or the radical herina operation will cure it.

In dilatation of the colon the attempt may be made to cure the condition by electricity or massage; but when there is danger to life, surgical procedure (resection of the colon) should be attempted; in children every case of constipation should be examined for *changes about the anus.* Fissures of a very trifling extent are frequently found; these should be treated by aristol powder or silver nitrate; I have never found it necessary to tear the sphincter by stretching. *Prolapse* of the anus is best treated by reposition after careful cleansing, by the injection of astringents, or, when necessary, by cauterization. In some cases worms (oxyurides) produce constipation.

Medicinal Treatment.—Drugs should be used even more rarely in children than in adults. When these are necessary the most unirritating should be given. Cascara and malt preparations, senna, rhubarb, and salines will usually suffice. In infants the habitual use of medicine should never be countenanced, for the cause should always be treated.—Forchheimer: The Prophylaxis and Treatment of Internal Diseases.

Prevention of Pulmonary Tuberculosis.—It may seem presumptive to declare that if pulmonary tuberculosis is ever to be stamped out it must be through a more intelligent appreciation, on the part of physicians, of its infectiousness and communicability, and, what is more, of its entire preventability. In his address on administrative control before the Phipps Institute in Philadelphia, Dr. Herman M. Biggs stated that Robert Koch went further than this by declaring that the disease would not cease to exist until the present generation of medical men had died out. They must be replaced by physicians thoroughly imbued with the bacteriology of the tuberculosis problem, and, therefore, with its communicability and preventability. They must believe that it is propagated through contact and not inheritance. Dominated by this conception they will then become disseminators of this doctrine among their patrons. They will no longer leave the work of preventing this terrible plague to health boards and to the enlightened of the laity.

The doctor must teach both by example and precept that the prime essential to freedom from tuberculosis is plenty of pure air and sunlight in the dwelling. The poor are apt to keep windows closed in the winter time to save fuel, whereas, if they admitted more oxygen they would not be so sensitive to the cold and would find their rooms heat up more quickly. It is particularly in the children's nurseries and in the bed-chambers at night that plenty of fresh air must be insisted upon. People have a silly prejudice against night air, fancying that it is damp and unhealthful. It may be damper, and it certainly is colder than that of the day, when the sun is shining, but it should be purer because not so contaminated by dust stirred up by passing vehicles and by the smoke of factories.

At all events, air from outside the house is purer and freer from germs than is that within. For this reason every physician should preach the gospel of fresh air to his patients and friends. The weapons to be employed in the battle with tuberculosis are pure air, sunshine, wholesome food, and clean living in every sense. It must be borne in mind, however, that the public will not employ these weapons unless taught to do so by physicians. Prophylaxis is far higher and nobler than therapy, and the community has a right to demand of its physicians that they instruct it publicly and privately in the principles of the prevention of this plague that carries off the very flower of its youth and manhood. —Babcock: Diseases of the Lungs.

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Editorials.

THE GENERAL PRACTITIONER AND THE CLINICAL LABORATORY.

THE time was when the practitioner of medicine worked independently and alone, jealous of his own knowledge and skill. The modern practitioner does not harbor this jealousy, but lives and works in an atmosphere of co-operation. We believe very strongly that the principles of reciprocity are to be still further amplified among practitioners of medicine. No better fortune can come to the young man, even though he has just finished an interneship, than to begin his practice in close association with a well educated physician with a good sized clientele. The younger man should be his senior's assistant. His great value will be in the finer methods of clinical diagnosis. He also can give his attention to looking up the literature of cases which are being studied and to the investigation of the newest methods of treatment.

The equipment necessary for applying the modern methods of clinical diagnosis is neither formidable or out of the reach of the general practitioner. It does not require a complicated laboratory, although a laboratory is most desirable. A table for a microscope and its appurtenances is necessary. If there are no rooms adjacent to the consulting room, a small incubating oven may be set up in the kitchen. The apparatuses for blood counting and for determining blood pressure should be added to the clinical thermometer and the stethescope. The important examinations to be made are of the sputum, the urine, stomach contents, feces, the blood, and bacteriological tests of mucous membrane discharges. The young men who are now being sent out to practice medicine have been taught these things, and they should practice them. The best conditions of general practice are served when the busy practitioner associates with him such a man. Their mutual interests will be helped. It is universally true, that, the better work a physician does, the better are his emoluments, and we dispute the allegation to the contrary.

We must return, in a measure, to the old system of preceptor and pupil; the latter, however, being a licensed and scientific physician who gives as much as he receives. He should give his services as an assistant in the lines above referred to. He also may be called upon to do some of the night work, to do dressings, administer anesthetics, and in many other ways to lighten the burdens of the senior, and in so doing help out his own income and lay the foundation for his future work. The latter can contribute the lessons which experience has taught. He can give his assistant—or, preferably, *associate*—the benefit of that combination of knowledge, skill, tact, and judgment which the schools cannot teach and which can only be developed by time, and well guided experience; it is the atmosphere that surrounds the ideal physician. He can turn over to his associate cases which he prefers not to treat.

The same younger man may be associated with two or more physicians if one has not sufficient work to keep him busy. As the younger man becomes more and more engaged with general practice he will give less time to the laboratory, but it is surprising how habits of accuracy in diagnosis cling to a man who has once practiced them. It is also surprising how difficult it is for a man, who starts in practice "by the rule of thumb," to get away from his careless habits. About the worst thing that can happen to a young man is to enter immediately into a large and driving general practice before he has had a chance to get himself squarely oriented with regard to general medical work. The best results are to be secured by gradually growing out of the clinical laboratory into general practice.

SHOES.

A MAN in quest of a pair of shoes of the shape of the human foot, may walk the length of Broadway, flatten his nose against the windows of most of the shoe-shops, peering in for what he seeks, in vain. Let no man lay to his soul the flattering unction that we are a highly civilized people, and that those who distort their bodies are not, until he has made a fluoroscopic inspection or confronted himself with the shadow-picture of his own shod foot. The savage mother who distorts her growing infant's head is not less kind than is our own task-mistress, Dame Fashion, in her treatment of our feet. So inured and resigned to fate have we become that we utter no complaint, but placidly fall in line like the patient brute at the smithy, and take what the potent shoe-man puts on our all-enduring feet. When some bold spirit ventures a remonstrance he is easily quieted and his temerity repulsed by the admonition that, "this is what is worn now," or "they are no longer made." The sins that are committed in the name of Bluecher should make the toes of that mighty warrior squirm. Nor could these offenses against the human foot be mitigated by great names, even though all the perpetrators were governors of States.

Several thousand young men are rejected each year for positions in the fire and police departments of one of our great cities. Fifty per cent. of those rejected have abnormalities of the feet, caused by distorting shoes. As the coverlets are turned down to expose the lower extremities of our patients in the hospitals, what exhibitions of feet are we accustomed to see! Some of these with hallux valgus and over-riding toes can only be described as horrible, and doubly horrible when we think that these deformities are not the results of accident or uninvited disease, but are deliberate mutilations, practiced with the view to personal adornment, just as much as are the nose and ear splitting operations of the Hottentots. Nor are we altogether justified in the assertion that the deformities in question are not the result of accident: in truth, these unfortunates are the victims of the accident of defective education. Thus we see that, for defective education, outraged nature may take revenge on either head or feet—and sometimes on both; for history records the case of a great man, deeply learned, but defectively educated to the degree that for half his life he filled his mind with superstitions and his shoes with distortions of the feet, and then for the latter half shook both extremities most vigorously to rid them of the plague of early errors. The young man little thinks of the troubles he is laying up for his advancing years. The orthopedists are doing the best they can, but they can not compete against fashion, for the latter has the public ear, and our enlightened ethics discourage the orthopedist from speaking into it, excepting through the family physician. Gradually we have purged ourselves from above downwards of mutilating adornments—ear-rings and distorting corsets are no longer in repute—but misshaped shoes, the parents of misshaped feet, remain to be shaken off. A branch of learning and a profession—chiropody and the chiropodists, licensed and recognized as a learned cult by the State—exists by virtue of foot distorting shoes. And yet, a man in the act of developing hallux valgus, corns and hammer toes will frankly declare that his feet are most comfortable, as was the wont of the corseted woman, with rib marks on her liver, to insist that her stays were very loose because she could slip her hand under them.

The day will inevitably come, and soon, when we should as soon think of distorting the faithful foot as we should think of misshaping the willing hand. It is only a simple matter of education, and the forces to bring it about are at work. When that happy day comes the ancient practice of walking will return into vogue. Then shall men stand upright and squarely on their two feet, ready to declare, "this rock shall fly from its firm base as soon as I."

TOXEMIA FROM UNDRAWN POULTRY.

IN the efforts which have been made to remedy the practice of the cold storage industry some instructive information has come to light. Cold storage owners have testified that poultry is kept in storage for three and four years in the undrawn state, and then sold for food. We know that spring chicken appears upon the bills of fare every month in the year: it is always spring with the cold storage industry. The poultry which is supplied thus to Eastern cities is collected from all parts of the country, even from Texas, Louisiana and Florida. The fowls, after slaughtering, are divested of their feathers, and then

packed in barrels and shipped. The abdominal and thoracic organs, heads and feet are not removed. These shipments are made by rail and steamboat, and several days often elapse before the cold storage warehouse is reached. The craws, containing partially digested food, the decomposing lungs and livers, and the intestines, with their putrifying contents, all contribute to increase the weight of the fowl.

Dr. M. Cavana, of Oneida, N. Y., has undertaken a systematic study of this subject.* He had made by Dr. R. L. Crockett, City Bacteriologist of Oneida, a series of cultures from the edible parts of the flesh of cold storage fowls, which throw much light upon the etiology of certain forms of food toxæmia. Cultures made from the breasts and legs of one hundred undrawn fowls showed the permeation of the tissues in each specimen with various groups of organisms. Some tests showed as many as eleven distinct varieties of bacteria in one poultry specimen. Among the bacteria identified are the B. coli communis, found in 100 per cent. of the specimens; Staphylococcus pyogenes aurens, in 20 per cent.; B. protens vulgaris, in 6 per cent., and Streptococcus pyrogenes, in 65 per cent. Tests of the intestinal contents of recently slaughtered fowls revealed all of these organisms in large numbers in every case, and their presence in the remote tissues of the undrawn cold storage specimens points unmistakably to the alimentary canal in the sealed up abdominal cavity of the carcass as the source of infection.

The widespread infection of these fowls probably takes place before they reach the cold storage. Dr. Cavana, in order to determine this, had made a series of experiments which showed that complete infection of the carcass is affected in four and a half days after slaughter. At a temperature of the ordinary refrigerator (40° F.) such fowl showed invasion of the abdominal walls with intestinal bacteria at the end of the ninety-sixth hour after slaughter; four and one-half days after slaughter the muscles of the breast and legs showed the above mentioned organisms. At a temperature of 70° F., the intestinal bacteria had invaded the abdominal wall by the eighteenth hour, and by the twenty-seventh hour the breast and legs were invaded. Other experiments were made with fowl which had been divested of abdominal and thoracic viscera within thirty minutes after killing. The carcass in this case, stored at ordinary refrigerator temperature (40° F.), showed no trace of intestinal bacteria, tests being made every twelve hours for twenty-eight days. A fowl killed and properly dressed was stored at a temperature of 70° F.: this gave none of the intestinal bacteria in any of its tissues, although tests were made every twelve hours up to the fourteenth day, showing only nonpathogenic organisms upon the surface and in the cavities.

The frequency of food toxicosis testifies to the clinical importance of these observations. It is evident that the poultry of the market presents a distinct hazard which could be overcome, or at least greatly reduced, by a removal of the viscera immediately after slaughter. Inasmuch as there is no disposition on the part of the producers or dealers to comply with this simple hygienic demand, the only protection which remains to the consumer is through legislation.

*Read before the American Association of Railroad Surgeons, October 17, 1906.

LEUKEMIA.

THE real character of acute leukemia seems still to evade the most persistent researches. New information concerning this disease is constantly being acquired, but still we remain in darkness as to its etiology and therefore as to its therapy also. Many features of the disease have the appearance of an infective condition, but where changes have been found in which it was hoped to find an infective nidus, usually it has been discovered that the changes were due to the disease instead of being in causal relation to it. Bacteria have been found in the blood in some cases, but no etiological significance could be fixed upon them. Mendelsohn reports a case with throat symptoms like diphtheria.

Besides the blood changes, the changes in the lymphatic structures have long been known. The increase of lymphoid cells and leucocytes is perhaps the most characteristic feature of the discase. Recent studies have shown certain peculiarities in the leucocytosis which are quite constant. The large lymphocytes seem to be the prevailing type, the percentage being as follows: Large lymphocytes, 90 per cent.; small lymphocytes, 4 per cent.; polymorphonuclear leucocytes,

4 per cent.; myelocytes, 2 per cent.; eosinophiles, 0.5 per cent.; no basophiles or eosinophilic myelocytes. Mendleson and Sondern have found the large lymphocytes to predominate until the day of death, when their number fell to 30.3 per cent., and the small lymphocytes rose to 53.1 per cent. It is not sufficient to estimate alone the white cells, a differential count is necessary. There are cases in which the white cells are normal in number, and the diagnosis is only made by the differential count. That there is a relationship between acute leukemia and pernicious anemia is suggested by McCrae.

Recent studies made by Edsall show an enormous increase in the excretion of nitrogen and a considerable increase in the excretion of phosphorus. This points to the great increase of metabolic activity in the body and destruction of tissue.

A circumstance pointing to infection as a factor in myeloid leukemia is the occurrence of eleven cases within a small district, all within a few years, reported by Arnsperger. The patients were five women, four men, and two children. A certain relationship to typhoid fever was present in these cases.

The chief addition to the therapy of this strange disease has been the application of the X-ray. It has been found that the continuous exposure to the ray causes in animals a decrease in the erythrocytes and hemoglobin, but principally in the leucocytes, the lymphocytes being reduced to the greatest extent. After discontinuance of the exposures the blood resumes its normal condition, showing that the blood-making organs are not damaged. It is shown that the white blood cells are electively affected by the X-ray, the lymphocytes being most susceptible to its influence. The ray causes the formation in the blood of a leukotoxin, which, when injected into other animals, destroys leucocytes. This leucotoxin has the power of producing an immunity against itself. It is sufficiently irritating to produce nephritis by its elimination by the kidneys. Edsall and Musser have treated a series of cases with the X-ray, and reported good results. The curative effect of this treatment is still in question, but a reduction of the number of leucocytes and a diminution in the size of the spleen is usually secured. The patients' general conditions seem to have been improved. Further experience in this line may bring still more hope for the relief of this distressing disease.

Observations.

ON FEDERAL INTEREST IN THE HEALTH OF THE PEOPLE.

"To be a good animal is the first requisite to success in life, and to be a nation of good animals is the first condition to national prosperity."—HERBERT SPENCER.

The Cabinet of the President of the United States is made up of the Secretaries of State, of the Treasury, of War, of the Navy, of the Interior, and of Agriculture, an Attorney-General and a Postmaster-General. These gentlemen are at the heads of departments which have to do with the economics of government; but only remotely do any of them have to do with the very thing which concerns most closely the happiness, and therefore the prosperity, of the eighty millions of people whom they represent—their health. The health of our pigs has representation in the Cabinet, but not our children. I shall not attempt to say what the title of the officer should be who presides over the department, the business of which shall be to conserve the most vital interest of the people, but I shall say that such a department could be made the most useful and important of all the departments in the Government, and I except none. If there were a National Department of Health, or Sanitation, with a Secretary at its head, it could serve the Nation to a degree of efficiency even greater than that with which our municipal departments of health serve our cities or the State departments of health serve our States. That there should be such a department is one of the most urgent needs of our country.

The centralization of authority is essential for a great work. With the whole nation back of such a department and the powers of the Government at its service its usefulness would be incalculable.

* * *

At the present time there are private societies all over the land endeavoring as best they can to check the ravages of tuberculosis. Suppose the vast power of the Government were turned in this direction: it is difficult to imagine the great good that would result. Municipalities are struggling, each in its separate way, with the typhoid fever problem. If only the Government would come to the aid of all of them with a systematized campaign against typhoid fever, can one imagine the fulness of the beneficent results that would accrue?

If the solution of the problem lay in education, think of the facilities of the Government for advancing the cause of education and public information. The presses at Washington are busy turning out the effusions of Senator With-an-ax-to-grind, and our mails distribute them broadcast over the land. Suppose these forces were employed in the campaign against tuberculosis, instead of in the interest of, say, the

express companies, would not the public money be spent to a better advantage?

There are now living in this country eight millions of people who are destined to die of tuberculosis: that is equivalent to all of the people in the State of New York. One hundred and fifty-eight thousand people died last year in the United States from that cause. Tuberculosis is a preventable disease. The knowledge sufficient for its extermination is now in the literature of medicine. The State could take this knowledge, without further medical assistance, and consummate the work. The fight against tuberculosis should now be in the hands of the State. Medicine has gone about as far as it can. But in this fight the burden is still made to rest upon the Medical Profession: the State is not putting its hand to the task as it should. The man who has read history correctly knows that ultimately tuberculosis will be exterminated. How dearly we should prize the saving of some of those who are to be sacrificed upon the altar of delay. Suppose the Government should do its best to preserve some of these 8,000,000 people. Let us say that it saved only one million and preserved another million or deferred for a year their period of incapacity. The commercial value of that alone would pay all of the expenses of a national health department conducted upon a most elaborate plan.

* * *

During the coming year, some 1,700,000 people are destined to die in the United States. The Government is spending money on the study of infusoria dredged from the bottom of the sea, it is doing all that it can for the protection of the trees and pigs from disease, and it is devoting vast sums of money to study and protect from diseases clams, lobsters, and shad—all of which is most commendable—but while the interests of these things are represented in the Cabinet of the President, our own may sicken and die of diseases which governmental authority might prevent, while the Government whose function it is to protect us takes no cognizance of our plight. What shall the historians of future peoples say of the government which concerns itself more with tuberculosis in cows than in men? In the United States of America a sheep with anthrax receives the attentions of a secretary of the Cabinet, but a whole community of men might have this disease and there is no secretary to interest himself for them nor to preserve the well. There are a thousand men in this country as capable of doing for us as was Pasteur for France—I cannot say the opportunities would be as great. We could have their time at the rate of the pay of a colonel of infantry. Does anyone believe that it would not be a good investment for the Government to encourage the study of human health and diseases?

According to our last statistics we may calculate that during the present year about five millions of our population will be constantly sick, which means that continuously over four million families, representing twenty-five million persons, will be affected by sickness. What affairs of state are more important to this one-third of the population of the country? What does the Secretary of the Treasury do for them? What burden can the Secretary of War lift from their aching hearts? How can the Attorney-General assuage their grief? What does the Postmaster General to reduce the frightful morbidity? And the Secretary of the Navy? and the Secretary of the Interior? and the Secretary of Agriculture?

* * *

No, the thing which is closest to the happiness and prosperity of the people has no representation. The nearest we come to it is in the Public Health and Marine Hospital Service, a small medical department, in relation chiefly to that of the Army and Navy, with little authority, yet splendidly efficient. Common sense and common humanity have prompted the Department of Agriculture to undertake much work of a distinctly medical character. The need and opportunities for such work are evident to all observing people. Curiously enough, the Department of Agriculture, according to the provisions of the Pure Food Bill, is called upon to pass judgment upon drugs, medicines, and foods intended only for human use!

Modern medicine, modern sanitation, has shown what it can do to reduce mortality and improve the health of communities. In its beneficent power the Government would have its most potent agent to promote and conserve the prosperity of the people. Most of the diseases with which these 80,000,000 people suffer are subject to amelioration, and many of them are absolutely preventable. Yellow fever, tuberculosis, typhoid fever, malaria, and many other diseases are susceptible to the interpretations of interstate laws just as well as the railroads are. One State might reach a high degree of efficiency in dealing with these diseases, but failure to do so on the part of neighboring States would negate its work. Streams flow, people travel, insects fly, and winds blow, carrying disease from one State into another, and these matters are too big and too vital for each community to try to settle for itself. Railroad cars are not the only things that may carry trouble between the States. The milk consumed in New York City comes from at least six different States, all with different laws and different systems of inspection. The milk problem will never be solved satisfactorily until there is federal supervision of the country's milk supply.

Each State might have a laboratory for cancer research as New York State has, but a federal laboratory with the power of the Government behind it would have a greatly increased efficiency. The several States have no relationship

or channels of official connection with the countries which are carrying on scientific work, but the Federal Government has. The Government which lends aid to foster the industries can afford to aid the advancement of medical science, the science preservative of its brawn and brain.

Another needed service is the equalization of the medical laws. The requirements for practice should be the same in every State. It should not be possible for a person who is debarred from one State to find that he can step over the line and practice in another; and a man who is competent to practice in one State should be competent to practice in all.

* * *

The wonder is that so much time has elapsed without this great country awakening to the appreciation of the advantages of a central Department of Sanatation, presided over by a Sanitary General. Why has it not been done? The reasons are various: Lack of unity on the part of the medical profession; lack of knowledge of the capabilities of medical science on the part of the public; and a prevalence of the general notion that the object and function of the doctor is to attempt to cure diseases with medicines more or less noxious, to deliver parturient women, and to perform the wonders of surgical legerdemain. When the statesman is confronted by a question involving the medical profession, there comes to his mind at once the representative of that profession, hastening through the streets on one or another of these errands. If he has ever sat upon the bench or practiced in courts of law he has seen this same doctor swear to something which his brother physician swore was not true. This has given him a one-sided view of the meaning of medicine; and it is most unfortunate that this one-sided view prevails in our legislative halls. Many of the men who draft our laws are of that class which most readily takes up with the therapeutic fads. This is not because of any particular virtue which they discover in these fads so much as because of the fact that they claim to be different from the regular practice of medicine. The ignorance of the meaning and mission of medicine, displayed by our public servants in high places, is a matter of notorious and egregiously lamentable evidence.

The remedy lies in education—education not only of the public but also of the medical profession. The medical profession will not be understood and properly respected by the public until the doctor understands and respects his brother, and until his brother is in every way entitled to his respect; and, happily, we are working towards this end. The time surely is coming. It requires no extraordinary insight to peer into the future and behold the position of exalted importance which medicine is destined to occupy. It shall be more honored than any of the avocations of men. Its administrations shall be more kind and its results more beneficent than philanthropy itself. It shall stand between the living and the dead, and men shall call its mission holy.

Items.

New York City Mortality Statistics for 1906.—The number of deaths of children two years and younger in New York City for the year was 6,689. The number of deaths of children under five years of age was 25,777. From typhoid fever there were 639 deaths; from scarlet fever, 491; from diphtheria and croup, 1,898; tuberculosis of the lungs, 8,955; tubercular meningitis, 765; other forms of tuberculosis, 474; smallpox, 6; measles, 1,145. The death-rate from all causes was 18.35 per 1,000.

State Board of Charities.—The 1906 report of the State Board of Charities shows that $1,945,089 was appropriated by the State to charitable institutions. The Board recommends that the Legislature appropriate for the coming year $1,415,000 for maintenance and $467,920 for new buildings and improvements. On January 1, 1907, there were 7,753 inmates in the almshouses of the State. The Board recommends the building of a hospital pavilion for the Soldiers and Sailors' Home, as there are many cases for tuberculosis among the veterans requiring better care. The report shows that there were 30,618 children remaining in institutions at the close of the fiscal year. A plea is made for the establishment of a new custodial asylum for the care of demented epileptics and feeble-minded persons who cannot be cared for in existing institutions. There are 450 idiots and helpless dements in the Craig Colony who are out of place in that institution. There are several hundred others scattered through the State who should receive custodial care and for whom there is no place in established institutions. Some special provision should be made for these unfortunates.

The National Tuberculosis Association.—The third annual meeting of the National Association for the Study and Prevention of Tuberculosis will be held at the New Willard Hotel, Washington, D. C., May 6-8, 1907. The sections for the meeting are as follows: *Sociologic Section:* Mr. Paul Kennaday, New York, chairman; Mr. Christopher Easton, N. Y., secretary. *Clinical and Climatologic Section:* Dr. George Dock, Ann Harbor, chairman; Dr. Joseph Walsh, Philadelphia, secretary. *Pathologic and Bacteriologic Section:* Dr. F. F. Wesbrook, Minneapolis, chairman. *Surgical Section:* Dr. W. S. Halsted, Baltimore, chairman; Dr. Hugh H. Young, Baltimore, secretary. *Section on Tuberculosis in Children:* Dr. T. M. Rotch, Boston, chairman.

First Aid in Railroad Cars.—A bill has been introduced in the Legislature entitled "An Act to Provide for the Keeping of Medical and

Surgical Appliances in Railroad Cars." This bill provides that every passenger car shall have a medical and surgical chest, containing bandages, gauze, absorbent cotten and all necessary appliances for emergency use; and that each chest shall have attached to it a card of instructions giving the method of using the articles contained. Violation of this law is to incur a penalty of five dollars per car for each day of the violation.

NEW YORK SKIN AND CANCER HOSPITAL.—The Governors of the New York Skin and Cancer Hospital, Second Avenue, corner 19th Street, announces that Dr. L. Duncan Bulkley will close his clinical course with four special lectures: March 27, "Practical Points in the Diagnosis and Treatment of Diseases of the Skin"; April 3, "Errors in Diagnosis and Treatment; Don'ts in Dermatology"; April 10, "Danger Signals from the Skin"; April 17, "The Significance and Treatment of Itching." They also announce a lecture by Dr. William Seaman Bainbridge, April 24, "Some Phases of the Cancer Problem," illustrated by a series of cases, in the out-patient hall of the hospital, at 4.15 o'clock. The lectures will be free to the medical profession.

THE MILK QUESTION IN NEW YORK.—The Board of Aldermen gave a public hearing March 7th on the project of compelling the pasteurization of all the milk sold at retail or wholesale in this City. The ordinance provides that after June 1st no raw milk or cream shall be sold at retail or offered for sale in the City of New York, unless it comes from herds certified as free from tuberculosis, and unless it has been certified by the Department of Health as containing not more than 50,000 bacteria to the cubic centimeter. Milk and cream not conforming to this standard shall be pasteurized by exposure to a temperature of 167 degrees for at least thirty minutes. For the purpose of enforcing this ordinance it shall be unlawful to offer raw milk or cream for sale unless thus certified or in cans on which the name of the dairy is distinctly named. Methods for examining herds and for bacterial examination by the Board of Health are given. Eminent authorities to show the importance of pasteurization were quoted. The Health Department feels that its first and most important work is to supervise the conditions under which milk is produced, preserved, transported and sold. It considers the ordinance defective in regard to the number of inspectors and to the bacterial and chemical examination. The Department of Health has under consideration further measures, but does not think it advisable at present to adopt partial or untried measures which are likely to delay or defeat the purpose in view. It had for many years advocated sterilized or pasteurized milk for infants. The feeling is that the general pasteurization of the City's milk is too complex an undertaking, and that it might lead to neglect in the more important things. Great advances have been made by the Department of Health in securing clean milk. This work has been much assisted by the county societies which have certified milk; and it is questioned whether it is wise to adopt new and complicated plans at this juncture.

THE NEW YORK ACADEMY OF MEDICINE ON THE MILK QUESTION.—The Section on Public Health of the New York Academy of Medicine passed the following resolution at its meeting of March 12th, and the resolution was presented to the New York Academy of Medicine at its meeting on March 21st and adopted.

(1) That the Section on Public Health of the New York Academy of Medicine does not believe in the necessity of the compulsory pasteurization of all of the milk supply of New York City, but recommends for the present to all those whose milk supply cannot be proven to be thoroughly inspected and wholesome, and mainly the milk destined for the feeding of infants unless it is "certified," to boil their milk when delivered in the morning for three minutes.

(2) That the health of the City of New York demands a persistence in the policy of supervision of farms, dairies, and creameries, supervision at the points of distribution in the City to the consumer, whether the milk that is distributed has been pasteurized or not.

(3) That local and State health authorities and the Bureau of Animal Industry of the United States Department of Agriculture should co-operate with milk producers to prevent the occurrence of communicable diseases in cattle and their caretakers.

(4) That the Section on Public Health recommends that the New York Academy of Medicine adopt the above resolutions, and that a copy be sent to the members of the Committee on Public Health of the Board of Aldermen, to the Committee of the New York State Legislature having under consideration the Reece bill, and to the medical and the lay press.

THE QUESTION OF SUBSTITUTION TO BE CONSIDERED BY COURT OF APPEALS.—The appeal from the unanimous decision of the Appellate Division of the Supreme Court in Brooklyn, in the action of Laturen vs. Bolton Drug Co., was argued by James Taylor Lewis, the counsel of the State Society, in the Court of Appeals, on March 14th. This case has very wide application, and is of especial interest to the medical profession in that it involves the question of the right of a druggist to vary the prescription of a physician.

The plaintiff in the action was a patient of Dr. Cruikshank, who was called to attend her for bronchitis. He prescribed 4 oz. of Elixir Pinus Compositus cum Heroin (Merrell's), to be taken a teaspoonful every four hours. The drug clerk, not having in the store of the defendant any of the compound prescribed, and his

attention being called to the necessity for Heroin in the prescription, added a sufficient amount of Heroin to make 1-24 of a grain to a dose of the mixture to another compound of Elixir Pinus having a similar name. It developed, however, at the trial that the compound to which he added the 1-24 of a grain to a dose contained 1-16 of a grain to the dose of the acetate of morphine, while in the compound prescribed by the doctor there was absolutely no morphine.

Mr. Justice Gaynor in writing his opinion stated that "there was clearly no negligence in this." The complaint of the plaintiff was dismissed upon the ground that the plaintiff had no proof of injury by taking the morphine, and by his argument in his opinion he determined practically that substitution could be carried on without fear of a damage suit, if the substitute did not actually injure the patient.

It is contended by the patient in the action that there was proof that she was injured, for in the case on appeal it appears that Dr. Cruikshank swore on the trial that he found her nauseated and suffering from the effects of an overdose of opium of some kind. The Code of Criminal Procedure makes the substitution of drugs a crime, and yet the learned justice in his opinion holds practically that you cannot recover in a civil action unless you can show that the patient was actually injured. From this conclusion it has appeared that pharmacists have argued that they are upheld in the substitution so long as they avoid injuring the patient.

This is such an invasion of the relation of physician and patient that it becomes of vital importance to the medical profession and to the public, and it is expected and hoped that this ruling will be overthrown by the Court of Appeals and the case returned to the trial court for a new trial.

Dr. E. R. Maxson, born in 1820, has practiced his profession for sixty-two years.—At the age of 86, Dr. Maxson is practicing medicine in Syracuse with the vigor of youth. He graduated from Jefferson Medical College in 1845. He has also studied law, and is a member of the bar. Besides his interest in the two professions, he finds time for literary pursuits. He is scrupulously temperate and opposed to the use of alcoholic drinks and tobacco. He worked with Lister in the Royal Infirmary in Glasgow in 1867. We wish still longer life and happiness for this venerable man.

American Medical Association will hold its next meeting at Atlantic City, New Jersey, on June 4th, 5th, 6th and 7th, 1907.

The Great American Fraud.—The American Medical Association press has issued a second edition of the fraud pamphlet, containing reprints of all the articles on "The Great American Fraud," from *Collier's Weekly*. This edition includes the articles on patent medicine, and also the second series of articles by Mr. S. H. Adams, on "Quacks and Quackery." They are the result of a vast amount of personal investigation on the part of Mr. Adams. They clearly and relentlessly expose the ridiculous claims of the quacks and charlatans, who are deluding and duping the public. It is desired to get these pamphlets into the hands of just as many physicians as possible. They are sold in quantities at a nominal figure which barely covers the cost. Many county societies have ordered sufficient quantities for distribution to their members.

The College of Physicians of Philadelphia.—The whole profession may rejoice in the fortunes of this institution, which is the oldest medical society in the country. Its library having outgrown its old quarters, Mr. Carnegie offered $100,000 towards a new building, provided that an equal amount was raised by the society. This amount is now forthcoming, and the committee has been authorized to obtain plans, specifications and bids. The new building will cost about $250,000. To Dr. S. Weir Mitchell, it is reported, more than to any other is due the credit of this undertaking. He obtained the gift from Mr. Carnegie and also raised about one-half of the entire amount subscribed. The College, which is a medical society and not a teaching body, was founded in 1787 by Benjamin Rush, John Redman and others. The present site was first occupied in 1865, and the library of the society at that time was comparatively small. To-day it ranks third in size and importance among the medical libraries of the world. The library was started by donations from the members of the society and it owes its growth to the generous contributions that have been made either in the form of books or of money. The library endowment fund at the present time, the income from which is used for the purchase of books and journals, amounts to $60,965. This amount is made up of thirteen large funds, together with the gifts of a number of smaller subscribers. In 1836 the library contained only 291 volumes, and in 1866 9,513. The present number of bound volumes is 82,305, of pamphlets 56,116, and of dissertations 20,978. It receives 728 current periodicals. The library contains a large number of medical antiquities and curiosities, among which may be mentioned a copy of what is probably the first medical book printed (about 1470), the first edition of the first medical dictionary (1473), the first edition of the first book printed on diseases of the eye (1474). Altogether there are 123 books printed before the year 1500. The first medical publication in the colonies was a "broadside" or poster instructing the people of New England "how to order themselves and theirs in the small pocks or measles." The fortunes of this venerable institution have been in a measure duplicated by the New York Academy of Medicine, which has built up a great library and secured rich endowments for its support.

Medical Society of the State of New York.

SCIENTIFIC SESSION: DISCUSSIONS.

ANNUAL MEETING, JANUARY 29, 1907.

PRACTICAL LEGISLATION FOR THE PREVENTION OF BLINDNESS.

DR. F. PARKS LEWIS, of Buffalo, N. Y., read a paper with the above title, for which see page 134.

Discussion.

DR. PETER A. CALLAN, of New York, said that it was a sad commentary that it was still necessary to have a paper like the one just read before the Medical Society, and he thought that the explanation was in the indifference of the medical profession. Some years ago, he said, he read a paper before a local County Society, and he tried to urge the Crede method upon his hearers. He quoted largely from statistics. In the discussion there was one venerable gentleman who arose and said, "Why, Doctor, I have been practicing for thirty years, and I have never had such a case in my practice; therefore, why should I use such a method?" With that indifference to contend with, Dr. Callan asked, what could they expect from the general public. The great point, in his opinion, is to have some law passed to enforce prevention. It is all very well to have on the statutes certain penalties, but he asked, who is going to make it their business to see that the provisions are carried out. To his mind that is the gist of the whole matter. The cases, he said, must be dealt with, yet this present condition would continue for years to come. To men engaged in eye work this subject has been one of great interest and importance. The great number of blind children are blind through a preventable disease. Several years ago in New York City he endeavored to have started a hospital for contagious diseases of the eye, but was not successful. He did not have the co-operation of his confreres. He tried to interest the Society for the Prevention of Blindness, and here, likewise, he was unsuccessful. He believed it would come to this: A society must be established for the prevention of blindness with the headquarters in New York City and branches in prominent places throughout the State.

DR. L. BOLTON BANGS, of New York, said that it seemed to him this is not a subject for eye men alone. They had presented only one phase of the subject. The educational propaganda is what we all should engage in. He said he is a member of the American Society of Sanitary and Moral Prophylaxis, formed for the purpose of influencing the public mind, in order to call attention to certain dangers, not to the eyes alone, but to the general health. This is a subject that concerns, not the eye doctors alone, but all. Dr. Bangs thought that it might be all right to enact laws to compel midwives and obstetricians to make use of prophylaxis, but how about the sources of the contagion? How about the infected husband? We can accomplish good only by a wide education of the dangers of gonorrhea. He did not limit his remarks to a consideration of one organ, but to the whole body. It is not only a moral but an economic question, because the disease limits productivity and therefore concerns no single society. Therefore he favored referring the paper just read and allied papers to the Committee on Public Health, and this Committee should report at the next annual meeting some means by which this propoganda of education can be extended.

A PLEA FOR NEW METHODS IN THE PREVENTION OF BLINDNESS.

DR. LUCIEN HOWE, of Buffalo, N. Y., read a paper with the above title, for which see page 136.

Discussion.

DR. PETER A. CALLAN, of New York, referred to the value of the silver preparations in the treatment of ophthalmia neonatorum. There would be fewer cases of blindness if the ophthalmia neonatorum were treated in the early stages, *i. e.*, before ulceration of the cornea occurred or had commenced. Whether one uses nitrate of silver or argyrol, it ought not to be of so great importance which is used so long as the patient is brought to an expert, or placed under expert treatment, if ophthalmia developed. That was the point he wished to make and to emphasize. Many were loath to use nitrate of silver. An advantage of argyrol was that it could be used in strong solution, and several times a day, and with perfect impunity so far as pain and irritation were concerned.

DR. A. JACOBI, of New York, said he did not know how many civilized towns there are in New York State, whether or not there are any besides Buffalo. Buffalo has supervision of midwives; they have midwives regulated there. Greater New York has not. There are over 100,000 women in Greater New York who were confined by so-called midwives. And of these so-called midwives there are not more than five or six per cent. who knew anything about the business. Many women must necessarily fall into the hands of these women, and for the following reasons: (1) They are not used to doctors; (2) they do not want a doctor; and (3) the doctors do not want that sort of practice. These so-called midwives do not know anything about their business. If they wash their faces once a week on Sunday morning, that is all they do in the way of personal cleanliness. Dr. Jacobi said that we are proud of the extinction of puerperal fever amongst the population in New York, but the facts are different. It is present to-day as it was thirty or forty years ago, but the doctors called in before death give the certificate charging death to nephritis, to peritonitis, to pneumonia, etc.; and as such it is reported in the statistics. This same thing could be said in regard to the eyes. They are never cared for. Dirty women know nothing of nitrate of silver, argyrol, cleanliness, and not even of soap and water. Buffalo has regulated its midwives. Unless the State insists that these women must be licensed, all regulations and recommendations will go for naught. Practitioners appear to have an opposition to having anything to do with widwife legislation. This subject had been brought up in the New York County Medical Society, and one lonely man was in favor of this legislation. There were ninety-nine who did not appear to see the necessity.

So far as the various preparations of silver are concerned he did not think that the obstetricians should be obliged to try them; they could be tried only in large hospitals. He did not think they should be bound to any one synthetical preparation or the other preparations the manufacturers presented for examination. If a man had a good preparation, why not use that? Dr. Jacobi had been informed that 1 per cent. nitrate of silver solution will do the same work that is claimed for the 2 per cent. solution. Therefore, why not use it? It should be preserved active by keeping the solution in black bottles.

DR. BUSBY ALLEN, of New York, made a plea for new methods of prevention of blindness. He said that Dr. Bangs had struck the keynote, and societies should take some concerted action. For instance, trachoma is one of the causes of blindness, and in Brooklyn nearly one-half of the children have trachoma, and in New York two-thirds of them have it. It seemed to him that trachoma should be taken into consideration as well as syphilis. The formation of a Society for the Prevention of Blindness is a good idea.

DR. A. EDWARD DAVIS, of New York, agreed with Dr. Jacobi in what he said regarding silver nitrate, that one should learn to rely upon one preparation which is proven to be good. One of the objections to the use of nitrate of silver is the irritation it causes, but he believed that the weaker solutions, as 1 per cent., are better than some of the stronger. That objection, too, could be removed by having it neutralized with salt solution. Silver nitrate does good in two minutes,

and does not depend for its good upon continuance of its action. Excess of the solution should be washed out.

Dr. F. Parks Lewis, of Buffalo, said, in regard to the nitrate of silver, that a Committee appointed by the American Medical Association had already sent out a letter, asking for the judgment of many upon silver nitrate, and whether it is a salt to be recommended in such cases. Regarding Dr. Allen's remarks in reference to the prevention of blindness, he said that the New York Society for Improving the Condition of the Blind had sent out circulars to ophthalmologists concerning the causes of blindness, asking for measures of prevention, as well as advice and further suggestions, including trachoma. This Society includes in its jurisdiction the whole State of New York, but its officers are in New York City. There are branches in every city in the State of New York, and in the United States. Dr. Gilder would be glad to send circulars to any who desired information on this subject.

Dr. Lucien Howe, of Buffalo, thought that men are likely to be misled by generalities; each statement by each man must be taken at its own value. What they most need is actual observation; and observations made in institutions seem to be the best.

STAPHYLOCOCCUS AND STREPTOCOCCUS JOINT INFECTIONS.

Dr. Lucius W. Hotchkiss, of New York, read a paper with the above title, for which see page 138.

THE SYMPTOMS AND DIAGNOSIS OF RHEUMATOID DISEASE.

Dr. R. R. Fitch, of Rochester, read a paper with the above title, for which see page 141.

THE MECHANICAL TREATMENT OF NON-TUBERCULOUS JOINT INFECTIONS.

Dr. H. L. Taylor, of New York, read a paper with the above title, for which see page 142.

THE OPERATIVE TREATMENT OF NON-TUBERCULAR JOINTS.

Dr. Walter Wood, of Brooklyn, N. Y., read a paper with the above title, for which see page 144.

Discussion.

Dr. Frederick R. Sturgis, of New York, said that, as the time allotted to each speaker for the discussion of this subject is so short, he would confine his remarks principally to considering the syphilitic and gonorrheal affections of the joints. And first, as regards the syphilitic affections of the joints in children, the clinical picture as drawn in books is in the majority of cases incorrect.

In a majority of cases, the child comes into the world with no evidences whatever of any inherited taint either in bone, skin or mucous membrane, and it may be several months before any trouble with the bones makes its appearance, and when it does, in the majority of cases not only do the joints become affected, but the shafts of the bones as well. When this occurs in infancy, the symptoms are much more apt to assume the inflammatory type, and be attended by the usual symptoms of inflammation, to wit: pain, redness and swelling, with sometimes a tendency towards suppuration, all of which may, and frequently do, disappear under proper treatment.

Then comes a period of rest, when, in about the fifth year or so, another attack supervenes in both joints and shafts of bones, but in this attack the inflammatory symptoms are not so apparent. The inflammation is of the character known by the French as a "cold inflammation," and not usually attended by any suppuration or breaking down, unless the portions attacked had been entirely neglected and left untreated. Its course is usually slow, unattended by pain, even of the nocturnal osteocopic character—a symptom, by the way, in these affections of children which is more frequently absent than present. Associated with these osseous symptoms are those of skin and mucous membrane, of the eye, and teeth, and it is often only by grouping all of these symptoms together that a correct diagnosis can be arrived at; although to the trained and skilled eye a single symptom may suffice to put the surgeon upon the right track.

As bearing somewhat upon the question of bone syphilis, Hutchinson's teeth deserve a passing notice. It must be remembered that the permanent teeth are the ones affected, but oftentimes they are absent, and of no service whatever in determining the diagnosis in an infant or very young child, and even when present they are not pathognomonic. Dr. Sturgis had seen typical Hutchinson's teeth in persons whom he had no reason to suspect of being syphilitic, and who strenuously denied that they were, or ever had been, and they also undertook to speak for their forebears. Who can tell?

The condition of the eyes is of greater diagnostic value than the condition of the teeth.

After this period, there comes a long interval of repose, until, say, the age of puberty—thirteen or fourteen years of age. At that period, it not infrequently happens that the child will be brought to the surgeon with some affection of the joint, usually the knee, when the question comes up as to the diagnosis. Of course scars or traces of any old antecedent syphilitic lesion are at once looked for, but sometimes there are none, and the case has to be judged upon its merits and its general appearance. There are some points it is well to bear in mind here, although they may also be simulated in other diseases:

(1) The slow character of the disease;
(2) The almost complete absence of pain;
(3) The curiously square look at the joint.

Now, of course, it is quite possible that the first two may be simulated by a tuberculous joint, but, he believed, very rarely, indeed, as regards the question of pain. In a tuberculous joint there is more or less tenderness; in the syphilitic joint there is very little—we may say none. He desired to emphasize that, if there are any evidences of old affection in any portion of the body, and they must be looked for particularly in the eyes, they will be of great value in determining the question of a doubtful diagnosis. But supposing that there are no indications of former trouble? Under these circumstances, the surgeon must follow the old rule that Hoyle laid down in whist—when in doubt, play trumps! In this instance, trumps are iodide of potassium and mercury. The iodide in such cases should be given first, inasmuch as its action is quicker and more marked than that of mercury. This latter may follow the use of the iodide of potassium, and, indeed, is necessary to secure the good results obtained by the use of the salt. The speaker did not wish to be understood, however, as saying that if the iodide of potassium has a good effect, it must absolutely exclude the possibility of anything but syphilis; he wished to be understood as saying this: that, ninety-five times out of a hundred, if the joint or bone lesion improves under iodide of potassium properly given, that lesion is syphilitic and nothing else. Very seldom in his experience had tuberculous or traumatic joints improved by the internal use of the iodide.

He said that now comes another period of repose, in which years may go by without the patient noticing or being reminded of his old trouble, but at the period of life which is popularly, and, perhaps, with some show of reason, regarded as the climacteric period for man—say about sixty-three—his old trouble appears, like the ghost of Banquo, with some affection, if not of the nervous system, then of the bone. Here the shafts are much more frequently attacked than the joints, and the shafts usually of long bones: to wit, the fingers, toes, the tibia and ulna. Fortunately, however, all of these affections of the joints, if they are recognized in time

and properly treated, subside, unless there is some complication, such as an admixture of tuberculosis, then the prognosis is bad, and he had noticed in these cases in which the two diseases have been mixed, more frequently in the acquired than in the hereditary type, the iodide of potassium acts as a downright poison—the patient cannot take it in any form whatsoever. And this is true of iodide, whereas mercury is well borne. So much for syphilis. As to the gonorrheal affection of the joints, he said that this affection, hitherto considered in a light-hearted manner as nothing but a catarrh, is perhaps as serious as any of the venereal lesions with which we have to deal, but he did not wish to enter into any discussion of the nature of gonorrhea, but confine himself more particularly to the affection of the joints associated with this disease. These affections are nearly always caused by the absorption of the bacterium peculiar to gonorrhea: to wit, the gonococcus, and are very distinct and differ from those evanescent affections of the joints which belong to the simple catarrhal type of a urethritis. These latter pass off without any bad symptoms; the former, on the other hand, seem to be the results of a systemic infection, and frequently produce disintegration and permanent destruction of the joints, especially of the knees, elbows and ankles.

DR. JOSEPH P. CREVELING, of Auburn, wished to refer to one or two points on the diagnosis. One speaker, he said, laid great stress upon the antisyphilitic treatment as an aid in the diagnosis of obscure cases. This consisted in the administration of the iodide preparations. and it was well known that iodides were among the best agents for glandular enlargements. Therefore, too much stress should not be laid upon this aid.

With regard to the discharge from the vaginæ of young girls, Dr. Creveling said that latcly he had examined more than forty children for gonorrhea, the young girls' ages ranging from two or three years to puberty. Among this number he found but one instance of gonorrhea. He tried the different stains, and he did not believe with many that so many of these cases are due to gonorrhea as they had been led to infer from the remarks of the speakers. They were due to other causes—to infections of one kind or another.

DR. R. H. SAYRE, of New York, said, in regard to basing a diagnosis on the results of the antisyphilitic treatment, that he distinctly stated that because a patient recovered under the antisyphilitic treatment one must not necessarily conclude that he was syphilitic; that some people recovered in spite of the treatment, as well as in consequence of it.

With regard to the prevalence of gonorrhea in girls, he presumed that different classes and communities would show different results. In the New York Foundling Institution a very large proportion of the children admitted had gonorrhea, and, if his memory served him right, Dr. L. Emmett Holt had shown that in the New York Foundling Asylum the proportion of cases admitted that had gonococci in the vaginal discharge was one in ten.

I have already said that the important part of the training of a physician is the formation of the habit of making his own observations and of drawing correct conclusions from them. He who flies to the laboratory for a solution of every problem presented in his practice soon comes to be dependent and neglectful, to distrust his own observations, and, finally, to undervalue all clinical observations. While, therefore, we appreciate this indispensable aid to medicine, let us not lean on it to the weakening of our powers of reasoning and observation. The men of the past who have given us those marvelous descriptions of disease derived their knowledge from careful personal observations with little aid from other sources. Let us see to it that this sort of study does not become a lost art.—L. E. HOLT, *Jour. A. M. A.*, xlviii, No. 10.

Progress of Medicine.

PRACTICE OF MEDICINE.

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HEMOCHROMATOSIS.

Hemochromatosis, with diabetes mellitus (bronzed diabetes) is a rare disease, as is shown by the report by Futcher of the only two cases which have been found in the 106,000 admissions to the wards and dispensary of the Johns Hopkins Hospital. Hemochromatosis in its advanced stages presents three cardinal symptoms: (1) Pigmentation of the viscera, and usually also of the skin; (2) cirrhosis of the liver, almost invariably of the hypertrophic type, and accompanied by striking pigmentation of the organ; and (3) diabetes mellitus, the terminal feature, due to a sclerosis of the pancreas causing a destruction of the islands of Langerhans and consequent interference with the secretion of the normal glycolytic ferment. It is the balance of opinion that hemochromatosis is due to some toxic agent of unknown character and origin, which results in an increased destruction of the red blood cells, with deposit of the excessive amount of iron in the tissues.—*American Journal of the Medical Sciences,* January, 1907.

PULMONARY ABSCESS DUE TO THE ASPIRATION OF A TOOTH.

Davies has reported a case of pulmonary abscess caused by the aspiration of a tooth. The patient, a young girl, suffered from coughing, dyspnœa, purulent expectoration and fever. The diagnosis of pulmonary tuberculosis was at first made; later it was manifest that a right-sided pulmonary abscess was present. As the result of a sudden cramp-like attack of coughing the patient expectorated a large mass of pus, in which a tooth was found imbedded. This had been aspirated seven months before, after extraction during narcosis. Convalescence followed without further disturbance. The only result of the abscess was a slight displacement of the heart toward the right, caused by the contraction of the scar.—*British Medical Journal,* September 22, 1906.

THE TREATMENT OF INFLUENZA WITH QUININE.

Sir William Broadbent states that from the time of the first advent of influenza he has found the best remedy for it to be quinine. His usual prescription is one dram of am-

moniated quinine and two drams of liquor ammoniæ acetatis every hour for three hours, and then every four hours. In the fulminating attacks of influenza, in which the patient has become comatose, hydrobromate of quinine given hypodermically in large doses has completely relieved the unconsciousness. Moreover, he writes that as a prophylactic during the presence of an epidemic two grains of quinine every morning has given good results. Of course patients who are taking quinine occasionally get influenza, but the author has seen very many instances in which this dose has made a complete difference in the patient's liability to infection.—*Practitioner,* January, 1907.

ACUTE PULMONARY ŒDEMA.

Acute pulmonary œdema, writes Riesman, is a condition of sufficient importance to warrant having a special chapter in the text-books of medicine. It is the condition which comes on without any apparent exciting cause, and which often kills in a short time. Recovery from an attack is frequent, but there is a striking tendency to recurrence, subsequent attacks being similar to the first. They set in suddenly, usually at night, and place the patient's life in jeopardy. Of the various clinical causes arterio-sclerosis and cardiac and renal disease are most important. The pathogenesis is obscure, but vasomoter disturbances and a disproportionate activity of the two ventricles, the right predominating, are the chief factors. The symptoms are agonizing dyspnœa, cyanosis, cough, expectoration of frothy albuminous fluid, and profound prostration. Over the lungs, often more over the upper than the lower portions, the characteristic moist rales of œdema are heard. The most valuable remedies are bleeding, dry cupping and cardiac stimulants.—*American Journal of the Medical Sciences,* January, 1907.

PULMONARY CALCULI.

E. Burgi has reported two cases of lung stones, the first with, and the second without, tuberculosis. In both cases the stones consisted of calcium and magnesium phosphate, but not of carbonates. They seemed to be formed as incrustations upon organic material. In the opinion of the author, the case without tuberculosis proves that not all cases of lung stones indicate tuberculosis, and by its recovery that complete recovery may take place after the occurrence.—*Deutsche Medizinische Wochenschrift,* 1906, No. 20.

GLIOSARCOMA OF THE TEMPOROSPHENOIDAL LOBE.

A case of gliosarcoma the size of a nut, in the white substance of the temporosphenoidal lobe, occurring in a 47 year old woman, in whom a true deep sleep—no comatose or somnolent condition—was the marked symptom, is reported by Maillard and Milhit. The authors state that in analagous conditions of pathological sleep there is almost always a sarcoma or gliosarcoma, though the location of the tumor may be quite varied.—*L'encephale,* 1906, No. 3.

THE RATIONALÉ OF TUBERCULOSIS INFECTION.

Calmette and Guerin express their opinion that in the great majority of cases, with the exception of those with pre-existing disease of the larynx or trachea, localization of tuberculosis in the lungs or pleura takes place because leucocytic microphages containing tubercle bacilli become inactive, owing to the toxin enclosed within them, and, stopping in the capillaries of the lungs or pleura, form the beginning focus of the disease. It is in this same manner, they claim, that tuberculosis of bone or of the meninges has its origin. They believe it sufficiently proven from the experiments of Valleé, Guerin and Delarde, that tuberculosis of the bronchial glands comes directly from the intestinal tract. From this latter fact they draw the practical and weighty conclusion that avoidance of the introduction of the germs of tuberculosis into the digestive tract lessens greatly the opportunity for infection, if it does not altogether remove it, by a process much easier than the avoidance of infected dust. If use of milk from tuberculous cows is prohibited, and the utmost care is taken to avoid contamination of the hands directly or indirectly by tuberculosis sputum or other tuberculous material, the main sources of infection from tuberculosis will be removed.

These authors state that if an animal is given in its food a small amount of finely separated virulent tubercle bacilli it develops tuberculosis almost without fail, reacts to tuberculin for one or two months or even longer, and then can recover. For a certain time subsequently it can take considerably greater amounts of virulent bacilli and not be reinfected—it is vaccinated. The animal, however, which is first fed the bacilli twice or more at short intervals never recovers; the disease develops in this animal much more quickly. By this fact the authors explain how in slaughtered animals or in human subjects at autopsy completely healed tuberculous lesions are so often found. These animals or persons have comparatively seldom in the course of their existence been infected with the tubercle bacilli, so that they had sufficient time for the healing of their lesion and were able to vaccinate themselves for a time against further infection. A large number of other men and animals, on the other hand, become tuberculous and have remained so because they have received one infection quickly after another without opportunity for healing of the tuberculosis already present. The goal of science must

therefore be to introduce into the lymph system of the body a substance protecting against inoculation by tuberculosis. This may possibly take place through the digestive canal, and the substance may be in the form of tubercle bacilli, lessened or modified or even robbed of their virulence. These investigators have gone still further in their work on this subject and promise further reports soon.—*Annales de l'institut Pasteur,* August, 1906.

ATYPICAL BASEDOW'S DISEASE.

Three unusual cases of Basedow's disease containing much of interest are reported from Senator's clinic in Berlin by Mosse. The first was a patient with a morbus Basedowii, formerly quite severe but improved, in whom Graefe's symptom was present on the right side and ptosis on the left. The ptosis was a paralysis of the levator palpebræ. Several explanations of the Graefe symptom bring the two symptoms present in this case into harmony. Lang and Pringle assert that a contraction of the levator palpebræ is the direct cause of Graefe's symptom; hence in this case there was on the right side an irritable and on the left a relaxed condition of the muscle. Ferri explains the symptom as caused by an increase of the orbital contents, whereby a relative shortening of the muscle results. As exophthalmos was in this case more pronounced on the right side, this theory could be made to harmonize both conditions. In a similar case reported by Wilbrand and Saenger, however, these authors conclude that there is a central nerve origin causing the irritable muscular condition on one side and the relaxed condition on the other. In proof of this conclusion they report an autopsy of a case of congenital double-sided ptosis where aplasia was found in special tracts of the oculomotor nucleus. Such a case as this is at least a reminder of the occasional occurrence which Uhthoff mentions, of nuclear oculomotor paralyses in exophthalmic goitre, as the result perhaps of primary pathologic changes in the medulla, or because this locality may be a place of least resistance against the toxic effects of the products of the thyroid.

In the second case reported by Mosse the thyroid was not at all enlarged, but the exophthalmos, tremor and heart symptoms were all strongly marked. This is quoted as an example of the fact recently noted by Senator that the goitre and the severity of the other symptoms stand in no exact relationship to each other. No goitre need exist for a well marked morbus Basedowii to be present.

Naunyn writes that spontaneous glycosuria accompanying exophthalmic goitre has been described by several authors as of occasional occurrence, but that he has never observed such a case in the Strassburg clinic. Mosse reports the third case of this kind which he has observed. —*Berliner Klinische Wochenschrift,* 1907, No. 1.

ADENOIDS THE CAUSE OF ENTEROCOLITIS.

That enterocolitis in infants is almost without exception coincident with and dependent upon adenoid growths is the belief of Roux and Jusserand. In 37 cases investigated they found both conditions, not as a simple coincidence, they say, but where the enterocolitis was caused by swallowing pus and mucus from the adenoids. These cases were mostly in the first two years of life, the oldest was 11 years old. Constipation alternating with diarrhea, and uninfluenced by diet, was present. The only cure for this condition is removal of the adenoids, followed then by proper therapeutic measures.—*Revue mensuelle des maladies de l'enfance,* August, 1906.

LEUCOCYTES AN INDEX TO THE OPSONIC POWER.

In estimating the opsonic index Charles E. Simon, of Baltimore, shows that accurate results are obtained by estimating the percentage of phagocytic leucocytes, comparing this figure with those obtained in the normal blood serum. For routine work he claims that this method is much more convenient than Wright's method of counting the organisms per leucocyte, and comparing the resulting figure with the corresponding one obtained with normal blood.—*Journal of the American Medical Association,* 1907, No. 2.

THE SPREAD OF MALARIA.

An account showing in an interesting manner the spread of malaria is reported by Thaller from a province in Austria. The town of Zrmanja had been a locality without malaria until 1902 when a party of workmen returned from building a harbor in Dalmatia. Most of these were suffering from malarial cachexia and some died. A few days after the arrival of the first workman in this hitherto healthy locality the first severe case of malaria appeared. The disease spread rapidly and soon decimated the town, 136 persons dying during the year. As the natural conditions of the locality are favorable to malaria, there is little hope of stamping out the disease except by vigorous treatment of all suspected cases, which has already decreased its alarming fatality.—*Liecnicki Viestnik,* 1905, No. 10; *Zentralblatt für inn. Med.,* 1907, No. 1.

The people's recourse of quackery is due to: 1. An erroneous belief that for every disease there is a special medicinal remedy which will cure it. 2. To the lying advertisements in secular and religious newspapers, published by editors, often clergymen, who, if intelligent and educated, must know that they are disseminating untruth. 3. To the unjustifiable use by doctors of nostrums of whose compounds they are ignorant. 4. To ignorant or careless physicians who are unable to give their patients such skilful treatment as modern medicine is able to furnish. 5. To the inordinately high fees of certain skilful medical practitioners, which render their services unattainable by many and lead to the belief that all doctors of ability are costly luxuries.—J. B. ROBERTS, in discussion on Quackery before the Philadelphia Medical Society, *Jour. A. M. A.,* xlviii, No. 3.

THERAPEUTICS.

EDITED BY
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SILENT TREATMENT IN LARYNGEAL TUBERCULOSIS.

Dr. Lubinski's discussion of this topic in *Berliner Klin. Wochenschrift,* December 24, 1906, gives favorable results of his employment of absolute silence, in addition to local treatment, in about thirty cases during the past twenty years. He considers the method very useful in proper cases where the patients possess sufficient will power to follow the rule of strict silence for months. Few persons will do this, as it means withdrawal from all social privileges and even in the family, a restriction to writing or whispering, as a means of communication. He regards only the cases of "internal" laryngeal tuberculosis as suitable to a trial; the "external" cases, *i. e.,* those where the surrounding structures are affected, as the arytenoid cartilages, epiglottis, etc., and those with a true perichondritis, offer slight chance of being benefited. The summary of treatment of six typical cases includes insufflations of lead acetate with morphine, inhalation of solution of potassium bromide with morphine, painting with one-half per cent. creosote, iodol with morphine, etc. In these six cases healing of the ulcers and recovery was noted in from two to four months. In the deeper ulcerations a good result cannot be expected without energetic local treatment. In the matter of local remedies he has of late years attached greater importance to analgesics than to other drugs, mentioning, as his preferences, codeine phosphate, orthoform and anesthesin.

TREATMENT OF CHRONIC ARTHRITIS WITH FIBROLYSIN.

Dr. B. Salfeld, of Wiesbaden, *Therapeutische Monatshefte,* December, 1906, reports results of the use of Fibrolysin (a preparation of salicylic acid and thiosinamine), in the treatment of deformities and contractures due to chronic rheumatism, arthritis deformans and gout. His patients at the same time undergo the Wiesbaden bath and water treatment, with the use of gymnastics and electricity as the cases may require; but the writer admits that he has seldom seen equal success with the physical treatment alone as follows the addition of the fibrolysin. He regards it a very serviceable aid to the former treatment. He considers the combination of the two drugs essential, in that the salicylic acid causes a hyperemia of the peripheral structures as Bier asserts, and thereby prepares the tissues for, and facilitates the softening action of the thiosinamine upon the fibrous structures.

The method of application preferred is that of intra-muscular injection and the site commonly chosen is the gluteal region. The writer has employed upward of 500 injections without any dangerous symptoms occurring, though he has not used the treatment with patients showing albuminuria. In the detailed history of four typical cases excellent results are seen.

FIBROLYSIN IN THE TREATMENT OF URETHRAL STRICTURE.

In the same periodical Dr. Schourp, of Danzig, reports successes in the use of Fibrolysin in the treatment of stricture. He details three cases in each of which the influence of the preparation was decided. The usual mechanical treatment with bougies was employed with the addition of injections of Fibrolysin. While his reported cases are few, the writer believes the results indicate that this combination is an essential aid to the treatment by dilatation, in that by the softening which it induces in the constricting scar tissue, the mechanical treatment is rendered easier, healing is hastened and recurrence of the stricture antagonized.

SERUM TREATMENT OF DYSENTERY.

In the *Wiener Klin. Wochenschrift,* December 20, 1906, two articles give results of the treatment of dysentery by injections of serum antagonistic to the Shiga-Kruse bacillus, obtained from the Vienna Serotherapeutic Institute.

Dr. M. A. Rudnick, during an epidemic in which he treated twenty-four positive cases, employed the serum in one-half of the cases. He records the following conclusions:

1. In dysenteries of the milder grades, the employment of the usual medication and dietetic rules results in recovery, as a rule.

2. In dysenteries of medium and severe grades, caused by the Shiga-Kruse bacillus, the use of the acquisition in the field of etiologic therapeutics, represented by the antitoxic dysentery serum of the Vienna school is to be recommended. The earlier the serum is employed, the surer is its action. It fails in cases where the disease is combined with tuberculosis or pathological process, with wasting of the power of resistance.

3. The use of the serum is without danger, and is followed by no local or general disturbance of any kind.

4. In most cases a single dose of twenty cm. suffices. If improvement is delayed the dose may be repeated. In children under ten, one-half of the mentioned dose may be used.

5. One advantage of the antitoxic treatment consists in the shortening of the mean period of recovery. This is dependent on the one hand, upon the age and power of resistance of the patient, on the other hand, upon the duration of the disease; so that as a rule persons between the ages of thirty and fifty show the shortest duration of treatment.

Dr. J. Karlinski presents an analysis of forty-seven cases treated by the serum method, the ages ranging from four to forty-six, without a single death. He gives also a showing of the mortality of the disease, from official sources, for the years 1891 to 1901, which ranges in the different years from 18.7 per cent. to 24.8 per cent. in upwards of 15,000 cases.

In his forty-seven cases the shortest period of recovery was three days and the longest was seven days. He regards the use of the serum as absolutely without danger.

PHYSICAL TREATMENT IN MYOCARDITIS.

The recognized limits of drug therapeutics in diseases of the myocardium has led to an analysis of conditions which has yielded well in the matter of improved treatment. At best there are serious disadvantages in most cases because of degenerative changes, but, whatever the heart condition, we must secure as good circulation as possible to the working tissues of the body, meaning by this the cells of the various organs and especially those concerned in nutrition and elimination; for if we do not succeed in this direction, we cannot expect improvement of any permanancy in the heart. This anticipates the observation that a good circulation depends upon two factors—good blood and good heart action. These factors are mutually dependent. Faulty heart action means lessened oxidation and poor elimination with the resulting accumulation in the blood of toxic products of a disturbed catabolism. On the other hand, a blood of poor quality cannot properly nourish the heart so as to maintain good action.

Though it is easy to forget that the heart, as well as any other organ, needs good blood, we find that that treatment of the heart is most successful which secures the best welfare of the body as a whole, because whatever contributes to better general nutrition aids nutrition of the heart. We have paid too little attention to nutrition of the myocardium while asking for some means of getting more work out of it. We ought to reverse the matter and supply the heart with better blood and give it needed rest instead of stimulating it.

Our treatment, therefore, resolves itself into taking better care of the heart as an individual organ. Drug treatment will not cover the case. The structurally-diseased heart will not admit of the use of depressing drugs and, as a rule, the same changes render it inadvisable to force it to greater activity. Again, the organ is working to the limit of its strength. Its work needs to be reduced until a balance between its reserve energy and its activity can be secured, with dilatation reduced. A better heart action must come through rest and improved nutrition, while a better blood for the heart's nourishment must come through more perfect oxidation and efficient elimination. These are the principles that should guide in our treatment. What are the methods?

The question of absolute rest in bed will depend upon the disability of the heart, as measured by the degree of dilatation and general circulatory failure present. In cases with œdema or dyspnœa, rest in bed for a time is usually required, but it is of equal importance to lessen the work of the heart by lowering the resistance in the periphery of the body, against which it has to force the blood current. This involves vasomotor relaxation, which is accomplished rather better by means which at the same time improve oxidation than by such drugs as nitroglycerine, whose primary action is depressant. The more positive methods of improving nutrition of the heart muscle are few, but they prove effective in very many cases. They consist of physical treatment of the body periphery. No other single method has served as well, both in producing definite results and in educating us in cardiac therapeutics, as the Nauheim treatment, with the baths, judicious rest and properly graded exercises. Fortunately we can employ the method in principal anywhere, by use of the brine bath, the effervescent salty (Schott) bath, massage, and graduated exercises, all of which aid our purpose to improve oxidation throughout the body and to increase elimination, besides making the flow of blood through the arterioles and capillaries freer, thereby lessening the resistance against which the heart has to work. The work may at times be reduced by a single Schott bath to the extent of allowing the apex of a dilated heart to recede half an inch or more, indicating a lessening of the dilatation; and continuance of the treatment will often restore the myocardium to a state of good nutrition and usefulness.

The results of physical treatment have given it a place above that of drug treatment, although the therapeutist will employ both as the individual case may demand, and always with wise discrimination. E. H. L.

But this same new scientific spirit to which we owe so much has brought with it an incidental peril. While becoming more scientific, there is a great danger that medicine shall become less human. Is it not true that in magnifying the value of medicine as a science there has come about incidentally, and perhaps somewhat unconsciously, a disposition to depreciate the dignity and importance of medicine as an art?

The laboratory is rendering immense service to practical medicine to-day, but it can not do away with the necessity for careful bedside observation of the sick; nor are its conclusions to be regarded with the infallibility which, in the minds of many, attaches to them. The student of to-day is likely to gain the impression that unless they rest on laboratory confirmation all diagnosis is doubtful, all prognosis uncertain, and all therapeutics unscientific. The laboratory has its limitations which are as distinct as those of clinical medicine. It is to be regarded as supplementary, but not as the whole thing.—L. E. HOLT, *Jour. A. M. A.*, xlviii, No. 10.

BACTERIOLOGY.

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BACTERIOLOGICAL EXAMINATION OF TIDAL MUD AS AN INDEX OF THE POLLUTION OF RIVERS.

William G. Savage calls attention to the uncertainty and variability in the results of the bacteriological tests made of samples of water and oysters taken from locations suspected of being polluted. Such irregularities in the results of examinations are due to the flow of rivers, tides, etc.

On theoretical grounds it seemed likely that the bacteriological examinations of mud from the beds of such waters would be a more reliable index of pollution.

The water course selected for the purpose of investigating this proposition was one which was thoroughly well known through previous sanitary and other inspections, and the oysters taken from certain locations in it had also been subject to bacteriological examinations. The selection of this stream was made in order to compare the results of the examination of the mud samples with the previously ascertained knowledge of its sanitary condition.

Without going into details it can be stated that the results of the examinations of mud taken from various points in the stream showed the presence of those degrees of pollution which corresponded to the contaminated conditions as they were known to exist, and the results were remarkably uniform. As indices of pollution the author used the quantitative estimation of the numbers of Bacilli coli and streptococci present.

The samples of mud were collected with a view to determining the possible influence of the seasons and irregularity in the deposit of the sewage. Neither factor had any influence upon the uniformity of the results.

In order to test the question of the age of the pollution indicated by the mud examinations, the author made serial examinations of large isolated samples of mud, to which were added bi-weekly considerable amounts of sea water, the bacterial contents of which was known or the water was partially sterilized.

These tests showed that the numbers of Bacilli coli present in the original sample diminished rapidly at first, but more slowly as their numbers became fewer. The numbers of streptococci diminished more rapidly than of Bacilli coli, but some forms were very resistant.

On the whole the author believes the determination of the numbers of Bacilli coli and streptococci gives a correct idea of the age and amount of the pollution.

He also made a further series of investigations to determine whether the same factors would give similar results with Bacillus typhosus as he obtained with Bacillus coli. To this end experiments in which B. typhosus was added to moist sterilized tidal mud, and polluted unsterilized tidal mud, respectively, were made.

In the first the results showed that the typhoid bacillus would readily live in the sterile mud used for the experiment, and at the end of 7-8 weeks the numbers were approximately the same as at the beginning of the experiment.

In the second series the typhoid bacilli were found to live in the unsterilized polluted mud for at least two weeks, but after that they rapidly diminished in number. In one experiment, where a massive infection of the mud was made, the bacilli survived for at least five weeks.

The characters of both the typhoid and colon bacilli were not affected by their sojourn in the sterile or unsterilized mud.

The author concludes:

1. That mud samples yield more reliable bacteriological evidence of the degree of contamination of a tidal river than either water or oyster samples.

2. Oyster and water samples only indicate immediate and actually present pollution. Mud samples show evidences of past contamination for at least several weeks, and almost certainly for all the time that specific (typhoid bacilli) contamination is possible.

3. Muds which show high relative purity are safe for oysters.

4. Standards of number of B. coli, streptococci, etc., if broad, can be set up and will serve as a useful classification of the degrees of purity of a tidal river, and will aid inspection, and possibly be largely able to take its place.

5. No evidence was obtained that either B. typhosus or B. coli alter their characters in tidal mud.

6. Typhoid bacilli can survive fairly readily for two weeks in tidal mud, but after that period their numbers, as a rule, rapidly decline.—*Jour. of Hygiene,* Vol. 5, 146. H. D. P.

DIPLOCOCCI AND MENINGOCOCCI.

The studies which are here epitomized were undertaken as a part of the work of the Commission for the Study of Cerebro-Spinal Meningitis, appointed by the Department of Health of the City of New York in March, 1905. The commission deemed it important to ascertain whether micro-organisms identical with those occurring in the cerebro-spinal cavity were to be found in the upper air passages of those suffering from epidemic meningitis.

Pure cultures of the diplococcus intracellularis meningitidis (Weichselbaum) were secured by

lumbar puncture from the spinal fluid of numerous cases (80) of epidemic meningitis and were used for comparison with those obtained from the nares. Cultures from the nares were obtained by sterile cotton swabs and were then plated out or streak-plate cultures were made. The medium used was either blood agar or two per cent. glucose agar to which serum or ascitic fluid had been added.

Though the general characteristics of the growth of the meningococcus remained the same, there were at times slight variations in luxuriance, viscosity or shade of color, making it difficult to formulate a typical description of the growth of this organism, which will serve for its certain identification. They all showed the same variation in the staining properties and morphology (size) of the individual organisms, which is regarded by all investigators as so characteristic of this organism. None showed at any time the slightest tendency to stain by Gram's method.

Though almost all workers upon meningitis have reported the finding in smears from the nose and throat of Gram-negative diplococci morphologically resembling the meningococcus, but few careful cultural investigations of the subject have been made. Goodwin and von Sholly have collected fourteen instances in which the meningococcus has been said to have been found, but in only four of these do they consider that this has been definitely proven. The usual organism found in these cases, and the one which causes the most difficulty in proper identification, is the micrococcus catarrhalis, first reported by Ghon and H. Pfeiffer in 1901. Dunham, however, recognizes three groups of organisms isolated from the nose, etc., which resemble the meningococcus and give rise to difficulties in diagnosis upon superficial examination. He gives the principal differential characteristics of the organisms in these three groups. In sixteen cultures from the nose or throat Dunham was able in six to find organisms indistinguishable by any method from the meningococcus. Goodwin and von Sholly examined a larger number of cases and their percentage of positive results is practically the same as that of Dunham (36.5% vs. 37.5%). Their examinations were made as follows: First week of disease, 22 cases, 12 positive results; second week of disease, 15 cases, 5 positive results, approximately 50%; 16 other cases examined in third to ninth week all negative but one, which was examined upon the 67th day. They also examined the nasal secretions from 45 healthy persons living in close contact with meningitis patients. In 5 of these the meningococcus was isolated in the first two weeks of the patient's illness. From the nasal mucus of 55 first-year medical students who had never been in known contact with meningitis, there were isolated in two cases organisms which were culturally and in pathogenicity like the meningococcus, but differed somewhat in their specific agglutinins.

Though differing somewhat in their technique and in the serum used for the agglutination tests the results obtained by Dunham, and by Goodwin and von Sholly agree in the main very closely, though the latter writers were not able to obtain a serum which would agglutinate the organisms in dilutions higher than 1-400 (and usually much lower), while the sera used by Dunham caused agglutination as high as 1-2000 or even 1-4000 in a few instances. The sera used were in a few cases the blood serum of meningitis patients, but were usually immune sera made by injecting laboratory animals (horses, goats, sheep, rabbits, geese), singly or repeatedly with cultures of meningococci obtained from the spinal fluid. Dunham used macroscopical methods, but Goodwin and von Sholly microscopic. The technical details will not here be given.

One marked difference between the M. catarrhalis and meningococcus was noted by Dunham; this was the marked tendency which the former exhibited to settle from a suspension and form a sediment. This feature rendered the study of macroscopic agglutination of these organisms very difficult. Various absorption experiments were carried out by Dunham with the thought that this might reveal more obvious differences or likenesses between the M. catarrhalis like organisms and the D. intracellularis. It was found that the latter organisms from spinal fluids, apparently removed all the agglutinins capable of clumping the organisms from the spinal fluids and also as far as could be determined, those agglutinating and catarrhalis-like cocci, but the latter failed to remove from the immune sera more than a fraction of the agglutinins clumping D. intracellularis. Certain constant differences were also noted between the two varieties of organisms in attempting to separate them from their suspensions by means of Berkefeld filter. The separation of the D. intracellularis by this means was exceedingly slow in comparison with similar filtration of the catarrhalis-like organisms; this was thought to be due to the dense mucoid coating which the former made upon the surface of the filter, and excited the suspicion that the agglutinins were mechanically held back from the filtrate. This suspicion was partly supported by other filtration experiments with solutions of starch water and other colloid substances.

Practically the same ultimate results were obtained by Goodwin and von Sholly in their agglutination tests. They state that after absorption and infiltration all the meningococcus-like cultures seemed to remove the agglutinins for all the cultures, while the M. catarrhalis cultures only reduced them about one-third. The control filtration of the serum without exhaustion reduced the agglutinins about as much as did the M. catarrhalis cultures. They also note

the spontaneous agglutination (sedimentation) of the M. catarrhalis.

Another difference found by Dunham constantly manifested between the two species of organisms was the production of acid by the D. intracellularis when grown in a suitable medium containing dextrose, but at the same time such a small percentage of acid that the serum in the medium was never coagulated.

Among the conclusions of Goodwin and von Sholly occurs the following:

"The finding of meningococci in great numbers in the nasal mucus of such a large proportion of the patients and of those caring for them, and the absence of meningococci from the nasal mucus of a large number of normal persons examined, would strongly indicate the necessity of isolating cases of epidemic cerebro-spinal meningitis at least during the early weeks of the disease."—Edward K. Dunham, Mary C. Goodwin and Anna P. von Sholly, *Jour. of Infectious Diseases,* Feb., 1906. C. K. W., Jr.

METHODS OF BACTERIOLOGICAL EXAMINATION OF MILK.

Francis H. Slack says that the bacteriological examination of milk is rapidly becoming one of the essentials in the maintenance of public health. For years milk supplies have been inspected and tested to chemical standards alone, with the result that watered, adulterated and preserved milks have been practically driven from the markets. These chemical tests are necessary and only fail in that they do not go far enough, since a milk impure and unwholesome on account of bacterial growth, or a milk from a diseased animal cannot be detected by them. The bacterial count and the microscopical examination of the milk sediment reveal whether the milk has been properly handled or not, and to a great extent the condition of the animal from whence it came.

Slack describes the technique and apparatus used at the Boston Board of Health Laboratory. The apparatus will not be described here, and only the outlines of the technique and the conclusions will be given.

Two examinations are made of each specimen of milk. First, The bacterial count; second, A microscopic examination of a stained preparation of the sediment obtained by centrifugalization.

For plating, ordinary plain agar-agar is used of 1% strength and acidity of + 1.5. Plates are incubated at 37° for 24 hours only, when the count is made in the usual way. The milk is ordinarily plated in a dilution of 1-10,000, though under some circumstances (*e. g.,* milk from individual cows or from a known pure supply), the dilution is reduced to 1-100; sometimes a dilution of 1-1,000,000 is used. The lowest count so far recorded is 300 per c. c. and the highest 640,000,000 per c. c. The figure of 500,000 organisms per c. c. is arbitrarily taken as the limit below which a milk must fall to be passed by the board as satisfactory.

For the microscopical examination a measured portion (2 c. c.) of the milk is centrifugalized under certain precautions, and the sediment thus obtained spread thinly over a measured area, dried and stained with methylene blue. With medium grade milk this is sometimes the only examination made, as it gives with experience a fair idea of the total number of bacteria present. It is, too, very often a guide as to the proper dilution at which to plate the sample.

In the microscopical examination the number of pus cells present, if any, is noted and the possible presence of streptococci. Slack has adopted a standard for market milk of not over fifty pus cells to the field of 1-12 immersion lens. This standard is only tentative and is much higher than that usually adopted. Streptococci in long chains are rarely found by direct microscopical examination; if present they are more often seen as diplococci or in short chains. When these are found further tests are made. Milk is condemned for streptococci when the following tests are all positive.

1. Microscopic examination of the sediment showing cocci, diplococci or streptococci.

2. The plate from the same sample showing colonies resembling streptococci colonies in excess of 100,000 to one c. c.

3. The broth culture from these colonies showing streptococci alone or in great excess of the other bacteria present.

The temperature of the milk when sampled is taken and is considered as important, not as an index of the probable bacterial content of the milk, but as direct information as to how the milk is being cared for at the time of sampling.

These methods are not offered as having been developed to a final point of simplicity and efficiency, but are recommended as a system which has been reasonably successful in practice for city laboratory work where quick reports are needed, as well as the accurate examination of a large number of samples.—*Jour. of Infectious Diseases,* Feb., 1906. C. K. W., Jr.

FIXATION OF BLOOD SPECIMENS WITH ACETONE.

Fixation of blood specimens in acetone before stain with Ehrlich's triacid stain is recommended by Jagic because of the quickness, simplicity and reliability of the method. By this procedure the neutrophilic granules are exceedingly distinctly stained, as well as the acidophilic also. Moreover, the nuclei seem to take up more of the basic stain; they are darker colored and their contour is sharper than after fixation by heat.—*Wiener Klinische Wochenschrift,* 1906, No. 20.

New Books.

PROGRESSIVE MEDICINE, Vols. II. and III., 1906. Edited by HOBART AMORY HARE, M.D. Lea Brothers & Co., Philadelphia and New York.

Vol. II. opens with an article in which William B. Coley reviews the year's work on Hernia. He gives in detail the newest procedures in the operative treatment of this condition, adding many results of his own experience. This section is profusely illustrated with exceedingly helpful pictures of the operative procedures.

Dr. Edward M. Foote treats of the Surgery of the Abdomen. He deals with every condition, from Contusions of the Abdomen to Rupture of the Pancreas. The article abounds in hints valuable alike to the operating surgeon and to the medical practitioner. He says that infection from the air is more important in laparotomies than in any other wounds, which is not in accord with our knowledge gained in the surgery of bones, joints and of the nervous system.

In relation to the treatment of Gastric Hemorrhage, the choice of the proper operation is made easy by an excellent and most comprehensive table. The results from 384 operations for Gastric Ulcer are briefly explained, while Duodenal Ulcer, the Sequelæ of Gastric Operations, the Diagnosis of Hour-glass Stomach, Movable Kidney, and the Surgery of the Small Intestine are some of the other topics discussed. Many practical hints are contained in the chapter headed, "When not to operate in Appendicitis."

Dr. John G. Clark reviews admirably the entire field of Gynecology in each of its numerous advances. The vast importance of Carcinoma of the Uterus justifies the brilliant résumé Dr. Clark gives of its etiology. In regard to diagnosis, Dr. Clark says that an early diagnosis is the most important factor in the prognosis, and is more important than the technique of the operation. The importance of the preparatory treatment before operation is emphasized and Mackenrodt's method of using a formalin tampon is quoted at some length.

One hundred pages are devoted by Dr. Alfred Stengel to Diseases of the Blood, Diathetic and Metabolic Diseases, also those of the Spleen, Thyroid Gland and Lymphatic System. The Anæmias and the Changes of the Bone Marrow in Typhoid Fever receive attention, and the literature of the blood platelets is condensed with encyclopedic brevity, while recent experimentation is reviewed.

Dr. Edward Jackson reviews Ophthalmology from the Bacteriology of Conjunctivitis to Heredity in the Causation of Cataract. Special stress is laid on the treatment of the more common ocular diseases, and this section concludes with a brief description of the newest remedies.

Vol. III. commences with a review of the Diseases of the Thorax and its Viscera, Including the Heart, Lungs, and Blood-vessels, by Dr. William Ewart. He deals more particularly with the role of the lymphatic system, the early signs of pulmonary tuberculosis, the prevention and the treatment of tuberculosis. The vaccine method, as recommended by Wright and Urwick, opens great possibilities.

Special attention is paid to the best methods of treatment of pleurisy, asthma, bronchitis, empyema, pneumothorax, etc., and the newest apparatus is graphically described. The pericardium, the heart and the blood-vessels receive the same close attention, the paragraph on arteriosclerosis being particularly striking.

In reviewing the progress made in Dermatology and Syphilis, Dr. William S. Gottheil, without neglecting the rarer disorders of the skin, has gleaned many valuable suggestions for the treatment of acne, eczema, erysipelas, herpes zoster, pemphigus, deep-seated ringworm of the scalp, etc. Many methods are detailed and the best emphasized. Dealing with the treatment of syphilis, he says that injections at weekly intervals is the ideal method of treating constitutional syphilis. It brings the cost within the reach of the majority of patients whose means are limited: there is no medicine to be forgotten or to betray the fact of treatment to others; the attendant regulates and controls the medication; and the injections come at about the intervals at which a patient with active syphilis should be seen and examined. For this purpose, he recommends the use of salicylate of mercury. The site for the injections and the most suitable syringe are minutely described.

Dr. Richard C. Norris treats of Obstetrics from the toxæmia of pregnancy to congenital hernia of the umbilical cord. In regard to the former condition he says that many of these toxæmias begin as intestinal intoxications, therefore the bowels must be kept regular and great benefit can be derived from the free use of water. Three pints of water should be taken daily. Women as a rule do not drink enough water; Swedish exercises and rubbings will be found beneficial, and there is no danger of terminating pregnancy.

Eclampsia is considered in the light of the writer's knowledge of his specialty. This section abounds in practical suggestions while such observations as those of Schatz, on the pains of pregnancy, are also of interest from a scientific point of view. Artific al dilation of the cervix uteri, in an experience of 243 cases, is given in detail with the dangers contra-indicating this procedure and the methods to be employed. The writer draws conclusions from 270 cases of vaginal Cæsarean section. The practical results to be derived from hebotomy and the management of placenta prævia are carefully handled, as are the puerperal period and care of the new-born infant.

The Diseases of the Nervous System are concisely described by Dr. William G. Spiller. He says that he has comparatively few gummata in his large collection of brain tumors. He has felt that he was in opposition to the teaching of many. It is, therefore, gratifying to read that the diagnosis of gumma was infrequent in the reports of Walton and Paul. The recklessness with which the clinical diagnosis of gumma is made by many, in cases with cerebral symptoms where syphilis is suspected, is surprising. These observers base their conclusions on the necropsies of 424 cases.

Dr. Spiller gives a brief résumé of thirty-eight cases of paralysis of associated eye movements as a sign of brain tumor, and his consideration of the treatment of aphasia, meningitis, tabes, peripheral neuritis, epilepsy and angina pectoris leave nothing to be desired.

The make-up of the work, the fulness of its index, and its numerous bibliographical references are features which contribute to the serviceability of the series.

THE PRACTICAL MEDICINE SERIES. Edited by GUSTAVUS P. HEAD, M.D. Vols. IV, V, VI, and VII. Chicago. The Year Book Publishers, 1906.

This excellent work has already been described and reviewed in these columns. It is well named the "Practical Medicine Series," because it presents in a practical way the important things in current medical literature, all classified and excerpted for the reader. Ten volumes appear yearly, costing ten dollars for the set, each of which is devoted to the current literature of a different subject.

Vol. IV: Gynecology. This volume presents a résumé of the new and useful additions to the literature of gynecology during the past year. Great stress is laid upon the early diagnosis of carcinoma of the pelvic organs. This volume also contains a report of the first case of successful transplantation by Warbasse, of the ovary from one woman to another. The numerous new plastic operations reported testify to the ingenuity of gynecological surgeons.

Vol. V: Obstetrics. The practical side of obstetric practice is discussed. In speaking of gonorrhea of the puerperium the editor says, that, Voorhees recently reported 104 cases delivered in the presence of gonorrhea, in which the complications were surprisingly few. He says that gonorrhea is so common and puerperal infection so rare (in clean hands) that one must not ascribe too important a role to the gonococcus.

Vol. VI: General Medicine. Practically all of the important medical conditions are given attention in this

volume. There are very complete resumés of the newest thought on typhoid fever, diseases of the stomach, and diseases of the intestines. A report of an article by Robinson shows the close association between neurasthenia and acid fermentation in the stomach. McPhedarn shows that drugs are of little use in relieving gastric stasis. The early diagnosis of typhoid is discussed by W. Poeppelmann, who believes that it is possible for the practicing physician to determine the presence of typhoid fever on the first or second day of observation by the direct examination of the blood without culture, following a method which he has perfected and which he describes.

Vol. VII: Pediatrics and Orthopedic Surgery. The advances in these two departments of medicine are well presented. An abstract of an admirable article by Campbell sets forth the modern views of the hygiene of infancy. Crandall's excellent article on the prophylaxis of rheumatism is abstracted. The importance of fresh air in the prophylaxis and treatment of pneumonia appears in many places.

EATING TO LIVE. By JOHN JENVIER BLACK, M.D. J. B. Lippincott Company, 1906.

This book is dedicated to the proposition that "As to eating and drinking, the majority of human beings are much like sheep. Sheep have no idea of the points of the compass; they have not the least idea of taking care of themselves. They follow any leader, any bellwether, either to safety or to death, without any proper instinct of self-preservation." It contains much sound advice for the well as well as for the gouty, rheumatic and diabetic. That many people dig their graves with their teeth has been said so long and often that we almost believe that it is true. Dr. Black proves that it is.

This book brings to mind the great difference between the human stomach and the test tube. The laboratory experiment cannot take the place of observation of the living organ in action. Was it not John Hunter who said, "Some physiologists will have it that the stomach is a mill, others that it is a stew-pan, and still others that it is a fermenting vat; but in my view of the matter, gentlemen, the stomach is neither a mill, a stew-pan or a fermenting vat, but a stomach, gentlemen, a stomach," At least that is Dr. Black's view of the matter.

His observation has lead him to believe that as intelligent persons grow to middle age and beyond, they become careful as to their diet; indeed, many become cranky on the subject, especially the idle and rich. This is most true, but there is a still more important truth not mentioned by the author, and that is that persons *under* middle age give little thought to the stomach, and treat it with indifference, unless, perchance, they are abnormal or diseased persons.

Attention is called to the so-called Mosaic dispensation, and the hygienic rules laid down are commended as proper and correct. The value of Kosher food is emphasized. The soundness of the ancient Jewish practices is demonstrated in the light of modern knowledge.

Dr. Black states that man being a gregarious animal should have company at his meals; for proper digestion man should not eat alone. This view we approve of from the point of psychics, but not from that of gastronomics. Good company, such as healthy children, or those who do not demand entertainment from us is desirable; but society that demands talk, we believe, interferes with good digestion. Dr. Black is wrong, we think, in saying that conversation aids digestion. It is a positive hindrance to proper mastication, the most important of the digestive functions. The ideal conversation for the table should be nothing more than voluntary contributions of thought which require no answer, and thus do not interfere with mastication. To ask questions of a person engaged in the act of mastication or to deliver an utterance which calls for reply from a person in the midst of that physiological act is as rude as to interrupt wilfully any of the other pleasurable physiological functions. Let the full mouth be undisturbed, would be a good dining-room motto. So we only agree with Dr. Black that "it is not well for man to eat alone," only provided our society is agreeable, intelligent and not pestiferous.

Again the author is correct in the statement that there is no substitute for mother's milk. "Blessed is the baby who has a mother able and willing to afford it propr sustenance." But how wrong he is when he says that "the rapid pace of modern life is more and more rendering the nursing of infants distasteful and even annoying to many mothers, and this is especially so as we ascend the scale of social life." How horribly wrong this is. We wonder if the cultivated author of this excellent work really does regard bridge parties. feminine fluffiness and the neglect of the virtues as steps in the ascent of the social scale!

The author's views of vegetarianism may be found in the following terse statement: "Vegetarians are usually fanatics, non-producers, but, as a rule, take care of their health and do not dissipate—commendable qualities, surely; and if they would only live on a scientific, well-balanced ration, they would, as a rule, live longer, be happier, and be more useful citizens."

An excellent feature of the work is the description of the various varieties of the fruits and vegetables. The author's familiarity with the fruits is very evident. We commend this book for the reading of doctor and layman. It is delightfully written and contains much that is valuable and interesting.

County Societies.

COLUMBIA COUNTY MEDICAL SOCIETY.

The Semi-Annual Meeting will be held at Kinderhook, May 14, 1907.

MEDICAL SOCIETY OF THE COUNTY OF KINGS.

STATED MEETING, TUESDAY EVENING, MARCH 19, 1907.

Scientific Program.

1. "The Etiology, Prophylaxis, and Early Treatment of Pelvic Disorders in Girls and Young Women," by Eliza M. Mosher, M.D., of Brooklyn.
2. "The Treatment of Ventral Hernia," by Thomas B. Spence, M.D., of Brooklyn.
3. "A Rare Inflammation of Bone, and the Relative Malignancy of Certain Bone Tumors Considered with Reference to the Diagnosis and Treatment," by William S. Halsted, M.D., Professor of Surgery, Johns Hopkins University, of Baltimore, Md.

SECTION ON GENERAL MEDICINE.
March 11, 1907.

Program.

1. Presentation of Clinical Histories for Discussion.
(*a*) "A Case of Complicated Cardio-Renal Disease with Unresolved Pneumonia, without Cough or Expectoration," by Gordon R. Hall, M.D.
(*b*) "Some Cases of La Grippe, with their Complications," by Benjamin F. Corwin, M.D.
2. "The Nihilistic Trend of Modern Therapeutics," by H. A. Fairbairn, M.D.

MEDICAL SOCIETY OF THE COUNTY OF MONROE.

REGULAR MEETING, MARCH 19, 1907 AT ROCHESTER, N. Y.

Program.

1. Presentation of patients and pathological specimens.
2. "Unusual Case of Pneumonia," by D. G. Mason, of Henrietta.

3. "Elimination by Hydrotherapy," by Walter E. Gregory, of Dansville.
4. "In Lighter Vein," by W. S. Ely, of Rochester.

It was voted that the Public Health Committee appoint a Milk Commission of five members of the Society to take the place of the Milk Commission of the Rochester Academy of Medicine.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Monday Evening, February 25th.

Scientific Session.

1. Paper: "Fracture-Dislocation of the Spine. -Causation, Symptoms and Diagnosis."
(*a*) Spine Alone Inolved.
(*b*) Cord Involved, by Dr. Samuel Lloyd.
2. Paper: "Pathological Changes."
(*a*) Spine Alone Inolved.
(*b*) Cord Involved, with Special Reference to Immediate and Remote Changes in Cord, by Dr. Pearce Bailey.
3. Paper: "Surgical Treatment," by Dr. Irving S. Haynes.

Discussion by Joseph A. Blake, John D. Hartwell, Joseph B. Bissell, Charles N. Dowd, Edward D. Fisher, William B. Pritchard, Wisner R. Townsend.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

STATED MEETING, MARCH 25, 1907.

Program.

Scientific Session:
1. Clinical Report: "Multilocular Glandular Cystoma of the Ovary Complicating Pregnancy," by Dr. B. S. Talmey.
2. Papers: "Gonorrhea in Women":
(*a*) "Infection of Urethra, Vagina and Glands of Bartholin," by Dr. William S. Stone.
(*b*) "Infection of the Uterus and the Adnex," by Dr. Brooks H. Wells.
(*c*) "Gonorrhea During Pregnancy," by Dr. J. Clifton Edgar.
(*d*) "Pathology," by Dr. H. C. Coe.
(*e*) "Abortive Treatment," by Dr. F. Bierhoff.
(*f*) "General Treatment," by Dr. H. J. Boldt.
3. Discussion by Dr. Bache McE. Emmet, Dr. James N. West, Dr. William S. Bainbridge and Dr. George H. Mallett.

MEDICAL SOCIETY OF THE COUNTY OF RENSSELAER.

REGULAR MEETING, TROY, N. Y., MARCH 12, 1907.

Program.

"The Present Status of Our Knowledge of Neurasthenia," by Dr. Hiram Elliot.

"The Results of Injuries to the Pelvic Floor and Their Prophylaxis," by Dr. J. A. Sampson.

SARATOGA SPRINGS MEDICAL SOCIETY.

REGULAR MEETING, APRIL 5, 1907.

Program.

Symposium on Goitre:
"Etiology, Medical and Serum Treatment," by Dr. A. S. Downs.
Discussion opened by Dr. J. F. Humphrey.
"Symptoms and Surgical Treatment," by Dr. George E. Beilby, of Albany, N. Y.
Discussion opened by Dr. D. C. Moriarta.

MEDICAL SOCIETY OF THE COUNTY OF ULSTER.

REGULAR MEETING, APRIL 2, 1907.

Program.

"Bronchoscopy" (with demonstration of the instruments used and their practical application), by Dr. Emil Mayer.

"Danger Signals in Diseases of the Eye and Ear," by Dr. James R. Nelson.

"Eye, Ear, Nose and Throat—Conditions in General Practice," by Dr. Aden C. Gates.

Deaths.

HERBERT A. BARNEY, M.D., Long Island Medical College Class of 1888, died at his home in Belmont, Allegany County, N. Y., March 16th, after a brief illness. He was a member of the County and State Societies, supervisor of his town, and had held the office of coroner. Dr. Barney not only gave his patients medicine, but good cheer. He was an inspiration in the sick-room, and will be missed by a large circle of friends. His untimely death will be mourned by all the profession who knew him. He was 42 years old.

BENJAMIN R. BEVIER, M.D., died at his home in Napanock, N. Y., February 22d; aged 75 years.

WESTON D. BIDAMAN, M.D., died at his home in Buffalo, February 15th, from heart disease; aged 55 years.

CASS F. CHILER, M.D., died suddenly at his home in Montezuma, N. Y., March 5th; aged 33 years.

GEORGE TAYLOR CHURCH, M.D., died suddenly in his office in Brooklyn, March 10th: aged 59 years.

WM. BAKER CRAIN, M.D., died at his home in Richfield Springs, N. Y., March 9th; aged 69 years.

DAVID EDWARD COLLINS, M.D., died in Medway, N. Y., February 17th; aged 82 years.

GEORGE BINGHAM FOWLER, M.D., formerly Health Commissioner of New York City, and an editor of the *American Journal of Obstetrics*, died at his home in New York City from gastric hemorrhage, March 6th; aged 59 years.

GEORGE E. HAYUNGA, M.D., of New York City, died at the home of his nephew in New York, March 6th; aged 67 years.

WILLIAM HENRY JOHNSTON, M.D., once president of the Lewis County Medical Society, a veteran of the Civil War, died at his home in Fort Leyden, N. Y., March 1st; aged 66 years.

JAMES J. KEANE, M.D., died at his home in New York City, March 2d.

ALBERT W. LA WALL, M.D., died at his home in Scio, N. Y., February 22d, from heart disease; aged 33 years.

WM. HENRY MAY, M.D., bacteriologist, of Syracuse, N. Y., died in that city, March 2d; aged 42 years.

FREDERICK T. MERRILL, M.D., of New York City, died at the home of his brother in Maine, February 25th; aged 51 years.

ALCOTT C. ORENDORFF, M.D., died at his home in Middlefield, N. Y., February 12th; aged 76 years.

CHARLES REED, M.D., died at his home in Brooklyn, March 5th, from pneumonia; aged 51 years.

ADOLPH RUPP, M.D., of New York City, died at his home February 7th; aged 50 years. He had an attack of heart disease following influenza.

HENRY CARROLL SUTTEN, M.D., of Rome, N. Y., health officer for twenty years and for three years a coroner of Oneida County, died in Jacksonville, Fla., March 5th; aged 50 years.

JAMES BLACK THOMAS, M.D., of New York City, died in Los Angeles, Cal., February 20th; aged 63 years.

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Original Articles.

RECENT STUDIES OF SYPHILIS.*

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TO the syphilographer and to the pathologist the aspects of the problem of syphilis have been completely transformed during the past two years through the discovery of the probable cause of the disease by Schaudinn and Hoffman, by systematic experimental study of syphilis transferred to lower animals, and by the increased attention which has been given to other spiral organisms as a result of their discovery in syphilis.

Early in 1905, Schaudinn, a protozoologist of large experience, was assigned by the Berlin Department of Health to test the claims of Siegel that a certain body described by him under the term *Cytorrhyctes luis* is the cause of syphilis. Working in conjunction with Hoffman, an experienced syphilographer, on March 3, 1905, he encountered in the fresh exudate of a chancre an extremely tenuous, nearly invisible, slightly motile, spiral organism, which he identified at once as a spirochæta. Having demonstrated this organism in several chancres, and in the tissues of enlarged inguinal lymph nodes, and having distinguished it from the coarser spirochæta refringens, which they found in non-syphilitic lesions, they announced the results in the *Deutsche med. Wochenschrift,* May 4, 1905. The significance of the discovery was at once appreciated, and within a few months sufficient evidence regarding the occurrence of spirochaeta pallida had accumulated to render it extremely probable that this organism is the cause of syphilis. Considering the long list of bacteria and other parasites which had at one time or another been erroneously regarded as the probable cause of syphilis, the rapid progress of the evidence in favor of spirochæta pallida must stand as a remarkable exception to the rule with discoveries of such moment.

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OCCURRENCE OF SPIROCHÆTA PALLIDA. (TREPONEMA PALLIDUM.)

It has been shown that spirochæta pallida is present and may be demonstrated, sometimes, however, with difficulty, in the expressed fluids of chancres in whatever location; in the aspirated fluid or spread tissues from the neighboring lymph nodes; in the skin of the primary roseola (Schaudinn); in all the secondary cutaneous lesions; abundantly in mucous patches and ulcers of mucous membranes, in condylomata lata; in a few cases by a special technique in the circulating blood in the florid stage (Noeggerath and Staehlin, Schaudinn, Raubitschek, Bandi and Simonelli, Nattan-Larrier and Bergeron). In tertiary lesions they are very scanty, in accordance with the slight infectivity of these lesions, but have been found after prolonged search by Spitzer (two cases), Rille and Volkerodt (one), Doutrelepoint and Grouvem (four cases), Tomasczewski (five of ten cases), Bitter, Bosc, Ferré and Reuter. Dreyer and Toepel found them in the albuminous urine of an active case, and Petrescu in the blister fluid from the skin exhibiting the eruption, but not from unaffected parts. Herheimer and Opificus think they appear in increased number at night. In the placenta Levaditi and Wallich found Sp. pallida only once in thirteen cases in connection with luetic infants; Hubschman and Nattan-Larier were more successful. According to Widal and Ravaut and Thibierge, the cerebrospinal fluid of syphilitic lesions of the central nervous system does not contain Sp. pallida, yet Hoffmann found this fluid infectious when taken from monkeys suffering from active syphilis.

By Levaditi's stain they are demonstrable in hardened tissues. In the chancres they are found, not abundantly in the ulcerated surface, but beneath and about it, in and between the epithelial cells, in the sub-epithelial and perivascular lymph spaces, especially about the growing endothelium of new capillaries, in and beyond the areas infiltrated by plasma cells, and lying within leucocytes and other phagocytes (Ehrmann, Lipschutz). In lymph nodes they are abundant in the peripheral lymph sinuses, and in the capsules and trabecula, but not so numerous in the lymph nodules. This distribution may explain the difficulty of their demonstration in the aspi-

rated fluid of the nodes. In most lesions they may occur in colonies, and in the expressed fluid of old secondary tuberculous syphilides I have found clumps of fifty or more organisms. In the internal organs of adults spirochaetae are very scanty, but have been described in the adrenal, aortic wall, and nerve trunks. The varying numbers and peculiar distribution of the spirals seen in tissues may explain the divergent results reported by many observers from the search for spirochætæ in material from syphilitic lesions. Although there have been many negative reports, it seems to be a general conclusion that the proportion of successful examinations in primary and secondary syphilis depends largely on the persistence of the examiner and the character of the material. It is not enough to examine the material from the surface of a lesion, but the subepithelial tissue must be curetted, or the indurated area severely squeezed to force out the tissue fluids. As a rule the spirochætæ are inversely proportional to the number of leucocytes in the exudate.

Mulzer gives a tabulated report of the earlier results obtained in the search for spirochætæ by various authors. The proportion of successful results is large.

In congenital syphilis the organisms are often extremely abundant and there is apparently a post-mortem enrichment to account for the excessive numbers found in the macerated tissues of some cases at autopsy (Beitzke, Simmonds). Yet Neisser failed to observe any post-mortem multiplication in the tissues of monkeys, and their cadavers lost infectivity in eighteen hours. They are usually most abundant in the liver, adrenal, and intestinal wall, but in smears or in sections stained by Levaditi's method, they have been found in the cutaneous lesions, spleen, lymph-nodes, kidney, lung, heart-muscle, lumina of blood and lymph vessels, osteochondritic foci (Bertarelli), nares, and nasal and bronchial secretions (Levaditi), and in the conjunctiva and conjunctival fluid (Bab.) While sometimes present in greatest numbers in the organs showing the most extensive lesions (Entz, Levaditi), they have been found abundantly in organs showing no demonstrable lesions (Versé. Frohwein). The organisms occur free in the capillaries, especially in the liver, and englobed in liver cells, leucocytes, and other phagocytes (Bandi and Simonelli, Levaditi). Simmonds describes them as passing through the intestinal wall and appearing in the meconium.

TECHNICS.

Spirochætæ in spreads are most readily demonstrated by one of the modifications of Romanowsky's stain, Giemsa's being the one most used, while others give nearly equal results. This stain is supplied in fluid form, ready for use, by Grübler. The most serviceable of these modifications is that of Goldhorn which fixes and stains at the same time. It may be obtained from New York dealers. Material to be examined is spread *as thinly as possible* on glass slides, dried in the air and stained immediately by Goldhorn's fluid, or fixed for Giemsa's stain in 95 per cent. alcohol (preferably methyl). Goldhorn's stain requires ten seconds, Giemsa's one-half hour, and other modifications somewhat longer. Forest intensifies the Giemsa effect by staining 12-16 hours and heating the specimen during the last half-hour over a water bath at 60-70 degrees C. The specimens for this purpose should be very thin, and fixed in vapor of osmic acid, preferably by Weidenreich's method.

Proca's stain gives superior results for photography, and may be strongly recommended. Fix thirty minutes in alcohol, or 2-5 seconds in vapor of 1 per cent. osmic acid. Apply the following mordant for 10 minutes: Carbolic acid, 50; tannin, 40; water, 100; to which add basic fuchsin, 25, dissolved in 100 c. c. absolute alcohol. Wash in water. Stain five minutes in: Concentrated alcoholic solution of gentian violet, 10; carbolic acid, 5; aqua dist., 100; wash in water, dry and mount. The spirals then appear very dark violet.

For many morphological details still under discussion Loeffler's flagella stain is employed.

For the demonstration of spirochætæ in tissues Levaditi's second method (Compt. Rend. Soc. Biol., 1906, vol. 60, p. 134) is used. Fix small pieces of tissue ½ mm. in thickness for 24-28 hours in formalin, 10 per cent. Wash in 95 per cent. alcohol 12-16 hours. Wash in distilled water till the pieces sink. Impregnate 2-3 hours at room temperature, and 4-6 hours at 50° C. in the following fluid: Nitrate of silver, 1; pyridine, 10 (added just before using); aq. dist., 100. Wash rapidly in 10 per cent. pyridine. Reduce the silver by placing in the following mixture for several hours: Pyrogallic acid, 4; acetone, 10 (added just before using); pyridine, 15; aq. dist., 100. Harden in alcohol; xylol; paraffin. Levaditi's first method is longer, but more reliable. Fix small pieces in formalin, 10 per cent. Harden in 95 per cent. alcohol. Wash in distilled water several minutes. Impregnate 3-5 days at 37° C. in 1.5 per cent. solution silver nitrate. Reduce 24 hours in: Pyrogallic acid, 4; formalin, 5; water, 100. Embed in paraffin. By these methods the spirochætæ appear densely black.

MORPHOLOGY OF SPIROCHÆTÆ.

Sp. pallida is a very delicate structure from 4-20 microns long (average 10), one-fourth to one-half micron in diameter, and showing 4-26 sharp spiral coils resembling a cork-screw (Schaudinn, Levaditi). In the fresh condition it is very slightly refractive, and is seen at first with difficulty. It rotates on its long axis, quivering movements run up and down the spiral, which is comparatively rigid, and it

executes slight movements of swaying and possibly of progression (Beer). Some observers have been unable to convince themselves that it exhibits any true locomotion. It stains red by Giemsa's method, while other spirochætæ stain bluish, and this feature may perhaps serve to identify the organism if the stain is carried out strictly according to Schaudinn's directions, but from very slight modifications in the method and in different body fluids many have found this distinction inconstant.

Other morphological features have been added by Schaudinn and others who believe the organism is a protozoon. The body is cylindrical and not band-like, as are some other spirochætæ. It is said to be encased in a hyaline myophanous cuticle or periplast through which the movements are executed, and which extends beyond both ends, forming bipolar flagella or cilia of a length of three or four spiral turns. Double flagella occurring very rarely at one end, Schaudinn interpreted as beginning longitudinal division. Lateral peritrichal flagella such as characterize the spiral bacteria have not been found with Sp. pallida,

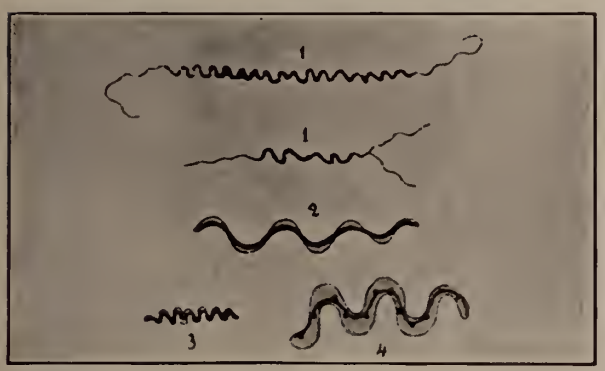

FIGURE 1. (1) Treponema pallidum with terminal cilia. (2) Spirochæta refringens with undulating membrane. (3) Spirochæta from ulcerating cancer. (4) Spirochæta plicatilis. Ehrenberg. (After Schaudinn.)

unless Forest's observations are to be so interpreted. An undulating membrane Schaudinn was unable to demonstrate, but suspected its existence from appearances in the fresh condition. The virus of syphilis is very susceptible to heat, drying, and many chemical agents, perishing in fresh tissue emulsion in eight hours, and in the cadaver in eighteen hours, but Beer kept Sp. pallida alive for three weeks under a sealed cover glass.

In order to properly interpret this morphology and determine how far it is possible to distinguish Sp. pallida from other organisms, it is necessary to consider briefly some other spiral organisms with which it may be associated.

Spirochaeta refringens is a coarser organism, 10-15 micra in length, ½-1 micron in diameter, with 3-5 loose coils. According to Schaudinn it lacks terminal cilia, but possesses an undulating membrane well defined by Loeffler's stain. Levaditi, however, claims to have demonstrated terminal cilia for this organism, and to have cultivated it in collodion sacs in the rabbit's peritoneum. It is a constant inhabitant of the mouth and mucous surfaces, and has often been found associated with Sp. pallida. Thus it has been noted in the fluid from chancres and most superficial syphilides, and in the tissues of congenital syphilis, but only superficially, while Herxheimer and Opificus found it in a softened inguinal lymph node in a monkey inoculated with syphilis two months previously, and Neisser found numerous examples in the blood and organs of an inoculated monkey. It probably bears the relation of a much restricted secondary invader after Sp. pallida and other organisms.

FIG. 2. The cilia of Spirillum gallinarum. (After Borrel.)

Spirochaeta balanitidis is a spirochæta described by Simon as occurring in *balanitis circinata,* and regarded by Berdal and Bertaille as specific for this disease. According to Hoffmann and Prowazek, it is a rather strongly refractive, actively motile, band-shaped organism, with 6-10 coils, staining bluish red with Giemsa's method, and exhibiting an undulating membrane and periplast cilia at either end. It is so much thicker and shorter than Sp. pallida as to be readily distinguished from all typical forms of the latter.

Spirochaeta buccalis is a common organism of the mouth. It is a short (4-8 microns), thick, flexible, motile body, with 3-4 flat coils, and an undulating membrane, while, according to Hoffmann and Prowazek, terminal cilia are rarely demonstrable.

Spirochaeta dentium, also a buccal saprophyte, is characterized by its thinness and the presence

of many very sharp, short coils, on which account Lowenthal has named it *Sp. microgyrata.*

Spirillum sputigenum is a common mouth organism readily identified as a sausage-shaped body provided with one or two easily stained cilia attached to one end or to the concave surface. I think this organism may become much elongated into a spiral body showing 2-3 loose coils with flat nodal thickenings.

FIG. 3. Spirochæta pallida from chancre, *1500. (Proca's stain.)

Miscellaneous spirochaetae.

Besides the above somewhat definite species there are numerous other spiral organisms which have never been fully studied, occurring on mucous membranes, and very abundantly in ulcers of these and other tissues, in tumors, in the fæces, and in many necrosing tissues which are

FIG. 4. Spirochæta balanitidis, *1500. (After Hoffman and Prowazek.)

in communication with the air. As far as can be told from their morphology, these organisms may not differ from the described species, between which most observers recognize the existence of many intermediate forms. Until cultural or other distinguishing characteristics are demonstrated it must remain impossible to identify most of these organisms with certainty (Löwy). Between Sp. pallida and refringens the intermediate forms are not infrequent, so that many observers have claimed, and Schaudinn himself has admitted, that it is not always possible to distinguish Sp. pallida from other spirochætæ. Thus, Kiolemenoglu and Cube found such spirochætæ closely resembling pallida in balanitis, scrofulous abscess, pointed condylomata, and carcinoma; but Schaudinn, who also examined the specimens, did not admit any great difficulty in distinguishing them from pallida.

In the course of considerable control work on spirochætæ in syphilis, other genital lesions, and

FIG. 5. Spirochæta buccalis, *1500. (a) and (b), with terminal cilia; (c) with loosened periblast. (After Hoffman and Prowazek.)

tumors, I found one case of acuminate condylomata and one ulcerating epithelioma of the penis with spirochætes which could not be certainly distinguished from pallida (cf. Kraus). However, no one seems yet to have encountered considerable numbers of very long slender spirals with 15-20 coils in any but syphilitic lesions. Under such conditions, I think a positive diagnosis may be given from the stained smears.

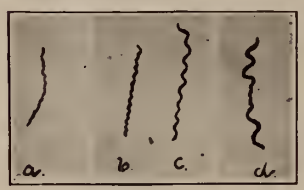

Fig. 6.

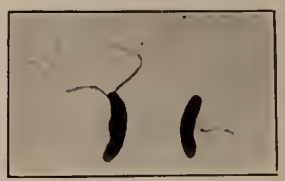

Fig. 7.

FIG. 6. Spirochæta dentium. (a) from monkey; (b), (c) and (d), from man. (After Hoffman and Prowazek.

FIG. 7. Spirillum sputigenum. (After Hoffman and Prowazek.)

When the spirochætæ are scanty, with spirals more or less uncoiled and irregular, individuals short, and with admixture of other organisms, especially from exposed or necrotic lesions, I think only a probable diagnosis should be given. As the latter conditions are not common, great value attaches to the morphological diagnosis of Sp. pallida in suspected lesions.

There is no doubt that organisms resembling

Sp. refringens are occasionally found in closed syphilitic lesions. Krystalowicz and Siedlecki, and Schultz, go so far as to say that they regard these coarser spirals as the female macrogamete, and the finer pale spirals as the male microgamete of a protozoon cycle. This is pure speculation, and it is much more reasonable to admit a certain variations in the forms of pallida or a secondary invasion by refringens.

Is Spirochaeta pallida a protozoon or a bacterium? Schaudinn was inclined to believe, and Hoffmann, Prowazek, and other German observers affirm that the organism is a protozoon. In favor of this view are: (1) The analogy between syphilis and dourine, a venereal disease of horses caused by a trypanosome; (2) The failure of attempts at artificial culture; (3) The morphological features of terminal periplastic cilia, absence of peritrichal flagella, indications of longitudinal division, and traces of undulating membrane. None of these latter features has been satisfactorily established, least of all the longitudinal division and undulating membrane, while Sp. Obermeieri, generally regarded as a bacterium, has terminal flagella; (4) Schaudinn thought he observed the development of spirochætæ from trypanosomes in owls (*Athene noctua*), infected by Sp. Ziemanni, but Novy has shown that this observation was probably unreliable, and that Schaudinn's animals were probably previously infected with spirochætæ; (5) The extreme lability of the virus, the apparent absence of toxin production, the peculiar limitations surrounding successful inoculation in man and monkey, especially the failure of subcutaneous and intraperitoneal inoculation to infect, the peculiar localization of the organisms in the body, and the remarkable features of immunity in the disease, are hardly paralleled by any known bacterial infection.

In favor of the bacterial nature of Sp. pallida are: (1) The absence of any intermediate host; (2) The evidences of transverse division, similar to that of Sp. Obermeieri, of the spirillum of African tick fever, and of Sp. gallinarum; (3) Absence of an undulating membrane; (4) Demonstration of peritrichal flagella about some spirilla which, in other respects, resemble Sp. pallida (Zettnow, Borrel); (5) Levaditi denies the existence of an undulating membrane in Sp. refringens, demonstrates a terminal flagellum, and has recently cultivated the organism in collodion sacs, showing that it may multiply for many generations without assuming a trypanosome stage. In the same way Novy has recently reported the cultivation of Sp. Obermeieri, and Levaditi thinks the entire group will prove cultivable and fail to show trypanosome forms; (6) The apparent transmissibility of syphilis to rabbits and dogs.

The results of Novy and Levaditi probably eliminate any relation with trypanosomes without positively determining the bacterial nature of pallida. Until there is more complete agreement regarding the structure of this organism, the question of its biological position must remain open, and it seems not unlikely that a new genus Treponema, as suggested by Veuillemin, and by Schaudinn, will be found necessary to accommodate the organism of syphilis.

EXPERIMENTAL SYPHILIS.

Since the discovery of Sp. pallida the study of experimental syphilis in lower animals has added greatly to our knowledge of the course of infection in man, has strengthened the claims of Sp. pallida to be regarded as the cause of the disease, and has furnished a field for the investigation of immunity in syphilis. There is little doubt that Klebs, in 1879, transferred syphilis to some lower monkeys, but as the exact identity of the animals employed was not stated, his results cannot be verified. Similar deficiencies existed in the work of Martineau and Hamonic in 1882, and of Nicolle, 1893. In 1893, Nicolle, and in 1896 Sperck, obtained typical chancres in *Macacus sinicus,* and transferred the virus from one animal to another. In 1903 Metchnikoff and Roux employed a young chimpanzee (*Troglodytes niger*) and produced a typical chancre on the genital mucosa twenty-six days after inoculation, followed by inguinal adenitis, and thirty days later by a generalized papular eruption which progressed for a time, and finally, with the chancre, subsided. From the lesions of the chimpanzee they transferred the disease to lower monkeys (*Macacus sinicus* and M. *cynomolgus*). Later experimenters, Zabolotny, Kraus, Neisser, Baerman and Halberstadter, and Finger and Landsteiner, have succeeded in developing the disease without secondaries in a large proportion of other monkeys. The orang-outang reacts to inoculation by a chancre, but without secondary lesions, while the gibbon develops abundant secondaries (Neisser). In the chimpanzee the syphilitic nature of the squamous and papular eruption and of the mucous patches has been proven by the capacity of material from these lesions to transmit the disease Of twenty-two chimpanzees 66 per cent. of those that lived long enough developed typical secondaries, and in some instances falling of the hair and characteristic palmar psoriasis were observed (Metchnikoff, Roux). The initial lesions vary from an herpetic vesicle or small papule to a phagedenic ulcer, and Finger and Landsteiner concluded that the latter form is referable chiefly to the character of the virus and not to secondary infection, since they obtained it constantly in lower monkeys by successive passages of the virus through several animals.

That the disease in monkeys is true syphilis is accepted by Neisser because the histology of the lesions is specific; the appearance of the chancre renders the animal immune to reinoculation; and because mercurial treatment greatly retards the course of the disease. Inoculation from soft chancres was without effect (Neisser).

The study of the disease in monkeys has brought to light many important features of the

infection. If the virus is applied to the epithelium, a chancre develops, but if the same virus is inoculated into the subcutaneous tissue an initial lesion does not follow, immunity does not develop, and the animal remains susceptible to subsequent inoculation of the epithelium. Yet in several instances Neisser was unable to produce chancres in monkeys which had previously received subcutaneous injections of syphilitic material, indicating that immunity may sometimes appear after such subcutaneous injections. However, Neisser thinks that the negative results of cutaneous inoculation of such animals is probably accidental. Possibly the leucocytes of the subcutaneous tissue destroy the virus before it can begin to multiply. Hence, small superficial wounds are more dangerous in man than deep ones. Nevertheless, it is recorded by Jullien that two French surgeons accidentally inoculated by deep needle punctures developed pronounced signs of constitutional syphilis, as attested by Fournier, but failed at any time to show signs of a chancre at the point of inoculation. It remains to be seen whether the observations of the clinicians, or those of the experimental pathologists represent the true laws of infection in syphilis.

FIG. 8. Primary syphilide in forehead of a Cynocephalus. (After Finger and Landsteiner.)

In monkeys the virus exhibits a certain choice of epithelium for its entry. The abdominal skin resists the entry, the eye-brows and genitals are most readily inocuable in apes, and the palpebral borders in catharinians (Neisser, Thibierge, Ravaut). The period of incubation varies from thirty days, on the average, in the chimpanzee, to twenty-three days in lower monkeys, but the shorter the incubation, the shorter and less severe the subsequent disease.

That the virus circulates in the blood in certain stages of syphilis has been clearly shown experimentally. Although Neisser inoculated human subjects with the blood of florid syphilis without effect, a result which is now explicable, Hoffmann in two of four experiments, produced syphilis in monkeys (*Macacus rhoesus*) by inoculating the skin with human blood drawn forty days and six months after the appearance of the chancre. The resulting primary lesions were typical, appearing after the usual incubation, and showing a characteristic histological structure and the presence of Sp. pallida.

Syphilographers are agreed that tertiary lesions are not contagious. Experimental studies have shown, however, that some tertiary lesions are capable of transmitting the disease. Salmon had negative results with an ulcerated gumma in the eighth year of the disease. Yet Neisser produced chancres and secondaries in a gibbon and in a *Macacus* with the material from a non-ulcerated gumma (duration unknown), but the periods of incubation were very long, fifty-one and sixty-eight days. All tertiary lesions do not seem to contain the virus, as Neisser found the material from tubero-serpigenous lesions non-infectious. It appears, also, that secondary infection and ulceration of tertiary lesions reduces their infectivity. None of these observations invalidates the clinical experience that tertiary lesions are practically harmless for the patient's neighbors, but they suggest greater caution in dealing with tertiary lesions.

According to Colles' law, a mother who gives birth to a syphilitic infant may not herself contract the disease, and thereafter remains immune to inoculation. This law may be explained by the infection of the embryo or ovum, and the transference of immunity to the mother by the blood or by some other method. The probable mode of origin of the maternal immunity is suggested by an observation of Buschke and Fischer, who found spirochætæ in the inguinal lymph nodes of such a case which remained entirely free from symptoms of the disease. This observation, taken with the failure of subcutaneous and intraperitoneal inoculation to infect monkeys, may explain the workings of Colles' law. Levaditi and Sauvage claim to have shown that Sp. pallida is capable of invading the ovum. Finger and Landsteiner found the semen in one case of secondary lues infectious for apes, but in other cases their results were negative. It is, therefore, only necessary to suppose an occasional escape of the genital tract in order to complete the necessary conditions for the infection of the embryo with immunity in the mother.

Neisser endeavored to determine the degree and duration of the infectivity of the organs of monkeys and found that the virus persists especially in the blood-forming organs, spleen, lymph nodes, and marrow, while the testicle, also, long preserved the virus in active form. The other organs gave entirely negative results.

IMMUNITY AND SERUM THERAPY IN SYPHILIS.

The experimental studies of syphilis have steadily aimed to determine the character of immunity in the disease and to devise some form of preventive or curative treatment. It cannot be said that much progress has been made in either of these directions, although many interesting facts have been brought to light.

The immunity relations of syphilis are very peculiar. After the development of the primary

lesions, man is usually insusceptible to reinoculation during the active stage of the disease, but during all stages both man and monkey can, in many cases, be reinoculated. Reinoculation in the tertiary stage gives precocious lesions of the tertiary type, gummata and tubercles (Finger, Landsteiner). Neisser found reinoculation from 27 to 104 days after primary inoculation in monkeys; sometimes effective, more often negative. During the stage when the skin is refractory to inoculation secondaries develop, showing that there is no complete immunity of the skin to the virus, since spirochætæ are abundantly present in the lesions. Neisser suggests that cutaneous secondaries develop at periods of relative deficiency of immunity. He has shown that failure of reinoculation is not due to immunity to foreign and susceptibility to auto-infection, since the patient's own virus in both man and monkey is ineffective.

Attenuated Virus.—Efforts to secure an attenuated virus to be used for inoculation have been unsuccessful. Fresh material loses its virulence in six hours, and the results of inoculation with such virus in all types of monkeys have been entirely negative or the fully virulent disease (Neisser). Passage through monkeys does not attenuate the virus, and the absence of secondaries in lower monkeys is apparently no indication of a change in the quality of the virus, but only of the reaction in the host. Inoculation with virus mixed with the serum of passively immunized animals always produced negative results or the usual form of the disease (Metchnikoff, Roux). Simultaneous injections of mercury has no effect on the development of the chancre or spread of the virus in the organs (Neisser).

Passive Immunization.—Injection of large quantities of serum of syphlitics into chimpanzees has failed to produce definite immunity, although some of Neisser's animals after such treatment failed to take syphilis. Even if such animals do react with initial lesions, Neisser supposes that the treatment may still produce immunity of the organs and prevent the severe constitutional forms of the disease. Yet there is no clinical method of estimating immunity of the organs if such really ever exists. In Macacus there are no secondaries, but the organs are infectious; in eight orangs there were no secondaries, and the organs were not infectious; of gibbons with secondaries in only one of four did the bone marrow prove infectious (Neisser). Metchnikoff and Roux found the serum of animals injected with syphilitic products of no effect on the disease. A chimpanzee which received at intervals 76 c. c. of serum prepared in this way in lower monkeys developed chancres and secondaries after the usual inoculation. The blood of patients cured of syphilis has no effect on the disease in man, and the same result has been obtained in monkeys (Neisser, Finger, Metchnikoff). The serum of a monkey cured of syphilis, and subsequently injected over a period of fifteen months with the blood of syphilitic subjects in the roseolar stage, was without therapeutic effect. However, immune serum dried and powdered prevented the chancre when placed on the site of inoculation one hour after the virus (Metchnikoff).

Reasoning from a possible analogy between rabies and syphilis, Kraus has attempted to prevent the development of constitutional syphilis by immunization after the appearance of the chancre. Spitzer tested this theory in a series of cases. Soon after the appearance of the chancre he injected subcutaneously emulsions of excised chancres of increasing concentration, from 1-200 to 1-40. The injections were continued for fourteen days and were without ill effect. While such injections do not convey the disease, it was thought possible that they might produce an immunity of the organs and abort the natural progress of the disease. Of twenty cases, seven failed to show any signs of secondary syphilis; in the others the course of the disease was unaffected or secondaries were delayed. The entirely negative results from this treatment reported by others, Spitzer refers to imperfect technique. Risso and Cipolina claim to have had good results in secondary, and especially in tertiary syphilis by prolonged use of their immune serum.

SERUM DIAGNOSIS OF SYPHILIS.

Neisser has attempted to establish a method of serum diagnosis and prognosis in syphilis by means of complement diversion (Gengou-Moreschi phenomenon). Gengou and Moreschi prepared two mixtures: (1) Washed red cells (freed from complement), plus inactivated hemolytic serum (amboceptor, no complement); (2) Blood serum containing bacterial proteids, plus specific precipitin serum containing complement and precipitins for the bacterial proteid. In mixture No. 2 the precipitin unites with the bacterial proteid, *and at the same time diverts or absorbs the complement present,* so that on adding No. 2 to No. 1, hemolysis does not take place. If in mixture No. 2 either bacterial proteid or specific anti-body (precipitin) are lacking, the complement is not diverted, and on addition of No. 2 to No. 1 the active complement unites with the amboceptor attached to the red cells and hemolysis follows.

In applying this method to the diagnosis of syphilis, Neisser, Bruck, and Schuck used for the hemolytic mixture washed goat red cells, and heated hemolytic serum prepared against these cells in the rabbit. The specific syphilitic proteid (antigen) they obtained from the tissues of syphilitic lesions, genuine or suspected, and the syphilitic immune body was secured in the blood serum of monkeys or other animals receiving large subcutaneous injections of syphilitic material. Necessary complement is contained in the serum or in the body fluid to be examined. By means of the above test they believe it is possi-

ble to determine the presence of either syphilitic proteid (antigen) or of immune body in the blood of patients in all stages of syphilis, with or without symptoms. A positive reaction for antigen they think indicates that the syphilis virus still exists in the body, and that the patient requires active treatment. A positive reaction for the immune body indicates that at some time, present or past, the body has harbored the virus, but probably that the disease has subsided. The application of the test to 202 cases of all forms of syphilitic affections and sequelæ yielded 65.05 per cent. of positive reactions. Of 102 cases of active syphilis, 70 per cent. gave positive reactions. Of 85 healthy men, five gave positive reactions for the antigen of syphilis. On repeated examinations 10 negative cases became positive, and 17 positive ones became negative. These practical results do not indicate that the serum diagnosis of syphilis is a very valuable addition to present methods. The results, however, appear to be of great theoretical interest.

Detre finds that emulsions of syphilitic organs, fresh or dried, alone divert complement in hemolytic sera, this action beginning in one-half hour and then progressing more rapidly. This complement diversion becomes more marked when heated serum of syphilitic subjects is added to the organ emulsions. In two of six syphilitics he noted distinct complement-diverting power of the serum, but in four cases of syphilis, and in four normal subjects, the blood serum was without effect. The complement-diverting sera gave the same result with the pharyngitic secretion as well as with the emulsions of dried and powdered organs. These observations indicate that the dried syphilitic organs may be used in the test, a fact which would considerably extend the clinical application of the method. Some of Detre's negative results may have been due to his failure to use clear, filtered extracts. Wassermann and Plaut report more uniform results from the examination of the spinal fluid in paralytics. Of 41 lumbar puncture-fluids, 32 gave definite inhibition of hemolysis when mixed with extracts of syphilitic organs, while the extracts and puncture-fluids alone gave no inhibition. Puncture-fluids from 19 non-syphilitic cases added to the same syphilitic extracts gave no inhibition of the hemolysis.

SYPHILIS IN RABBITS.

Bertarelli ground up to a fine emulsion in salt solution the tissue of a chancre and injected a drop of the material in the cornea and anterior chamber of the eye of rabbits. In two of several experiments, after fifteen days and two months, respectively, the ulcerating corneas, examined by Levaditi's method, showed very numerous spirochætæ resembling pallida, while the cornea and surrounding tissues exhibited round cell peri-vascular infiltration. Greef and Clausen report similar results and are certain that the spirals are not nerve fibrils. Scherber and Hoffmann both observed the peculiar lesions in the rabbit's cornea following inoculation with syphilitic material, but could find few or no spirochætæ in the sections. More recently Bertarelli claims to have carried the syphilitic virus through six generations of lesions in the rabbit's cornea, from the fourth of which he successfully inoculated a monkey.

RELATION OF SPIROCHÆTA PALLIDA TO SYPHILIS.

Although less than two years have passed since the discovery of spiral organisms in syphilis, the available evidence establishes a very strong presumption that Sp. pallida is the cause of this disease. This organism appears to be present in the initial lesions, in the roseola and secondary cutaneous eruptions, in the swollen lymph nodes, in the circulating blood in a moderate number of florid cases, and in a considerable proportion of tertiary processes. When the virus is transferred to monkeys, the same organism has been found in the chancres and in the cutaneous and visceral lesions in a large proportion of cases, according to Metchnikoff, in 74 per cent. In congenital syphilis very large numbers of the organisms are found in most of the diseased tissues, and in the new born dead fœtus under conditions in which a secondary invasion is hardly possible. There is evidence to show that its distribution in the tissues will satisfactorily explain the lesions of the disease. In a vast number of non-syphilitic processes it has been impossible to establish the presence of exactly similar organisms, although spirochætæ closely resembling Sp. pallida have been found in many non-syphilitic lesions.

That the organism is living seems beyond question on account of its peculiar rotary movements, and the quivering motion which resembles that of Sp. Obermeieri. When stained it presents a characteristic structure and peculiar relations of individuals suggesting multiplication, which in the minds of most observers serve to distinguish it from tissue elements and from other organisms.

Yet there is a disposition among conservative authorities not to relax the postulates required by Koch for the establishment of a micro-organism as the cause of disease for the benefit of Sp. pallida, especially on account of the unfortunate outcome of many previous alleged discoveries of the cause of syphilis. In some quarters it is frankly claimed not only that Sp. pallida is not the specific agent of lues, but that as seen in stained tissues it is not a living organism at all. The most radical and competent of these critics is Saling, who has presented evidence against Sp. pallida which deserves serious consideration.

Saling objects that there are no characteristic morphological features which serve to distinguish pallida from refringens; that competent observers have failed to convince themselves that it possesses intrinsic motility

(Sobernheim, Tomasczewski); and that all the features so far demonstrated fail to determine its zoölogical position. He points out that while visible in large numbers in sections of organs and in spreads of superficial lesions, yet in smears of these same organs hours of search are usually necessary for the identification of a single Sp. pallida. Of eighteen cases of congenital syphilis, all of which showed spirochætæ in section, in four Beitzke could find none in spreads after prolonged search, and in five other macerated syphilitic fœtuses not examined in section, he could find no spirochætæ in spreads. The staining reactions are essentially different from those of its nearest neighbors. It is extremely scanty in the blood when this fluid is infectious, and may be mistaken for fibrin-fibrils, and it is difficult to find in spreads of lymph nodes where it is simulated by tissue fibrils. He entirely discards the evidence of most cases of congenital syphilis, because here bacteria usually accompany the spirals, and few observers have taken the precaution to determine the bacterial condition of the organs examined. The same objection applies to all superficial lesions. He notes that Neisser found in monkeys no relation between the content of material in spirochætæ and its infectiousness.

In the opinions of Flügge and Löffler, the final evidence needed in favor of Sp. pallida was furnished by the demonstration of the organism in satisfactory numbers and position in sections. Saling attacks the results of Levaditi's method, pointing out that it demonstrates axis-cylinders, non-medulated nerve fibrils, and arborizations of axis-cylinders, in a form which is indistinguishable from Sp. pallida, while the silver impregnations produce in the borders of red cells, endothelial cells, and tissue spaces, serrated lines strikingly like spirochætæ. Maceration of tissues greatly increases the numbers of these artefacts. Photographs of normal tissues stained by Levaditi's method show many structures indistinguishable from photographs of Sp. pallida.

Schultze supports Saling's contentions and finds many typical Sp. pallida in macerated corneas inoculated with street dirt. Rosenbach also objects to much of the reported evidence from congenital syphilis, claiming that the diagnosis in many of these cases is based on the presence of spirochætæ and not on reliable clinical data.

As an argument Saling's criticism is ably constructed, but it fails to convince, largely because he quotes isolated observations to the exclusion of better attested opinion, fails to consider the relative value of many acknowledged facts, and does not recognize the force of the evidence as a whole. His objection to the evidence in congenital syphilis seems to be valid for most of the cases, but not for the recently delivered, unmacerated fœtus examined by Bronum and Ellerman. The difficulty of thinly spreading organ fluids is, I think, the chief reason for the frequent failure to find spirochætæ in tissue spreads of congenital syphilis. It is remarkable that so little attention has been paid by recent students of congenital syphilis to the bacterial condition of the organs examined. Schridde claims to have found spirochætæ in the organs of an infant which was certainly not luetic, and Buschke and Fisher found short thick spirochætæ associated with pallida in the organs of another case. The motility of Sp. pallida seems beyond question. Its occurrence is not limited to superficial necrosing material, but it is most abundant deep in the living tissue. Sp. pallida is easily distinguishable from fibrin or tissue fibrils, in smears, by experienced microscopists. The slight infectiousness of the blood accords with the scanty presence of the spirochætæ, while the biological position of Sp. pallida and its relation to refringens are secondary matters. It is possible, however, that some unreliable evidence has been offered from the study of stained sections, and that some observers have been mistaking artefacts and tissue elements for spirochætæ. Nevertheless, Sp. pallida is demonstrable by the silver method, and has been found in the lumen of blood vessels, while its appearance in masses, in the tissues, and isolated in many of the lesions, is certainly distinguishable from that of nerve fibrils.

There are still many obscurities regarding the morphology, relations, and occurrence of Sp. pallida. No one can claim that it has already been established in an unassailable position as the cause of syphilis, and that all the necessary or desirable evidence has been secured. These obscurities, however, are no greater than those that still attach to the known clinical facts of the disease. The ground will doubtless be traversed again more critically, but probably without altering the general conclusions already reached. There are indications that Sp. pallida is susceptible to artificial culture. Leriaux and Geets claim to have accomplished this already, but their work has not been verified, and some have doubted its reliability. A. Kraus and Volpno and Fontana, by incubating exudates and pieces of syphilitic tissue in various culture media, have shown that Sp. pallida is quite resistant in the presence of autolytic products and of saprophytic micro-organisms, and may considerably increase in numbers under such conditions, and remain alive for 25-30 days.

In view of these results, and of the successful cultivation of Sp. refringens, it may be advisable to wait until Sp. pallida has been grown in pure culture, and its pathogenic qualities tested on monkeys, before finally accepting this organism as the cause of syphilis.

LITERATURE.

For complete lists up to 1907, consult Sohernheim, "Handbuch der path. Microorganismen" (Kolle u. Wassermann), Engänzungsband, Hept II, p. 569.

Bandi, Simonelli: *Munch. med. Woch.*, 1906, p. 1668. *Arch. f. Dermatol. u. Syph.*, 1906. Bd. 79, p. 209.

Beer: *Deut. med. Woch.*, 1906, p. 1192.

Beitzke: *Berl. klin. Woch.*, 1906, p. 731.

Berdal, Bertaille: *La Med. Mod.*, 1891, p. 340.

Bertarelli: *Cent. f. Bact.*, Bd. 41, p. 320; p. 639; Bd. 43, pp. 167, 238.

Bab: *Deut. med. Woch.*, 1906, p. 1945.

Bosc: *Compt. Rend.* Soc. Biol., 1906. *Cent. f. Bact.*, 1906, Bd. 42, pp. 30, 114.

Borrel: *Comp. Rend.* Soc. Biol., 1906, Vol. 60, p. 138.

Bronum, Ellerman: *Deut. med. Woch.*, 1905, p. 1757.

Busche, Fisher: *Deut. med. Woch.*, 1906, p. 752; *Berl. kl. Woch.*, 1906, p. 383; *Arch. f. Dermat. u. Syph.*, 1906, Bd. 82, p. 63.

Detre: *Wien. kl. Woch.*, 1906, p. 620.

Doutrelepont, Grouven: *Deut. med. Woch.*, 1906, No. 23, p. 908.

Dreyer, Toepel: Cit. by Levaditi, *Folia Hematol.*, 1906, p. 658.

Entz: *Arch. f. Dermat. u. Syph.*, 1906, Bd. 81, p. 79.

Ehrmann: *Deut. med. Woch.*, 1906, p. 1115; *Wien. kl. Woch.*, 1906, p. 828.

Ferré: *Comp. Rend. Soc. Biol.*, 1906, vol. 60, p. 97.

Finger, Landsteiner: *K. K. Akad. d. Wissen.*, Wien, 1905; *Munch. med. Woch.*, 1906, p. 1736; *Wien med. Presse*, 1906, No. 18; *Arch. f. Dermat. u. Syph*, Bd. 78, 81.

Forest: *Cent. f. Bact.*, 1906, Bd. 42, p. 608.

Frohwein: *Medizinische Klinik*, 1906, Nos. 17, 24-26.

Gierke: *Munch. med. Woch.*, 1906, p. 393.

Goldhorn: *Jour. Exper. Med.*, 1906, vol. 8, p. 451.

Greef, Clausen: *Deut. med. Woch.*, 1906, p. 1454.

Hoffmann: *Deut. med. Woch.*, 1906, p. 469.

Hoffmann, Beer: *Deut. med. Woch.*, 1906, p. 869.

Hoffmann, Prowazek: *Cent. f. Bact.*, 1906, Bd. 41, pp. 741, 817; Bd. 42, Beilage, p. 108.

Herxheimer, Opificus: *Munch. med. Woch.*, 1906, p. 310.

Hubschman: *Berl. kl. Woch.*, 1906, p. 796.

Jullien: *Neumann's Festschrift*, 1900, p. 367.

Kiolomenoglu, Cube: *Munch. med. Woch.*, 1905, p. 1275.

Klebs: *Allg. Wien. med. Zeitg.*, 1878, p. 418.

Kraus: *Wien. kl. Woch.*, 1905, p. 941; 1906; *K. K. Akad. d. Wissen.* Wien, 1905, Bd. 114; *Prag. med. Woch.*, 1906, Nos. 26-27.

Kraus, A.: *Arch. f. Dermatol. u. Syph.*, 1906, Bd. 80, p. 255.

Krystalowicz, Siedlecki: *Rev. prat. de la Mal. Cut.*, 1906, V, No. 2.

Levaditi, Petresco: *Presse Med.*, 1905, p. 617.

Levaditi, Sauvage: *Compt. Rend. Soc. Biol.*, 1906, vol. 59, p. 344.

Levaditi, Wallich: *Comp. Rend. Soc. Biol.*, 1906, vol. 60, p. 191; *Annal. de Gyn. et d'Obstet.*, 1906.

Levaditi: *Compt. Rend. Soc. Biol.*, 1906, vol. 60, p. 134; *Ibid*, 1905, vol. 59, p. 326; *Folia Hemat.*, 1906, pp. 541, 655.

Leriaux, Geets: *Cent. f. Bact.*, 1906, Bd. 41, p. 684.

Lipschutz: *Wien. kl. Woch.*, 1906, p. 1110.

Lowenthal: *Deut. med. Woch.*, 1905, p. 1169; *Berl. klin. Woch.*, 1906, p. 283; *Med. Klinik*, 1906, No. 11.

Löwy: *Arch. f. Dermat. u. Syph.*, 1906, Bd. 81, p. 107.

Martineau, Hamonic: *L'Union Med.*, 1882, p. 398.

Metchnikoff, Roux: *Annal de l'Instut. Pasteur*, 1903, 1904, 1905.

Mulzer: *Arch. f. Dermat. u. Syph.*, 1906, Bd. 79, p. 387.

Nattan-Larier: *Compt. Rend. Soc. Biol.*, 1905, vol. 59, p. 468.

Nattan-Larier, Bergeron: *Compt. Rend. Soc. Biol.*, 1906, pp. 181, 250.

Neisser, Bruck, Schuck: *Deut. med. Woch.*, 1906, p. 1937.

Neisser, Baerman, Halberstadter: *Deut. med. Woch.*, 1906, pp. 1, 48, 97.

Neisser: *Deut. med. Woch.*, 1904, pp. 1369, 1431; *ibid.* 1906, p. 493.

Nicolle, Noeggerath, Staehelin: *Munch. med. Woch.*, 1905, p. 1481.

Novy: *Jour. of Infectious Diseases*, 1906, vol. 3, p. 291.

Proca: *Compt. Rend. Soc. Biol.*, 1905, vol. 68, p. 1044.

Raubitschek: *Wien. kl. Woch.*, 1905, p. 752.

Ravaut, Ponselle: *Soc. Med. des Hop.*, 1906, p. 3.

Reuter: *Zeit. f. Hygiene*, 1906, Bd. 54, p. 49.

Rosenbach: *Berl. kl. Woch.*, 1906, pp. 1157, 1187.

Rille: *Munch. med. Woch.*, 1905, p. 1377.

Risso, Cipollina: *Riforma Med.*, 1905, No. 11; *Arch. f. Dermat. u. Syph.*, 1906, Bd. 79, p. 55.

Ritter: *Munch. med. Woch.*, 1906, p. 2004.

Saling: *Cent. f. Bact.*, 1906, Bd. 41, 42, 43.

Salmon: *Compt. Rend. Soc. Biol.*, 1905, cit. by Levaditi, Fol. Hem., 1906.

Scherber: *Wien. kl. Woch.*, 1906, p. 726.

Schlimpert: *Deut. med. Woch.*, 1906, p. 1037, 1942.

Schaudinn: *Deut. med. Woch.*, 1905, p. 1667; 1906, p. 71.

Schaudinn, Hoffman: *Deut. med. Woch.*, 1905, p. 711, May 4th; *Berl. kl. Woch.*, 1905, p. 643.

Schridde: *Munch. med. Woch.*, 1906.

Schutz: *Munch. med. Woch.*, 1906, p. 543.

Schulze: *Berl. kl. Woch.*, 1906, p. 1213.

Simmonds: *Munch. med. Woch.*, 1906, p. 1303.

Simon, Trans.: *Internat. Med. Cong.*, London, 1881, vol. 3, p. 138.

Spitzer: *Wien kl. Woch.*, 1906, p. 1132.

Tomaszewski: *Much. med. Woch.*, 1906, p. 1301.

Thibierge, Ravaut: *Annal. de Dematol.*, 1905, July. p. 575.

Volpino, Fontana: *Cent. f. Bact.*, 1906, Bd. 42, p. 666.

Verse: *Medczin Klinik*, 1906, Nos. 24-26.

Veuillemin: *Comp. Rend. Acad. Sci.*, Paris, 1905.

Wasserman, Plaut: *Deut. med. Woch.*, 1906, p. 1769.

Wasserman, Neisser, Bruck: *Deut. med. Woch.*, 1906, p. 745.

Weidenreich: *Folia Hematol.*, 1906, Bd. 3, p. 241.

Zabolotny: *Arch. de sc. Biol.* (St. Petersb.), 1905, vol. 11, p. 158.

Zettnow: *Deut. med. Woch.*, 1906, p. 376.

THE WORK OF THE NEW YORK STATE CANCER LABORATORY—RETROSPECTIVE: PROSPECTIVE.*

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A LAPSE of some eight years since the inception of the work of the Buffalo Cancer Laboratory quite justifies a resumé of what has been accomplished there during these years, as well as a reference to the advance which has been made in our general knowledge of the subject of cancer.

The motives which prompted its foundation were the inadequacy of the methods hitherto applied in the study of the disease and the entirely partisan views held by practically every investigator of repute. The histologist regarded cancer as a matter of peculiarity of cell structure, the embryologist held it due to peculiarity of cell activity when actuated by hereditary influences or embryonic perversion; the first looking to the cell itself, the latter to its environment

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and proclivities. The pathologist could advance numerous suggestions, all the outcome of a study of deadroom specimens through brass tubes, all ingenious, some extraordinary and incomprehensibly so; all displaying familiarity with minutiæ which none could comprehend, and all evincing especially a lack of familiarity with the disease in the living body, a lack which has characterized most of the published work on the etiology of cancer. Tradition and adhesion to long-established methods had governed all modes of investigation, yet no one had had the originality to depart from them.

No theory advanced had proven satisfactory; those who furnished theories were laboratory students, while the clinicians, medical and surgical, *i. e.,* the men who saw the disease *in vivo,* had almost abandoned hope, either of learning the nature of the disease, or how successfully to treat it. Inoculation experiments had been up to that time completely disappointing and discouraging; none of the ordinary bacteriological methods proved reliable or available, and it was very evident that the cancer germ, if such there were, was not an ordinary bacterium nor amenable to the prevailing bacteriological methods of study. Interesting facts had here and there been gathered concerning the occurrence of cancer in animals, in man, in certain districts and houses, and even in vegetables, but no proper assemblage or corelation of these had been made.

A general spirit of pessimism prevailed in all quarters, the more so as a study of statistics made it appear that cancer mortality was on the increase, at least in those parts of the world which most interest us. This spirit of hopelessness had not exhausted concerted effort but had rather paralyzed endeavor. It was difficult to secure either men who would devote themselves to such blind and unpromising work, or money with which to support them in such efforts.

For several years the conviction had been growing upon me that only by deliberate, well-planned, combined attack from various directions, by men especially fitted for such work, could real advance be made. It appeared more and more strongly that the knowledge and skill of the vegetable pathologist, the biologist, the naturalist and the chemist, must be combined with the talents of those pathologists who had hitherto been attacking the problem alone, and that the clinicians, especially the operating surgeons, as men who were in constant contact with the disease before death, must join actively in the co-operative work.

But all this required money and organization. I will not attempt to give here a detailed history of all that was required to bring this about. Those only who have had experience with efforts to secure appropriations for legitimate scientific work can appreciate the difficulties and discouragements encountered, as well as the delays. The first legislature approached made the necessary appropriation, which was then vetoed by Governor Black, his recorded reason showing the same popular misconception of such work and its importance for the State and the public, with which we ever have to contend. Finally we succeeded, and the result was that there was established in Buffalo, in the State of New York, the first laboratory ever, or anywhere, created for the concerted and deliberate study of the most mysterious disease known to us, one which annually kills seven thousand of the inhabitants of this same State.

In parenthesis, one might, were he disposed to take time, descant on the fact that a number of farmers who, between them, had lost seven thousand cows or sheep or animals, would have had far less difficulty in securing an appropriation to study the nature of the disease which caused such loss than we had in inducing the State to enter upon a scientific study of a disease which kills seven thousand of its citizens every year.

The establishment of this laboratory was hailed with acclaim by scientists and governments all over the world. In the few years that have elapsed since its organization, similar laboratories have been put into operation by government aid at Berlin, Frankfort, Moscow, London, while the Pasteur Institute in Paris has now a large department devoted to it; in addition to which, by private or semi-private means, similar laboratories are established in Middlesex Hospital, at Harvard, in New York, and especially and most recently, in Heidelberg, where Czerny has just opened a magnificent hospital and laboratory combined.

Scarcely were we fairly done with our first year's work when our legislators began to ask, "Well, you have worked so many months and have spent so much money. Now what have you found out? When will you be able to cure cancer?" And this has been a perhaps not unnatural spirit evinced ever since by those entirely unfamiliar with the problems involved, the exacting character of the work required, the delays and disappointments inevitable in experimental work, the complexities to be reconciled or eliminated, and the long time required by nature herself in revealing many of her hidden secrets. By reason of these difficulties and complications, such an institution is placed always and constantly in an attitude, as it were, of self defense, and is always exposed to attacks and re-attacks of those who will ignorantly demand delivery of scientific truths or experimental results in accord with a definite time schedule.

We are often reminded that the money already employed in this work makes a considerable total. Let us compare it with what is being done abroad. Ehrlich, under the patronage of the Ministry of Education, began work in 1900 with a large sum. Since 1903 he has been working with transplantation experiments on small ani-

mals, mainly mice, but including a few dogs. He has a distinct advantage over us in that his support is assured and his means much less limited. While his earlier work was opposed to the parasitic theory, one may trace in his later publications a distinct change in sentiment and a gradual leaning toward the same position taken by our workers.

Perhaps the most pretentious undertaking has been that of the English Cancer Research Fund, whose great claim has been the breadth and scope of their work, though until now the only positive results which they have obtained have been their recent confirmation of work already done in Buffalo, and published in our reports.

Following directly upon the establishment of the Committee for Investigation of Cancer in Berlin, the purposes of which are the general encouragement and spread of research, and the collection of extensive statistics, there was established under the direction of von Leyden, in the Royal Charité Hospital, Berlin, a special department for the investigation of cancer.

Harvard University enjoys the income from the sum of $100,000, which may be applied to investigations either in cancer or tuberculosis. They have been actively engaged since 1899, but their work up to the present has been practically negative. The original director of the practical work resigned his position two years ago with the statement that the only hope for the cure of cancer was the knife, that serum treatment offered no hopeful outlook; his general attitude being most pessimistic. Since then our laboratory has supplied them with mice for purposes of transplantation experiments, and we understand that they are now engaged in this work, although as yet they have published nothing in this connection.

The Huntington Research Fund has been successfully employed in the investigation of cancer. Those enjoying its provision have been for the past year or more engaged in the transplantation of a lympho-sarcoma of the dog, and have in almost all particulars confirmed the work on immunity done in Buffalo.

Dr. Loeb, who was at one time employed with us, has in the last few years been otherwise engaged, but has published one or two papers on this subject; having received some funds for the purpose, he would seem to have re-entered the field. Borrel, who has for years been an active worker, being one of the directors of the Pasteur Institute, has ample facilities yet without special funds. Jensen, of Copenhagen, who is at the head of the department of pathology of the Veterinary School, and who has done so much, has not enjoyed the privileges of a special fund; nevertheless, most of the work that has been accomplished in the past eight years has been done with funds provided from some source and for the purpose.

It is very evident that the advances in our knowledge of cancer made during the past few years are mainly attributable to the discovery of the transplantability of tumors in small animals, a possibility until recently generally denied. The accuracy of the work is almost entirely dependant upon the number of animals which can be employed, *i. e.,* it is a question of money necessary for their procurement and for the maintenance of a sufficient staff of assistants. In this particular, the English Commision, enjoying a much larger income, have the greater advantage. In the last two years they have studied no less than 100,000 mice, besides other animals, whereas the funds at the disposal of our laboratory have thus far enabled us to employ only about 8,000 mice and rats. In this respect also Ehrlich has the advantage—he probably having employed some 40,000. This will make it clear that, except in minor points, the opportunity of the individual scientist without special financial support is, in this field, very limited.

The establishment of the State Cancer Laboratory, the first institution for special research in this direction, has, in fact, pointed the way and shown the correctness of the view that the great problem of the origin and nature of cancer can only be solved by an elaborate and well-supported attack from all directions, a statement substantiated not only by our own results, but by every confirmation in the various other institutions which have followed us. The competition in this field has now become international, and the support accorded to foreign institutions is such that unless New York State can appreciate the necessity of liberally supporting its own laboratory we shall have difficulty in maintaining the lead which we have obtained by our having been first in the field, as well as first in the general tendency which the work is everywhere now evincing.

Early in our work we tried to study some of the associated problems, as the following statements will show: For instance, during the first year Dr. Wilson made a statistical study in which he demonstrated the steady increase in the mortality rate of New York State; later Dr. Lyon made a careful and painstaking study of the city of Buffalo, constructing a carefully and elaborately prepared map of the city, on which were indicated those houses where one or more deaths from cancer had occurred, thus bringing out some striking features regarding its prevalence. This map may well serve as a model for similar work, which should be done in every city which has a board of health or a registry of deaths.

Some studies were made of two well-marked cancer districts, one by Dr. Matzinger in western New York, the other by Dr. Lyon in the central part of the State. Carefully prepared maps also accompanied these reports, which as well may serve as models of their kind; but men competent to do this work command good salaries, and the means granted by the State were insufficient to justify its continuance.

Therefore the work has had to be confined to

actual laboratory research. More and more it appeared that ordinary bacteriological methods were inadequate, and in time they were altered to include more comprehensive biological studies. Thus it happened that Dr. Pease shifted the scene of his activities to Albany, and that Dr. Matzinger withdrew, while Dr. Gary N. Calkins, perhaps the best American authority on the lowest forms of animal life, joined the force of laboratory workers. Dr. Gaylord has been with the laboratory from the outset and Dr. Clowes joined it early in its history as its chemist and physicist.

What these gentlemen have accomplished will particularly appear in the matter which they will present to you, but only in part, since it is scattered through the annual reports of the laboratory and through the long list of papers and addresses published in various medical and scientific journals at home and abroad.

The ever-present question with us is one of self-existence. It may be perhaps thus put: Does the work accomplished justify our continuance until it has been in some measure accomplished? There can be no doubt that if any unprejudiced person will visit the institution and acquaint himself with what is doing and has been done he will leave it feeling that it is one of which New York State may well be proud, and that it is deserving of the heartiest public support. Some of our legislators unacquainted with its purposes and the character of its work have come in hostile spirit ready to condemn. In every instance, however, they have gone away enthusiastic supporters and have ever since been our best friends. With an ever-varying legislature and the necessity for an annual struggle for existence, we labor constantly under adverse surroundings. When, for purely selfish purposes, a few men strongly banded together can, by personal influence, obtain such large appropriations or such valuable privileges from our State Government, as is often the case, it does seem as though the medical profession, realizing what the solution of this problem means, might organize themselves very strongly and in far greater numbers, and so impress upon their representatives in the legislature the import as well as the importance and value of this work, that there should be no difficulty in securing its permanent and generous continuance. It is for some such purpose that I would make a personal appeal to you to-night, for such expression of your confidence in the work and your insistence upon its continuance, that our legislators may feel that the profession has spoken in no uncertain tones, but rather in such way that their insistence is not to be disregarded.

For my own part, if I may close this report with a personal sentiment, I cannot help feeling that we are to-day much nearer the secret so long sought than we were eight years ago. In fact, I feel that the past eight years have taught us more than the previous eight decades, and that much of what has been thus revealed has come from the little institution in western New York, which has been supported by the State, urged thereto by the importunity of a few friends of science and progress who have had sufficient influence to secure the amounts appropriated, though each year with difficulty and after long-winded explanations and personal solicitations. This should not be necessary were there a sufficiently and reasonably wide comprehension of the difficulties attaching to such scientific research. For myself, the most important question is settled, although it is not yet in such shape that it can be briefly stated or widely taught, nor perhaps can we expect it to receive the prompt and unanimous acceptance of a profession which is always slow to accept even revealed truth.

PARASITISM AND INFECTION IN CANCER.*

By HARVEY R. GAYLORD, M.D.,
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I DESIRE briefly to call attention to the observations made in the New York State Cancer Laboratory where an animal cage had become infected from sarcomatous rats, and in which in the course of two years three cases of sarcoma have developed in eight rats thus exposed. These cases developed a year apart and the cage is known to have been infected for a period of three years. Heredity played no part in these occurrences. Parasitism is further illustrated by an infected cage which was purchased from a dealer and brought to the State Cancer Laboratory, out of which sixty or more tumor mice had been taken in the course of three years by the dealer, and in which five cases of cancer developed after the cage was brought to the State Laboratory.

With these facts so strongly indicating the infectiousness of cancer; it is of importance that in the State Laboratory since the beginning of 1905, a typical small spirochæta was to be found in all the transplanted tumors thus far examined. Up to date, some twenty odd mouse tumors have been cut, giving positive results, using the silver-staining method of Levaditi. In the more virulent tumors the organisms were present in great numbers distributed in the connective tissue around the margins of the tumors and in the connective tissue stroma. They are occasionally found between the epithelial cells, and are known to have been present in one of the strains in 1905, when they were first detected in large numbers in vacuoles in the epithelial cells of one of the transplanted tumors. They are now apparently constantly present in three separate strains of transplanted tumors, one being the Jensen tumor

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and two tumors of American origin. The presence of these organisms is interesting from the fact that they have constantly accompanied these transplanted tumors for so long a period and that in preparations stained in the ordinary way there are no alterations in the histology of the tumors, which can be deliberately attributed to the presence of the spirochætæ.

Having found the organisms over twenty times consecutively by the Levaditi method, three primary mouse tumors which did not communicate with the air, being entirely enclosed and movable beneath the skin, of small size, were removed aseptically and carefully sectioned after impregnation with silver. In two of these tumors the impregnation method was obviously not successful. In one of these occasional badly fixed organisms could found. The condition of the tissue in the other made it obvious that the method was not successful. The third tumor examined was properly impregnated and contained large numbers of organisms scattered through the tumor, but most plentiful in the actively growing portions. Here they were found among the epithelial cells, usually surrounded by small vacuoles. They are invariably present in the larger cysts of the tumor, which is an adeno-carcinoma. They are characteristic in appearance, from four to six microns long, with very closely wound, abrupt gyrations, each measuring not over one-half a micromillimeter. Involution forms are not infrequent and fields showing active phagocytosis on the part of the epithelial cells are to be found. In these cells the organisms are found curled into rings or irregular masses, making inclusions such as have already been described by Prowazek for the organism producing spirochætosis in the fowl (Brazil).

By careful examination of the transplanted tumors this organism can be seen in the fresh state. It is very small, very actively motile, moving rapidly forward and backward. It occasionally comes to rest, when the gyrations can be seen, but its dimensions are so minute that neither flagellæ or an undulating membrane can be seen. All attempts to stain this organism with Giemsa or other aniline stains have been fruitless. In this respect it appears to differ from similar organisms seen in ulcerating tumors described by Loewenthal, and by Borrel in unulcerated mouse tumors in the Pasteur Institute, and one from Ehrich's laboratory. Similar organisms have been found by Freidenthal in an unulcerated human cancer. Loewenthal and Ewing and Beebe have found them in smears from dog tumors, and there is every reason to believe that this organism or similar organisms are widely distributed.

In connection with the possibility of these organisms having an etiological relation to these tumors, it may be pointed out that the recent work of Fischer, showing that Scarlet R would induce proliferation of the epidermal epithelium of the rabbit's ear when injected beneath the skin, might afford a possible explanation of how an organism like a spirochæta could induce proliferation through the medium of some toxic substance. The distribution around the periphery of the transplanted tumors of the organisms, in the light of Fischer's work is suggestive, and the evidences of phagocytosis on the part of the epithelial cells would explain how the organism could be transported by the cells and continue the irritation necessary to the development of metastases.

The task before us consists in careful examination of uncontaminated human tumors for the purpose of determining with what regularity these or similar organisms are present, bearing in mind that in the light of Fischer's work a very few organisms could produce extensive proliferation, and that inasmuch as Scarlet R affects only the epithelium of the epidermis in the rabbit, and has no effect upon the epithelium of other regions in the rabbit; it is highly probable that we are dealing with a large group of organisms, each of which produces a toxin, or, as Fischer calls it, an attraxine, for certain kinds of epithelium. It is therefore, not necessary to look for a specific organism, but rather an organism of a specific group, and it must always be borne in mind that there are difficulties in distinguishing between the different spirochætæ thus far described.

IMMUNITY AGAINST CANCER IN MICE.*

By G. H. A. CLOWES, Ph.D.,

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IT is scarcely necessary to point out the numerous obstacles associated with the study of human cancer from an experimental standpoint. Great difficulty is invariably experienced in finding two or more cases that can be said to be in any sense comparable. It is almost impossible to obtain absolute control over such cases, once they are found, and in testing the action of chemicals and sera on cancer one must always bear in mind the risk incurred in making use of doses which might prove fatal to the individual employed.

The discovery of the ease with which mouse tumors may be transplanted has led, as might well be anticipated, to the development of experimental research in cancer on such a scale as could never have been contemplated five or six years ago.

After repeated unsuccessful attempts to study the numerous problems associated with the development of cancer in human beings, it was decided about three years ago to devote the main efforts of the New York State Cancer Laboratory to experimental work on animals.

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Our first effort was naturally directed towards obtaining primary tumors in mice and studying the conditions under which they might most readily be transplanted from one individual to another. In the course of the last three years about forty such primary tumors have come into the possession of the laboratory. A certain number have been used for transplantation purposes, and we have now established four distinct strains of mouse tumors, exhibiting marked variations in their degree of virulence, by which is meant the percentage of tumors obtained on transplantation and the speed with which such tumors develop and cause the death of the animal employed. These tumors have been transplanted through twenty-five to thirty generations of mice, and exhibit an increasing rather than a diminishing virulence, a fact which is remarkable when it is realized that certain tumor strains have already been maintained for a period of time exceeding the life of the average mouse.

For the successful continuance of this work it was found necessary to establish certain standards whereby uniformity of experiment might be assured. By weighing and measuring the tumors used for transplantation, and the chemicals and sera to be tested, it has been found possible to introduce such a degree of accuracy into the experiments in question as might be expected to be attained only in a physical or chemical laboratory.

It was found necessary at an early stage in the development of these researches to adopt an extremely elaborate system of keeping records. The mice were divided into experimental lots, and the individuals in such lots were lettered, and every few days charted diagrams were prepared for each individual, showing in graphic form the development of the tumor. As a result of the adoption of this system it was possible to note important facts which would otherwise have been overlooked For example, that the greatest variation occurs in the speed of development of tumors even in the same series; that a considerable number of mice recover spontaneously of their tumors, and that this tendency to recover spontaneously is inversely proportional to the virulence of the tumor material employed; also, that tumors which subsequently prove fatal occasionally exhibit a marked tendency to retrogression followed by renewed activity in development.

Mice which had recovered spontaneously, as described above, were found on reinoculation to possess a distinct immunity against tumor materials possessed of a virulence about equal to that of the tumor previously employed. The observation of this fact, and of the fact that the serum of such spontaneously recovered animals exerted a retarding effect upon the development of tumor materials when admixed with the latter previous to inoculation, may be said to have been the first positive demonstration of immunity against cancer.

Before passing on to more detailed consideration of the evidence, afforded by our researches, of the existence of immunity, it will be necessary to outline briefly some of the experiments directed toward the determination of the exact limiting points of the development of tumor material on transplantation. Cancer cells exhibit quite remarkable characteristics when incubated in salt solution at temperatures ranging from 39 to 42° C. for periods of half an hour or more previous to inoculation. Such a treatment exerts a distinctly stimulating effect upon weak attenuated tumors, resulting in certain cases in greatly increased yield in subsequent generations. Full details of this work have been published in a separate paper and cannot, therefore, be included at this stage. It should simply be stated that the lower the virulence of the tumor, the higher the temperature it can withstand without damage to its proliferative energy, and the greater the virulence of the tumor, the greater will be the attenuation effected by incubation.

One extremely important line of investigation, which is still in progress, is the determination of the action of a large variety of chemicals upon the cancer cells. The concentration of mercuric chloride and other disinfectants of that nature required to inhibit the development of tumor cells has already been determined, and is found to be extremely high, the cancer cells being still capable of proliferation when treated previous to injection with a dose of mercuric chloride or potassium cyanide capable of exerting a destructive effect on bacteria. In this way it has been found possible to purify tumors which, being infected, would otherwise have caused the death of the animals employed.

We are at the present time carrying out a long series of experiments in which the relationship between the chemical composition of a series of bodies and the destructive effect which they exert upon tumor cells, is being carefully determined. In this way it is hoped by a process of elimination to arrive at definite knowledge regarding those chemicals which may be expected to exert the maximum effect upon the tumor cell and the minimum effect upon the animal employed for inoculation.

The chemical analysis of tumors presented certain interesting facts, notably the relationship existing between the proportions of potassium and calcium, and the relative speed of development and virulence of the tumor in question. The more rapidly the tumor development the larger was the potassium content, and the smaller that of calcium, and vice versa.

Immunity.—From the time that the mouse

tumors came into our possession to the present date, we have made innumerable attempts to immunize animals by means of inanimate materials, that is to say, tumor materials treated by heat or chemicals, or the extracts of tumors, but invariably without success. On the other hand, by adopting a process analogous to vaccination, it has been found possible to confer upon mice a very marked immunity against cancer. The possibility of employing such a process was first recognized when it was discovered, in the winter of 1904, that a large proportion of the mice inoculated with the Jensen tumor recovered spontaneously and were subsequently immune to further inoculation with a tumor possessed of an equal degree of virulence. In the course of the following year we accumulated a large amount of data bearing on this subject of spontaneous recovery, and were able to demonstrate that such recoveries occurred more frequently in those cases in which weak or attenuated tumor materials had been employed for inoculation, and that the more advanced was the tumor in its development, the smaller would be the chance of the animal recovering spontaneously. It was further demonstrated at that time that the serum of such recovered animals exerted a slight but definite effect upon tumors in other animals, and also upon tumor materials when treated therewith previous to inoculation.

Our system of keeping records enables us, as stated above, to identify individual mice with perfect ease, and in all those cases in which animals on inoculation have failed to develop tumors, second, and even third, inoculations were carried out at intervals of three or four months. The statistics obtained from such reinoculation of several hundred mice, which had previously been inoculated with the Jensen tumor, or one of a corresponding grade of virulence, show a reduction from 31 per cent. of tumors on the first, to 12 per cent. on the second inoculation. This in itself affords evidence of the existence of a definite immunity against cancer in certain animals, since the figures are too extensive to permit of any error of experiment exerting such a marked effect.

A third inoculation of such mice as have recovered from the second inoculation has not, in our experience, resulted in the production of any tumors; and to judge from his publications, Ehrlich has apparently obtained similar results. It is even more remarkable that the first inoculation with weak or attenuated material, and subsequent recovery, confers a definite immunity against subsequent inoculation even with a more virulent material, a larger percentage of tumors being obtained in normal control groups, than in those that have previously been inoculated.

Figures recently published by Ehrlich afford even more remarkable evidence of the existence of this type of immunity than do those which we have obtained. This discrepancy, if such it can be called, is probably attributable to the fact that we employ larger doses of cancer, which, consequently are more liable to develop, if immunity is in any sense dependent, as it appears to be, upon the quantitative factor; that is to say, a definite ratio existing between immune bodies in the sera and the number of cells which have to be attacked before a destructive effect is exerted by the immune forces in question.

We have more recently succeeded in obtaining evidence of the existence of immunity of a different type. One of the tumors employed for transplantation purposes in the laboratory is possessed of enormous virulence, ninety-five per cent. of the mice treated having died of the tumor in an average period of twenty-five to thirty days. The following experiment was carried out making use of the tumor in question:

One hundred mice were inoculated at the head, and when the tumors were in full development, some ten to fifteen days after inoculation, a second batch of materials was injected at the tail, at the same time one hundred control animals, which had not previously been employed, receiving an equal dose also at the tail. Whilst the control animals developed ninety-five per cent. of large tumors in the course of ten or fifteen days, less than six per cent. of small tumors were obtained at the tail in those mice, which already had large growing tumors at the head, indicating that the presence of the large tumor already developing resulted in the formation of anti-bodies in the serum of the animal, sufficiently numerous to prevent the development of isolated tumor cells injected on the second occasion.

Unfortunately mice are too small to carry out extensive operations, removing one tumor and leaving another, or anything of that nature, but we have now at our disposal a rat-sarcoma, which is also possessed of a very high degree of virulence; and at the present time extensive experiments are being carried out, injecting tumor materials into rats, and at varying periods of time observing the effect exerted by the first injection upon the second and the second upon the third, and also the effect exerted upon one tumor by the complete removal of the others, etc. These experiments, while still incomplete afford further evidence of the existence of an immunity of the type suggested by the head and tail mouse experiments.

Those who have worked to any extent with cancer are aware that cases have occurred in which large breast tumors have been operated without recurrence, in spite of the fact that regional metastases had not in all probability been completely removed. In our mouse experiments one fact is particularly noticeable: metastases seldom occur until the late stages of the disease, indicating in all probability an im-

munity against isolated cells which are destroyed before effecting lodgment in organs other than those originally involved.

Our experiments regarding the minimum dose of tumor material required to produce a growth upon injection, as also the charted records of the development of tumors showing retardation at certain points, would indicate that a definite immunity exists or is induced in all individuals, and that recovery from cancer is simply a question of degree, being dependent upon the amount and virulence of the tumor material introduced and the proportion and resistance of the immune bodies present in the serum.

Our statistical records regarding spontaneous recovery, indicating a much larger proportion of recoveries amongst small than large tumors, makes it appear very probable that large numbers of human beings recover from small tumors, without their existence having been even suspected, in much the same way as recoveries from tuberculosis are effected. In fact, considering the dimensions the tumor must have necessarily reached before it can be recognized and the number of cell divisions which must have taken place, it would appear probable that almost all tumors which come under observation in human beings have reached a stage at which the immune forces of the body have already been overcome, all of which would account for the very small number of so-called spontaneous recoveries recorded in the literature.

Work of the nature described above, whilst not in any sense applicable to human beings at the present juncture, would indicate very clearly that immunity does exist against the proliferating cancer cell, and should afford the hope that some more active form of immunity may be induced in the future, which will be applicable to human beings, as well as mice. In any case it may be hoped that serum diagnostic methods will enable us to recognize the presence of tumors in individuals at a very much earlier stage than is now possible, thus affording a better chance for successful application of chemical or serum therapeutic methods of treatment.

THE MEDICAL CHARITIES OF MANHATTAN AND THE BRONX.

By FLORENCE LARRABEE LATTIMORE,
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[Concluded.]

NURSING.

It has been suggested that hospitals, as charitable institutions, should be limited to those of the sick poor who are without homes, and that every effort should be made to improve the conditions in the homes of the poor in order that home treatment may be given more generally than is possible at present.

Whether or not this is to be a feature in tenement house reform, the future development in medical charities, indicated by the extension of district nursing, will at least be a large factor in removing from the poor who have homes the necessity of going to a hospital. One authority points out that a person who is a hospital patient from a medical point of view may not be a hospital patient from a social point of view; the mere presence of the father or mother in the home serving frequently to hold a family together. Visiting nursing has proven that the number of poor patients who can be successfully treated in their homes is larger than was supposed five years ago, although there are still many forms of illness which cannot be safely treated in unsanitary tenement houses and for which hospital care must be provided. Beyond the equipment for surgical treatment, which cannot be brought to the homes of the poor, the other advantages of the hospital are the constant medical supervision and nursing, and the clean condition of its wards. The bettering of the living conditions of the poor, the introduction of more light, more air and suitable sanitary conditions will further increase, therefore, the number for whom home treatment may be provided in the future.

Like other divisions of medical charities, the extension of visiting nursing has been along individual lines without organized co-operation of the various agencies which support it. Visiting nursing has always been an activity of certain religious bodies, but the history of the movement which sends regularly trained nurses into the homes of the poor is of recent origin. In America the first organization to carry on this work systematically was the woman's branch of the New York City Mission in 1877, an organization which now has ten trained nurses on its staff. The next organization to take it up was the Ethical Culture Society of New York City, which in 1888 placed nurses in three of New York's largest dispensaries, the Good Samaritan, the Northwestern, and the Demilt, where they are still maintained. These nurses receive their lists at the dispensary, and go on their round of calls, limiting their work to the patients of the dispensary with which each nurse is individually connected. The Henry Street Settlement, started in 1893 by two trained nurses, is one of the most complete nursing organizations in the City and to it the community is indebted for the emphasis given this branch of service by the New York Department of Health. This settlement has a corps of some twenty-seven nurses, of whom twenty-three are working in assigned districts which practically cover the Borough of Manhattan—one is in charge of a convalescent home at Grand View, New Jersey, one in the first aid room on the lower East side, and two do other work connected with the organization. These nurses respond to neighborhood calls and render service for nominal fees—ranging from ten to

twenty-five cents for those who can pay. In 1904 there were 4,501 different patients visited, 35,035 nursing visits made and 3,521 convalescent visits. All diseases are cared for except contagious diseases, which are taken by the two or three nurses employed by the Department of Health for this special work. In this feature the New York Department of Health stands alone. The nurses receive their lists of calls at the Willard Parker Hospital Annex daily (except Sunday), and immediately start upon their rounds. If orders have been given by the physician in charge of a case they are attended to and a report left for him. It is the duty of the nurse to instruct the mother as to the care of the patient and to see that proper precautions are taken to prevent infection.

The system for the medical inspection of school children was adopted by the Department of Health in 1902. The system consisted of a regular morning inspection, by physicians appointed by the Department, of all children suspected by the teachers of having contagious disease, and a weekly examination of all children alike, whether well or ill. This led to a large number of exclusions of children having diseases of the eyes, scalp, skin, etc. No treatment was prescribed by the physicians, but an exclusion card, giving the diagnosis of the disease, was furnished the children for the information of their parents, the primary idea of this method being to protect the well child in school. It soon came to the attention of the Department of Health through the Department of Education that the children so excluded were in many instances not receiving the treatment which would enable them to return to the schools and that bad habits of truancy were being established. Some of the parents did not understand the exclusion card, others never received it, and still others saw nothing serious in the troubles for which the children were sent home.

The Department of Health decided that many of these neglected children could attend school if treatment were provided for them, and made the experiment of having a nurse give local treatment at the school of all cases which might, under strict supervision, remain in their classes. The trial was such a success that the Board of Estimate and Apportionment appropriated $30,000 for this work in 1903, and a staff of twenty-seven school nurses was established with a supervising nurse to assign the staff to the schools, make up the reports and to be responsible for the work done. They were assigned to 125 public and four parochial schools, with an attendance of 129,239 pupils—the schools being selected for inspection according to the number of exclusions in them under the former system. The number of children excluded in September, 1902, before the nurses were introduced, was 10,567. In September, 1903, after the nurses began their work, the number of exclusions was 1,101, a a reduction of 9,466. The routine inspection, which was first done by physicians, is now carried on by the nurses, an arrangement which has given the physicians more time for the physical examination. An official of the Health Department has said that the professional labor of the physicians doing duty at the public schools should not be limited to the daily examination of children's heads and eyes, but should include a general physical examination in order to determine the basis for the high percentage of children who are backward in their studies, or who are absent from school on account of sickness and other causes. "About ninety per cent. of backward, incorrigible and truant children were found physically imperfect as regards their eyes, ears, nose throat, nutriment, locomotive apparatus and other general bodily functions. Sixty per cent. of all school children are defective to a greater or less degree." The nurses inspect the hands, throat, hair, and eyes, taking down on cards the names of children for whom treatment is required; these cards being left for the entry of the diagnosis by the physician when he comes the next day. Cases of pediculosis, conjunctivitis, ringworm, impetigo, favus, molluscum contagiosum and scabies are treated by the nurse at the school after the physician has made the diagnosis. The medical inspectors leave the names of the excluded children with the clerks of the school and a copy of this list is furnished the school nurse that she may follow up these cases in their homes. Here the nurses have found conditions which furnish the key to many a breakdown which could not have been revealed by a mere school inspection. As the supervising nurse has said: "The care given to the children in the schools is the ameliorative, that given in the homes is the preventive part of the whole."

In the homes the nurse explains the situation, instructs the mother as to the best way of meeting it, and advises as to the necessity of calling a physician. If the family is too poor to afford a physician the nurse refers the patient to the proper dispensary, often going with the child to insure treatment. As long as a child is excluded from school the nurse continues her visits.

In 1904 fifty-two more schools were included in the inspection and the staff of nurses was increased to thirty-three. In 1905 the number of nurses was fifty and distributed as follows: in Manhattan, thirty-one nurses in 128 public schools; in Bronx one nurse in eight schools. The rest are assigned to Brooklyn, Richmond and Queens. Twenty parochial schools and three industrial schools which have asked for such inspection have been granted it.

In November, 1904, the medical school inspectors began to test the vision of the school children with the result that 20 per cent. of the children examined showed defective sight. This

discovery has led to a recommendation that the hearing of the children be tested also.

Following is a summary of the work done by the nurses during the year 1905:

Pediculosis	16,384
Trachoma (sent to dispensary)	80,050
Eye diseases	188,805,
Scabies	2,805
Ringworm	21,111
Impetigo	13,491
Favus	2,645
Miscellaneous	50,669
Number of children examined	351,083
Tenements visited	40,070
Schools visited	25,943
Miscellaneous visits	1,344

Baths have been placed in fourteen schools in Manhattan and one in the Bronx, and they have been found to be useful adjuncts in the treatment of the children.

In the summer months—from June 20th to September 10th—the school nurses are formed into what is known as the "summer corps," which makes a house to house canvass, through the tenement districts, for all children under one year of age. Sunstroke circulars and instructions for the proper care of infants are distributed in different languages, and these are supplemented by the nurses, who teach the mothers individually how to feed, bathe, clothe and otherwise care for the babies. If a baby is found needing special medical attention, one of the staff physicians makes daily visits as long as is necessary. About 270,000 families were so visited in 1904. In 1903 the Department opened dispensaries on five of the recreation piers, where physicians were in attendance every day, but Sunday, from three till five o'clock.

In this work of the physicians and nurses under the Department of Health there is wide co-operation with the charitable agencies for the relief of the poor. Ice and milk tickets are given away and fresh air organizations are brought into contact with those who need them most. Many tickets for trips on the floating hospitals of St. John's Guild are distributed in the hot months.

Medical inspection and school nursing are complementary to each other and mutually dependent where overcrowding and poverty exist. They present an allegiance which in New York is the strongest defensive and offensive alliance against the conditions which wreck the health of future citizens, and the value of the service they are rendering can scarcely be overestimated.

Through many channels beside those already mentioned does trained nursing now reach the poor. Forty-five distinct organizations which provide visiting nurses are listed in Manhattan and The Bronx, but they do not fully represent the number doing such work. There are many churches, factories and stores in which nurses are employed, and every year finds more attention being given to this special line of social endeavor. It is hoped that some day these organizations may be brought together for a better understanding of the conditions discovered and for a comparison of work done. Many cases of unsuspected destitution come to the attention of the visiting nurse—cases which would otherwise sink still lower but for her attention.

The Society of the Lying-In Hospital of the City of New York has an extensive out-door system for destitute maternity cases. Through this out-door department 61,120 visits were made to 2,766 patients in 1903-4, while 54,347 visits were made to 3,207 patients in 1904-5. The district work constitutes part of the course in obstetrics which the Lying-In Hospital offers to graduate and undergraduate medical students and also to nurses. Nurses from five hospitals in Manhattan and The Bronx, and twelve hospitals located elsewhere, are received at the Lying-In Hospital for this special training. The district work is carefully supervised by a member of the medical staff.

This hospital does valuable social work through its Ladies' Auxiliary, a body of 276 members divided into three committees: a committee for the relief of in-door patients, which secures work and proper lodgings for homeless women upon their discharge; a committee for the relief and care of out-door patients, which provides a visiting agent and seven cleaning women who care for the family and rooms in addition to the patient, and supply clothing, milk, and groceries to those in great need (in 1904, 2,643 such families, and in 1905 2,843 were relieved through the committee); a Committee on Ways and Means, which co-operates with various charitable employment agencies in hiring clothing made, that every baby leaving the hospital may be suitably clothed.

The poorest patients are given, by the medical staff, tickets which can be exchanged at the sub-station, 314 Broome Street, for oatmeal, tea, coffee, sugar, bread, and milk.

The data kept by the Lying-In Hospital show the exact living conditions in which the patient was found, the income, expenditure, employment and nationality of the family; all of which is recorded in detail. In the yearly report these facts are given, together with the birth-rate in the city at large, and pertinent facts regarding the immigration of those nationalities among which the work of the Society is chiefly done. The work done by the different services of the Society of the Lying-In Hospital is constantly contrasted with the extent of the condition which it strives to mitigate.

A system of diet-kitchens has been established through the most congested parts of the City by the New York Diet-Kitchen Association. This Association has six branches through which milk and eggs are furnished the poor who bring signed orders from hospitals, dispensaries and relief giving agencies. Forty relief agencies

co-operated with the Diet-Kitchen Association in 1904 and 25,000 patients were supplied with 198,072 quarts of milk—an average of nearly eight quarts each. It is the only organized charity whose chief purpose is to furnish clean milk to the sick poor. Especially valuable have these diet-kitchens become to the dispensaries for tuberculosis, which refer their patients to the nearest kitchen for daily supplies of milk and eggs—the usual amount being two quarts of milk and four eggs to each patient. The Department of Health in 1905 gave a certain amount toward the expense to which the kitchens were put, in supplying nourishment to the patients from its tuberculosis clinic.

A great deal of work is done by the kitchens towards the protection of infants and young children from the dangers of impure milk sold throughout the city. The Department of Health has carried on as active a campaign against this danger as is possible with its limited force of milk inspectors, but the sickness and mortality from this cause remain very high. The Diet-Kitchen Association was able to supply modified milk for a limited number of babies in 1904, and reached a far greater number in 1905, when its kitchens were made the distributing centres for the modified milk supplied by the Department of Health. The usefulness of the kitchens is greatly furthered by the visits made by the matrons to the homes of those presenting requisitions for milk. The kitchens are closed at one o'clock and the afternoon is thus left free for visiting. Not only is the matron able to learn whether the nourishment reaches the person for whom it is meant, and the status of the family, but she has come to be a neighborhood friend and a channel for much sound advice and help. She is also the distributer of such material relief as is given to her for this purpose.

AMBULANCE SERVICE.

The ambulance service, as is elsewhere stated, was suggested by Dr. John Dalton, an early member of the Bellevue staff, and the late eminent professor of physiology. His extended experience in the army led to an appreciation of the value of ambulances in transporting wounded soldiers, and upon his return from the war, to the proposal of a City ambulance service. The system inaugurated in Bellevue in 1867 was the first of its kind in the world. The New York and Roosevelt Hospitals added ambulance services in 1877, St. Vincent's Hospital in 1879, and the Presbyterian Hospital in 1880. In 1903-4, besides the ambulances maintained by the Department of Health for the transportation of contagious diseases to its hospitals, there were fifteen general and special hospitals supporting free ambulance service, while in 1904-5, eighteen general and three special hospitals had them. Those answering public calls numbered thirteen in 1903-4 and fifteen in 1904-5. In 1903-4, of the ambulance services maintained by the general hospitals, four were in Bellevue and Allied Hospitals—and consequently paid for by the City; two were subsidized by the City, and seventeen were supported by private funds. In 1904-5 the City and subsidized services numbered the same as in 1903-4, but the services supported by private funds had increased to twenty. Of the two services maintained in the special hospitals, one was in Seton Hospital for consumptives, and the other belonged to the Lying-In Hospital, both of which were used only for their own patients. The service at St. Gregory's Emergency Hospital did not commence till August, 1905. An independent ambulance is maintained by the Park Department, which is on duty in Central Park "from daylight to dark" to care for people injured in the Park boundaries. Four hospitals having ambulance service did not respond to public calls in 1903-4, and two more which added the service in 1904-5 have used it only for the transference of their own patients.

The general method of arranging the district work of these services has been as follows: each hospital in Manhattan and The Bronx which maintains an ambulance service has been assigned, by the Police Department, to certain police precincts in the part of the City in which it is located. This method has not prevailed in the other boroughs, where the police simply call upon the nearest hospital by telephone. The police and ambulance districts determined by the Police Commissioner are changed by him from time to time, according to the exigencies of the service. In the assignment of ambulance districts it is an established rule not to divide a precinct, except in rare instances. From the earliest history of the ambulance in New York City its control has been in the hands of the Police Department, inasmuch as the police are charged with the protection of the public safety and the regulation of traffic.

An Ordinance "in relation to the right of way of, and other regulations regarding vehicles upon the public streets," Article I, Section 2, of the City Charter, reads: "The ambulances belonging to the Department of Public Charities and Correction, and incorporated hospitals of the City of New York, shall have the right of way in the streets of said city, as against all persons, vehicles or animals, when conveying any patient or injured person to any hospital in the city, or when proceeding to the scene of any accident by which any person or persons have been injured."

AMBULANCES.

The ambulance system, important though it is, where the average number of hospital ambulance calls are more than 40,000 each year, has as yet not been co-ordinated and there is no central bureau upon which responsibility for its

efficiency may be placed. It is left entirely to individual hospitals as to whether or not they shall have an ambulance service, and their choice depends largely upon their ability to add the expense of the service to their already large budget. The cost of one ambulance, two horses and the equipment, is about $1,200, and the expense of repairs, etc., may be estimated at close to $1,000 year. The electric ambulance, from which so much was hoped in the way of quicker and more comfortable service, has not been satisfactory, owing to the fact that it cannot be depended upon, and to-day, with one or two exceptions, only horse ambulances are used.

That there is need of a redistribution of the districts in order to get a more efficient service is shown by the boundaries of ambulance districts given in the accompanying list. An extreme instance of the present confusion may be found in the districts of the Presbyterian and the Flower Hospitals. The Presbyterian Hospital is located at Madison Avenue and 71st Street with an ambulance district extending from Fifth Avenue to the East River and from 76th Street to 59th. The Flower Hospital is located at Avenue A and 63d Street with an ambulance district covering all the territory from 6th Avenue to the East River, and from 59th to 42d Street. This hospital is therefore in the district of the Presbyterian Hospital and four blocks outside of the district to which it is assigned. The anomalous situation is here presented that a person injured within sight of the Flower Hospital (Avenue A and 63d Street) has to wait for the Presbyterian Hospital ambulance to come from Madison Avenue and 71st Street before he can have hospital treatment.

The thirteen hospitals, exclusive of those under the Department of Health, whose ambulances respond to public calls answered in 1903-4 42,777, and 46, 788 in 1904-5. St. Gregory's Emergency Hospital near the end of the Brooklyn Bridge, has a large ambulance service, but as it has not been in existence a year its figures cannot be added with the orders.

In a study of hospital provision made for the State Charities Aid Association it has been found that the House of Relief, on Hudson Street, the lower west side of Manhattan had almost one-eighth of all the ambulance calls in that borough in 1905. This hospital, together with St. Vincent's and the Gouverneur Hospitals—all south of 14th Street—received in 1905, forty per cent. of all the Manhattan calls, and eighty-eight per cent. of the work done at Roosevelt Hospital (at 59th Street and 9th Avenue) was brought there by its ambulances. The day population which crowds the business districts of the city is a population demanding emergent provision with systematic methods in order that timely and adequate aid may be rendered.

The recommendation has been repeatedly made that an ambulance bureau, preferably municipal, be established, which shall control ambulances and receiving stations throughout the city. By co-operation with the ambulances maintained by the hospitals such a bureau could have full information at all hours of the ambulances in use; and when an accident occurred in which large numbers of persons were injured from fire or other causes such an arrangement would be valuable for supplying prompt medical attention. The Police Department announces that a better plan of apportionment of districts, regardless of precinct boundaries, is being considered, but while a reapportionment would undoubtedly greatly improve the present situation, it cannot solve the problem of adequate emergency care for the injured in all parts of New York City.

CONCLUSIONS.

Marked progress is shown in the study given to hospital affairs within the past three years. Columbia University has, in response to a request from the American Society of Superintendents of Training Schools for Nurses, offered a course in Hospital Economics to give special training to future teachers and superintendents in training schools and hospitals. This course, though covering the details of the government and the administration of hospitals, does not include the related social facts.

For the purpose of stimulating the hospitals of Greater New York to consider the desirability of adopting uniform methods of accounting and statement, a Conference on Hospital Needs and Finances was called on March 3, 1905, by the Association for Improving the Condition of the Poor. At this conference, which represented sixty-two hospitals, a committee of twelve was appointed to present a report on Hospital Needs and Hospital Finances. Before the report was presented, however, four of the largest hospitals in Manhattan—St. Luke's, the Presbyterian, New York and Roosevelt—adopted a system which the Committee later recommended for other general hospitals and urged that it be made the basis for uniform systems of accounting in hospitals which belonged to other classes. The Committee recommended also that a yearly digest of hospital reports should be published and also that there should be a compendium outlining the work of the hospitals and their methods of government. In September, 1905, these suggestions were approved at the annual meeting of the Association of Hospital Superintendents of the United States and Canada. Activity along improved lines is further indicated by the organization of a Superintendents' Association to stimulate closer co-operation in hospital affairs among the chief executives of the hospitals. Another recent organization is a permanent Hospital Conference, started by the Hospital Saturday and Sunday Association of New York City. And an important sign of progress is seen in the action

of the Mayor, who, in 1905, appointed fifteen well-known citizens as a Committee to confer with the Commissioner of Charities, the Commissioner of Health, the Tenement House Commissioner, and the President of the Board of Trustees of Bellevue and Allied Hospitals to plan for the reorganization of the public hospital system. This plan is to be submitted prior to the expenditure by the City of a large sum of money in the extension of its hospital service. That three different City departments should control the public hospitals of New York and that they should all be planning individual provisions for the care of City consumptives, shows great need for a general scheme of organization.

Like most of the later developments in medical charities, the above committee is the result of the combined efforts of physicians, nurses, charity and settlement workers, and municipal officers, who are demonstrating to the community that it is to the common interest of all to reduce, through the removal of the conditions which lower vitality, the numbers of those who do not reach the average physical standard.

The report made by the Committee on Hospital Reports and Hospital Finances dealt with the financial side of hospital facts, and the social data necessary for a fuller knowledge of the provision needed in this city is not yet outlined. There is no consensus of opinion as to the facts which it is worth while to gather and compare.

It is surely a point of interest to every hospital, as well as to the community, whether the dispensary can be so supplemented and strengthened by a proper system of investigation of its applicants, the keeping of significant facts in the records, and further co-operation with visiting nurses, diet-kitchens, and charitable agencies that it may supplement the hospital and leave the hospital wards open for cases that demand hospital equipment.

To know the causes of disease is a long step toward preventing them, and before this knowledge can be acquired the medical charities must co-operate to a greater extent with those who work among the poor. The first requisite to co-operation is the acceptance of a common language to lead to a mutual understanding of terms, which shall at all times carry the same meanings. No amount of outside work can deduce data from imperfect records. The statistics bearing upon the conditions of life and the occupations of patients is meagre to an extreme degree, and it is the hospitals and dispensaries from which this information must be sought if it is to be determined. Such information is of the utmost importance in guiding those who seek knowledge from close surveillance of unhealthful trades and other employments in which the poorer classes earn their livelihood. It should be possible to learn how many of the sicknesses of the poor come from conditions in the home and how many come from conditions outside of the home; it is also a duty of these institutions to see that the public is educated as to the value of the laboratory and other necessary adjuncts of medical education, where individual cases are studied for the benefit of the people as a whole. The workers in the field of poverty, those initiating ameliorative measures, those striving to establish preventive movements, and those encouraging provision for the poor who are convalescent or incurable need the facts which none but the medical charities can furnish, before co-operation can be as intelligent as the cause urges.

GENERAL HOSPITALS.

MANHATTAN AND THE BRONX, 1903-1905.

1, Bellevue; 2, Beth Israel; 3, City Hospital, B. I.; 4, Columbus; 5, Flower; 6, Fordham; 7, French Hospital; 8, German; 9, Gouverneur; 10, Hahnemann; 11, Harlem; 12, House of Relief; 13, J. Hood Wright Memorial; 14, Lebanon; 15, Lincoln; 16, Metropolitan, B. I.; 17, Metropolitan Hospital and Dispensary; 18, Mt. Sinai; 19, New York Hospital; 20, New York Polyclinic Hospital; 21, New York Post-Graduate Hospital; 22, Presbyterian Hospital; 23, Roosevelt Hospital; 24, St. Francis's Hospital; 25, St. Luke's Hospital; 26, St. Mark's Hospital; 27, St. Vincent's Hospital; 28, Sydenham Post-Graduate Hospital; 29, Trinity Hospital; 30, Washington Height's Hospital.

SPECIAL HOSPITALS.

MANHATTAN AND THE BRONX, 1903-1905.

1, Babies' Hospital; 2, Children's Hospital, B. I.; 3, General Memorial Hospital for Cancer and Allied Diseases; 4, Home for Incurables; 5, Hospital for the Aged and Infirm, B. I.; 6, Hospital for Contagious Eye Diseases; 7, House of Calvary; 8, House of the Annunciation for Crippled and Incurable Children; 9, House of the Holy Comforter; 10, Isabella Heimath; 11, Laura Franklin Free Hospital for Children; 12, Manhattan Eye, Ear and Throat Hospital; 13, Manhattan Maternity Hospital and Dispensary; 14, Metropolitan Throat Hospital; 15, Misericordia Hospital; 16, Montefiori Home; 17, New Amsterdam Eye and Ear Hospital; 18, New York Eye and Ear Infirmary; 19, New York Foundling Hospital; 20, New York Home for Convalescents; 21, New York Infant Asylum; 22, New York Infirmary for Women and Children; 23, New York Medical College and Hospital for Women; 24, New York Ophthalmic and Aural Institute; 25, New York Ophthalmic Hospital; 26, New York Orthopædic Dispensary and Hospital; 27, New York Skin and Cancer Hospital; 28, New York Society for the Relief of the Ruptured and Crippled; 29, Nursery and Child's Hospital; 30, Reception Hospital (Department of Health); 31, Riverside Hospital (Department of Health); 32, St. Andrew's Convalescent Hospital; 33, St. Gregory's Free Emergency Hospital and Ambulance Station; 34, St. John's Guild; 35, St. Joseph's Hospital; 36, St. Rose's Free Home for Incurable Cancer Patients; 37, Seton Hospital; 38, Sloane Maternity Hospital; 39, Society of the Lying-In Hospital; 40, Willard Parker Hospital; 41, Woman's Hospital of the State of New York.

A good story is told of Dr. Oliver Wendell Holmes. He had been called in by a mother to see a mentally afflicted child. Giving his opinion, he said that a consultation should have been held some time before. The mother replied that such had taken place; but Holmes said, "Ah, the consultation should have been held some fifty years ago!"—*Race Culture; or, Race Suicide? Robert Reid Rentoul, M.D.*

HISTORY OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK.

By JAMES J. WALSH, M.D., Ph.D.
NEW YORK.

(*Continued.*)

CHAPTER XIII.

FOUNDATION OF THE AMERICAN MEDICAL ASSOCIATION.

As the foundation of the American Medical Association was due to the effort of the Medical Society of the State of New York, it naturally forms a chapter in the history of the Society. The American Medical Association as it exists at the present time owes its origin to a resolution introduced, as we shall see more fully later, by Dr. Nathan S. Davis, at the meeting of the Medical Society of the State of New York, in 1844. The subject had been originally called up by Dr. McCall by a resolution in 1839. It was not until 1846 that the Society was to see the fruition of its labor, but during all this time there was gradually gathering strength an undercurrent of feeling that was to serve an excellent purpose in overcoming rather acute opposition which developed just about the time of the culmination of the movement for the erection of the national medical body.

As with regard to the foundation of the Medical Society of the State of New York itself, the desire for the organization of a national association arose from the wish to raise the professional standard among physicians in this country. There had come to be an extremely low level of medical education. Many medical schools had been founded, often when they were not needed, and the competition among them had finally brought medical education to such a pass that it is hard to understand how physicians of any professional dignity could defend the position that had been assumed. The opposition to the new movement that would bring about reform came mostly from the medical schools. Among the profession in general, the Medical Society of the State of New York encountered more of apathy than of actual opposition. As the project for the establishment of a national organization approached fruition, the jealousy of teachers in medical schools flared out very threateningly, and many bitter expressions were used in the discussion of the subject, in the medical journals of the time, and in personalities indulged in almost without end.

The dramatic moment of opposition to the society came when the delegates who were eventually to organize the Americal Medical Association were already convened in the hall of one of the New York Medical Schools. A prominent member of the faculty of this medical school proposed as the first business of the meeting that since delegates were present from only one half of the states and institutions to which invitations had been sent the meeting should adjourn *sine die*. This motion was seconded by another member of the same faculty. When put to the vote, however, it was lost by a unanimous vote, with the exception of the mover and seconder of the resolution, who were the only yeas.

The whole subject of the organization of the American Medical Association deserves, however, to be treated by an actor in the scenes, and by a contemporary of the events. Hence we prefer to reprint the account of the organization of the society which appeared in the *New Jersey Medical Reporter,* Volume VII., signed as, "By one of its Members."

This account, called the "History of the American Medical Association," begins with an essay of nearly 1,000 words on "The Necessity for Union" in every phase of life among educated people, and dwells especially on the need for union among physicians. After pointing out some of the benefits that might be expected to accrue from such union, the incapacity of the many scattered medical societites throughout the country to succeed in raising professional dignity is pointed out, and some of the abuses that have crept in hinted at. This portion of the account, however, scarcely seems to be of historical value, and accordingly it has been omitted here.

History of the American Medical Association.

The American Medical Association completed its organization and commenced its actual existence in the City of Philadelphia, during the first week in May, 1847. But a correct knowledge of its origin, and a just appreciation of the motives of those to whom the profession is indebted for its existence, requires a knowledge of the doings of certain individuals and societies during several years previous to the date mentioned. If the reader will turn to the statistics of the Medical Colleges, compiled by Dr. T. R. Beck, of Albany, and published in the transactions of the New York State Medical Society; or to the little volume, entitled, "History of Medical Education," etc., by Dr. N. S. Davis, he will learn that, during the fifteen years intervening between 1830 and 1845, the number of medical colleges in the United States more than doubled, leading to a most active rivalry, and a competition unrestrained by any mutual intercourse with each other, or social connection with the profession at large. Such institutions, having full power to confer degrees, which were very generally recognized as sufficient to entitle the holder to membership in the profession, would be strongly tempted, under the circumstances mentioned, to add to the more important and legitimate inducements, short courses of instruction, and easy terms of graduation. Hence, sixteen weeks was very generally adopted as the length of the college term, and in some of the schools it was reduced to thirteen. The marked inadequacy of so short a term, and the evils resulting from a want of concert among the colleges, early attracted attention in New England, and led to some unsuccessful attempts to remedy both. In 1835, the faculty of the Medical College of Georgia formally proposed the holding of a convention of delegates from all the medical colleges of the Union, and advocated the same through the columns of the *Southern Medical and Surgical Journal.*

The proposition seemed to meet the approbation of those connected with many of the colleges, but failed of being carried into effect, through the indifference of some of the older and more influential schools in the Atlantic cities. The first movement of which we have

any record, which contemplated a convention of delegates, not only from all the medical colleges, but also from the regularly organized medical societies throughout the whole country, was made in the Medical Society of the State of New York, at its annual session in February, 1839. During the same session the subject of medical education had been a prominent topic of discussion, and a resolution, declaring that the business of teaching should be separated as far as possible from the privilege of granting diplomas, had been adopted by a large majority. It was in view of this discussion that Dr. John McCall, of Utica, offered the following preamble and resolution, viz.:

"WHEREAS, A National Medical Convention would advance, in the apprehension of this Society, the cause of the medical profession throughout our land, in thus affording an interchange of views and sentiments on the most interesting of all subjects—that involving men's health, and the means of securing, or recovering the same; therefore,

"Resolved, That in our opinion, such convention is deemed advisable and important; and we would hence recommend that it be held in the year 1840, on the first Tuesday in May of that year, in the City of Philadelphia; and that it consist of three delegates from each State Medical Society, and one from each regularly constituted medical school in the United States, and that the President and Secretary of this Society be, and they are hereby instructed, and required to transmit, as soon as may be, a circular to that effect to each State Medical Society and Medical School in said United States."

This proposition was adopted, and all the necessary steps taken by the Society of the State of New York for carrying it into effect. But neither the societies, nor the schools of other States, not even those of Philadelphia, where the proposed convention was to be held, responded to the invitation, and consequently no meeting took place.

The subject of medical education, however, continued to be a prominent topic of discussion in many of the medical societies throughout the Union; and especially the evils supposed to result from the union of the power to teach, and to confer degrees, or licenses to practice, in the same hands. And at the annual meeting of the New York State Society, in 1844, attention was again strongly directed to the whole subject of medical education, and the necessity of a higher standard of qualifications, both preliminary and medical, by two series of resolutions. The one was offered by Dr. Alexander Thompson, of Cayuga County, and the other by Dr. N. S. Davis, then a new delegate from Broome County, N. Y.

These resolutions declared a four months' college term too short for an adequate course of lectures on all the branches of medical science, and the standard of education, both preliminary and medical, required by the schools previous to the granting of their diplomas, altogether too low; while the union of the teaching and licensing power in the college faculties was represented as impolitic, and consequently liable to abuse. These resolutions elicited some discussion, and were referred to the standing corresponding committee, of which Dr. Davis was made chairman. Through his agency, the subjects embraced in the resolutions were urged upon the attention of most of the county societies in that State, and in many of them elicited action acknowledging their importance, and sanctioning the principles they embraced. This gave the subject a more general interest, and at the next annual meeting of the State Society, held in February, 1845, two reports were presented by the Corresponding Committee; one from the Chairman, embodying the action of the county societies, and recommending the principles involved in the original resolutions; the other from Dr. M. H. Cash, of Orange County, taking a different view of the subject. These reports led to a protracted discussion of the whole subject of medical education, more especially in reference to the standard of attainments that should be required before admission into the ranks of the profession. On the one hand, it was claimed that the standard of attainments, both preliminary and medical, exacted by the several medical colleges, was too low, or too limited, to be consistent with either the honor of the profession, or the well-being of the community; and farther, that the union of the power to teach and grant diplomas in the several college faculties, co-operated with the active rivalry among the schools to depress the standard still lower. On the other hand, while some of these allegations were promptly admitted to be true, it was claimed that the standard of qualifications exacted by the colleges of New York was as high as that required by the colleges in any of the surrounding States; and consequently, the adoption of measures calculated to compel the schools of one State to adopt a higher standard would have no other effect than to induce the students to abandon such schools for those of other States, where less extensive attainments were required. The latter view was more especially urged by the friends of such colleges as were represented in the Society; while the advocates of a more liberal professional education claimed that such position precluded all progress. For the institutions of each State would claim that their standard of qualifications, required before conferring the degree of M.D., was as high as that exacted by the schools of other States, and consequently no one would venture to advance a step beyond its rivals. [This competition in the maintenance of low standards for the sake of attracting students shows how low all sense of professional dignity had fallen.—ED.]

It was at the close of this debate, when the whole subject was about to be postponed until the next annual meeting of the Society, that Dr. Alden March, of Albany, privately suggested to Dr. Davis, who had taken an active part in the discussion, that the objection might be obviated by calling a convention of delegates from all the colleges, and thereby inducing the institutions of the several States to act in concert. The last named gentleman, not knowing that any previous attempts to assemble a National Medical Convention had been made, immediately rose, and submitted the following preamble and resolutions, viz.:

"WHEREAS, It is believed that a National Convention would be conducive to the elevation of the standard of medical education in the United States; and whereas, there is no mode of accomplishing so desirable an object, without concert of action on the part of the medical colleges, societies and institutions of all the States; therefore,

"Resolved, That the New York State Medical Society earnestly recommend a National Convention of delegates from medical societies and colleges in the whole Union, to convene in the City of New York, on the first Tuesday in May, in the year 1846, for the purpose of adopting some concerted action on the subject set forth in the following preamble.

"Resolved, That a committee of three be appointed to carry the foregoing resolution into effect."

This proposition led to a brief conversational discussion, in which some of the older members of the Society related the former unsuccessful attempts to assemble a National Convention of medical men, which elicited a very general expression that the project was impracticable, if not positively Utopian. The resolutions, however, being strongly urged by the mover—who contended that if the object to be accomplished was one of acknowledged importance, its friends should persevere, although a dozen failures should be encountered before their efforts met with entire success—were adopted, and Drs. N. S. Davis, of Binghamton, Broome County; James McNaughton, of Albany, and Peter Van Buren, the Secretary of the State Society, were named as the committee to carry them into effect. The chairman of this committee, soon after his return to Binghamton, issued a circular containing the preamble and resolutions quoted above, and sent a copy to each of the colleges and societies known to exist

throughout the United States, and to many prominent members of the profession in sections of the country where no social organizations had been formed. The correspondence thus begun was actively continued throughout the whole year. An examination of this correspondence shows that the proposition to hold a National Convention met with a favorable response from societies, colleges and individuals, throughout the whole Union, except those colleges located in Philadelphia and Boston. To the circulars and letters addressed to the Medical College in Boston, and the two oldest colleges in Philadelphia, answers were returned, respectfully declining to take any part in the proposed convention. The then recently organized Pennsylvania College, located in the latter city, returned a more favorable answer, with a promise that delegates from that school should be appointed to attend the convention. The extent to which the correspondence had been carried, and the degree of favor with which the proposition for a convention had been entertained by the profession, may be inferred from the following extract from a report of the chairman of the special committee, made at the annual meeting of the New York State Society, in February, 1846, viz.:

"Replies to these circulars and letters have been received from the following officers of medical societies and colleges, and private members of the profession, viz.: Drs. W. W. Morris, of Dover, Delaware; A. H. Buchanan, of Tennessee; W. P. Johnston, of Washington City; T. T. Hewson, R. M. Huston and W. E. Thorne, of Philadelphia; Luther Ticknor, of Connecticut; W. H. McKee, of North Carolina; E. H. Peaslee, of New Hampshire; Paul F. Eve, of Georgia; J. H. Thompson, of New Jersey; J. W. Davis, of Indiana; A. Twitchell, of New Hampshire; John W. Draper, A. H. Stevens, Willard Parker, and C. A. Lee, of New York; D. Drake, of Ohio; Lawson, of Kentucky, and Carpenter, of Louisiana. And delegates have been freely pledged from medical societies and colleges in Maine, New Hampshire, Connecticut, New Jersey, Delaware, District of Columbia, South Carolina, Georgia, Mississippi, Louisiana, Tennessee, Kentucky, Ohio, Indiana and New York. Nearly every medical journal throughout the whole Union has not only favorably noticed, but warmly commended, the holding of such a convention."

. . . . It will thus be seen that, in far the larger part of the Union, the invitation of this Society has met with a prompt and hearty response from the profession; and it is with much regret that we find even a few institutions declining to take any part in so important a movement. But when we consider the wide extent of our territory, and the great number of our institutions, all engaged, we should hope, in a generous rivalry with each other, the expression in favor of a convention is certainly more unanimous, and more promising of good, than could have been anticipated. Indeed, the leading and influential members of the profession have long felt the necessity of some national action; some central point of influence around which the active and choice spirits of the whole profession can rally, and from which may be made to radiate an elevating, healthful and nationalizing influence over the whole country.

In accordance with the recommendations of this report, the State Society appointed sixteen delegates to attend the proposed Convention and accepted the invitation of the Faculty of the New York University to hold the Convention in their college edifice, commencing at 10 o'clock A.M., on the first Tuesday in May following.

Besides the editorial notices, commending in general terms the proposition to hold a National Convention, which apeared in nearly all the medical journals of the country during the year 1845, and which aided very much in rendering the movement successful, *The New York Journal of Medicine* and the *Collateral Sciences* published several communications from the author of the proposition, Dr. N. S. Davis, and also one from Dr. L. Ticknor, the President of the Medical Society of the State of Connecticut. This may be found in the numbers of the *Journal* for November, 1845, and January and March, 1846. The communication of Dr. Ticknor contains the first distinct proposition to perpetuate the action and influence of the contemplated National Convention by organizing out of it a permanent "National Medical Society." He says: "Considering our extent of territory, and the number of States into which the Union is divided, it is by no means strange that the medical schools in the several States should gradually yield to other motives than a desire to promote the best interests of society by a thoroughly educated and properly disciplined medical faculty. It is fairly enough implied, if not perfectly obvious, that there exists no small degree of rivalry among our medical institutions and leading medical men; not, I fear, who shall furnish the most valuable and best wrought article, but who shall furnish the greatest quantity. To furnish some antagonism to this tendency of our profession, which is from year to year gaining strength, influence and popularity, the writer knows of no one effort the profession can make that promises so much as to organize a National Medical Society, to meet annually, biennially, or triennially, having, if you please, a Vice-President and committee of correspondence in each State, etc."

The communication of Dr. Davis contains a more extended consideration of the whole subject of medical education. Its then existing condition throughout the country is clearly set forth and its defects clearly criticised by the writer, while he earnestly recommends such action as is calculated to accomplish the following definite objects, viz.:

"First—The standard of preliminary or preparatory education should be greatly elevated, or rather, a standard should be fixed, for there is none now, either in theory or in practice.

"Second—We should elevate the business of private teaching to that position which its intrinsic importance demands.

"Third—A more uniform standard of qualifications should be required of the candidates for medical honors.

"Fourth—We should devise some mode to stimulate the ambition and arouse the energies of the profession to a higher state of intellectual activity and scientific inquiry."

The importance of these propositions he illustrates at considerable length, and prominent among the means he urges for their practical accomplishment is the organization of a "permanent National Medical Society, by whose annual discussions an exciting, vivifying and healthful influence will be exerted over the length and breadth of the country until a correct and noble sentiment is engendered in the bosom of every member of the profession."*

In the same number of the *New York Journal,* from which I have just quoted, the editor, Dr. C. A. Lee, in earnestly appealing to the profession to make the proposed Convention truly national, by the attendance of delegates from every section of the country, makes the following allusion to a more representative organization, viz.: "But there are various other subjects which would naturally come up before such a Convention, of scarcely less interest and importance, and we should hope, as already intimated, that a permanent National Society would grow out of it, which would, like the "British Association," meet annually, and at which essays and reports on different branches of medicine would be read and discussions held." In alluding to the call for the National Convention, the editor of the *Buffalo Medical and Surgical Journal* in the number for October, 1845, says: "None can doubt the propriety, nay, the urgent necessity for the adoption of some means to elevate the standard of medical education and advance the dignity and usefulness of the profession. . . . . We fervently hope that this movement will meet with general concurrence and cordial co-operation."

*See *New York Journal of Medicine,* etc., March, 1846, p. 290.

[*To be continued.*]

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Editorials.

CEPHALIC TETANUS IN AMERICA.

ATTENTION is called to cephalic tetanus in America by an admirable paper on that subject by F. C. Eastman, in *Neurographs*, Vol. 1, No. 1, 1907. This disease, while due to the same infective cause as the ordinary form of tetanus, differs from it so widely in its clinical manifestations that its diagnosis is beset with much difficulty. In all probability it is not an extraordinarily rare disease, still only four cases can be found recorded in American literature. To these Eastman adds three more. The disease differs from general tetanus in many respects. The initial lesion involves the path of one of the cranial nerves, usually the fifth, giving rise in the latter case to trismus and paralysis of the face on the affected side. There is usually spasm of the throat and respiratory muscles. Infection takes place through a smaller wound; the bite of an insect may suffice. The local symptoms predominate. The patient may be playing about with paralysis of one side of the face, when suddenly the spasms of the muscles of the throat will occur. This phenomenon prompted Rose to give it the name of *tetanus hydrophobicus*. The period elapsing between the infection and the appearance of the symptoms is shorter and the prognosis less grave than in the ordinary form of tetanus.

The symptoms of this disease are so unlike general tetanus that it very properly is deserving of standing in a separate category. Undoubtedly most of the cases are put down as something else. Eastman gives a resumé of the first case which was reported by Rose, of Zurich, in 1870. He calls attention, however, to the fact that in 1830 Charles Bell reported to the Royal Society of London an undoubted case as "A case of tetanus complicated with facial paralysis." Eastman accepts the classification of Rose which makes this disease include only the cases with the characteristic facial paralysis. He gives a synopsis of the reported American cases, and to these adds reports of three new cases not previously reported. The characteristic symptoms which he has observed have been the facial paralysis and difficulty in swallowing which are usually accompanied by dribbling of saliva. The paralysis is on the injured side. In a few instances an infection in the median line has been observed, giving rise to paralysis of both sides of the face.

The incubation varies from three days to two weeks. The prognosis depends on the length of the incubation period. If the disease remains localized the prognosis is much better than if it becomes general.

Browning, who has seen four of the seven cases now recorded in American literature, has noted that there are two types of cephalic tetanus which differ somewhat in their course and decidedly in their outcome. These have a like origin and the typical facial palsy. He has called them respectively (1) the convulsive type and (2) the continuous type. The first type is characterized by the early development of seizures which recur with increasing frequency, while between the seizures it is difficult to see that the patient has any serious malady. This type is most fatal. The second type presents some degree of muscular rigidity about the jaw or neck which appears promptly, spasmotic phenomena remaining in abeyance. In these latter cases swallowing may become difficult and the patient's general condition most distressing, yet these are the cases which recover. The mortality in cephalic tetanus is from fifty to sixty per cent., which is much lower than in the general type.

A greater familiarity with this peculiar disease undoubtedly will bring out a larger number of cases, and it is to be hoped that a more general notice of it will be given by current medical literature.

OBSTETRIC HEMORRHAGES.

HEMORRHAGES associated with pregnancy and labor have long been the subject of study. While no striking single contribution to this branch of knowledge has been made, it has been enriched by constant contributions until it is one of the best understood of medical questions. The present state of the knowledge of this subject is analyzed by H. P. de Forest in the *Post-Graduate,* April, 1907, and the author's own observations added. He calls attention to the fact that, while certain medical agents and well-known disease conditions are capable of producing accidental hemorrhage, there also are certain common diseases and remedies which, in the presence of idiosyncrasy, may cause separation of the placenta. Among these are, notably, influenza. He cites three instances in which the use of the peptonate of iron during pregnancy has been followed by the occurence of hemorrhage, causing separation of the placenta and premature labor or abortion.

One of the most striking conditions which the obstetrician encounters is that in which there is an abnormally short cord causing separation of the placenta by traction as soon as labor begins. Here labor seems to be progressing normally when gradually the woman begins to show the signs of hemorrhage without external evidences of bleeding. De Forest reports such cases. By delivering rapidly, both mother and child may be saved, but often in this condition an amount of blood may be poured into the uterus, bringing the case close to a fatal termination before the uterus can be emptied and hemostatic contraction established. As soon as hemorrhage shows through the cervix the expedients for tamponing, which also furthers dilatation, are to be employed. Such concealed hemorrhage may come on suddenly, while the woman is up and about, all of the signs of acute anemia developing without external bleeding. In these cases it may be discovered that the uterus is larger than it was before the symptoms began. It is shown that an enormous amount of bleeding may take place within the womb alongside of the normal contents.

It is shown that placenta previa occurs in multiparas about ten times more frequently than in primiparas, and probably for the reason that the multiparous uterus contains more viscid material which prevents immediate adhesion of the ovum to the mucous membrane of the uterus as soon as it emerges from the Fallopian tube. The well recognized expedient of podalic version and drawing down a leg through the cervix, to make the buttocks act as a tampon inside of the uterus, it seems well agreed, should not be immediately followed by extraction of the child. The delivery should be goverened entirely by the labor pains.

De Forest lays stress upon the value of intrauterine irrigation with hot acetic acid solution in all of these cases in which hemorrhage persists after emptying the uterus. Packing with gauze remains the expedient of most value if other measures fail.

THE DANGERS IN SENDING CONSUMPTIVES TO THE COUNTRY.

THE public mind has become thoroughly imbued with the belief that the air in certain localities has a specifically beneficial effect in consumption. There is a general lay belief that country air is necessary for recovery, and, in view of this fact, many consumptives are sent away from home and their accustomed environment to have the benefit of country air. It is becoming well appreciated by students of this disease that this impression in the public mind must be modified. An intelligent and well-read consumptive can take pretty good care of himself, but the average person suffering with this disease will do much better under supervision which sees to it that he carries out the hygienic injunctions. The consumptive from the city who is sent to a sweet country village often damages himself by hovering about the country stove, and damages the village by spreading his infection.

Cases which are too advanced to gain entrance to a sanitarium often secure board in the locality, and ultimately perish for the want of the oversight which they might have enjoyed at home. In many of our larger cities the poorest patients can have the benefit of constant supervision and instruction from a visiting nurse or physician. Such supervision is the salvation of many of these cases. If they go into the country they easily forget what they had been taught.

In an article on the dangers of sending consumptives to the country, published in *Charities,* March 16, 1907,* the tuberculosis nurse of the Instructive Visiting Association, of Baltimore, reports upon fifty-five cases sent to the country

*Ellen N. La Motte: "The Danger of Sending Consumptives to the Country."

during the last eighteen months. Of these, only two were really benefited; thirty-two returned to the city worse than when they went away; and eight died in the country. It is further stated that it is safe to assume that fifty-five centres of infection were created (as the cases were sent to farm houses), and it is doubtful if any of these infected houses was afterwards cleaned or disinfected with a view to making it harmless. In one instance, three members of the household contracted tuberculosis after the death of the primary patient. Another case was that of a woman who, while under surveillance of the tuberculosis nurse, used a sputum cup and slept alone. She was sent to the country, where she quickly relaxed her discipline, slept with her little child, and returned to the city in a dying condition, the child also having contracted the disease.

It is very properly contended that if a patient cannot be watched over by a sanitorium or competent authority, he should remain at home. The facts seem to show that rarely is a consumptive capable of sufficient moral courage to undertake the rigorous open-air treatment alone. Ordering the patient to the country often simply shifts the responsibility and spreads the disease.

THE CHILD CRYING IN ITS MOTHER'S WOMB.

THE occurrence of the extraordinary phenomenon of the unborn child giving utterance to articulate and distinctly audible sounds has been met with incredulity by the general profession who have read of this occurrence, and it has been most tenaciously vouched for by the few who have heard it. The explanation of this strange manifestation we shall not discuss, but we may with propriety call attention to the fact that it has on several occasions been reported by medical men of accredited honesty and scientific acumen. We must accept these reports. They are of much scientific value. They must either be accepted by the obstetricians and physiologists as contributions to the knowledge of the phenomena of parturition and prenatal vocalization, or they must be accepted by the psychologists as contributions to the psychics of the obstetric mind when intent upon the engrossing divertisement of beguiling the parturient babe beneath the pubic arch.

The most recent observation of this nature has occurred in the experience of Dr. Richard Blumm, of Bayreuth, and is reported by him, under the title, "Intra-uteriner Kindersschrei," in the *Zentralblatt für Gynäkologie,* No. 9, 1907. Briefly the case is as follows: He was called on December 1, 1906, at 2.30 A. M., to a twenty-eight year old II-para for whom the midwife desired assistance on account of breech position and inertia. He found the patient walking about, and learned that the bag of waters had broken on November 30th, at 7 P. M. The woman was placed transversely in bed, and the vagina washed out. For the sake of accuracy we give the reporter's own version of what happened: "Beim Einführen der Hand gingen einige übelriechende Darmwinde ab; als ich in die kindliche Leistenbeuge den Finger einhakte, zuckte das Kind stark zusammen, und sämtliche Anwesende: Kindsvater, Kreissende, Hebamme und ich, hörte in Innern des mütterlichen Leibes einen deutlichen Kindesschrei; dieser Schrei wiederholte sich wärend des Herabziehens des Beines noch ca. 5-6 mal und wurde von allen Anwesenden deutlich als Schreien eines Kindes gehört." In other words, as the accoucheur passed his finger up and hooked it into the child's groin, the head still being in the uterus, the child strongly drew itself together, and every one present (doctor, father, patient and midwife) heard from within the abdomen of the woman distinctly the cry of a child. This cry was repeated five or six times while the legs were being drawn down and were plainly recognized by all as the cries of the child. The delivery was expeditiously completed. Notwithstanding the strong pressure which the head had made upon the cord the child was not asphyctic; it gasped immediately for breath, and without any help began to cry (und fing ohne alle Beihilfe zu schreien an).

Dr. Blumm reports this case because the possibility of intra-uterine crying has been questioned and confused with the deceptive sounds made by the entrance of air, etc. He explains this case by the belief that the child received air in the uterus to breathe, because after complete discharge of the amniotic water the rather high breech did not completely stop up the cervical canal, but permitted air to pass up into the relaxed uterus, and the child inhaling this air gave expression with it to the prenatal cries above described.

Observations.

ON THE DIFFUSION OF MEDICAL KNOWLEDGE.

Were we to ask ourselves the question, How can the public appreciation of the art and science of medicine be improved? the answer would be, education—education of the doctor and of the public—and the means to this end are steadily at work. The past generation has seen the quality of the doctor much improved and none of the other branches of learning has surpassed medicine in the march of progress. The young men now entering practice represent a degree of culture which gives to our profession the flower of American manhood; and the preparation necessary in most of our institutions, and the legal requirements imposed in most States for a license to practise, are all contributing to place the medical profession of the future upon a comparatively higher plane than ever before.

A unified profession is of the next importance. That means laboring together in harmony; each giving freely to the others whatever of advantage he may have to contribute; vying with one another to see who can give the most. Every community should have its medical society for the interchange of ideas and the reporting of experiences. The presence in a community of a medical library is also of much value. It is surprising how one or two high-class men in a locality doing advanced work, act as an inspiration to the rest of the profession, and improve the habits and practices of their colleagues. We find this everwhere. Around every strong man there develops a school. In many small cities and towns are groups of men doing admirable work, sending abroad their influence, and giving a higher tone to their local profession.

* * *

County and State societies continue the perfection of medical organization. A great national society, such as we have in the American Medical Association, can do much for the advancement of medicine. Aside from its functions as a society, with meetings and discussions, it can encourage the scientific spirit by furthering pure science and offering encouragement and rewards for scientific work and discoveries. Properly, this is the function of the State, but the State is not yet ready to do this, and only in a few rare instances has it shown recognition to medical discoveries. Our national organization is steadily increasing in influence and usefulness. It has extended its work in the line of encouraging medical organization. It has also done much in the exposure of frauds in proprietary medicines. It stands for high ideals. It has advanced the cause of medicine by endeavoring to secure a national department of health; and it was, I think, the first organization in this country to begin a scientific propaganda against sexual vice. It behooves the profession of this country to take pride in this great association, and make it as perfect as possible and a fitting representative of its highest ideals and accomplishments. Such an organization can be made to serve the best ends of the profession; it can cultivate professional uniformity and unity, bringing the remote and humble doctor into closer touch with his most advanced and successful colleague. But, above all, the most important work within the reach of such a great association is that which is directly in line with the essential aims of our art and science—the advancement of medical knowledge.

* * *

In the relation of the medical profession to the people, a most needful and important step is the education of the public. By that I mean awakening in the public mind an appreciation of the function, the aims and the possibilities of medicine. There is an ancient and still prevalent notion that it is unethical to communicate these things to the public, and a certain medical aloofness exists which has left the field largely to that class of pseudo-scientific persons who take upon themselves to misinform the public. A barrier of secrecy has been encouraged by the doctors of the old school, and relics of the superstitions of medicine linger even yet. Happily, the work of breaking down these obstacles to the advancement of medicine is well under way. The publications and circulars issued by State and municipal departments of health are of incalculable value. Popular magazine articles and many books give the public further enlightenment. But still much good would accrue if medical men would contribute more upon medical subjects for popular reading. Certain laymen have rendered good service in this direction. The physician need not feel that in communicating medical knowledge to the public he is laying himself open to the charge of self-exploitation or of invading the field of the charlatan. It is the charlatan who is ever invading his field.

* * *

The greatest need in our general system of education to-day is the compulsory study and teaching of biology, human physiology, hygiene, and the principles of pathology and therapeutics. Herbert Spencer insisted upon this fifty years ago, and the science of pedagogy has not yet advanced that far. The most important thing for the student to know about is himself, and this study should supersede all others. It has taken two thousand years to recover from the pernicious teaching that one should give no thought of what he should eat, or of what he should drink, or where he should lay his head, or where withal he should be clothed, or even of the morrow; but now, that enlightened people have rejected this doctrine, it may be hoped that the race will return to the joy and interest in

their own animal health and in the perfection of their offspring once displayed by those sturdy Greeks before they were subjugated by the hosts of asceticism which deprecated the joys of this world. The first essential in the building of character and morality is good health. The morality that is whining and sickly and prays to be "set free" has done the world irretrievable harm. The joy in life and the joy in the great gifts of God are for the healthy. The world needs the physically fit.

* * *

The engineer is most competent to keep his engine in a state of efficiency who best knows its construction, its workings, the dangers that threaten it, and how to overcome them. The most important thing that concerns the student is his own body, and the most important thing that concerns the race is its offspring. It is not the part of wisdom to study the things all about us without knowing about the very body for whose benefit we presume to study these things. A student may be able to read in Greek of the prowress of Alexander, but it boots him little if he is near-sighted and unable to ride a horse. Your over-trained college athlete has studied to poor advantage when his heart gives out before he is fifty. A man may know the history of all the tribes of Israel, but his life has failed from ignorance when he is destined to spend it with an invalid sterile wife of his own making, who is the relic of an healthy sweetheart.

Go into any of the five million homes in this land now harboring an invalid, and in most of them you can trace without difficulty the disease back to ignorance. Most of these sick are suffering with preventable diseases. In some, the culpability lies with the invalid; in some, with the State; but in all, the prophylaxis lay in education. Knowledge and more knowledge of ourselves is the need.

Not infrequently we hear expressed the notion that it is best that laymen should not know about their bodies. People are going to have some sort of idea about these things, and it is better that they should know what is true than believe what is false. Among a community steeped in misinformation the truth can do no harm. If they are not taught the truth the newspapers and the charlatans will see to it that they get some sort of information. A layman who thinks that a pain in the back and a sediment in the urine are signs of kidney disease is not an educated man. Most laymen are uneducated. Enlighten the public, and we shall have enlightened patients. We need not fear to teach the public the principles of therapeutics. Nearly every layman we meet has some favorite remedy for something. Let someone be taken sick away from a doctor, and witness the therapeutic suggestions pour in from every layman present—and especially lay woman.

There are certain fundamental and simple facts in animal pathology which are of more importance for the individual to know than that he should know of the pathology of nations, the decay of dynasties, or the moral pathology of the French or English court. Yet our children are taught the latter of these in their schools—indeed it is compulsory—but of the former, they know nothing.

* * *

If the citizen is taught to take pride in the military conquests of his country he should also be taught to take pride in her conquests of disease. Let those be honored who have saved as well as those who have destroyed. There is no war which the Anglo-Saxon should know of, or be taught with greater zeal, than the conquest of smallpox. The battle to save our mothers from puerpural sepsis, waged by Semmelweiss, is of more moment to human kind than are all the bloody fields of carnage Creasy wrote about. The conquest of pain by anesthesia; the victory of asepsis; the routing of the bacillus of diphtheria by antitoxin; and the victory over the alimentary infections of infancy, really all concern us more deeply than our country's politics and wars. History should be something more than a narrative of bloodshed and commercial conquests. There have been soldiers, with leaders and cohorts, whose mission has been to win victory good for all time, victories, the products of which can never be wrenched from us, and the story of these victories should be known to all.

This teaching should be accomplished by school text-books, by written history, and by current literature. Our national medical association could do the progress of medicine an additional service by supporting a committee on publicity or general enlightenment, whose function it should be to advance the public knowledge and appreciation of the medical sciences.

* * *

Some day a Gibbon or a Leckey or a Buckle or a White shall be raised up to write an history in which the discoveries of medicine and the accomplishments of sanitation shall be set down in their real relation to the progress and well-being of nations. Until that day it remains for us to make the best material for the historian of the future that lies in our power. Let us make the records clear; and the historian shall find inspiration and joy in recording the services of medicine to humanity.

The physician who is not also a scholar may be a more or less successful practitioner, but his influence will be confined, his methods mechanical, and his interests narrow. The doctor, the lawyer and the minister of religion can do but inferior work unless to a knowledge of their several sciences, they bring the insight, the wide outlook, and the confidence which nothing but intimate acquaintance with the best that has been thought and said can confer. The more accomplished the specialist, the greater the need of the control, which philosophic culture gives.—*Bishop Spalding.*

Items.

American Medical Association.—It is to be hoped that New York State will be largely represented at the meeting of the American Medical Association to be held at Atlantic City, N. J., June 4-7, 1907. The State will be well represented in the president-elect, Dr. Joseph D. Bryant. The easy accessibility of this place of meeting should insure a large attendance from New York.

The One Hundredth Anniversary of the College of Physicians and Surgeons, of New York.—This institution received its charter on March 12, 1807, and in June, 1907, it will celebrate with fitting ceremony its one hundredth anniversary. The first class graduated in 1811, and was composed of eight men, three of whom were bachelors of arts of Columbia. This year also was notable for the induction into office as president of Dr. Samuel Bard, who had been the physician of George Washington and a former dean of the medical faculty of Columbia College. Two years later, 1813, this school absorbed the entire medical faculty of Columbia College, thereby increasing its strength and prestige. General medical and surgical clinics to supplement bedside instruction were inaugurated through the efforts of Dr. Willard Parker in 1841. Practical work in obstetrics began in 1853, while about the same time the chair in physiology and pathology was created and placed under the charge of Dr. Alonzo Clark, who had just completed a course of post-graduate study in pathology in Paris. In 1878 an event of special historic interest was the establishment of a student laboratory for instruction in pathology under the directorship of Francis Delafield. A union between the College of Physicians and Surgeons and Columbia College was effected in June, 1860, but it was not until 1891 that the actual union of the two institutions took place. In 1894 the course of study was made to consist of four years of eight and one-half months each. During a hundred years this institution has kept in the van of medical progress. Its graduates have become teachers, the country over. June 10, 11 and 12 will be devoted to this celebration.

The American Gastro-Enterological Association will hold its tenth annual meeting at Atlantic City, N. J., on June 3 and 4, 1907.

Women's Medical Society of New York State.—On March 11, 1907, in honor of the seventy-eighth birthday of Dr. Sarah R. Adamson Dolley, the women physicians of the State met at Rochester and organized the Women's Medical Society of New York State.

It seems fitting that this should occur in Western New York, where the opportunities for medical education and a medical degree were first given to women.

Dr. Elizabeth Blackwell graduated at the Geneva Medical College, Geneva, N. Y., in 1849, and Dr. Dolley graduated at the Central Medical College of Syracuse and Rochester, in 1851.

In Western New York, Dr. Dolley, as a successful physician, by her dignity and scientific attainments, has made the way easier for all women. In her quiet way she has been an unseen force constantly on the alert to open positions to effect organization, and to mobilize the forces that act for the helpfulness of the individual and the success of the whole.

This Society is organized with the distinct understanding that it is not to divert interest from the Medical Society of the State of New York, but rather to encourage greater activity in organized work, and to cultivate social relations and mutual helpfulness among women physicians.

Neurographs is the name of a new journal devoted to neurology which has just appeared with its first number. The editor is William Browning, Ph.B., M.D., of New York. This first number contains a series of neurological papers and studies of much value. The table of contents shows: "A Case of Brain Abscess: Localization; Operation; Recovery," by J. E. Sheppard, M.D. "Cephalic Tetanus in America," by F. C. Eastman, M.D. "A Case of Myasthenia Gravis Pseudoparalytica with Adenoma of the Pituitary Body," by F. Tilney, M.D. "Some Remarks on the Facial Nucleus," by E. G. Zabriskie, M.D. "Clinical Studies of the Pressure Effects of Some Cardio-Vascular Agents." Part 1. "Observations on the Hypodermatic Use (Single Injections) of Aconitine; Gelseminine; and Water," by F. Tilney, M.D. and R. O. Brockway, M.D. "A Family Form of Progressive Muscular Atrophy (Myelogenic Type) Beginning Late in Life," by W. Browning, M.D. "Note on the Administration of Arsenic."

It is announced that the reason for starting this publication is a need for some convenient place to put on record work done by men more or less associated with the Editor, and thus to utilize opportunities, material, and effort, much of which would otherwise be lost. The form and paper of the journal have been chosen to make it pocketable and convenient for perusal. As becomes a scientific publication, advertisements will be dispensed with.

The American Life-Saving Society has just established a medical bureau under the direction of Dr. G. Fish Clark. The aim of the bureau will be to instruct parents in the crowded districts of the City of New York how to protect themselves and their children from disease. Advice and instruction on first-aid to the injured, sanitation and hygiene will be given without charge to all who will come to the bureau in the afternoon between 5 and 6 o'clock. Five lectures on these subjects will also be given at the city baths by Dr. Clark

and Superintendent Brennan. It is work such as this and the pamphlets of instruction of the Health Department and the charity organizations that are destined to regenerate the slums.

THE MILK QUESTION IN NEW YORK.—The Public Health Committee of the Board of Aldermen, which has been holding hearings on the milk question, has decided in favor of the ordinance which, if passed, will require that the milk from every dairy supplying New York shall be tested by the Health Department once a month, and that any milk showing over 500,000 bacteria to the cubic centimeter will have to be pasteurized before being sold. There are many other points to the measure, but it is said that it will not be signed by the Mayor until he has heard from the special commission which is investigating the matter, and which was called attention to in the last number of the JOURNAL. This commission has not yet reported, but it is said that it will suggest that State aid be invoked. The State is supposed to be ready to condemn diseased cattle and to pay the owners a certain part of their value, but the appropriation has not been large enough to carry out this provision of the law. A bill is being prepared for presentation to the Legislature some time during the coming week requiring the reporting of illness among employes in dairies, and sickness among cows. If employes are found to be ill they must be segregated. If cows are ill they are to be killed, and the owners will receive compensation for them. The bill also provides an appropriation for recompensing the owners of cattle which have to be destroyed.

MILK COMMISSION FOR NEW YORK.—The discussion over the problem of securing pure milk for the City of New York has resulted in the appointment of a milk commission by the Mayor. The following men will serve on the commission: Drs. J. D. Bryant, former president of the Board of Health; T. Mitchell Prudden, Rowland G. Freeman, L. Emmett Holt and Abraham Jacobi. This commission will work entirely independently of the Board of Health or any other city department. Ordinances passed by the Board of Aldermen will have to receive the sanction of this commission before the Mayor will give his signature.

DR. J. M. FARRINGTON, of Binghamton, N. Y., at the last meeting of the Broome County Medical Society, read a paper describing his fifty years in the practice of medicine. During his practice he has seen children born, mature and grow old, while he himself has remained hale and hearty. He must be conceded as a particularly competent authority on the subject of which he is a notable example, for some ten years ago he published a paper in the *Journal of the American Medical Association* upon the "Longevity of Physicians." His reminiscences of his studies in France and England in 1857, his interneship in Bellevue, and his services in the 137th Regiment of New York in the Civil War are all full of interest. We wish Dr. Farrington still many years of useful life.

PUBLIC MEETINGS BY COUNTY SOCIETIES.—That advantages are to be gained by county societies holding occasional public meetings is discussed by Dr. J. M. Allen, of Liberty, Mo., in the *Journal of the Missouri State Medical Association*, February, 1907. It is practical, and there is no reason why it cannot be carried out in every county which has medical organization. Teachers' institutes and organizations would welcome such an arrangement. The influence for good which would thus be exerted both on the teachers and their pupils would be very great. For securing favorable legislation and appropriations for sanitary purposes such meetings would prove invaluable, and Dr. Allen recommends that at least one such meeting should be held annually. He emphasizes the importance of the education of public school teachers in matters of sanitation and hygiene, and suggests the appointment, in each county, of a member of the county society to deliver to the school teachers, at their county institutes, addresses on public school hygiene and other matters along medical lines. These suggestions have occasionally been made before, but they will bear repetition until the medical profession acts upon them, and brings itself into closer touch with the public.

THE SCHOOL HYGIENE ASSOCIATION OF AMERICA is now in process of formation. Its Committee on Organization is already at work. Arthur T. Cabot, of Boston, is chairman, and Dr. Luther Halsey Gulick, 500 Park Avenue, New York City, is secretary. The first meeting of the association was held in Washington, D. C., on May 6 and 7, at which time a scientific programme was presented and the society formally organized. Up to the present time there has been no general body in the United States that has concerned itself definitely with the problems of school hygiene. In this respect America is far behind nearly all other civilized countries. The Second International Congress on School Hygiene is to be held in London, England, August 5 to 10, of the present year, under the presidency of Sir Lauder Brunton.

AMERICAN ACADEMY OF MEDICINE.—The thirty-second annual meeting will be held at Atlantic City, N. J., June 1 and 3, 1907. The secretary is Dr. Charles McIntire, Easton, Pa. The provisional programme is as follows:

President's Address: A Medical Career and the Intellectual Life, Dr. Casey A. Wood, Chicago.

The Communal Life of Physicians, Dr. Leartus Connor, Detroit.

The Housing Problem, Dr. S A. Knopf.

The Effect of Child Labor on Physical Development, Dr. Alfred Friedlander, Cincinnati.

The Superiority of the Playground to the School-room, Dr. Woods Hutchinson, Arrowhead, Cal.

The Soldier as a Total Abstainer, Dr. J. W. Grosvenor, Buffalo.

Insurance for Defectives, Dr. James A. Spalding, Portland, Me.

State Examining Boards, Dr. Henry Beates, Jr., Philadelphia.

Legislation to Promote Preventive Medicine, Dr. Benjamin Lee, Harrisburg.

A National Department of Health, Dr. J. Pease Norton, New Haven.

Criminal Abortion, Dr. Henry W. Cattell.

PUBLIC NUISANCE.—An important decision has been handed down by the Appellate Division of the Supreme Court of New York, placing among public nuisances a class of public offenders whom it has been most difficult to apprehend under any other law. The defendant in this case advertised that she cured "Irregularities, or no charge; longest cases; ladies boarded; 213 East 78th St." To prove criminal abortion in these cases has been almost impossible, but to convict them under the law of public nuisance has been less difficult and will prove very effective in ridding the community of this class of criminals.

THE SECOND INTERNATIONAL CONGRESS OF PHYSIOTHERAPY will be held in Rome, Italy, on the 13, 14, 15 and 16th of October, 1907, under the Presidency of Hon. Prof. Guido Baccelli; Secretary, Prof. Carlo Colombo, Via Plinia, 1, Rome. The American Committee have been appointed with Francis B. Bishop, M. D., of Washington, D. C., as president; Wm. Benham Snow, M. D., 349 West 57th Street, New York, Secretary, and Albert C. Geyser, M. D., New York, Treasurer.

BUREAU OF MEDICAL INFORMATION IN BERLIN.—Students and physicians sojourning in foreign cities often desire medical information concerning hospitals, lectures and society meetings. Paris has its *Bureau de Renseignements Médicals*. It is interesting to note that a similar bureau is to be opened in Berlin at the Kaiserin Friedrich-Haus (Louisenplatz 2-4), where medical information can be had free of cost.

GERMANY'S APPROPRIATIONS FOR SCIENTIFIC PURPOSES should be of interest to us in our endeavors to secure governmental interest in the health of the people. The Reichstag has voted the following appropriations for this year: $50,000 to be used for the study and repression of typhoid fever, and $30,000 for tuberculosis; $16,000 for the study of the sleeping sickness; $17,000 was appropriated for the International Congress for Hygiene to be held in Berlin in September next; $25,000 was appropriated for research on syphilis; $6,500 was appropriated for studying the statistics of accidents and $10,000 for combating infant mortality.

Medical Society of the State of New York.

MEDICAL DIRECTORY OF NEW YORK, NEW JERSEY AND CONNECTICUT.

Cards have been sent to the physicians in the three States with the request that they be filled out and returned *immediately*, with data concerning address, office hours, society memberships, official positions, etc., for insertion in the Medical Directory for 1907. These cards should be returned at once. Returns not received before June 15th cannot be inserted in the Directory.

MEETING OF THE COUNCIL.

A meeting of the Council of the Medical Society of the State of New York was held at No. 17 Washington Avenue, Albany, N. Y., March 26, 1907, at 8.30 P. M. Doctor F. C. Curtis, president in the chair. Doctor Wisner R. Townsend, secretary.

The following answered to their names on roll call: Dr. F. C. Curtis, president; Dr. J. C. Bierwirth, first vice-president; Dr. A. Lambert, treasurer; Dr. W. R. Townsend, secretary; Dr. J. T. Wheeler, president third district branch; Dr. A. G. Root, chairman committee on legislation; Dr. R. G. Loop, president sixth district branch; Dr. W. J. Nellis, chairman committee on arrangements; Dr. Leo. H. Neuman, chairman committee on scientific work; Dr. J. F. W. Whitbeck, president seventh district branch, and Dr. D. C. Moriarta, president fourth district branch.

Moved, seconded and carried:

Resolved, That the treasurer of the Medical Society of the State of New York be authorized to pay, upon presentation of proper voucher, the actual railroad fares of members of the Council when traveling on State Society business with the understanding that this shall not apply to attendance at the regular annual meeting of the Medical Society of the State of New York.

Moved, seconded and carried:

Resolved, That on and after June 1, 1907, no member of the Medical Society of the State of New York shall receive the Directory, the NEW YORK STATE JOURNAL OF MEDICINE, nor be entitled to malpractice defense until his county dues and State assessment have been paid.

Moved, seconded and carried:

Resolved, That the bond of the treasurer be fixed at $5,000 and that the premium be paid by the Society.

Moved, seconded and carried:

Resolved, That the subcommittee on publication of the the Council of the Medical Society of the State of New York be authorized to appoint an editor and to designate his compensation.

Moved, seconded and carried:

Resolved, That the Merritt H. Cash prize of $100 shall be awarded in 1908 at the annual meeting of the Medical Society of the State of New York and every three years thereafter; that the Lucien Howe prize of $100 be awarded at the same time, and every two years thereafter, and that the committee on prize essays be requested to make the necessary announcements in the JOURNAL for May, 1907.

Moved, seconded and carried:

Resolved, That the Secretary be authorized to grant certificates as delegates to other societies except to the American Medical Association to all members in good standing who make application therefor.

Moved, seconded and carried:

WHEREAS, The House of Delegates of the Medical Society of the State of New York has approved a One Board Bill, Assembly No. 160, and

WHEREAS, The Board of Education and the Committee on Public Health of the Assembly have introduced an amended Bill, Assembly No. 1645,

Resolved, That the Committee on Legislation is hereby authorized to support said Bill and to accept or reject any further amendments as in their judgment may be for the best interests of the Society.

There being no further business, the minutes of this meeting were read and approved, the time and place of the next meeting were left to be subject to the call of the chair. The meeting then adjourned.

WISNER R. TOWNSEND,
Secretary.

PRIZE ESSAYS OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK.

The undersigned committee of the Medical Society of the State of New York begs to announce that the Merritt H. Cash Prize of one hundred dollars will be awarded in 1908 at the annual meeting of the Medical Society of the State of New York, and every three years thereafter. The subject of the prize essays may be taken from any of the contributing parts of medical science and practice, and must be original so far as to constitute an advance in our knowledge. Candidates for the prize to be members of the Medical Society of the State of New York.

The Lucien Howe Prize of one hundred dollars, either in money or in the form of a suitable medal, will be awarded at the same time, and every two years thereafter, for the best original contribution to our knowledge of some branch of surgery, preferably of ophthalmology. The author or discoverer *need not be a member of the Medical Society of the State of New York,* but the communications shall be made first through its committee on prize essays, and shall remain the property of that Society to be made public as it shall direct. All communications shall be typewritten or printed, and the only means of identification of the authors shall be a motto or other device.

They must be in the hands of the undersigned on or before December 15, 1907.

A. JACOBI, M.D.
Chairman Committee on Prize Essays.
19 East Forty-seventh Street,
New York City.

COMMITTEE ON EXPERIMENTAL MEDICINE.

Dr. F. C. Curtis, president, has appointed the following Committee on Experimental Medicine: Robt. Abbe, New York County Society; H. M. Biggs, New York County Society; Jos. D. Bryant, New York County Society; B. Farquhar Curtis, New York County Society; John G. Curtis, New York County Society; F. Delafield, New York County Society; F. S. Dennis, New York County Society; Wm. S. Ely, Monroe County Society; E. D. Fisher, New York County Society; A. Flint, New York County Society; J. W. S. Gouley, New York County Society; Henry Hun, Albany County Society; E. G. Janeway, New York County Society; F. P. Kinnicutt, New York County Society; Hersey G. Locke, Onondaga County Society; Roswell Park, Erie County Society; F. Peterson, New York County Society; W. W. Potter, Erie County Society; M. Allen Starr, New York County Society; L. A. Stimson, New York County Society; J. S. Thacher, New York County Society; W. Gilman Thompson, New York County Society; Albert Vander Veer, Albany County Society, and S. B. Ward, Albany County Society.

This is a reappointment of the committee last appointed in 1903, by the State Society for the purpose of opposing the passage of laws calculated to abolish or restrict the performing of experiments on living animals for scientific purposes. The appointment of this committee was made necessary by the introduction into the Legislature of a bill calculated to interfere with experimental work done in Medical Schools, principally in the department of physiology.

LATUREN VS. BOLTON DRUG COMPANY.

Unless the Court of Appeals should consent to a rehearing of the appeal in the case of Laturen vs. Bolton Drug Company, the decision of that court that the plaintiff could not recover on the evidence adduced at the trial, will stand as the last act in the case. It may, however, be decided wise to make another effort for a rehearing.

Judge Cullen, the presiding judge of the Court, Judge Bartlett and Judge Vann, all of whom are men of special eminence in the field of medico-legal work, adopted the view presented by Mr. Lewis on the appeal, but Judges Chase, Werner, O'Brien and Hiscock were opposed, and therefore the decision was against the plaintiff. No opinion was written except that the court said that the decision was sustained solely upon the absence of testimony to show that the material taken by the plaintiff caused the condition which the doctor found. This was evidently an oversight of the gentleman who tried the case and, of course, was extremely unfortunate, though this decision eradicates all of the *obiter dicta* of Justice Gaynor, wherein he stated that "morphine was not a cumulative poison and that no effects of a dose of one-tenth of a grain or even of a much larger dose would remain in the system four hours after it was taken," or his reference to the *Elixir Pinus Compositus cum Heroin* as a "patent medicine."

It may be that an application for a rehearing will be successful, in which case the argument on the original appeal will be heard anew.

ANNUAL MEETINGS OF THE DISTRICT BRANCHES FOR 1907.

First District, October 28th, in New York City.
Second District,
Third District, October 22d, in Albany.
Fourth District, September 18th, in Saranac Lake.
Fifth District, October 3d, in Syracuse.
Sixth District, September 24th, in Ithaca.
Seventh District, November 13th, in Rochester.
Eighth District, September 25th and 26th, in Buffalo.

SCIENTIFIC SESSION.

ANNUAL MEETING, JANUARY 29, 1907.

"The Work of the New York State Cancer Laboratory." Dr. Roswell Park, of Buffalo, read a paper with the above title, for which see page 186.

"Parasitism and Infection in Cancer." Dr. Harvey R. Gaylord, of Buffalo, read a paper with the above title, for which see page 189.

"Immunity Against Cancer in Mice." Dr. G. H. A. Clowes, of Buffalo, read a paper with the above title, for which see page 190.

Discussion.

DR. S. STRAUSS, of New York, asked if the gentlemen had transplanted the organism alone and reproduced the disease in experiments on the lower animals. If it is a parasitic disease he thought they should be able to transplant the organism and reproduce the same disease in the same species.

With regard to the communicability of the disease among human subjects, he said that not one case had been reported where the disease had been communicated to surgeons. Many questions come up. Dr. Straus believed that, as yet, we know comparatively little about cancer formation and we are handicapped in not having the advantages of the laboratories for research work that they enjoy abroad; but the work that the doctors are doing in the Buffalo laboratory should be continued and encouraged, and he hoped that the physicians would do all in their power to aid them. Many do not understand how difficult it is to follow research work day and night.

DR. GARY N. CALKINS, of New York, said that owing to the size of the organism (as a rule the germ in mouse cancer is .6 of a mikron), it had been impossible to inject or inoculate animals with the germ or with a group of isolated germs or cultures of germs. The supreme test they had been unable to apply. The chances were very much against it.

Progress of Medicine.

PRACTICE OF MEDICINE.

EDITED BY

HENRY L. ELSNER, M.D.,
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DE LANCEY ROCHESTER, M.D.,
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EDWIN H. SHEPARD, M.D.,
Instructor in Clinical Microscopy, Syracuse University.

HEMOPTYSIS

It is rare that such a practical and instructive article appears as that entitled, "Some remarks on Hemoptysis and its Treatment," by Peverell S. Hichens, in the *Practitioner* for March. Blood spitting, he says, is almost invariably associated in the public mind with consumption, and even in its lightest form causes the patient to be prepared for the diagnosis of the dread disease. It behooves us, however, not to clinch this diagnosis lightly.

Among the real or so-called cases of hemoptysis the author mentions those found in anemic and rather neurotic young women who complain of waking in the morning with blood in their mouths, or that their pillows are stained every morning with blood. There is frequently in these cases a certain amount of pyorrhea alveolaris, and the blood spitting turns out to be saliva tinged pink by oozing from the gums. Some cases of unimportant blood spitting are associated with granular pharyngitis, and perhaps also laryngitis and tracheitis where little pellets are expectorated, streaked with blood on the outside. Another form of spurious hemoptysis has come from slight nasal hemorrhage running backward into the pharynx at night and then being expectorated by the mouth.

Hemoptysis from cardiac disease is important, since it is frequently attributed to pulmonary tuberculosis. It is most frequent with mitral stenosis, but is not uncommon in mitral regurgitations with a failing heart. Another form of hemoptysis, not very common but of importance, diagnostically occurs with atheroma of the arteries and vascular degeneration. Still other cases are due to blood changes, or to both vascular and blood changes such as in the later stages of chronic interstitial nephritis. Hemorrhage from the lungs seems very rare in purpura, pernicious anemia and other profound blood diseases.

Blood spitting due to actual disease of the lung itself occurs in lobar pneumonia, emphysema, carcinoma of the lung, streptothrix infections of the lungs, and pulmonary tuberculosis. In tuberculosis it may occur at any time during the disease, or again not at all. When hemoptysis comes early in the disease it is usually in one of three forms. The commonest is the expectoration of small masses of sputum from the alveoli, deeply stained by the intimate admixture of small quantities of blood. Fairly common is the expectoration of bright red frothy blood in small quantities, often mixed with sputum. An extremely rare form occurs when the blood slowly leaks into the bronchi, and a blood cast of the bronchi is expectorated, closely resembling the casts coughed up in fibrinous bronchitis.

The hemoptysis of the later stages of pulmonary tuberculosis is familiar to all, where bright red frothy blood is brought up with every cough, not very much at a time, but sometimes a half pint or a pint in 24 hours. It is only very seldom that this form of hemoptysis is so profuse as to be immediately fatal, and the author can remember of but one such case in his experience.

As regards the differential diagnosis of a given case of hemoptysis, the probability is as a rule greatly in favor of the cause being tuberculosis. If, however, no physical signs characteristic of the disease can be found in the lungs and no tubercle bacilli in the sputum, a careful search ought to be made for other diseases which may cause the trouble. If no cause can be found, however, the probability is that tuberculosis is the "*fons et origo mali.*"

Hemoptysis pre-eminently tends to a natural cure, at any rate for the time being, and it is this fallacy which has probably given rise to the extraordinary string of remedies, many of which can either do no good or are actively harmful. The pulmonary blood vessels are inervated to an extent apparently sufficient to maintain a certain amount of tone in the vessels, and vascular constringents, such as ergot or adrenalin, raise the blood pressure in the lungs without any compensating constriction of the vessels—a most undesirable and dangerous result. Moreover, hemorrhages are generally from vessels of larger size which would be but little influenced by constriction, were there such an effect. The application of ice to the chest the author believes also to be useless.

In hemoptysis we want to give as much rest as possible to the lungs and heart, we want to lower the blood pressure, and we want if possible to increase the coagulability of the blood. Rest to the lungs and heart can only be given by general rest to the body in bed, assisted by morphia. Blood pressure is lowered by means of posture, diet, medicines which carry away fluid from the blood and dilate the abdominal blood vessel, and by the vaso-dilators. The patient should not lie flat, but be well propped up with pillows or a bed-rest. The diet should be cool, given in small quantities at a time, and with a diminution of liquids. The blood pressure in the lungs can certainly be influenced by the vaso-dilators, either immediately or evanescently by inhalations of nitrite of amyl, or more gradually and continuously by nitroglycerine or erythrol tetranitrate. The coagulability of the blood may be increased by 15 to 20 grain doses of calcium

chlorid, either three times a day, or four to six hourly, but this must not be continued for more than three or four days at a time, according to Professor Wright, or the effect is the reverse and the blood is less coagulable. It is possible that inhalations of turpentine vapor are of some value. At least they are of no harm and they give the patient something to do to occupy his attention.

THE MECHANISM OF CARDIAC MURMURS.

Thayer and MacCullum, of Johns Hopkins, conducted a series of experimental studies of cardiac murmurs which are noteworthy in their scientific and practical interest. Having studied the character of the heart sounds of the normal dog, they have produced in several cases as far as possible the lesions observed in man. After etherization of the dog the anterior part of the chest is removed, artificial respiration is established, the pericardium opened, and the heart thoroughly exposed. A special stethoscope with a long bell of small diameter is used so as to localize sounds over small areas and so as to reach rather deep structures.

The heart sounds of the dog are closely analogous to those of the human being. The second sound at the aortic orifice is of much greater intensity and of a more ringing and musical quality than the second sound over the pulmonic valves, which has a dealer, more wooden character. The difference is so marked and characteristic that Thayer feels confirmed in the conviction he has so often expressed that it is sometimes possible in the human being to determine the origin of the second sound by its character alone—a point which may be of importance when the second sound is heard best to the left of the sternum.

Aortic and pulmonic stenosis was produced simply by the passage of a cord about the vessels just about the valves, tightened according to the degree of the stenosis desired. A striking and interesting fact noted by the observers was the ease with which murmurs could be produced in the pulmonary artery, which suggests that a similar process may account for some of the frequent basic pulmonary murmurs heard in man, where it is possible to assume that resistance of the chest wall may alone be the cause of the murmur.

In aortic insufficiency the findings were wholly in accordance with the well-known fact that these murmurs are hard to hear. There was an intensity of the diastolic murmur at the ring, but a feebleness over the aorta above and over the ventricles below. Especially important was the aortic insufficiency found to result from dilatation, supporting the conception of those observers who have insisted upon the part which the muscle of the left ventricle plays in the closure of the aortic ring.

Mitral stenosis, similar to the condition resulting in the human being, it was found impossible to satisfactorily produce. Mitral insufficiency was produced by tearing the valves or chordæ tendinæ, and the murmur was found closely similar to that in man. Thayer says that he has for years taught that the murmur of mitral insufficiency is doubtless loudest at the mitral ring, and just beyond this point, in the left auricle, probably of great intensity and with a well-marked thrill at this point, but that however the deep position of the left auricle and mitral ring render these conditions undemonstrable, the murmur being audible at the apex alone, because this is the only point where it is possible to approach the left ventricle. These beliefs and teachings were verified by the experiments on the dogs' hearts.

Further observations showed that a change in the character of the circulating blood, such as the replacing of a considerable quantity of blood by salt solution, is extremely favorable to the development of systolic murmurs at the base.

Careful study of this article leads the reader to agree with the author that where ausculation is taught to students in small sections, several lessons on experimental cardiac murmurs in the dog would do more toward making clear in the mind of the student the essential facts, without which rational diagnosis of cardiac lesions is impossible, than any other method of instruction yet proposed.—*American Journal of the Medical Sciences,* February, 1907.

THE DIAGNOSIS OF TUBERCULOSIS BY MEANS OF TUBERCULIN.

The method of diagnosis of tuberculosis with the aid of tuberculin is in increasing favor among the European authorities. Junker has published the results based upon observations of 277 patients in the Heidelberg clinic. Only the old tuberculin is injected. Fever and hemoptysis are contraindications. The injections are made twice weekly and are begun with 0.1 mg., being increased to 0.5 mg., 1 mg. and 5 mg. The fresh and active cases demanding active treatment are suitable for the sanitoria, react by this method as a rule with only one decimilligramme. A reaction can only be regarded as positive when the temperature exceeds the previous high temperatures by the least 0. 8°C. Three injections were as a rule made in these cases, the higher doses caused higher temperature reactions. The average duration of the reactions was 34 to 36 hours. If the reaction was entirely absent the patient was told that he did not have a tuberculosis demanding active treatment. The lower the dose causing the reaction, so much the more strongly was active treatment recommended.—*Beiträge zur Klinik der Tuberkulosis,* Vol. VI. No. 4; *Zentralblatt für innere Medizin,* 1907, No. 11.

SURGERY.

EDITED BY

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AND

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SURGICAL TREATMENT OF TUBERCULOSIS OF THE KIDNEY.

Kelly expresses the following views: 1. Tuberculosis of the kidney, not including general miliary tuberculosis, is always unilateral at the start. 2. Tuberculosis of the kidney is practically always hematogenous in its origin. 3. Primary tuberculosis of the bladder is rare. 4. A bladder tuberculosis cannot heal while there is a tubercular kidney above, but it does respond to suitable treatment after a nephrectomy. Of operative procedures, Kelly reserves nephrotomy in desperate cases, to be followed later by nephrectomy; also nephrotomy is the only operation possible when the other kidney is involved. Early nephrectomy is the operation of choice, since delay multiplies difficulties, increases the chance of infection of the bladder or opposite kidney. Kelly considers bladder involvement as being a marked indication for removal of the affected kidney.

Tuberculosis elsewhere in the body, if not extremely active, is not a contraindication. Kelly reports eighteen such cases, with thirteen recoveries, all apparently well after two years. He advises against suture of the ureter in lower angle of wound. He prefers to divide the ureter with the cautery. If the entire ureter is thickened and tubercular, if the patient's condition warrants, a ureterectomy should be done. Kelly concludes by emphasizing the hopelessness of medicinal and hygienic measures alone and condemns delay.—*Surgery, Gynecology and Obstetrics,* 1907.

SUBACUTE PERFORATION OF THE STOMACH.

Moynahan reports several cases of subacute perforation of the stomach which he defines as a rupture occurring in an ulcer of the chronic type. The chronic ulcer with deep excavation, deep edge and surrounding induration erodes the wall of the stomach until abruptly the thin barrier is broken through into the peritonal cavity. Moynihan states, however, that there is this important difference between the "acute" perforations and the subacute. In the former, the rupture is of fair size and at once allows the stomach contents to escape freely. In the subacute type there is, by one agency or another, a localization of the escaping fluids. This limitation occurs when the rupture has taken place during the empty condition of the stomach. The opening may become plugged with a tag of omentum. Moynihan has seen this. The opening may be sealed over by layers of plastic lymph. The stomach may be adherent at the base of the ulcer. The symptoms of rupture in every particular save one—intensity—are the same in subacute as in acute rupture. The pain comes on in those who have suffered for years with gastric symptoms. Sometimes there has been increase of pain in the days preceding rupture. Patients have complained that the body or side felt stiff and sore; that laughing or stretching caused great discomfort. Such symptoms when given by a patient with previous gastric symptoms should warn the attendant of an impending rupture. The pain is sudden. It may be followed by vomiting but rarely by collapse. The abdomen is everywhere tender. An especially tender and resistant area will be found and on palpation it may seem as though a hard, flat disc had been inserted in the abdominal wall. The symptoms abate slowly. The pulse becomes slower, vomiting ceases, the abdomen becomes supple except at one spot, or it may be distended a little with evidences of free fluid.

If operation is not done, owing to the improved condition of the patient: 1. A perigastric abscess may form. 2. A secondary rupture into the general peritoneum may ensue. 3. The ulcer may become adherent to the abdominal wall or liver or pancreas and the patient may live for years. The chief difficulty in diagnosis arises in distinguishing between a subacute perforation near the pylorus and a cholecystitis. In both there is pain, sudden, severe, and colicky. In neither is there any general peritonitis. In both there is a local peritonitis with a tender resistant area.

Moynihan advises immediate operation as the safest plan of treatment. —*Annals of Surgery,* February, 1907.

TYPHOID AND DOUBLE PERFORATION OF ILEUM AND PERFORATION OF GALL-BLADDER.

Kiliani reports a case with the above complications. The patient had been in the hospital but twenty-four hours when the first symptoms appeared. These were sudden severe knife-like pains in the abdomen, great restlessness, fall in temperature to 99.8 F. Abdomen absolutely rigid The leucocytosis was but 5600, but the diagnosis of perforation was nevertheless made on the above symptoms. Kiliani did not wait, as has been advised, until the second twelve hours, but operated immediately. About ten inches from the valve two small perforations of the ileum were found. When Kiliani had finished suturing these perforations, influenced by the unusually bright yellow color of the abdominal fluid, which amounted to a quart and a half, he lengthened his rectus incision up to the costal margin, whereupon he discovered a gall-bladder five inches long, with a gangrenous fundus and two small perforations permitting the introduction of a silver probe. There were two small stones in the gall-bladder. The gall-bladder was excised. Two gauze tampons were placed in over the stump, and a second at the lower angle of the wound,

which was then closed. Patient died twenty-one days after operation. Autopsy showed right empyema and a focus of gangrene in right lung, also a volvulus of small intestine. This case belonged to the ambulatory type of this disease and gave a positive Widal. Pure cultures of the typhoid bacillus were made from the gall-bladder also. Kiliani calls attention to the low leucocyt count in this case, and the low pulse (92).—*Annals of Surgery*, January, 1907.

THERAPEUTICS.

EDITED BY
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TREATMENT OF ENDOCARDITIS.

In a clinical lecture (*Deutsche Med. Wochenschrift*, January 24, 1907), G. Hoppe-Seyler gives a review of the treatment of endocarditis, noting first the varying relation of the condition to infections, as to the severity of the original disease, or of the cardiac complication, and naming articular rheumatism, phlebitis, follicular angina and chronic gonorrhea as liable to present the severer grades of endocarditis. He notes that infectious processes lead also to myocarditis and to disturbances of the vasomotor system, which, especially in the acute infections, scarlet fever, diphtheria, etc., may possess a preponderating importance to the heart's action and the circulation. In cases of endocarditis, where disturbances of the circulation is evident, regulating and strengthening the myocardium and vasomotor system claim our attention.

When the original disease is slight and the complication severe, it may not be easy to discover the exact cause, and treatment of the endocarditis becomes the important part of the therapy; although, in the line of causal treatment, the object should be to remove the infection, and, to that end, first to investigate as to the kind of infection and its location. A purulent otitis media, an appendicitis, a prostatic abscess, an inflammation in the uterine adnexa, or a chronic gonorrhea, may be revealed, and its removal be followed by cure of the endocarditis. A case is related of a girl who suffered recurrence of endocarditis, with fever, lung infarct, anemia and loss of weight, and who was thought to be tuberculous. Because of recurring purulent tonsilitis the tonsils were removed, following which all of the above disappeared, and she became well and strong, and continued without any return of the endocarditis.

In articular rheumatism with endocarditis the author advises full dosage (4 to 6 grams daily) of sodium salicylate or other salicylate, reducing the dose only with the appearance of marked tinnitus aurium, or other symptoms of drug intoxication. He does not regard the occurrence of nephritis as a contraindication, but as a sequel to the rheumatism, and holds that, by energetic treatment of the latter with salicylates, the nephritis will more rapidly disappear.

In septicemic cases, besides removal of the septic focus, the author mentions the use of antiseptics to act upon the bacteria in the circulation. Quinin hydrochlor (.30-.50 gm. several times daily), required oftentimes to be continued for weeks, and salicylates and antipyrin are mentioned. The same kind of treatment is to be directed toward the local bacterial infection of the endocardium, with the expectation of only gradual results, so that a lack of improvement in the first few weeks should not lead to discontinuance of the quinin.

The use of colloidal silver, *e. g.*, collargol, in ointment for inunction or in solution for intravenous use, holds an uncertain place in these septic cases. Serumtherapy has its advocates, and especially the use of antistreptococcic serum subcutaneously or by rectum. In cases due to streptococcic infection the result has often been favorable, but in many cases it fails. Rheumatic cases are better treated by salicylates than by serum. The most serious forms of endocarditis being caused by the pneumococcus, the use of the antipneumococcic serum appears rational, though reports do not give it any certainty of action. The author notes the distinction between malignant or ulcerative and benign or verrucose forms, and, on the other hand, between acute and chronic endocarditis. Among the chronic are to be considered especially those of recurrent endocarditis that continue through years with frequent new attacks, in which cases the myocarditic process remains in the background, while the endocarditic is more prominent through damage to other organs, caused by emboli.

With acute endocarditis it is first of all necessary to prevent turbulent heart action, so as to avoid undue violence to the valves, whereby penetration of micro-organisms would be favored, and defects produced leading to faulty closure. This will be attained by strict rest in bed and by reducing as much as possible the movement and manipulation required in the nursing and in the examination of the patient. Prolonged conversation, strong mental impressions, noises, and special sense disturbances must be prevented. Pain in the cardiac region may be relieved by leeches, wet cupping or cold applications; the last-named also regulates the heart's action, by lessening its frequency, increasing its rest and strengthening its contraction when too weak. With frequent, weak and irregular heart action digitalis (.10 gm. 3-4 times daily) is useful,

also camphor (.10-.20 gm. at 2-4 hour intervals). Camphor, and as well caffeine-sodium-salicylate or sodium benzoate (.10-.30 gm. at 2-4 hour intervals), is suitable moreover, when vasomotor depression exists.

The diet should be unstimulating, easily digestible, and of not too great bulk. As a drink, water, with the addition of some acid, is most suitable. If carbonated water is used the excess of gas must first be allowed to escape. Strong wines and spirits, also beer, should generally be avoided.

The more chronic forms of endocarditis require very careful and patient treatment. So long as fever is present treatment will be essentially that of the acute form. With marked evidences of insufficiency of the heart, even without fever, rest in bed and careful diet are necessary. If parenchymatous nephritis coexists, as it so frequently does, with deficient diuresis and tendency to edema, theobromine-sodium-salicylate or sod. acetate (1 gm. about four times daily) may be given; also, when the heart action is not greatly disturbed, but the edema is considerable, theocine-sodium-acetate temporarily (.4 gm. four times daily for one day, and the diuretic effect awaited). It is especially important in endocarditis to test the urine for albumin constantly, for so long as any infectious process exists nephritis can suddenly occur. This complication is often responsible for failure of ordinary treatment of the cardiac condition, for the deficient elimination of metabolic products influences the central nervous system, and therewith also the vasomotor centers. We must then be careful to employ an unstimulating diet, with little salt or extractives, and to avoid much meat, broths, sauces, etc. Milk, light vegetable and eggs are suitable.

Diaphoretic measures are not advisable in endocarditis, whether the use of pilocarpine or hot air or steam baths, the latter being avoided because of the increased heart action caused by the heat. On the other hand, the use of laxatives, particularly the vegetable agents, rhubarb, castor oil, senna, etc., are recommended. Calomel is to be avoided on account of the liability of kidney irritation; also magnesium or sodium sulphate and the mineral waters containing them, as a considerable amount of the salt is absorbed, especially when the laxative effect is not prompt, and the kidneys are thereby taxed in its elimination.

In chronic forms there is commonly valvular insufficiency or stenosis, either mitral or aortic, and usually a combination, so that in nearly all cases of verrucose endocarditis both aortic and mitral valves close imperfectly. With myocardial complication, dilatation easily occurs, and consequent relative insufficiency of the mitral, and sometimes of the tricuspid valves, with the symptoms of circulatory failure in pulmonary and in systemic circulations. In all these cases the use of digitalis in good dosage is called for, to which may be added camphor or theobromine-sodium-salicylate, until the symptoms of stagnation yield and diuresis is again sufficient. Medication may then be continued by strophanthus, or by smaller doses of digitalis. The combination with calomel and squill is often useful.

When aortic insufficiency becomes prominent, with the consequent left hypertrophy, the arterial blood pressure is subject to great oscillation. The aorta tends to enlarge, especially when its media has been altered by syphilis, and palpitation and pain in the region of the apex may occur. These disturbances demand quieting of the heart's action, which may be accomplished by cold applications or by bromides. Valerian may be useful. The occurrence of stenocardia calls for nitroglycerin, and, if severe, for morphin. Insomnia forbids the use of tea, coffee or spirits, and large meals. Hypnotics are often useful, but fail in many cases, when morphin, codein or dionin must be given. The latter are especially suitable when cough is occasioned by the pulmonary congestion. Heroin is less suitable in cardiac cases.

Moist packs to the chest usually are not well borne, especially when a sense of oppression is present. Warm baths before sleeping hours are exciting rather than restful in endocarditis. Neither are cold applications (half baths, etc.) suitable in the evening, but cautiously used in the morning they are refreshing.

The essential points in after treatment are also discussed. Where weakness of heart action continues because of accompanying myocarditis, much may be accomplished by mechanical treatment. Improvement in the peripheral circulation can aid the unfavorable effects of heart weakness, and can be attained by employment of gymnastics, medico-mechanical treatment and massage. The Zander apparatus and the Swedish resistive gymnastics are very useful because of the possibility of fine gradation of the exercises. Active exercise is not proper when muscles and heart are weak, also when dilatation has resulted from heart weakness following bodily strain. Here the carbonated baths are indicated. The effervescent thermal salt baths (Nauheim, Oeynhausen, etc.) by the action of the carbonic acid and by gradual reduction of the temperature of the water, exert an important influence upon the circulation in the skin, and thereby upon the entire circulation, thus rendering good service in the sequelæ of endocarditis. Alternating electrical baths are likewise useful.

In addition, gradually increased bodily exercise is of value, beginning with walking on level ground, and carefully increasing the

grade to mountain climbing, after Oertel's method. The strain of athletics is dangerous, as is also bicycle riding, which does not produce a sense of fatigue as early as does walking, so that over-exertion easily results.

It is very important that the convalescent be protected from the unfavorable influences of his occupation and environment. To this end a restful health resort may be selected.

Correspondence.

RATIONALIZATION OF THERAPEUTICS.

EDITOR NEW YORK STATE JOURNAL OF MEDICINE.

SIR:—I am very much pleased with your editorial on page 116 in the March number of the NEW YORK STATE JOURNAL OF MEDICINE, under the heading of "Rationalization of Therapeutics," berating the ignorant, unnecessary and uncalled-for prescribing of drugs. It is as you say and I wish to add my testimony to the fact that "the physician uneducated in the nature of disease is the one most given to the employment of drugs." Among the more intelligent physicians, the prescribing of drugs is becoming less and less. Just as enlightened pathology and physiology demonstrated the fact that blood letting, which was practised by the rank and file of the profession years ago, had no rational basis and was entirely fallacious, in consequence of which it lost its prestige beyond recovery, so have old practitioners of our decade come to realize the fact that their prescriptions and drugs very commonly diminish the resisting power of the patient, thereby lessening his chances for recovery.

The *vis à fronte* treatment, electro-therapeutics, hydro-therapeutics, resisting movements, fresh air, diet, graduated exercises, rest and baths are the reasonable and reliable means of enhancing the patient's functions and vital powers and curing his disease. Medicines are too often of no earthly use, and only bolster the patient up for a while, and rarely, except as a placebo, is it necessary to resort to drugs. I thoroughly agree with you and most cordially with Dr. Osler.

Yours very truly,
W. PARKER WORSTER, M.D.

New York, March 24, 1907.

New Books.

THE MUSCLES OF THE EYE. By LUCIEN HOWE, M.A., M.D. In two volumes. Vol I. Anatomy and Physiology. G. P. Putnam's Sons, New York. 1907.

There could be no better guarantee of the excellence of this publication than the name of the author, whose work as a student, teacher and writer are well known. Professor Howe's "Study of the connective tissue of the Orbit," his work on the "Primary insertions of the Ocular Muscles," "The muscle of Homer and its relation to the retraction of the caruncle after tenotomy of the internal rectus," "On a compound miscroscope for viewing the eye," "On cocain as a local anesthetic for the eye," "On the act of winking and its photographic measurements," "On the measurement of the interocular base line," and "On the confusion in methods of numbering and using prisms," together with the fact that he is the inventor of an admirable instrument for measuring the relative accommodation and other appliances, all testify as to the practical and scientific value which might be expected in a work upon this subject from his pen.

This volume opens with a chapter on the anatomy of the extraocular muscles. The methods of dissection are carefully described, and the technique of hardening and injecting preparations is given. The minuteness with which heredity acts is illustrated in this chapter.

Another chapter is given to the intraocular muscles and other structures concerned in accommodation. This chapter also describes the muscles of the face and head which are accessory muscles of accommodation. The nerve supplies of the eye muscles are minutely gone into, and the nerves traced to their remotest ganglionic connections.

These studies are much enhanced in value by the chapter on the embryology and comparative anatomy of the ocular muscles. An important point developed in connection with the third nerve is that the fœtal third nerve supplies not only the four eye muscles but also, in certain forms, the branches of this nerve supply part of the tissues which later become accessory muscles of accommodation.

When he comes to the discussion of the physiology of the muscles, the author calls attention to the large amount of information upon this subject which is already in the literature and adds that many of the recorded facts have little or no practical significance in the light of our present knowledge. In dealing with these questions we are obliged to turn to the European authors, especially the Germans, but when we come to the clinical application of this knowledge we must turn chiefly to Anglo-Saxon ingenuity. The author's studies lead up to the significant conclusion that for comfortable binocular vision, especially at the working distance, a relation within certain limits must be maintained between accommodation, convergence, and torsion.

The section of the book devoted to physiology takes up all the practical questions in this subject. Chapter I deals with one eye at rest; Chapter II with one eye in action, but not necessarily in motion; and Chapter III with one eye in motion. Among the practical questions elucidated are those showing how a lense affects the focal power, how to measure the effects of cycloplegics and myotics, and the clinical methods of measurements of accommodation. The measurements of winking and its clinical value are clearly presented. So thorough is this chapter that a section is given to the sounds produced by the eye muscles, and the stethoscope for recognizing them illustrated.

Chapter IV treats of both eyes at rest. The author believes that the methods ordinarily used for determining the static position of the visual axis are not altogether satisfactory because of two reasons: different tests in constant use are of different value, and certain parts or functions of the eyes themselves influence the position of the axes. This chapter illustrates the author's head-rest, which should be highly prized by ophthalmologists who strive for accuracy.

The double prism is recommended as the best test for cyclophoria, it being the simplest and most readily understood for clinical work. For all reliable measurements and physiological studies, some form of the cliniscope is essential.

Chapter V deals with both eyes in motion and the first group of associated movements. Subsequent chapters continue the studies of the groups of associated movements. Muscle balance is defined as the condition in which, with comfortable binocular vision, accommodation, convergence and torsion bear their normal relations to each other.

Concerning the relation of the general strength to the physiological actions of the ocular muscles, Dr. Howe concludes as follows: Suitable tests show that under normal conditions the minimum power of adduction and abduction remains at about the normal amount, no matter what may be the general strength of the individual; the maximum power of adduction is to a certain extent in proportion to the general strength of the individual; in cases of heterophoria, when so-called muscle exercise is practiced when the general strength of the individual is quite up to the normal standard, the maximum power of adduction and abduction can be increased more rapidly, on the average, than in other individuals whose general strength is apparently less than normal.

In a concluding chapter the author directs attention

to the importance of proper knowledge of the anatomy and physiology of the eye muscles. He makes a plea for more exact definitions and for greater uniformity in methods of examination.

An appendix at the end of the work contains an extraordinarily complete bibliography, systematically arranged, and giving over eight hundred references. An admirable feature of the work is a list of questions accessory to the main subject, questions yet to be answered and which are to excite the thought and investigation of all observers. This plan might well be followed by writers upon all subjects, for in every branch of medical knowledge there still remains much to be sought for and queries constantly arise in the mind of every investigator.

The author also gives a list of the ophthalmological journals, and mentions twelve medical libraries in this country in which they can be found. A medical library in New York State, which is larger and more complete than nine of these, is not included in the list—we refer to the Library of the Medical Society of the County of Kings. The work concludes with biographical sketches of some of the eminent students of ocular muscles.

This book is an admirable production. It displays the evidences of extraordinary devotion to the study of this subject. It is a scientific production of which American ophthalmology may well be proud.

Columbia University Quarterly. Vol. IX., No. 2. Columbia University Press, 1907.

This number of this excellent publication is devoted to the College of Physicians and Surgeons of New York, the Medical Department of Columbia University. The opening article is the address delivered by Dr. Holt, at the opening of the College session last year, on "Medical Ideals and Medical Tendencies." This address is well worth reading and contains many gems of thought and much medical wisdom. The sketch of the History of the College of Physicians and Surgeons, by Dr. Lee, is opportune, because in June the College will celebrate with fitting ceremonies the one hundredth anniversary of its foundation.

The sketch of the life of Samual Bard, by Dr. James, gives an interesting view into the life of this medical father who, though a Tory, was accepted by Washington as his family physician. The description of the Department of Clinical Pathology by Dr. Wood gives a delightful analysis of the value and scope of this work. Dr. Starr gives a description of Medical Education in New York, although he is not correct in the statement that the finest medical library in American is in New York.

Dr. Miller discusses the "Progress of the Anti-Tuberculosis Movement in New York," and Dr. Huntington describes the "Teaching Museum for Undergraduates in Medicine."

This publication is a great credit to the University and to the editors.

Saunders' Pocket Medical Formulary. By William M. Powell, M.D. Eighth Edition. Philadelphia. W. B. Saunders Company, 1906.

This is a handy little book for the pocket, a physician's vade mecum. It contains a pasological table; formulas and doses with prescriptions for every medical condition, arranged alphabetically with a marginal index; a table of poisons and their antidotes; diameters of the female pelvis and the fœtal head; an obstetrical table; diet list for various diseases; materials and drugs used in antiseptic surgery; treatment of asphyxia; surgical remembrances; tables of incompatables; signs of the eruptive fevers; weights and measures, etc.

This little book is well known, and favorably. This edition has been revised according to the last revision of the pharmacopeia. It is a very handy book for the general practitioner to carry in his pocket. It has a leather cover and a pocket for prescription blanks and easily fits into the inside pocket. It is interleaved with blank pages.

County Societies.

THE MEDICAL SOCIETY OF THE COUNTY OF ALBANY.

A regular meeting of the Society was held in Albany Medical College on Wednesday evening, April 10, 1907. About sixty members were present besides invited guests.

The committee having in charge the matter of calling the attention of the city authorities to the need of providing means for the collection and disposal of garbage made a report and was continued in office until its work should be completed.

A motion was carried to the effect that the proper authorities of the City of Albany be made acquainted with the sentiment of the Society that a system of medical inspection of school children should be established.

The scientific program consisted of the presentation of a paper by Professor Abraham Jacobi, of New York on "Ulcer of the Stomach."

A special meeting of the Medical Society of the County of Albany was held in the rooms of the Albany Historical and Art Society on the evening of March 30, 1907, to meet Dr. Friederich Müller, Professor of Medicine, University of Munich, Germany. Invitations had been sent to all the members of the Third District Branch of the State Medical Society, many of whom attended the meeting. Physicians from neighboring societies not in the Third District were also present, so that Dr. Müller was greeted by an audience of nearly two hundred and fifty. Dr. George G. Lempe, the President of the Medical Society of Albany County, presided. Dr. S. B. Ward, chairman of the committee of arrangements introduced Dr. Müller, who gave an address in English on "Bronchitis."

MEDICAL SOCIETY OF THE COUNTY OF CATTARAUGUS.

Second Quarterly Meeting, Salamanca, April 2, 1907.

Program.

Address "Sciatica," by Dr. Clarence King, of Machias, N. Y.

"Demonstrations of Jiu-Jitsu," by Mr. Aken Taniguchi, of Tokio, Japan, Instructor in Jiu-Jitsu at the Chamberlain Military Institute, Randolph, N. Y., assisted by Captain Walter Dean.

MEDICAL SOCIETY OF THE COUNTY OF KINGS.

Stated Meeting, April 16, 1907.

Scientific Program.

"The Comparative Value of Clinical and Laboratory Diagnosis."

On the clinical side by Edward E. Cornwall, M.D., Brooklyn, N. Y.

On the laboratory side by George Lamb Buist, M.D., of Brooklyn, N. Y.

"The Diagnosis and Treatment of Cardio-Vascular Renal Diseases," by James Tyson, M.D., Professor of Clinical Medicine in the University of Pennsylvania, of Philadelphia, Pa.

On April 24, 1907, "A Stereopticon Talk on the Philippines," by Dr. Jerome Thomas, late surgeon in charge of the Civil Government Sanitarium at Baguio, Province of Benguet, Philippine Islands.

Section on Pediatrics, April 17, 1907.

Program.

"Sea Air Treatment of Infantile Diarrheal Diseases," by S. Beck, M.D., discussion opened by Dr. Benjamin Edson.

"Open Air Treatment of Tuberculosis of the Joints," by Walter Truslow, M.D. Discussion opened by Dr. Chas. D. Napier.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

STATED MEETING, APRIL 22, 1907.

Scientific Session.

Clinical Report: "Cardiac Hydrothorax: Report of a Case Aspirated 311 Times," by W. Travis Gibb, M.D.

Papers: "The Heart in the Infectious Diseases: Infancy and Childhood," by Henry Koplik, M.D.

"The Heart in the Infectious Diseases: Adult Life," by C. N. B. Camac, M.D.

"Treatment," by David Bovaird, Jr., M.D.

Discussion by A. Jacobi, M.D.; Beverley Robinson, M.D.; Henry D. Chapin, M.D., and Charles E. Nammack, M.D.

MEDICAL SOCIETY OF THE COUNTY OF ONEIDA.

QUARTERLY MEETING, APRIL 9, 1907, UTICA, N. Y.

Program.

"Water Supply," by Eugene H. Porter, M.D., State Commissioner of Health, Albany, N. Y.

Symposium on Pneumonia.

"Diagnosis," by H. L. Borland, M.D., Camden, N. J.

"Etiology," by H. H. Shaw, M.D., Utica, N. Y.

"Physical Signs and Clinical History," by E. D. Fuller, Utica, N. Y.

"Pneumonia of Children," by A. J. Browne, M.D., Rome, N. Y.

"Pneumonia of the Aged," A. A. Gillette, Rome, N. Y.

"Treatment," by F. D. Crim, M.D., Utica, N. Y.

Opening Discussion, by W. M. Gibson, M.D., Utica, N. Y.

MEDICAL SOCIETY OF THE COUNTY OF ORANGE.

QUARTERLY MEETING, APRIL 2, 1907, MIDDLETOWN, N. Y.

Program.

"Case of Cholecystectomy for Acute Mucopurulent Cholycystitis Resulting From Gall-Stones," by E. B. Hulett, M.D.

"Operation for Malignant Diseases, Involving Ducts and Gall Bladder," T. D. Mills, M.D.

"A Cholecystectomy Following a Cholecystotomy For Gall Stones," by A. W. Preston, M.D.

Symposium on Milk.

"Production of Milk"—Methods and cost of producing sanitary milk—Difficulties to be overcome by the farmer and the application of practicable methods in producing a fairly good article by Henry Youngs, Goshen, N. Y.

"Necessity for Inspection of the Source of Milk Production and the Prevention of Subsequent Contamination"—Von Behring's immunization—Human and Bovine tuberculosis by John F. DeVine, D.V.S., Goshen, N. Y.

"Sterilization, Partial or Complete, and its Effect Upon the Product as a Food," by H. J. Shelley, M.D., Middletown, N. Y.

MEDICAL SOCIETY OF THE COUNTY OF SARATOGA.

REGULAR MEETING, APRIL 19, 1907, SARATOGA SPRINGS, NEW YORK.

Program.

Paper on "Anæesthesia," by D. C. Moriarta, M.D., discussion opened by G. H. Fish, M.D.

Report of a case, by J. F. Humphrey, M.D.

MEDICAL SOCIETY OF THE COUNTY OF SUFFOLK.

SEMI-ANNUAL MEETING, APRIL 25, 1907, PATCHOGUE, NEW YORK.

Scientific Program.

"A Case of Ectopic Pregnancy, with Specimen," by A. C. Loper, M.D., Greenport, N. Y.

"A Case of Eye Enucleation for Calcareous Lens," by S. B. Allen, M.D., Riverhead, N. Y.

"The Long-Waisted Woman and Her Floating Kidneys," by A. Ernest Gallant, M.D., New York City.

"Experiences With Rabies," by W. A. Hulse, M.D., Bayshore, N. Y.; A. H. Terry, M.D., Patchogue, N. Y., and Frank Overton, M.D., Patchogue, N. Y.

"A Case for Diagnosis," by William Hugh Ross, M.D., Brentwood, N. Y.

Deaths.

REED BROCKWAY BONTECUE, M.D., died at his home in Troy, N. Y., March 27, 1907; aged 83 years. Dr. Bontecue had practiced medicine for sixty years. He entered the Federal Army immediately after the bombardment of Fort Sumpter and remained in the service until 1866, when he was brevetted Colonel of Volunteers for faithful and meritorious services. He was an all-round practitioner, and excelled as a surgeon. He was the first surgeon to attempt the repair of a typhoid perforation. His contributions to the literature are numerous, and his scientific attainments were widely recognized. His activity, energy and scientific enthusiasm made a lasting impression upon his profession.

NICHOLAS LAFAYETTE CAMPBELL, M.D., one of the founders of the New York Academy of Medicine, died at his home in New York City, March 29; aged 84 years.

RODNEY C. F. COMBES, M.D., died at his home in Brooklyn, N. Y., March 18, from typhoid fever; aged 59 years.

ROBERT FARRIES, M.D., died at his home in New York City, March 31; aged 72 years.

FRANCES VAN CLEVE FULLER, M.D., of Brooklyn, N. Y. died at her residence in that city, March 27; aged 56 years.

ASHBEL PARMLEE GRINNELL, M.D., an expert in Medico-legal practice, died in New York City, April 6; aged 61 years.

ROBERT STUART MACGREGOR, M.D., a member of the Staff of St. Bartholomew's Clinic and of the New York Polyclinic, died at his home in New York City, March 23; aged 38 years.

OWEN EUGENE MCCARBY, M.D., of Niagara Falls, N. Y., died at his home, March 25; aged 36 years.

CHAS. F. MORCOM, M.D., died at his home in New York City, March 23, 1907.

JAMES HARPER NORTH, M.D., the oldest member of the Staff of the Clifton Springs Sanitarium, New York, died at the sanitarium, March 12; aged 83 years.

JAMES E. O'MALLEY, M.D., a member of the Staff of St. Luke's Hospital, Newburgh, N. Y., died at his home in that city, March 27; aged 46 years.

HENRY ROOT, M.D., of Whitehall, N. Y., a surgeon during the Civil War, died at Saratoga, N. Y., March 20; aged 70 years.

ALFRED RUSSELL STARR, M.D., died at his home in New York City, January 11; aged 48 years.

GEORGE HENRY VAN WAGNER, M.D., died at his home in Wappingers Falls, N. Y., March 19; aged 55 years.

JOHN HENRY WIGGINS, M.D., one of the foremost practitioners of Western New York, died at his home in Jamestown, N. Y., April 1; aged 52 years.

GEORGE G. WHEELOCK, M.D., formerly lecturer, trustee, and register of the board of trustees of the College of Physicians and Surgeons, and later a trustee of Columbia University, and president of the Sloane Maternity Hospital, died at his home in New York City, March 22; aged 68 years.

THOMAS WRIGHT, M.D., one of the oldest practitioners of Delaware County, New York, died at his home in Andes, N. Y., March 31, from injuries received in a runaway accident; aged 73 years.

NEW YORK STATE JOURNAL OF MEDICINE

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Original Articles.

DANGER SIGNALS FROM THE SKIN.*

By L. DUNCAN BULKLEY, A.M., M.D.,

Physician to the New York Skin and Cancer Hospital, Consulting Physician to the New York Hospital, etc.,

NEW YORK.

WHETHER wittingly or not, the skin receives a good deal of attention from the general practitioner in connection with many disordered or diseased conditions. Among these may be mentioned the hot, dry surface belonging to fever, or the cold, clammy condition, in some phases of grip, the hot flashes at the menopause, or the abundant perspiration of phthisis, etc., and every one recognizes the ruddy, clear skin of perfect health as contrasted with the sallow, pasty skin of advanced kidney disease, the yellow skin of jaundice, and the dry, scaly skin of glycosuria, etc. One need only mention the exanthemata to suggest that the phenomena on the skin may be but one evidence of disease, which is also shown strikingly in the case of syphilis and leprosy.

Further, the condition of the skin and its appendages both in men and animals is continually taken as an index of the state of the general system, and, as we know, may often serve as a valuable index as to how metabolism and nutrition are performed. The cachexia of anemia and of malignant disease is often surely shown by the skin, as is also that of functional or organic disturbance in many organs.

And yet when the skin itself becomes diseased many physicians seem to lose sight of its relations to the general system, and regard and treat it only locally; and this sometimes happens much to the detriment of the patient, and too frequently with unsatisfactory results in regard to the cutaneous affection, as I have so constantly tried to show in my lectures.†

Although we may not all recognize it, nor be conscious of it, the skin continually plays a most important part in health, especially in the direction of regulating the heat of the body. The everyday observation of the effects of a chilling of the surface, resulting in many internal diseases, emphasizes the importance of the skin as a vital organ, while the effects of extensive cutaneous burns, producing profound shock, and often attended with ulceration of the intestine and suppression of urine, and which are also often frequently followed by death, show that the skin has vital relations with the rest of the body, which are of the greatest importance.

Another illustration of the relation of the skin to the rest of the economy is found in the influence of the menstrual function on certain diseases of the skin, of which very abundant proof exists in literature,* and of which many of you have undoubtedly seen more or less striking examples.

Recognizing then, from what has already been said, that the skin is not to be regarded as simply the outer covering of the body, to protect the surface and to give beauty and symmetry, but that it is a vast organ of elimination, intimately connected, through its enormous nervous distribution, with all the rest of the economy, we will consider some of the ways in which manifestations of disease on the cutaneous surface may act as "Danger Signals" in regard to the life and health of the individual affected; also the manner in which the warnings should be heeded and properly acted upon.

It must, however, be clearly stated here, once for all, that none of this danger consists in the possibility of any eruption "striking in" —as is so popularly feared—for there is absolutely no danger in removing any ordinary cutaneous affection as quickly as possible. To show how strongly this absurd fear had formerly taken possession of both the profession and the laity, I mention that I have in my library an old German book of some size, with the title "On the danger of driving in the itch," or scabies! It is well for all that such ideas are now pretty much a thing of the past.

Undoubtedly many of us have seen serious consequences ensue when the eruption of

*Read before the Medical Society of the State of New York, January 29, 1907.

†Bulkley: "The Relation of Diseases of the Skin to Internal Disorders." Rebman Co., 1906.

*Bulkley: "The Influence of the Menstrual Function on Certain Diseases of the Skin." Rebman Co., 1906.

scarlet fever or measles has suddenly faded during its height, but, as all know, this is rather the *effect* of an intercurrent disease than the *cause* of the same, even as some of the ordinary skin affections fade greatly or even disappear when there is active disease of internal organs; and it is this observation which in the past has given rise to the unreasonable supposition that a skin disease has "struck in." We now recognize that there is no such thing as an active agent, or "demon of disease," affecting the skin, which can travel here and there, but that what we call disease consists in the wrong action of the integral parts of an organism.

But, on the other hand, it is equally true, as I shall hope to show, that there sometimes is danger from neglecting to heed the warning which the skin manifestation often gives of something else more seriously wrong in other organs, or in the system at large, or in the diet, hygiene and mode of life of the patient, and in seeking to remove the danger signal, perhaps by local means only, while the real difficulty is left untouched. It is about as sensible as it would be to remove the objectionable red light or flag placed before an open drawbridge or a misplaced switch, without first seeing that all was safe for an approaching train. The absurdity of such a course medically would be at once apparent if one should devote all their energies to the eruption, in scarlet fever, measles, or small pox, or if in syphilis and leprosy sole attention should be paid to the local phenomena.

And yet this is what is too often done in regard to the ordinary affections of the skin, largely from the failure to appreciate fully the relations of many diseases of the skin with internal disorders, or the true significance of many of the lesions on the cutaneous surface. We will now examine the matter referred to a little more in detail, and try to see in what respect some of the conditions more commonly recognized as "diseases of the skin," in even a considerable proportion of cases, have relations which may with propriety be called "Danger Signals."

1. *Syphilis.*—Beginning with syphilis, we all know that this disease, which is principally recognized through its manifestations on the skin, is a serious affair, caused by an active poison, liable to affect, and probably affecting, to a greater or less degree, every organ of the body; we also know that while its virulence is especially active during the first year or two, its malign influence may extend over a lifetime and be transmitted to posterity. We know, also, that when inefficiently treated it may be the cause of most serious lesions in many organs, through which it may bring lamentable disaster, or death. And yet my experience leads me to believe that the profession at large does not fully and adequately appreciate the danger; or at least, that patients are not sufficiently warned of it, and made to appreciate the fact strongly enough to take efficient measures to prevent these rather frequent occurrences.

Twenty-five years ago I read a paper before the New York State Medical Society, regarding "The Malignancy of Syphilis,"* based on a study of 450 cases of the disease, setting forth many instances of the dire effects, with some deaths from this malady. Although, owing to a more enlightened profession and public, resulting in better and more prolonged treatment, as generally employed since that time, there are probably now not the same proportion of cases exhibiting severe and dangerous lesions of many organs as formerly; still daily observation and the records of literature show that as a disease, syphilis still makes frightful ravages into the health and life of the community.

The time limits do not permit of great elaboration on separate subjects, much less the report of many illustrative cases, but the importance of syphilis as a disease, whose possible outcome under unfavorable circumstances can result most disastrously, cannot be overestimated, and must be briefly considered.

The danger signal from the skin, in syphilis, should therefore never be neglected, for the knowledge given thereby may often prove to be the key to many subsequent difficulties. Both in the early and in the late stages of the disease there are dangers to almost every organ of the body, as all know, and the knowledge of previous syphilitic infection, if rightly acted on, may often influence favorably disease-processes of a most threatening character. Many cases of incipient locomotor ataxia can be checked, many cases of chloriditis which would end in blindness can be controlled, many cases of brain tumor can be cured, the various woeful results of syphilitic endarteritis can be averted, and also disease of the heart, liver, and kidneys can be restrained, by prompt and vigorous treatment based on a recognition of a syphilitic cause, as I myself have repeatedly witnessed.

I cannot detain you to cite illustrations of many of them, but must emphasize what I have said by one or two examples.

Some time ago I treated a gentleman aged 44, of this city, for an old syphilide of the palm, and the condition yielded well, and I lost sight of him. A year or so later he came to me complaining of dimness of vision, and I referred him to a prominent occulist, supposing that he needed glasses; my attention not having been specially directed to ocular troubles connected with syphilis, I did not then connect his with the disease. Just about one year later I met him casually in a street car, and inquired as to his vision. He said that it was worse and worse, that he had lost the sight

*Transactions of the New York State Medical Society, 1882.

of the right eye entirely, and could hardly see with the left. Remembering the nature of his former trouble, I hastily told him to call on me at once. We went together to see a gentleman who had made some special studies in syphilis of the eye, and on ophthalmoscopic examination the fundus of both eyes were found to be the seat of extensive choroiditis which had quite destroyed the vision of the right eye, and had advanced considerably in the left. By very active treatment the process in the left eye was arrested and a good measure of vision restored. I have seen other somewhat similar cases, and some years ago Mr. Jonathan Hutchinson, of London, kindly collected and demonstrated to me a considerable number of cases, in children and young adults, where the choroid was more or less severely affected in those with hereditary syphilis.

Not very long ago a gentleman, aged 48, with very large and important business interests, consulted me from a western city, who also had a late syphilide of the palm. He complained at the same time of a dulling and blunting of his mental powers, which quite incapacitated him from work. Remaining in this city for a while the mental condition improved strikingly, as he was put on a very active antisyphilitic treatment for his palmar trouble, and he went home, with the latter also much benefited. Neglecting treatment somewhat at home, he returned in much the same state as before, and again everything cleared up under active specific treatment. It was difficult to impress upon him the gravity of the situation, and as the eruption on the palms entirely disappeared he again neglected treatment, and within a year about I learned that he had died at home from some obscure brain disease. There could be no question but that his mental trouble was due to a syphilitic endarteritis, which could have been prevented by an efficient and prolonged proper treatment. But, as a very intelligent patient remarked to me recently, in discussing the subject of this lecture, in the rapid curing of the palm, he lost the "Danger Signal," which if properly heeded would certainly have prolonged his life, and I in a distant city could not help it.

If time permitted I could give many very interesting cases where some of the severe ravages of syphilis were arrested by efficient proper treatment: such as incipient locomotor ataxia, one of an enormous tumor of the liver, diagnosed as cancer, which subsided under specific treatment, hemiplegia in a young subject with severe syphilis, which yielded rapidly and perfectly to treatment for the disease, etc., etc. In one case a gentleman who was sent to me solely for the treatment of alopecia, whose syphilitic nature had not been suspected, very severe general syphilis followed, exhibiting dangerous brain symptoms at one period.

But all these things are a matter of common knowledge, abundantly illustrated in literature, and yet somehow they often fail of application in actual practice; for there are many now helpless from the destructive results of late locomotor ataxia, and many who have suffered from serious lesions of various important organs, and many who have died from obscure disease of the brain, etc., in whom the processes could have been prevented or checked if only the danger signal had been recognized and properly acted upon sufficiently early. All this must be my apoolgy for presenting so at length matters which must be familiar to many of you.

How inexcusable, therefore, it is for a physician to treat infection with syphilis as a light matter, and not to thoroughly warn or, if necessary, to frighten the patient into a proper caring for the treatment of the disease until it is perfectly cured! Many of us who know syphilis feel that such brief, violent treatment as is often given at various mineral springs is responsible for much of this ultimate harm; for by leading patients to believe that they have had a "cure," they are too often led thereafter to neglect all remedial measures until, perhaps, some obscure internal result of the infection has progressed beyond the power of relief.

Innocent syphilitic infection, which may occur in a thousand different ways,* should never be forgotten, and when the danger flag is distinctly recognized on the skin the warning should be given and heeded quite as much as when the patient acknowledges a sexual transgression. Indeed the ill omen should be even more strongly regarded, for all who have seen much of extra-genital chancres agree that these cases often prove the most serious, as regards some of the later harmful effects of the poison, as I have repeatedly myself observed. No very satisfactory reason of this has been given, but it is possibly because generally in these cases the disease has lasted some time and has thus profoundly affected various organs before its true nature has been demonstrated and proper remedial measures employed. The same is equally true in regard to marital and hereditary syphilis.

2. *Eczema.*—While eczema is so often regarded and too frequently treated as a wholly local disease of the skin, often without success, in certain cases it gives signals of danger of no uncertain character; these if heeded, and if the proper measures are taken, will result to the best interests of the patient, as well as to the cure of the disease, but if disregarded they may result most disastrously.

Generalized eczema, or that affecting many localities, is almost always a sign of nervous or physical breakdown, and a most careful study of the patient in every respect will commonly reveal gross errors of life or habits,

*Bulkley: "Syphilis in the Innocent," New York, 1894.

which, if unchecked, will yield to direful results. Of this I could cite to you numberless examples, both of patients in whom the most careful general measures and regulation of the diet, mode of life, etc., has been followed by a perfect restoration of health and nervous vitality, and of others, in whom a neglect of the proper measures and precautions had resulted in a general nervous and physical breakdown, so-called nervous prostration, which had entirely crippled the patients' usefulness.

Localized neurotic eczema* of the hands or about the mouth will also often indicate a nervous strain under which the patient may succumb, unless it is promptly and properly attended to by heeding and wisely acting on the danger signal given; eczema about the eyes is sometimes dependent upon eyestrain or errors of accommodation calling for special attention and requiring special skill in relieving. How futile and unwise it is, therefore, to regard the skin alone as at fault in such cases as this; and how wrong it is for the one who is consulted in regard to the skin trouble (which may seem of the greatest importance in the eyes of the patient) not to look further, and to give the patient the benefit of a wider knowledge, and by directing him how to heed the danger signal, to enable him to reap the greatest benefit from the consultation!

But eczema is also not infrequently met with in those of a full, plethoric habit, with a hard, bounding pulse, showing metabolic errors which may lead to kidney or other disease, and even to apoplexy, if not controlled by proper measures. Again, many cases exhibit a weak, flabby pulse, indicating anemia, or a greatly debilitated state of the system, ready to take on other diseases of any organ, unless restored to a normal vigor by appropriate treatment, perhaps of the most varied kind. All of this I could illustrate by innumerable examples, did time permit, but I think that you are willing to accept my assertions based on experience, without further proof.

We see thus, that eczema may sometimes prove to be a blessing in disguise, if its danger signals are recognized, properly regarded, and correctly interpreted and managed.

3. *Acne.*—Many look upon acne as only an unpleasant accident, annoying to young persons and hardly meriting much careful professional attention. But acne often presents danger signals which it is not wise to ignore.

Acne is continually seen to be the sign of grave metabolic disturbances, often dependent upon gross errors of diet and hygiene, and frequently associated with constipation or intestinal and gastric disorders, which may lead to serious consequences if unchecked. In many instances it is due almost wholly to anemia, and is often one of the first signs of breakdown from overstudy and confinement, or very commonly from a combination of these with society dissipation.

The cold and clammy condition of the hands and feet so constantly observed in young persons with acne is surely an indication of something wrong, which should be attended to by the physician called upon to relieve the annoying eruption on the face. A neglect of the many co-ordinate symptoms continually occuring in patients with acne is responsible for much of the supposed rebelliousness of the disease.

The relations of the eruption of acne to the menstrual function* should certainly direct attention away from a purely local consideration of the eruption—for almost every woman affected will tell you that time and again she can predict the approach of menstruation by the occurrence of fresh lesions on the face. Many years ago the late Dr. Peaslee of New York, in discussing a paper on acne by the present writer, declared that whenever he found an excessive amount of acne on the chin he looked for and generally found some disorder of the sexual apparatus, an observation which I have verified very freqently.

Finally, all know that acne in older persons commonly indicates some internal disorder, often due to gross errors in eating and drinking, so much so that a red nose and face invariably suggests to the ordinary mind a greater or less indulgence in alcoholic beverages. When this danger signal has been rightly appreciated by the physician and sufficiently urged, the patient has frequently been led to a reform which ultimately proves to the greatest possible advantage in many ways.

It is seen, therefore, that acne in many classes of cases, instead of being only a local disfigurement may often, by the danger signal which it so plainly presents, prove to be of the greatest benefit to the patient, if only the physician will fully grasp the idea and act intelligently and energetically in the right direction. One continually sees patients with acne who should certainly be under competent medical care in order to prevent a breakdown, but who could not be induced to follow out proper treatment and to change their mode of living until inspired to do so by the stimulus of an annoying eruption which they desired to be free from.

4. *Psoriasis.* —This disease is sometimes erroneously called the eruption of health, because, to a superficial observer, so many patients afflicted with it appear to be healthy. But sufficiently minute and prolonged study of many cases, over periods of time, perhaps, covering many relapses, will certainly show that this is not the case, and continually the appearance of the eruption will be a danger signal which it is well to heed and act upon.

*Bulkley: "Neurotic Eczema." *The Medical News*, Phila., Jan. 31 and Feb. 7, 1891.

*Bulkley: "The Influence of the Menstrual Function on Certain Diseases of the Skin." Rebman Co., 1906.

Time and again it can be observed that a recurrence of the eruption has followed some great nervous strain or exhaustion; it frequently returns with the prostration of nursing an infant, and while the eruption may disappear on the outset of a febrile disease, it is constantly seen to occur for the first time, or to recur, after debilitating illness. Of these facts I could give you any number of illustrations, as also of the great benefit which has accrued to the patient when full internal treatment was carried on with this understanding.

The urinary warnings of psoriasis are also very significant. Only quite recently a long standing psoriasis led me to discover very great urinary insufficiency in a lady who otherwise appeared to be in perfect health. Although weighing 163 pounds she sometimes passed only from seven to eleven ounces of urine, by measure, in the twenty-four hours, and later I learned that she had recently had a serious operation on the urinary tract, in another city where she lived. She had had the psoriasis for many years, and if the renal insufficiency had been thus discovered earlier, she would probably have escaped the operations and its dangers. In another recent case a young lady weighing 138½ pounds, who has had psoriasis for eight years, at times passes enormous amounts of urine with great urgency day and night; again she will have a very scanty urine with a specific gravity of 1.041 (no sugar) and an acidity, as measured, of almost four times the normal degree, and with 4.3 per cent. of urea, over double the normal amount. Surely the perturbations of metabolism manifested in these patients must have serious relations to the general economy. And these illustrations could be multiplied many times from my experience.

Thus even psoriasis may present danger signals which it is well to attend to.

5. *Chronic Urticaria.*—While acute attacks of urticaria will often indicate ptomaine poisoning, which may call for serious attention, in its chronic form it frequently shows the presence of faulty metabolism and intestinal indigestion and fermentation, which if unchecked will certainly have other prejudicial effects on the system. Time does not allow of any full consideration of these ill effects now, but the experience of every one shows that when these errors of intestinal action persist for a length of time they are likely to result in more serious disturbances, with insomnia, which may lead to a nervous breakdown.

The occurrence of chronic urticaria may, therefore, be the means of averting greater trouble, if its danger signal is heeded and proper treatment instituted.

6. *Erythema Multiforme* and bullous eruptions.—Like urticaria these are but the outer warning that more or less serious metabolic changes of a faulty nature are taking place in the system, with auto-intoxication. Occasionally there will be a hard, bounding pulse, indicating high arterial tension, calling for relief by dietary and medicinal measures in order to prevent more serious damage to other organs. Of this I could give you a number of very striking illustrations.

7. *Pruritus.*—Severe general or localized pruritus, like neuralgia in many instances, is very frequently but a nerve-cry, or danger signal, telling of a lowered nerve vitality. We all know of the great difficulty in relieving some cases, and how utterly ineffective local treatment often is in averting some forms of itching. If the nerve warning is not rightly heeded and properly acted upon not only does the cutaneous distress persist, but the patient suffers from more serious effects of nerve exhaustion. This is particularly true in regard to pruritus of the anal and genital region, which will sometimes quite incapacitate a person from serious work, as I have repeatedly observed. I have just now in mind an active lawyer who continually speaks of the suffering as "simply awful," when he is under nervous strain, in whom it has been very difficult to restore balance to his nervous system.

8. *Xanthoma Diabeticorum.* — This rather rare eruption has repeatedly called serious attention to a diabetes, which had perhaps had long existed, but which either had not been recognized or had been neglected until the skin gave the danger signal which induced the patient to consult a physician. Successful treatment of the eruption can only be accomplished by the proper care of the glycosuric condition; thus the eruption may prove a blessing in disguise by the warning it presents, if this is recognized and exactly proper measures are faithfully carried out.

9. *Boils and Carbuncles.*—These are too often regarded and treated simply as local affairs, often to the great detriment of the patient. While it is true that the presence of pus (especially in external regions) indicates the action of pus cocci, we know, from the almost omnipresent existence of these micro-organisms, that there must be some other cause determining their activity in particular persons and localities; we know that micro-organisms cannot be cultivated on unsuitable media, or under unfavorable conditions. Thus, the recurrence of boils and carbuncles is continually found to indicate the existence of a lowered vitality of system, and in many persons also the presence of glycosuria; and the danger signal should be attended to, and all these conditions rectified, as far as possible, if the best interests of the patient are to be served, and later, even more serious trouble avoided.

10. *Dermatitis maligna,* or *Paget's disease* of the breast, should always excite serious attention, because of its liability, or indeed, probability, of being associated with cancer of the

mammary gland. In a large share of cases it is useless, if not wrong, to neglect this danger on the skin, and by too often futile attempts to heal it by local treatment to allow the time to pass when a complete removal of the entire breast and glands by surgery would offer the best prospect of a radical cure of the cancerous disease.

11. *Acanthosis nigricans,* with *multiple capillary angiomata.*—The attention of the profession has been again called, by Dr. Willy Meyer,* to the importance of this condition, when existing on the abdomen, as a sign of cancer of some abdominal organ; which is only another instance of the skin exhibiting a danger signal.

12. *Lupus Vulgaris.*—While in the majority of instances lupus remains a local manifestation of tuberculosis of the skin, it is not at all uncommon for it to be associated with tubercular trouble of other organs, notably the lungs, which danger signal should never be neglected in severe or protracted cases. While general treatment may not have an immediate or striking curative effect on the eruption, it can aid in a certain degree, so that local measures will prove more permanently effective, and it can guard the system against the attack of other organs by the tubercle bacilli or their toxins.

The limits of this lecture prevent the full consideration which might be given to these and many more manifestations on the skin which have constitutional or other relations, and which might well be regarded as exhibiting danger signals not to be neglected. I want, however, to briefly mention a few more which have occurred to me; doubtless many more illustrations could be secured with yet more careful attention. In regard to some of these now to be mentioned the connection is, of course, well known and commonly recognized.

13. *Purpura rheumatica* and *erythema nodosum* are constantly recognized as dependent upon a rheumatic condition, and although at the time this may not be very pronounced, they should always be heeded as danger signals by the physician and patient. Proper dietary and other anti-rheumatic treatment, indicated by this warning, may save the patient from more serious trouble with the joints, heart, etc.

14. *Petechial* and *erythematous rashes* are not infrequently accompaniments of malignant endocarditis, and may occur in connection with septicemia and pyemia. Their presence, as is well known, is often of serious significance.

15. *Purpuric lesions* are well recognized to be an important symptom in epidemic cerebrospinal meningitis, whence its name, spotted fever.

16. *Rose spots,* especially on the abdomen, have long been received as a special sign of value in typhoid fever. The eruption belonging to typhus fever may also be mentioned, which often forms an important part in the diagnosis. The significance of the rash in the exanthemata and its relation to other symptoms are too familiar to require mention.

17. *Pigmentary alterations* of the skin may often be of the greatest significance in relation to a number of diseases; in Addison's disease it is generally the first symptom to attract attention. In this connection it may be mentioned that *myxodema* is largely recognized by its manifestations in the skin and subcutaneous tissue.

18. *Sweating* and *Flushing of the skin* are frequent accompaniments of the menopause, and are frequently the first or principal symptoms to direct the patient to seek medical aid; if these danger signals are properly heeded, and proper care be given to the patient in every respect; further trouble can often be avoided.

19. *Dermatitis medicamentosa.*—Finally there are certain eruptions of varied character which occur on the skin wholly from the internal administration of many drugs, in those who have some peculiar idiosyncrasies. If this warning is heeded and acted upon the eruption commonly ceases soon after the cessation of the use of the drug, without further trouble; when the drug is persisted in other unpleasant symptoms may follow.

In our study of some of what I have designated "Danger Signals from the Skin," we have seen that the skin is not to be regarded as merely an outer covering for the body, but that it is a most important organ having vital relations with many parts of the economy.

Danger signals may vary very greatly in their importance: from one placed before an open drawbridge, to one warning of a rough road or a steep hill for a bicycle, or a sign on a sidewalk in front of a building being torn down. But any one of them may be of serious import under certain circumstances and according to the attention paid to it, and the measures taken to avoid any possible harm or inconvenience. It is in this light that I have put together the suggestions I have here made; all of them are naturally not equally important.

But from what has been said we have seen that the skin frequently exhibits manifestations on its surface which, while they may not have resulted wholly from the various internal conditions mentioned, are often related to them in such a close and intimate manner that they may well be regarded as indications, or as I have called them, warnings or danger signals. of other and more serious disease. We have seen that there are many so-called "diseases of the skin" which have internal relations which it is well to study patiently, interpret

*Meyer: *Trans. Amer. Surg. Assoc.*, 1896.

accurately, heed carefully, and treat very intelligently, in order both to effect a cure of the cutaneous lesion and to serve the best interests of the patient, very often in warding off more serious affections of other organs.

He, therefore, but poorly serves his patient who hastily regards only what may be seen on the skin (or too often only a part of that), and gives some local application, without realizing the significance and true cause of what is often a signal flag of danger which nature kindly places in full sight for his aid; and recognizing it he should act wisely and intelligently thereon.

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TOXIC NEPHRITIS DEPENDENT UPON SURGICAL CONDITIONS.*

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IT is not the purpose of this paper to discuss all of the toxic agencies capable of producing nephritis. This is the work of the physician rather than the surgeon.

As long ago as 1874, Vulpian[1] gave expression to the thought that the elimination of vicious products caused by the incomplete or abnormal function of our organs was frequently responsible for irritation of the kidneys, and in turn could produce parenchymatous nephritis. To Bouchard, whose first work appeared in France in 1887, and which was subsequently translated and published in this country in 1894, we owe, however, much of our knowledge of the disturbances caused by auto-intoxication. French, German and Italian investigators and clinicians have given this subject extensive study.

In 1895, there appeared in the *Gazette des Hopitaux* a paper by Gouget,[2] in which he enumerated the various forms of nephritis dependent upon toxic conditions. Amongst the diseases and conditions thus held responsible he included gout, diabetes, chlorosis, the cachexias arteriosclerosis, disturbances of the gastro-intestinal tract, pregnancy, hepatic diseases, with and without jaundice, myxodema, exophthalmic goitre and lesions producing suppression of the functions of the skin.

At the Goettingen clinic, between 1897 and 1900, 142 cases of nephritis were observed. In 109 the etiology was apparently determined. Of the infectious diseases typhoid was the most common cause, being responsible for 24 of the cases. Scarlet fever, articular rheumatism, diphtheria, influenza, pneumonia and tuberculosis were in turn amongst the other infections responsible for this condition.

It has long been known that in septicemia nephritis is a frequent manifestation. However, the surgical conditions, which are capable of producing pathologic changes in the kidneys, have not been very carefully studied in the English speaking countries.

It is still an open question whether the presence of bacteria in the urine implies a diseased condition of these organs, or whether bacteria can be eliminated by the kidneys without producing any pathologic change in them. The question has arisen whether in this form of nephritis the provoking cause is the bacteria, themselves, or the toxines produced by them.

The experimental work of Pernice and Scagliosi[3] shed considerable light on this subject. They experimented with guinea pigs, rabbits and dogs. Bouillon cultures from several micro-organisms were used. Histologic examination was made of the kidney tissue while it still possessed living body-warmth, as well as of sections subsequently hardened and again having been boiled for one minute. The animals experimented upon were either allowed to die of the infections produced, or they were killed at periods of two, four or six hours after infection, and so on up to twenty-four hours. Others were allowed to live forty-eight or sixty hours, and some as long as fifteen days after inoculation. The existing conditions at these specified times were carefully studied. The bacillus of anthrax, as well as the bacillus pyocyaneus and the staphylococcus pyogenes aureus were used. Subsequently animals were inoculated with filtrates of cultures of these bacteria, and a comparison of the pathologic changes produced by the inoculation of the bacteria themselves and of their toxines was made.

They state that Cornil and Babes had called attention to the favorable arrangement of the vessels in the glomeruli for the retention of micro-organisms. This fact is also emphasized that after bacteria can no longer be discovered in the kidneys, the changes provoked by them may continue to progress.

Their final conclusions are—First: That in cases of general infection, the passage of bacteria through the kidneys produces various anatomic and pathologic changes in the kidney structure.

Second: The totality of the changes produced by the anthrax bacillus, the bacillus pyocyaneus and the staphylococcus pyogenes aureus furnish a conclusive and positive ex-

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*Read at the 101st meeting of the Medical Society of the State of New York, January 30, 1907.

(1) Vulpian: "Lecons sur la Bile."
(2) Gouget, Nov. 30, 1895: "Du Role de l'Auto-intoxication dans la Pathogenie des Nephrites."

(3) Pernice and Scagliosi: *Virchow's Archiv.*, 1894, Bd. 138, S. 521.

perimental proof of the production by these bacteria of a glomerulo-nephritis.

Third: This form of nephritis attacks particularly the cortical structure, and only to a limited extent the medullary.

Fourth: The pathologic process begins as an endarteritis, with disturbances of circulation, inducing hemorrhages, and then causes alterations in the Malpighian glomeruli, Bowman's capsules and the epithelium of the convoluted and straight uriniferous tubules.

Fifth: With alteration of the epithelium occurs exfoliation and occusion of the tubules, agglutination of the walls resembling hyperplasia of the intertubular connective tissue. In the event of a cure, there is a reconstruction of the tubules and a regeneration of tissue.

Sixth: In the pathogenesis of this form of nephritis the bacteria which produce the general infection are the most important factors, but as excitants of the process the toxines of these bacteria play an important role; and in the event of their virulence or great abundance, these toxines are alone capable of exciting the diseased process even to a severe degree; provided they enter the blood and reach the kidneys.

It appears then that in nature's effort to throw off the existing infection, the kidneys, which are called upon in part to excrete the same, become a receptacle of bacteria and their toxines, which having been conveyed through the arterial blood to the glomeruli in the renal cortex, are transuded into the surrounding capsule of Bowman, and thence into the uriniferous tubules. For this reason this form of nephritis particularly affects the cortex, and only to a limited extent the medullary structure of the kidneys.

Dr. Geo. Sittman,[4] at a later period, and he says without knowledge of the work of Pernice and Scagliosi, carried on pathologic studies of a similar nature, directed particularly to the excretion of staphylococci by the kidneys. He gives in detail this method of injection of the germs into the circulation, and states that he established the identity of those obtained in the kidneys and urine by cultures on gelatine and agar, as well as in bouillon. He determined, furthermore, their pyogenic character by the inoculation of the anterior chamber of the eyes of rabbits. He reviews the work of other investigators, and shows that while in the course of an infectious disease nature attempts to rid herself of the infection through the skin and various secretions, as the milk and bile that it is the kidneys which must particularly assume the burden of carrying off the infection. He contends that he has demonstrated by a number of experiments that pathologic staphylococci can appear in the urine when the lesion is not only slight, but that apparently no damage at all has been done to the kidneys. His experiments were largely upon rabbits. Careful examination of the urine was made to determine whether the micro-organisms were present in the urine or only in the blood which had been excreted with the urine. Based upon fifteen experiments the conclusions are drawn that staphylococci circulating in the blood are excreted by the kidneys; that the extent of the appearance of these micro-organisms in the urine depends upon the virulence of the infection; that while in milder infections their secretion may cease at the end of fourteen hours, in the severe ones they continue at least forty-six hours, and in extreme cases until the death of the animal; that both micro-organisms and the toxines are thus eliminated.

In the same volume appears an article by Engel on "Experimentelle Untersuchungen ueber Bacteriurie bei Nephritiden." This article contains a summary of the labors of a good many different investigators to which only reference need be made. It also includes the work of the author based upon the study of thirty-one cases of nephritis occurring in both sexes.

A specific coccus is described to which is attributed the occurrence of a primary form of bacterial nephritis. This was found seventeen times. A similar claim for the existence of a particular bacillus capable of provoking a definite form of primary bacillary nephritis was made by Letzerich[5] as long ago as 1887.

Engel also discovered the staphylococcus pyogenes albus and aureus sixteen times; a streptococcus which rendered bouillon turbid six times, one which rendered it clear twice, the tubercle bacillus four times, the typhoid bacillus once, the bacillus coli communis five times, while bacteria were absent but twice. In his conclusions he quotes Neuman,[6] and endorses his statement that "despite the presence of bacilli in the kidneys these cases are not of bacterial but of toxic origin."

An interesting summary of the effect of the injection of the filtered cultures of staphylococci upon the kidneys can be found in the work of Kolle and Wasserman Bd. III. The changes described are attributed to a coagulation necrosis dependent upon the production of an infarct and the destruction of the leukocytes due to the production of leukocidin. The kidneys were alike affected whether the toxines were introduced into the pleural or peritoneal cavity or into the veins. Minute abscesses ranging from the size of a pinhead to that of a pea were found in the kidneys, particularly in the cortex. Leukocidin could only be produced when hemolysin was present.

(4) G. Sittman: "Arbeiten aus dem Medizinisch Klinisischen Institute der K. Ludwig-Maxillian's Universitat zu Munchen," Ziemmsen u. Bauer, Bd. 4, S. 51, 1899.

(5) Letzerich: *Zeitschr. für Kl. Medicin*, Bd. XIIII, S. 33.

(6) Neuman: *Berliner Klin. Wochenschr.*, 1890. No. 6.

yet it seems to be proven that they are two entirely distinct poisons.

The investigations along this line have not been very numerous in this country. In 1897, Councilman[7] published an anatomical and bacteriological study of forty-nine cases of acute and sub-acute nephritis with special reference to the glomerular lesions. He argues that the most scientific classification of kidney diseases is one based on the etiology, but states that the time is not ripe for the adoption of such a classification. While in general septicemia bacteria have been discovered in the kidneys, he states that various micro-organisms have produced apparently the same pathologic changes in these organs, and the same organisms seem to be associated often with widely different anatomic lesions. He believes that all lesions positivly dependent upon bacteria are focal; the changes they produce in the kidney being in the immediate sphere of the bacteria. The diffuseness of a kidney lesion, he argues, indicates its dependence upon substances in solution in the blood, namely, the chemical products of bacteria. Moreover, he calls attention to the toxines which are produced in the gastro-intestinal tract, stating, "that chemical substances may be produced in the alimentary canal or by the imperfect action of some one or other organ in the body which may exert a deleterious action on the kidneys."

A very interesting and thoroughly scientific discussion of nephritis was held by the Chicago Academy of Medicine, February 10, 1899. [8]The papers of Drs. Preble, Walls, Turck and Wesemer are worthy of our careful study. The bio-chemistry of the various toxic products and their effect upon the kidneys was considered. The effect upon the kidneys of those toxic substances produced in the digestive tract was discussed. It was asserted that atony or arrested function of the gastro-intestinal tract invariably results in the retention of materials which undergo decomposition, and then affect the kidneys because of their toxic character.

That cases of bacterial or toxic nephritis present rather a favorable prognosis if the primary disturbance can be relieved appears in a paper by Mannaberg.[9] In eleven cases which he believed to be of streptococcic origin the germs were found present in the urine in eight. Of the eleven cases, seven recovered, one improved, and three died. His paper also contains a statement of his experimental work.

I propose to present to you three cases. The first one presumably of staphylococcic infection, in which the patient suffered from septic endocarditis as well as nephritis; the second a case of intestinal obstruction without septic disturbance of any kind, and in which, in consequence of the complete arrest of intestinal function, a very serious and all but fatal form of nephritis was awakened; the third in which there was complicating gall-stone disease, a sub-acute pancreatitis, and in consequence of the disturbance of the secretory function of this gland a toxic condition was aroused, causing not only nephritis, but also glycosuria. In each of the three cases, after removal of the causal condition, all evidence of renal disease disappeared.

Case I. Sloughing submucous fibroid; septicemia; endocarditis; nephritis; expulsion of fibroids; subsidence of septic manifestations; recovery.

Miss L., aged 40; school teacher; unmarried; consulted me March 1, 1898. There was a negative family and personal history. Since December, 1896, she had suffered from profuse menstruation unattended by pain. The flow continued usually for ten days. An examination made by Dr. Juliet E. Hanchett showed that she was suffering from fibroid tumors of the uterus. Radical operation was refused and expectant treatment with medication and electricity was instituted.

I saw her again fourteen months later, namely, in May, 1899, when she reported a very marked improvement as to the hemorrhage. The uterus had, however, increased in size and reached nearly to the umbilicus. I did not see her again until the 6th of September, 1901, at which time the uterus reached fully as high as the umbilicus; was a hard, irregular mass, but freely movable.

When I was next called to see her on the 8th day of September, 1905, she was at the Syracuse Hospital for Women and Children, suffering from profound sepsis. She had been spending her vacation on Oneida Lake and had returned home three weeks before feeling exhausted and suffering from fever and diarrheal movements.

When Dr. Charles F. Wiley was called he found her menstruating. The flow was very profuse; it was of dark color and had an offensive odor. In the discharge there were small pieces of pale tissue. The spleen was slightly enlarged; the skin was jaundiced, as were also the conjunctivæ. There were systolic murmurs to be heard over the entire precordial area. The diarrhea continued about ten days. The blood was examined on August 24th. The Widal reaction was negative. At this time each cubic millimeter contained 4,200,000 red and 20,000 white cells, while the hemoglobin percentage was 47.

On September 1st Dr. Elsner saw her in consultation. During this period there were sharp remissions of temperature. The morning recession would be about to normal, the evening rise from 103.2 to 105.4 F. The pulse rate during this period was from 90 to 100. At this time the urine was repeatedly examined and found to be amber, cloudy, acid, had a sp. gr. usually of 1028, contained no sugar, but had a large percentage of albumin and microscopically hyaline and granular casts, epithelial cells, red blood and pus cells were found. For the purpose of examination the urine was drawn by catheter. The vaginal discharge was profuse and repeated examinations bacteriologically discovered each time the staphylococcus pyogenes aureus.

On the 7th of September the patient expelled from the uterus with severe pain a mass which was sent to the bacteriologist, Dr. Steensland, for examination. His report was as follows:

"The specimen has two flattened surfaces; is nearly circular. Its surface is very irregular, presenting depressions and elevations. It measures 6.3 by 5 by 3 c. m. and weighs 43 grammes. It is elastic to the touch, but in some parts more firm. Its general color

(7) *Medical and Surgical Reports of the Boston City Hospital*, 1897.

(8) *Journal of the American Med. Association*, March 11, 18 and 25, 1899.

(9) Mannaberg: *Zeitschrift für Klinische Medicin*, Bd. 18, S. 223. 1890.

is white with yellowish semi-plastic material on the surface in some places. On section the cut surface shows numerous blood vessels and bands of dense fibrous tissue separating the irregular areas of reddish softer tissue. The parts firm to the touch, as mentioned above, contain relatively more fibrous tissue than the elastic parts. Diagnosis, necrotic leiomyoma."

With the expulsion of the growth, the temperature fell so that for two days it did not go above 102.6. Pus was discharged more profusely.

This was the condition when I saw her on the 8th of September, 1905. The anemia was very striking. There was extreme pallor of the mucous membrane, while the complexion was very sallow. Examination of the surface of the body did not show any petechiæ. There had been no hemorrhage from any organ. Over the entire precordial area loud blowing murmurs could be heard. The uterus reached above the level of the umbilicus. The uterine cervical canal was sufficiently patent to receive my index finger, and the presence of a soft mass occupying the cavity of the uterus could be readily made out. Blood examination showed a leukocytosis of between 22 and 23,000 and the hemoglobin had fallen to 40 per cent. The urine was loaded with albumin and casts. The pulse ranged from 90 to 100. During the next few days the temperature each afternoon was between 103 and 104, while that of the morning was normal. She suffered daily from recurring chills and profuse sweats.

On the 13th, her condition not improving, I placed her on the operating table and found an enormous mass trying to deliver itself from the uterine cavity. I attempted to stretch the already dilated cervix sufficiently to permit it to expel the tumor, but my efforts were ineffectual. Because of the septic condition I did not deem it wise to make a section of the cervix. I introduced a flushing curette for the purpose of washing out the uterus. Immediately upon its introduction there was a discharge of at least a pint, if not a quart, of stinking pus. The uterus was then washed out. A heavy rubber drainage tube was introduced for the double purpose of permiting drainage and stimulating the uterus to contraction. In consequence, not only was the uterus drained of pus, but three days later the patient expelled another tumor more than twice the size of the former one and of the same character. The temperature fell at once to normal and there was no further recurence of fever. Immediately improvement in her general condition became apparent. She was able to take food. The blood improved in character so that three and one-half weeks later, when she was dismissed from the hospital, a blood examination showed 4,968,000 red and 12,000 white cells to be present and the hemoglobin to have come up to 75 per cent.

On the 22d day of September the urine still contained a trace of albumin, but no casts. On the 21st of October, 1905, the urine was straw colored, clear, acid, 1020, contained no albumin nor sugar, earthy phosphates were normal, total, 8 per cent; microscopically there were a few squamous epithelia and amorphous urates. At that time I found the heart sounds normal. Bimanual examination of the uterus showed it to be slightly enlarged, reaching just above the pubis and the fundus soft. There was a small fibroid at the junction of the cervix with the fundus on the anterior wall. The tubes were normal. Since then she has continued to remain in perfect health. The urine has been repeatedly examined and each time found to be normal.

Case II. Intestinal obstruction due to adhesions and bands; pronounced nephritis; uremic convulsions; recovery.

Mrs. W., a resident of Johnson City, Tennessee, was called to her mother's home in Cazenovia, N. Y., on the 9th of January, 1906. She was forty-five years of age, the mother of three children, the oldest twenty-three and the youngest ten. There was a negative family history.

For more than twenty-five years she had been having recurring attacks of severe constipation amounting almost to complete obstruction, but each time was relieved by cathartics and enemeta.

On her way North she was seized with severe abdominal pain and distress. Upon her arival in Cazenovia on the evening of January 5th, Dr. Walch, of that village, was called to see her. He gave her a hypodermic injection of morphine to relieve her pain. On the following day, January 6th, she vomited continuously, the vomited material, however, being of bilious character. No movement of the bowels could be obtained. On January 7th, the vomiting still persisted. During the morning it was greenish in color, but in the afternoon it became stercoraceous. Saline and other cathartics as well as enemeta had been given her, but without avail. Her condition grew steadily worse until I saw her on the morning of January 9, 1906.

At that time I found the pulse 120 and very feeble, no fever, marked distension of the abdomen, some sensitiveness over the right side but no rigidity. The facilities for operation there were poor, and so she was placed upon a cot-bed and brought by train a distance of more than twenty miles to St. Joseph's Hospital, Syracuse. This was at mid-day. A specimen of urine obtained by catheterization upon her arrival at the hospital was found to be amber, acid, sp. gr. 1022, contained no sugar, 5 per cent. of albumin by the ferrocyanide test, hyaline and granular casts, squamous epithelium as well as round and spindle cells and granular debris. A tube was introduced into the stomach and about a pint of thin fecal matter was withdrawn. The pulse in the meantime had become so feeble and the respirations so shallow that it was impossible to give the patient a general anesthetic. An intravenous injection of the normal salt solution was therefore administered. This improved the condition at once so that I was able to operate, being assisted by Dr. Flaherty.

On opening the abdomen the presenting intestines were found to be darkly congested. There was some bloody serum in the abdominal cavity. The obstruction was found to be in the right iliac fossa where a broad band connected with a very large ovarian mass was found under which a loop of gut had become twisted in the shape of a figure of eight. The band was cut and the ovarian tumor removed. Various other bands of adhesion not directly concerned in the obstruction were severed. The abdomen was closed without drainage. Six ounces of deci-normal salt solution, with two of whiskey, were given per rectum as well as caffeine, sparteine and digitalis hypodermically. She continued to vomit frequently until three o'clock on the following day. The vomited material was of fecal character during the night, but in the morning became bilious. The bowels moved voluntarily twice on the day after operation. The urine was of sufficient quantity during the first twenty-four hours, but was highly albuminous and contained hyaline and granular casts. The only serious symptoms the patient experienced after operation were due to the renal condition.

On January 12th the urine became much less abundant but still contained six per cent. of albumin, had a sp. gr. of 1030, and casts were very numerous. During the night between the 12th and the 13th the urine became practically suppressed, and on the following morning we were confronted with a condition of anuria associated with evidences of uremic toxemia. At my request the house surgeon gave the patient another intravenous injection of normal salt solution, and an hour later the pulse improved and urine was again excreted, although the patient had a general convulsion of uremic character in the meantime. Dr. Elsner, who saw her in consultation with me, suggested the use of digalen. Large quantities of the deci-normal salt solution were also given per rectum with the cistern placed just above the level of the bed. A satisfactory discharge of urine resulted, but the percentage of albumin did not vary much from 4 1-2 to 6 per cent. The sp. gr., however, became somewhat lower, ranging from 1018 to 1020. There were always a large number of casts and usually leukocytes and red blood cells present.

On the 13th, 7 per cent. of albumin was recorded with sp. gr. of 1010. On the following day it was but 3 per cent., and after that the sp. gr. ranged only from 1006 to 1010. The percentage of albumin was not, however, materially reduced nor were the casts less evident until the 25th of January, namely, sixteen days after operation. There followed a very rapid change and four days later the albumin had entirely disappeared, as had also the casts. The sp. gr. continued very low, rarely exceeding 1010 for the next two weeks, but after this date it, as well as the other features of the urine, became normal and continued to do so. The patient returned to her home in Tennessee, and as far as I have been informed, has remained perfectly well.

Case III. Cholecystitis with gall-stones; sub-acute pancreatitis associated with nephritis and glycosuria; operation; recovery.

Mrs. B., aged 30; seen in consultation with Dr. Levy, Nov. 21, 1906. She had a history of gall-stone disease covering a period of six years. Her present attack was of five weeks duration. During this time she had been quite prostrated, suffering continuously, and required the frequent administration of morphine hypodermically. There was no fever; jaundice was marked; tenderness ovr the gall-bladder was considerable. A specimen of urine drawn by catheter was found to be of dark amber color, clear, sharply acid, 1032, contained two per cent. of albumin and two and one-half per cent. of sugar, some bile, total phosphates, eight per cent.; earthy phosphates, normal; microscopically, a great abundance of squamous epithelia, a large number of both hyaline and granular casts, some pus cells and uric acid. She was admitted into St. Joseph's hospital and observed for a few days, but her condition did not improve. The urine on repeated examination was found to present the same characteristics.

On the 25th of November, assisted by Dr. Flaherty, I operated upon the patient. The gall-bladder was found to be somewhat distended with bile, which on subsequent bacteriologic examination was found to contain the bacillus coli communis. A single gall-stone was present. It was removed. The gall-bladder was implicated in a hard infiltrating mass, which included the common duct and the pancreas. The latter gland was quite hard and firmly adherent to the surrounding structures. A drainage tube was introduced into the gall-bladder and the wound closed. Gauze tapes were packed around the gall-bladder at points where the tissue had been torn by manipulation. While the gauze tapes remained the patient had an irritable stomach and vomited considerably, but upon their withdrawal the vomiting ceased. For the next twenty-four hours the urinary excretion amounted to 24 ounces; during the second to 20 ounces. Digalen, citrate of potassium and saline cathartics were prescribed and fluids both by mouth and rectum freely administered; for the latter purpose the deci-normal salt solution being used. The urine on the 30th of November was found to be dark amber, clear, acid, had a sp. gr. of 1030, still contained bile, total phosphates were 12 per cent., earthy phosphates normal, and both sugar and albumin had disappeared; there were a few crystals of uric acid and an occasional hyaline cast. On December 3d the urine was entirely normal. From this time on the patient continued to steadily improve. Drainage of the gall-bladder was kept up for five weeks, at the end of which time the wound was ready to close and did promptly. The urine continues normal and there is no evidence of any renal disturbance.

The subject of nephritis dependent upon truly surgical conditions located quite remotely from the kidneys is one to which not sufficient attention has been given by the profession, at least in this country.

In our first case we had a bacterial or toxic nephritis dependent upon a septic condition and associated with other evidences of profound sepsis, especially the changes in the heart. The patient's condition was exceedingly precarious, and yet after the expulsion of the fibroids and the subsidence of the sepsis of the uterus, there was at once a prompt recovery from the secondary disturbance both in the heart and kidneys.

In our second case evidently the result of interruption of intestinal function a toxic condition was created within the intestinal tract, and as a result of this toxemia we had a pure toxic nephritis. This was so extreme that we were confronted by a graver danger after having relieved the acute intestinal obstruction. The patient's life was almost extinguished in consequence of the nephritis. Here also the nephritis was cleared up by the relief of the surgical condition.

Our third case presents still another phase, namely, one in which a large secretory gland, because of its inflamed condition, due to gall-stone disease, created a toxic condition which awakened not only toxic nephritis but glycosuria as well. In this case the subsidence of the nephritic disturbance was even more prompt than in the other two cases.

It is generally held that the presence of nephritis is to be regarded as a possible and ofttimes a serious contraindication to surgical operation. It seems to me that in the class of cases presented for your consideration in this paper the bacterial or toxic nephritis becomes rather a most positive indication for operation, as by such a course only can it be relieved.

NEW YORK STATE MEDICAL LIBRARY.*

By ALBERT VANDERVEER, M.D.,

ALBANY, N. Y.

THE construction of the new building in this city, for the care of the educational interests of the State, including the State Library and Museum, must, necessarily, increase the interest in the Medical Library. All practitioners of the State are concerned in this library, without regard to the society to which they may belong. The value of the library to the profession-at-large has been well presented by papers from Mr. Dewey, Miss Bunnell, the present efficient librarian in charge of the medical department; and the new State Librarian, Mr. Anderson, has shown his appreciation of its worth by increasing its working facilities. New York and Brooklyn are to be congratulated upon their valuable medical libraries, but this cannot be said

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of the central and western section of the State. The Medical Library, founded in May, 1891, by act of Legislature, has had a varied experience. Only within a very few years has it been organized as a distinct branch, and able to bring about more system in its management. It has been greatly embarrassed by lack of space in which to shelve its books and periodicals, and the one small reading room is entirely inadequate for its present needs. In the new Educational Building there will be large and ample provisions for books in the fireproof stacks and the Medical Library reading room will be large enough for all its needs, with special provision made for students and investigators of special subjects. That the library is to be strengthened in its administration is substantiated by the fact of the increased number of those who visit the reading room, by the applications made for books from this part of the State, and the additional contributions from those who are interested in its success. It may be pertinent to state here that from a total number of volumes, in 1891, of nearly 3,000, there are now about 18,000, while the pamphlets and periodicals have increased in like proportion. Most valuable material relating to medicine and surgery, mental diseases, hospitals, chemistry, animal physiology, biographies of physicians and all that can be obtained bearing upon the new subjects that are constantly being presented to the medical reader are here to be found.

Of the many factors entering into the advances that have been made in medicine and surgery, during the past two decades, that of medical libraries holds a most important position. Through their aid many members of the profession have had access to literature bearing upon every conceivable subject in medicine that would otherwise have been denied them. One great value of these libraries has been in completing the sets of medical journals, and this branch of the work, through exchanges, and gifts from the libraries of deceased members of the medical profession, has been accomplished at a comparatively small expense. The procuring and preservation of rare volumes, and of a large number of reprints, that are constantly accumulating, has proven of inestimable value. Repetition in writing upon the same subject has been avoided to a certain extent. Writers have been able to note just what has been said upon the various subjects in the past, and this knowledge has also been of the greatest value. With the completion of the State Educational Building, at Albany, it is very desirable to have this interest continued, for the success of medical work can here be brought about with the minimum expense to the State and can be administered to the advantage of the medical profession in a manner that must result in great good to the public.

It cannot be emphasized too greatly that much of value to the medical profession is centered in a library, and to remain there for preservation. For instance, a central library in its assorting rooms can make exchanges and complete its files of medical journals with greater facility, and much less expense than can a private individual. It is to the advantage of the public-at-large that in such a library the rare and expensive books, the recent publications, often illustrated and somewhat costly works, are accessible to every physician.

For the proper utilization of medical literature the first essential is a complete series of the best archives and journals. Every day such complete series are becoming rarer and more expensive. Only a library with a good income can hope to maintain even the absolutely indispensable periodicals. It requires a considerable income to keep on file the periodicals necessary for a library which aims in any way to be complete. Over a thousand are published, and there is a rapid increase in the number of really valuable and essential medical periodicals. But these are the original sources and must receive our first attention. So after paying our subscription bills very little money has been left for handbooks, text-books, etc.

We wish especially to collect everything relating to the history of medicine in New York State, and gifts of books, letters, manuscripts, pictures, instruments, which show the progress of our profession, would be classified and preserved for ready reference. Wherever possible we would be glad to have the proceedings of the county societies, so that any physician wishing to consult these records would easily find them in the State Library. It would be very valuable to have in the Medical Library anything of value illustrating the growth, as well as the past conditions of the medical profession of the State. The State Medical Library should be a storehouse of everything relating to the history of the profession.

The circulating library system, in connection with the Medical Library, is so convenient and transportation so prompt that every small town can now be reached within a comparatively short time. In connection with this particular branch of the work of the Medical Library, I wish to emphasize that gifts of duplicate sets of the current medical periodicals will be of inestimable value. The present appropriation does not provide for the purchase of duplicate sets, and anyone disposed to donate them for this purpose will be aiding one of the strongest features of the work of the State Medical Library.

While the library at Washington has been so generous in distributing its books for the benefit of the medical profession, yet the length of time required in securing volumes that may be needed at once cannot be overlooked, and with a central State Library the doctors of this State will certainly have much to thank the Legislature for its wisdom in establishing this department.

The following from Dr. Osler so well expresses the aims of the Medical Library: "The organization of a library means effort, it means union, it means progress. It does good to the men who start it, who help with money, with time and with gifts of books. It does good to the young men, with whom our hopes rest, and a library gradually and insensibly molds the profession to higher hopes."

The State Medical Library should be a great collection of books, with complete files of periodicals, where any physician in the State can send and get any article or book needed on any subject in medicine, or where he may come to make an exhaustive study on any subject.

We do not wish to duplicate the work that is being done elsewhere, but we do want to conserve the opportunities that are offered the State Library for acquiring duplicates from other libraries, to reciprocate in a like manner, and to be able to receive the bequests that come from many valuable libraries, through friends of the deceased members.

The following leaflet indicates very clearly the work that is being done to-day by the Medical Library, and an earnest effort has been made to place the same in the hands of every physician in the State, particularly this side of Poughkeepsie and west as far as Rochester:

It is the aim of the Medical Library to place its resources at the disposal of every physician in the State. Realizing that physicians, particularly those residing at a distance, cannot always look up subjects for themselves, the Medical Librarian will gladly furnish a list of the best articles and books on any desired subject. Requests for material on a subject should be as specific as possible, e. g., if only articles in English are desired, this should be distinctly stated. Requests for particular books should include author's full name whenever possible.

The books will be collected for use in the Library or will be sent on the following conditions:

Loans. Books are lent to any registered physician, but are delivered only on personal application or on a written order, by which full responsibility for books so delivered is assured.

Books are lent outside of Albany, provided:

1. That such precautions be taken in packing as to guard against any probability of injury in transportation.

2. That the Medical Library shall not pay transportation charges either way.

Books must be returned or renewed at the end of two weeks.

Hours of opening. The library is open each weekday from 8 A. M. to 10 P. M., except in July and August, when it closes at 6 P. M.

Library of Surgeon General's Office, U. S. A. Physicians wishing books from this National Medical Library may obtain them for two weeks through this or any public library by paying express charges both ways.

Gifts. Physicians are earnestly requested to send gifts of books, periodicals or reprints. Even single volumes or odd numbers of periodicals of little value to the owner may help to complete valuable sets. Such gifts should be addressed State Library, Albany, N. Y.

STATE AID FOR MEDICAL LIBRARIES.*

By SMITH BAKER, M.D.,
UTICA, N. Y.

ACCORDING to the Medical Directory of the State of New York, there are at present in the State some sixteen incorporated medical libraries, with an additional one at Utica, but just started, and the New York State Medical Library at Albany. Tabulating the number of volumes in the ten libraries heard from, we find a grand total of about 180,986 volumes. For the purchase of new books and periodicals there is used annually a sum derived from private and corporate sources of something under eleven thousand dollars, while the State contributes for its own library $3,000.00, and additionally to the University of Buffalo for a like purpose the magnificent sum of just $100.00.

Without taking these figures as accurate totals, they will yet suffice well enough to bring to view and illustrate three important facts:

1. That there are now but very few public libraries in the State, when there might be and ought to be many more. Why this is so, we need not stop to discuss, although the fact itself, upon careful consideration, is a matter for greater regret than any sort of cursory notice justifies.

2. That the libraries now in existence, with the exception of that of the State, located in Albany, have been paid for originally, and are now maintained, by funds contributed by private individuals and corporations, without help from the State beyond certain annual reports and the like. This too is a significant revelation to one who has never before investigated or given thought to the subject.

3. That for the purchase of books, periodicals, etc. there is expended in the whole State a sum total of over $11,000 annually, and yet of this amount over $9,000 comes from the same private sources as the original provision. When this is thought of in connection with the $2,100 spent by the State, for a like purpose, it becomes a third revelation of equal or greater significance than the others.

Giving attention now somewhat more in detail to what these facts really mean, let us note that for want of public medical libraries in the many populous centres, the great majority of practitioners must needs expend for books and periodicals rather large individual sums, which many times, without in any sense suggesting anything like poverty, can be illy afforded, and which in every case could just as well, or better, go for other purposes, especially for increasing the actual number of volumes available to all the physicians in the vicinity. Looking at this fact as it really presents itself in any community, it may be stated, without fear of contradiction, that

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the duplication of medical volumes beyond a very few leads generally to no good purpose whatever, and might much more serviceably be superseded by some plan which will make one copy of a work or periodical serve the entire professional community. From the point of view of economy alone this statement needs no proof; while from another point of view there is every reason why the public medical library should supersede the private, so far as possible. It would have a tendency to stimulate to wider and better reading, to more frequent and more intelligent intercourse between members of the profession in the locality, and consequently to greater professional proficiency, the point to which all technical reading and comparison of notes inevitably aims.

Assuming that this is so, it follows that the profession should henceforth devotedly see to it that before long a public medical reference and circulating library shall be established in every city and village of any size in the State; and, by way of encouragement, it can safely be said that probably no step taken since the organization of this society in 1807 can rightly be considered as of more importance both economical and educational than the successful establishment of such libraries would prove to be.

Nor is it wise to say that this cannot be done or is not worth while. Wherever there are half a dozen medical practitioners there is the place to begin. First, by a mutual exchange of periodicals and books privately purchased, and then by such mutual agreement as eventually will prevent duplication and waste, and will secure greater variety as well as economy. If, by last will and testament, these accumulations are eventually made the nucleus of a central library, all the essentials of the subject are thus assured.

But our consideration of the subject must not stop here, for it seems rather strange that medical men everywhere outside of Albany must rely upon themselves alone, or upon some special arrangement with the State Library, for each and every assistance in their professional literary extremity. Practically, to the vast majority of the profession of this State, the books in the State Medical Library are not available and never will be; for even the loan of books, which may be secured through the circulating system, can only be for temporary purposes; and, generally speaking, practitioners find this arrangement too unsatisfactory to be of much use. As it is, the State is in no position to help the average practitioner very much in his professional reading. But there is no good reason why this should remain so; nor is there any good reason why the State should not promptly assume an attitude of supreme helpfulness in this respect. Nobody, including the State, hesitates to call on the profession for any or every sort of public service that is needed within its province; and the fact is notorious that, generally speaking, doctors receive for all such service but a mere pittance compared with the pay afforded other public servants. Moreover, the public expect, or rather demand, that every poor person, every dead-beat, every unfortunate shall be promptly, responsibly and devotedly attended to, and this, usually, without any sort of subsequent just recognition or material return whatever. Surely, could the sum-total of the service thus rendered daily by the profession in this great State be represented in accurate figures, no eye could be opened wide enough to express the astonishment thereby evoked; and in saying this we do not have need to say further that we are always glad to render this service, or that we are so poor that we cannot readily afford it. What we do affirm, and most emphatically, is that so far as the State is concerned, it is without question our debtor every day, in a sum that would certainly be sufficient to supply us with all the books, instruments and drugs which we could legitimately use in our work, and still have a margin for some other good purpose. If the State does not yet see this, it is because we, the profession, have not yet made it clear. That we should promptly make it clear I have no hesitancy whatever in affirming. I see no reason why, when it comes to instituting here and there little collections of books and periodicals for the daily inspiration and instruction of the local profession, we should not urge upon the State with all our might the absolute justice of its lending a very material and otherwise encouraging hand, especially wherever the profession itself shall take the proper initiative, and thus do its part in thus commanding rightful recognition and respect. With the precedent already established at Albany and Buffalo, this ought not to prove a very questionable proceeding to arrange.

Moreover, as the centre of medical power in the State, this Society should promptly exert its wisest influence effectually to encourage all such enterprises, and to bring about such a just recognition of need and worth, as the members of the medical profession generally merit.

Should it be claimed that already the State by its contribution of $2,000 to the State Medical Library amply does its part, I beg to insist that this again is but a small showing, compared with its annual expenditures for our sister profession —the law. In Utica alone this amounts to about $600, with an additional $3,000 recently given for extras. It certainly surprised me, as it will you, to find that the State expends annually over $21,000, or just ten times what it does for medical libraries, for the furnishing of courts and lawyers with volumes for their convenient use. Of course, we are not jealous of this; but as reasonable men, are puzzled to know just why the law concerns of the State can, in the eye of the State, be worth ten times as much as are its health concerns, and find it a mystery which cannot be readily solved. Just why, also, the State should make it so easy for judges and lawyers to refer to the needed volumes, and do next to nothing for the convenience and similar need of the gen-

eral medical practitioner or specialist, is another mystery which awaits unraveling. The fact is, it looks as if we medical men have been altogether too content to buy our own books, and then leave them a worthless asset of our estates, instead of timely asserting ourselves as absolutely entitled to generous public recognition and provision in such an important particular. Is it not time for us to rise up and enforce the claim that the profession in every neighborhood amply earns the right, not only to meagre support, but even to luxurious support in all such important respects? I believe it is; and it seems to me that if we do so, it will not be long before such recognition and aid will be as cheerfully granted as it is now darkly withheld; and the profession throughout the State will almost simultaneously find itself possessed of libraries containing at least all such standard medical volumes and sets of leading periodicals as it can profitably use. But to achieve this, the profession collectively, let it be repeated, must recognize the need and worth of such an enterprise; while in each locality there must be a proper undertaking on the part of those who are immediately to profit by it, before the State itself can sensibly be importuned to lend its aid.

ENDOCARDIAL MURMURS AND THEIR MEANING.*

By EDWARD E. CORNWALL, M.D.,

Adjunct Professor of Medicine in the Brooklyn Post-Graduate Medical School; Attending Physician to the Williamsburgh and Norwegian Hospitals, New York.

THE anatomical and physiological adjustments of the heart are such that in health the blood passes through it silently, except for the sound of the closing valves and contracting muscles. In conditions of disease, however, these anatomical and physiological adjustments may be so deranged as to cause development of sonorous vibrations in the blood stream, which are communicated to the cardiac tissues, and thence conducted by appropriate media to the surface of the body, where they are appreciated by the ear as noises. These adventitious sounds or noises which arise from disturbance of the blood stream in its passage through the heart are called endocardial murmurs.

In studying the subject of endocardial murmurs two lines of inquiry suggest themselves, first, how are these murmurs produced, and second, how can we interpret their meaning.

Physics teaches us that fluid, passing through a tube of uniform caliber, is thrown into sonorous vibrations only when the rate of speed is extremely high, but that with a less rapid rate of speed such vibrations may be easily produced in a tube if there exists a partial obstruction to the flow. This obstruction may take the form of constriction of the lumen of the tube, of excrescences from its inner surface, or of roughening of its inner surface. The sonorous vibrations are produced on both sides of the obstruction, and are transmitted both with and against the stream. They are communicated to the confining walls of the tube, and thence conducted through suitable media to the ear, which appreciates them as sounds.

The intensity of the sounds produced by these vibrations depends chiefly on the following factors: the rapidity of the current, a certain degree of rapidity being necessary in any condition to produce audible vibrations; the specific gravity of the fluid, that of a low being more easily thrown into vibrations than that of a higher specific gravity; the character and thickness of the walls of the confining tube, thin walls conveying vibrations better than thick ones; and the character of the intervening media, which conduct the vibrations to the ear. The distribution of the sounds depends on the relative sizes of the cavities on either side of the obstruction, the larger number of vibrations arising in the larger cavity; on the direction of the flow, the vibrations being more easily conveyed with the stream than again it; and on the character and position of the conducting media.

Looking on the heart as a tube through which the blood passes under pressure at a considerable rate of speed, we can apply the foregoing principles of physics to the explanation of the production of endocardial murmurs.

We find in the morbid heart that obstacles to the blood-flow frequently exist. The most common of these is a constriction of the heart channel at one or more of the cardiac orifices to which are attached the great valves. The obstruction thus produced may be positive, negative, or relative. Stenosis of a valve is a positive obstruction. Incompetence of a valve is a negative obstruction, for the physical conditions under which the regurgitant flow takes place through the valvular orifice are essentially the same as those under which the direct flow takes place in stenosis. A relative obstruction is seen when the cavity on one or both sides of a cardiac orifice is dilated while the orifice remains constant in size. The effect of this on the production of murmurs is logically and practically the same as if the cavity remained constant, while the orifice was constricted. Other obstructions to the heart stream are caused by atheromatous excrescences, roughened patches of endocardium, attached membranous shreds, pedunculated vegetations, etc.

Still applying these physical principles to heart conditions, we find that sonorous vibrations develop in the heart cavities on both sides of the obstruction, being greater in quantity in the larger cavity; and that they are transmitted more readily with the stream than against it. We find also that the audibility of these vibrations and the regions of the body surface where

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they are best heard depend very largely on the character and anatomical arrangement of the conducting media.

These physical principles are sufficient for the explanation of all endocardial murmurs, both those due to deformities of the valves, athermatous and irregular organic lesions, and simple retraction of the valves, and those which are called functional or accidental because they are not associated with any discoverable post-mortem lesion. Given an endocardial murmur, we know that it must have its cause in some abnormality, either permanent or transient, of the cardiac channel, which creates an obstacle in the heart stream.

Now let us note very briefly how murmurs are produced in particular heart lesions.

In aortic stenosis the valvular orifice is constricted or otherwise encroached upon. Vibrations develop on both sides of the obstruction. The larger cavity, the left ventricle, is mostly covered by the right ventricle and the lung, while the smaller cavity, the aorta, comes near the chest wall in the second left interspace close to the sternum; and the wall of the aorta is thinner than the wall of the ventricle; and the direction of the blood stream is toward the aorta. These facts explain why the murmur in this condition is usually heard with greatest intensity in the aortic region. It is also heard, though with less intensity, at the apex where the left ventricle comes in apposition with the chest wall. It is transmitted upwards over the superficially placed great arteries in the neck, being aided by the direction of the current. A relative stenosis caused by dilatation of the aorta immediately in front of the valve gives rise to a murmur with the same general characteristics as that due to organic stenosis.

In aortic incompetence there is regurgitation of blood from the aorta, which is usually not free but obstructed by remnants of the damaged valve, or, if the incompetence is due to dilatation of the aortic ring, by the entire but separated semilunar cusps. The physical conditions here are similar to those in aortic stenosis except that the flow is toward the ventricle instead of the aorta. Owing to the direction of the blood current and the dilatation of the left ventricle, which is usually considerable and brings the anterior walls of that chamber in extensive apposition with the chest wall, we would expect the murmur produced by this lesion to be heard with maximum intensity at the apex; and it is usually heard there very distinctly; but the fact that the auriculo-ventricular septum lies directly above the aortic valve and easily conducts vibrations to the sternum, explains why the point of maximum intensity of this murmur is most frequently found in the mid-sternal region. The murmur is transmitted downwards by the sternum, and also to a certain extent upwards against the blood stream.

In mitral stenosis constriction of the left auriculo-ventricular orifice obstructs the flow from the auricle to the ventricle. The auricle is usually well covered by lung, while the ventricle comes in contact with the chest wall at the apex; and the direction of the flow is toward the apex. Consequently the murmur is best heard at or just inside the apex. As the flow which produces this murmur is chiefly caused by contraction of the comparatively weak auricle, or the negative pressure in the ventricle during diastole, the murmur is rarely very loud or widely transmitted. If the apex is brought into unusually close apposition with the thoracic wall, however, which happens in some cases with retracted chests, the murmur may be heard over a considerable area and even be transmitted as far as the axilla. This is the most variable and inconstant of organic heart murmurs, and may be absent altogether. A murmur characteristic of mitral stenosis, called the Flint murmur, is sometimes heard in cases of aortic incompetence which at the autopsy show no lesion of the mitral valves. In such cases the murmur is probably produced either by a relative stenosis due to great dilation of the left ventricle, or by a transient stenosis caused by the pushing forward of the mitral curtain in the dilated ventricle by the regurgitant blood stream from the aorta at the same time that the auricular contraction takes place.

In mitral incompetence the valve flaps fail to coapt in the ventricular systole. This failure may be due to permanent deformity of the flaps caused by organic disease, to dilatation of the auriculo-ventricular ring which prevents the flaps from coapting, to muscular weakness which prevents the auriculo-ventricular ring from contracting sufficiently to bring the flaps together, to weakness of the papillary muscles which prevents the cordeæ tendineæ from holding the flaps in firm apposition and allows them to bend backwards into the auricle, or to a lack of co-ordination in the complex muscular act by which the blood is expelled from the ventricle, which results in failure of the flaps to coapt at the right moment. The deformed or non-coapting valve flaps constitute an obstruction to the regurgitating blood stream, and the condition presented is essentially the same as in mitral stenosis except that the direction of the current is reversed. Vibrations arise in both cavities, but are most numerous in the larger cavity, the ventricle. Moreover, the ventricle at the apex comes into apposition with the chest wall while the auricle is usually well covered with lung. These facts explain why the murmur, in the majority of cases, is conveyed most strongly against the stream to the apex and thence to the chest wall. Sometimes, however, when the auricle is dilated or for other anatomical reasons lies in more extensive apposition with the chest wall than usual, the point of maximum intensity of the murmur is over the auricle in the second left interspace near the sternum. Ordinarily the

vibrations which arise in the auricle are best heard in the back between the left scapula and the spine at the level of the fifth and sixth dorsal vertebræ. From the apex the murmur is conducted towards the axilla by the ribs.

In pulmonary stenosis the murmur is heard most distinctly in the second interspace, about an inch to the left of the sternum, over the pulmonary artery where it comes nearest to the surface, and is transmitted a short distance upwards and to the left. It is not heard in the neck, but is carried by the pulmonary artery into the interior of the chest where it is lost or heard in the back between the scapulæ. The vibrations in the right ventricle are usually heard over the lower end of the sternum. If the murmur is a loud one, as is often the case, it may be audible over the entire chest.

In pulmonary incompetence the murmur is heard with greatest distinctness in the second left interspace at the edge of the sternum, and is transmitted downward along the left border of the sternum, being carried thither by the regurgitant stream in the right ventricle as well as by the extension of the vibrations communicated to the sternum. It is never transmitted upward.

In tricuspid stenosis the development of vibrations and their conduction to the surface take place in the same manner as in the corresponding lesion of the mitral valve, and the murmur usually is heard within a limited area near the sternum in the fourth left interspace or at the lower end of the sternum.

In tricuspid incompetence, as in mitral incompetence. the vibrations are most strongly developed in the larger chamber, the right ventricle, and are carried against the stream to the tricuspid area at the lower end of the sternum. From this point of maximum intensity the murmur usually is transmitted a short distance upwards and to the right. If the auricle is greatly dilated it may be transmitted to the right as far as the nipple line. It is not transmitted to the back.

When two or more valve lesions coexist, the murmurs produced are conveyed to the surface in the manner peculiar to each lesion. The areas of audibility of the different murmurs frequently overlap.

The anatomical derangements which give rise to the so-called functional or accidental murmurs cannot be identified because they are not discoverable in the autopsy, but it is possible to conceive of conditions capable of producing them. Muscular weakness or incoördination, which prevents the auriculo-ventricular ring from contracting sufficiently to bring the mitral flaps together, or a similar weakness or incoördination, which prevents the papillary muscles from holding firm the cordeæ tendineæ to which the mitral flaps are attached, may produce a transient incompetence of the mitral valve, and give rise to a murmur identical with that produced by an organic mitral incompetence. Dilatation of the pulmonary artery immediately in front of the valve due to relaxation of its walls, or dilatation of the conus arteriosus of the right ventricle, may present a condition of relative stenosis of the pulmonary orifice capable of producing a characteristic murmur in the pulmonary area, where most hemic murmurs are heard. In the existing state of our pathological knowledge it is possible only to speculate on the changes in the heart which produce these functional murmurs, but if we can exclude extracardial murmurs, such as those produced by the impulse of the heart on small portions of lung, or those arising in the great veins of the neck which are transmitted to the vena innominata or vena cava, we must believe that they are caused by actual though transient changes in the shape of the heart channel. It is also possible that increased speed in the cardiac stream during the expulsion period and diminished viscosity of the blood are accessory factors in their production.

So much for the production of endocardial murmurs. Now let us briefly consider the second inquiry, how can we interpret the meaning of these murmurs?

The fact that an endocardial murmur is heard points to an obstruction, either absolute or relative, in the heart stream, but it does not tell us the nature of that obstruction. In order to interpret the diagnostic significance of a murmur we take into account many things. We must note the point where it is heard most distinctly, the directions in which it is transmitted, its place in the cardiac cycle, its intensity, its quality, its persistency, the effect on it of exertion, respiration and position, the presence of thrills, changes in the heart sounds, enlargement of the heart, changes in the circulation, coëxisting diseases and symptoms, the previous history of the patient, and the relative frequency of the different lesions capable of producing it.

Point of Maximum Intensity and Direction of Transmission.—These have been alluded to in the foregoing remarks on the production of murmurs. Murmurs referable to particular valve orifices are usually most distinctly audible in the regions where the normal closing sounds of those valves are best heard. There are, however, exceptions. The point of maximum intensity of the murmur of aortic incompetence is less commonly observed in the aortic region than elsewhere, being much more frequently found in the mid-sternal region or at the apex; and the murmur of mitral incompetence is sometimes most distinct in the pulmonary area. The extent of audibility of murmurs varies greatly, some being heard only in very limited regions, while others are heard over wide areas or the entire chest, or even at a distance from the chest. The murmurs of mitral and tricuspid stenosis are usually heard only within a small space. Those of aortic and pulmonary stenosis and mitral incompetence are often widely audible. Even when the area of audibility of a murmur is large

it is usually possible to make out characteristic directions in which it is most strongly transmitted.

Place in the Cardiac Cycle.—In what part of the cardiac cycle a murmur belongs must be determined before it is possible to make an accurate diagnosis. The ventricular cycle is alone considered, and is identified by the two regular heart sounds. If a murmur is systolic we know that it can be caused only by stenosis at the aortic or pulmonary, or incompetence at the mitral or tricuspid orifice. If it is diastolic, we know that it can be caused only by incompetence at the aortic or pulmonary, or stenosis at the mitral or tricuspid orifice. The systolic murmurs of aortic and pulmonary stenosis usually differ slightly in phase from those of mitral and tricuspid incompetence, because they begin at the end of the closure time of the auriculo-ventricular valves, when the pressure inside the ventricles just equals that in the arteries; while systolic mitral and tricuspid murmurs usually begin with the contraction of the ventricles. A form of systolic murmur due to mitral incompetence, however, is sometimes observed late in the systole, during the expulsion time of the left ventricle. It is the so-called prediastolic murmur, and is heard after the first, but distinctly before the second sound. It is caused by the mitral flaps, after they have once closed, bending backward into the auricle under the expulsion pressure of the ventricle, thus producing an incompetence. It usually indicates a slight organic lesion, or weakness of the auriculo-ventricular ring or the papillary muscles. Murmurs heard at the beginning of or throughout the diastole may mean incompetence at the aortic or pulmonary, or stenosis at the mitral or tricuspid orifice, but those heard only in the middle or latter part of the diastole point exclusively to mitral or tricuspid stenosis. The murmur of aortic incompetence is the most constant of murmurs, and the murmur of mitral stenosis the most variable. The latter may occupy the entire diastole or any phase of it, though it is most commonly heard only in the latter portion, when it is called presystolic. It is often absent.

Intensity.—This characteristic of murmurs possess only a moderate amount of diagnostic significance because it depends as much on the action of the heart as the nature of the lesion. With fairly good heart action organic murmurs are usually louder than those due to functional causes, and systolic murmurs are in general louder than diastolic ones. In stenosis the intensity of the murmur may increase with increase of the constriction up to a certain point, but in incompetence increase in the amount of regurgitation is attended usually with diminished intensity of the murmur, and an extreme degree of incompetence may show a very faint murmur. Variations in the loudness of organic murmurs are often important indications of increase or diminution in the strength of the heart action. Increased loudness of a murmur which was faint when the heart action was feeble is a good sign.

Quality.—Murmurs are variously described as harsh, rough, rasping, musical, rumbling, blubberring, purring, swishing, blowing, etc. The diagnostic significance of these differences in quality is not great. In general it may be said that organic are usually rougher and harsher than functional murmurs, and that those due to stenosis are apt to be harsh, rough or musical, while those due to incompetence are apt to be soft and blowing; but there are many exceptions.

Persistence.—If a murmur is always present it means an organic valve lesion or a permanent dilatation of a valve orifice. If it disappears under equal conditions of heart action, it is probably functional, or produced by transient dilatation or other accidental cause.

Effect of Exertion, Respiration and Position.—Exercise usually intensifies feeble murmurs due to slight or compensated organic lesions. If a period of rest intensifies a murmur the lesion is apt to be a serious one. Organic murmurs are best heard at the end of expiration when the heart is most uncovered of lung. The recumbent position increases the distinctness of functional murmurs and those due to mitral and tricuspid incompetence, diminishes the distinctness of those due to mitral stenosis, and does not affect the distinctness of those due to aortic stenosis or incompetence.

Thrills.—These are important corroborative signs in the diagnosis of valve lesions. Felt over a valve area in which is heard a characteristic murmur, they usually confirm the diagnosis of an organic lesion of that valve. A presystolic thrill felt in the mitral region is pathognomonic of mitral stenosis. Rarely thrills are felt with functional murmurs.

Changes in the Heart Sounds.—The closure sounds of affected valves which give rise to murmurs may be replaced wholly or in part by the murmurs, or the sounds produced by other unaffected valves may be altered. If the closure sound of a particular valve is completely replaced by a murmur referable to that valvular orifice, the lesion is apt to be more extensive than if it is not completely replaced. If the pulmonary second sound is strongly accentuated in the presence of a murmur referable to the mitral orifice, it indicates compensatory hypertrophy of the right ventricle, and supports the diagnosis of an organic mitral lesion. Weakness of this sound after a previous accentuation suggests failure of the compensatory hypertrophy and secondary incompetence of the tricuspid valve. In the presence of a murmur characteristic of tricuspid incompetence weakness of this sound is a valuable confirmative sign. The aortic second sound is usually weakened in mitral stenosis, and sometimes in mitral incompetence. Any condition which diminishes the quantity of blood thrown into the aorta by the ventricular systole weakens this sound. In mitral stenosis the first sound at

the apex is apt to have a short, sharp, flapping character.

Enlargement of the Heart.—Observed in connection with murmurs, increase in the area of cardiac dulness is a diagnostic sign of the first importance. It almost always means an organic valve lesion. A murmur which is not accompanied by a demonstrable increase in the size of the heart is either functional or caused by a moderate organic lesion which is compensated. Enlargement of the different chambers of the heart is regularly associated with lesions of particular valves, the amount of which depends on the character of the lesion and the degree to which compensation has been lost. With aortic stenosis we usually find a moderate increase in the size of the left ventricle, which in cases of ruptured compensation may be considerable. A much greater enlargement of this ventricle is commonly observed with aortic incompetence, which in bad cases may be so great as to carry the apex to the seventh interspace and the anterior axillary line. The right heart is not enlarged in aortic lesions unless there is also failure of the mitral valve. With pure mitral stenosis the two chambers immediately behind the valve, the left auricle and the right ventricle increase in size, and the right auricle also if the compensatory hypertrophy of the right ventricle fails and the tricuspid valve gives way. With mitral incompetence there is dilatation of the left ventricle and auricle and right ventricle, and of the right auricle also if the tricuspid valve becomes secondarily incompetent. The enlargement in mitral disease is chiefly transverse, thus differing from that in aortic disease which is chiefly longitudinal. In mitral incompetence with ruptured compensation the dilatation of all the heart chambers may be so great that the area of cardiac dulness extends from near the right mamillary line to near the left mid axillary line. Lesions of the pulmonary valve produce enlargement of the right ventricle in the same way that lesions of the aortic valve produce enlargement of the left. Tricuspid stenosis produces enlargement of the right auricle, and tricuspid incompetence enlargement of both chambers of the right heart.

Changes in the Circulation.—The arterial pulse in pure aortic incompetence is often pathognomonic, being rapid, with a powerful systolic wave which feels under the finger like the passage of a shot, followed quickly by an extreme diastolic collapse. In aortic stenosis it is apt to be hard, rather slow, with a small wave. In mitral stenosis it is unchanged or small, or, when compensation is lost, irregular. In mitral incompetence it shows no change unless compensation is lost, when it is irregular. The effect of valve lesions of the right heart on the pulmonary pulse cannot of course be observed. Their effect on the arterial pulse is generally to diminish its volume. Systolic pulsation of the great veins of the neck, seen in connection with the murmur of tricuspid incompetence, is a pathognomonic sign of that lesion, as is also diffuse systolic pulsation of the liver. Passive congestion of the lungs and abdominal viscera, and edema, particularly of the lower extremities, in the presence of a heart murmur, are confirmatory of organic valve disease with ruptured compensation.

Coexisting Diseases and Symptoms and the Previous History of the Patient.—These often throw light on the meaning of heart murmurs. A murmur occurring in the course of acute rheumatism or scarlatina, or in an old person with atheromatous arteries, points to an organic valve lesion. If it occurs in the course of anemia or of a nervous disorder attended with rapid or violent heart action, it is more likely to be functional. If a person with a heart murmur suffers from dyspnœa on slight exertion and a dry cough, organic valve disease may be suspected. If a person with a heart murmur gives a history of having had a disease which commonly produces endocarditis, or of having had signs and symptoms indicative of cardiac failure, the diagnosis of organic valve disease suggested by the murmur is greatly strengthened.

Relative Frequency of Different Valve Lesions.—Consideration of this subject helps in the interpretation of those murmurs which point to more than one lesion. A systolic murmur heard with maximum intensity in the pulmonary area is more apt to be due to anemia or mitral incompetence than to pulmonary stenosis, in the absense of other distinctive signs, because the last is a rare lesion while the others are common. A diastolic murmur heard with maximum intensity in the mid-sternal region gion or down the left side of the sternum from the second or third interspace, is more likely to be caused by aortic than by pulmonary incompetence for the same reason. Similarly a presystolic murmur heard anywhere between the apex and the lower part of the sternum more strongly suggests a mitral than it does a tricuspid stenosis.

In this short paper it has been possible to make only brief allusions to the more important of the diagnostic points on which the interpretation of endocardial murmurs depends. Enough has been said, however, to show the necessity for a thorough examination of every case in which a heart murmur is found. Some of these murmurs are comparatively frank in disclosing their meaning, but a large proportion of them require the combined light of all the facts obtainable to make their meaning appear, and a few reveal it only in the autopsy.

DOTARDS IN STATE HOSPITALS.*

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THE commitment of senile patients to hospitals for the insane has for some years been the subject of considerable comment on the part of lunacy officials both in this country and Great Britain, and it seems to be the prevalent opinion that the number of aged patients admitted has steadily increased during the last fifteen or twenty years. This increase has apparently been coincident with the transition of the institutions from madhouses to hospitals, and it is alleged by some to be the result of that transition. The care of the insane having been brought to such a high standard as compared with what it was formerly, relatives are less reticent about sending members of their families who become mentally affected to hospitals for the insane. I believe this is true not only as regards those suffering from senile psychoses, but of all who are mentally afflicted, and accounts in a small measure perhaps for the general increase of admissions. Jones says that in some districts in England senile insanity has increased from 11 to 20 per cent. of the total admitted into asylums within the last sixteen years, which he believes to be partly due to increased registration. It was felt also soon after the inauguration of "State Care" in New York, that in some sections there was an attempt on the part of local poor authorities and others to unload on to the State Hospitals a class of dependents not considered proper cases to be admitted, viz.: aged dements and idiots. Hence a clause was inserted in the insanity law, giving to superintendents discretionary power as to admission when in their judgment a patient duly committed is "not insane within the meaning of the statute." The law also provides that no idiot shall be committed to or confined in a State Hospital; but any epileptic or feeble-minded person becoming insane may be committed as an insane person to a State Hospital for custody and treatment therein. These provisions, although they do not define insanity, have been the basis for rejecting certain senile cases, designated as dotards, which seem to have aroused especial interest in State hospital circles. Last year an amendment was added to the law empowering superintendents to discharge persons who, in their opinion, are "dotards, not insane."

Before taking up the question as to what constitutes a dotard, I will refer briefly to the hospital reports of the last fifteen years concerning the relative number of aged patients admitted. During the quinary period 1890 to 1895, 843 patients between seventy and eighty years of age, and 255 over eighty, were admitted to the New York State Hospitals; the total admissions amounted to 15,243. From 1895 to 1900, 1,319 between seventy and eighty years old, and 389 over eighty, were admitted; the total admissions being 25,905. During the next five years 1,349 between seventy and eighty, and 351 over eighty, were admitted; the total admissions for this period being 31,023. It will be seen that while the number of senile cases has increased, there has also been a very marked increase in the total number admitted; indeed, it is evident that the proportion of senile cases has actually diminished, for in the first period we are dealing with, the proportion of all those over seventy was one to thirteen; in the second, one to fifteen; and in the third period, one to eighteen. An interesting fact, too, is that by far the smallest proportion of senile cases comes from metropolitan districts. For instance, out of 8,630 patients admitted to the Manhattan State Hospital for the five years from 1900 to 1905, 176 were between seventy and eighty and 35 over eighty years of age. During the same period Hudson River, Middletown and Binghamton admitted in the aggregate 4,899, of which 346 were between seventy and eighty and 83 over eighty years old. At Willard, out of 437 patients admitted during the last two years from a district which is preeminently rural, 36 were between seventy and eighty and 15 were over eighty, the proportion being slightly above that of Hudson River, Middletown and Binghamton combined. These cases, of course, embrace the various psychoses to which old persons are subject, and it is not possible here to single out those who had senile dementia *per se* as the result of mental decay accompanying senility. Senile mental decay may begin as early as the sixtieth year. I think these figures indicate, however, that the increase in senile cases is not at all out of proportion to the general increase; in fact it can hardly be said to have kept pace with it, even after taking into account those who have been rejected. Upon inquiry I find that 162 have been rejected at the various State Hospitals during the five years 1900 to 1905. Of these, Manhattan rejected 73 and Middletown 28; Buffalo and Hudson River did not reject any.

After scanning the indexes of a number of text-books on insanity, I am unable to find that the term dotard is used at all in medical nomenclature, which to my mind is significant. The *Standard Dictionary* defines dotard as, "one who is given to extravagant affection or fancies," and senile insanity first as, "the decadence of the mental faculties incident to old age," and second as "dotage." *Webster's Dictionary* defines dotard as, one whose intellect is impaired by age. *Gould's Dictionary of Medicine* does not contain the word dotard, but defines dotage as "feebleness of mind." Clouston says there is no scientific difference between dotage and senile dementia. Some have made the presence or absence of delusions and hallucinations the basis of distinction, paying no attention to errors of conduct, which

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I consider untenable. A few short descriptions are given in annual reports, of those rejected, which I think are typical of most of the cases which have been disputed, and serve to throw some light on their real character. A man eighty-five years old, duly committed, was rejected on the ground that he was not insane within the meaning of the law. He was then taken to a home for old men on probation. He was irritable, fussy, difficult to manage, went about from room to room appropriating articles belonging to other inmates, and at the end of a month he was discharged, and was then taken to the almshouse where admission was declined on the ground that he was insane. His daughter, who had previously been trying to support him, was a poor woman. What finally became of the old man is not stated. Another case is that of an old man aged eighty-four, which proved upon investigation to be senile dementia. Although noisy and at times destructive, there was no reason why he should not be cared for at home by his family. A woman seventy-three years old is stated to be a case senile dementia,—was untidy in her habits, and noisy at times, but not violent. A man seventy-nine years old is characterized as a senile dement pure and simple, with nothing about his case that precluded home care. A woman aged seventy-three is said to have been clearly a case of senile dementia, harmless, but troublesome to care for. A woman aged eighty-four proved upon examination to be a case of senile dementia, but was considered not to require hospital care, being neither noisy, untidy nor destructive. These I think are a fair sample of what we have been prone to regard as dotards and yet they are evidently all cases of senile dementia. Some years ago the Lunacy Commission was appealed to for an opinion as to where the line should be drawn in admitting this class, but the reply was that superintendents had complete jurisdiction in the matter, and that in this authority they could not be interfered with, either in receiving or rejecting a case, and that the Commission could only advise. In one case the Commission did advise the admission of an old man on humanitarian grounds inasmuch as he had nowhere else to go. Later, in 1897, the President of the Commission sounded a note of warning to superintendents in regard to the reception of cases certified to be insane from almshouses and in returning to almshouses those who were no longer insane in the statutory sense. Some of the poor authorities and members of the Legislature had endeavored to create a sentiment antagnostic to the hospitals on account of the attitude toward these demented senile persons. It was suggested that when such persons were committed, a medical officer from the hospital be sent to make an examination before removal, and decide in that way the question of legal insanity. The views of the Lunacy Commission and the hospital superintendents regarding this matter are given at some length in the Commission's annual report for 1900. It is stated there that, "It has been consistently held by the Commission and by the superintendents, that cases of senility of the class referred to are not appropriate patients for commitment to an insane hospital." I may also say there is a growing feeling among asylum superintendents in England that cases of senile dementia should not be classed with the insane. According to the statement of Toogood, in an article which appeared only last month in the *Lancet,* the county asylums object to their presence because they are incurable and occupy valuable and needful space, and they depress the recovery rate. But he goes on to say, if the asylums will not have them it must mean the erection of separate incurable mental buildings.

In January, 1904, the Commission sent out a circular letter to each hospital, stating that on several occasions complaint had been made that some of the less experienced medical officers had been sent out to pass upon these cases, and requested that in future great care be shown in the selection of physicians with especial qualifications in the way of experience, tact and judgment for this important service. My own opinion is that very rarely can a case be properly determined as to its fitness by an examination lasting only half an hour or an hour. It not infrequently happens that senile persons can give a fair account of themselves, and will exhibit no irrational conduct at one interview, but when seen another time, a few days later, they will be confused, disoriented, unable to give expression to rational thought, and will conduct themselves in such a manner as to leave little doubt that they require hospital care. Continued observation is usually necessary to determine the real mental condition. My policy has been to instruct medical officers not to reject any patient when the papers have been properly executed, except when the physical condition is such as to render the journey to the hospital inadvisable. There has occasionally been, in my experience, such extreme weakness as to preclude removal.

Now what is the distinction between a dotard and one with senile dementia? From what has been adduced here it would appear that any old person of seventy years or over, with mental deterioration to the extent that there is loss of memory for recent events, and possibly remote ones, too, little or no mental grasp, disorientation as to time, place, and perhaps persons, judgment gone, no insight, restlessness, especially at night, noisiness, emotional outbreaks, resistiveness, perhaps uncleanliness and destructiveness (all these symptoms varying in degree from time to time, and not being produced by any gross brain lesion, but only by physiological decay or shrinkage of the brain substance, incident to old age)—the physical condition showing arteriosclerosis, poor nutrition, wrinkled skin, the special senses all impaired tremors and more or

less general muscular weakness. If he has relatives or friends who can be made to keep him, or if he can get into the poorhouse, he is a dotard, not insane; but if he has no relatives to keep him and the poorhouse will not have him, then he has senile dementia and is insane within the meaning of the law. This is certainly not a scientific distinction.

I believe that as a rule demented old persons are committed to State hospitals only as a last resort, and that the exceptions to this rule are rare. I have never known anyone to be committed directly from home on the petition of relatives without good reason for doing so. During my service at Flatbush it was thought necessary to reject a few persons, some of whom were young idiots committed from the Kings County Almshouse. The proximity to the State Hospital of the county buildings there, which were dreadfully crowded, rendered it very convenient to transfer improper cases. A new medical superintendent came in and at once proceeded to get rid of as many of the inmates as possible. He was not aware of the provisions of the insanity law and went so far as to challenge my right to reject any case duly committed. Being a physician himself he was able to influence to some extent the medical examiners who were appointed by the city authorities to examine all insane persons coming within the jurisdiction of the Department of Charities. When the first patient (an old lady 70 years old) was rejected, sixteen of Brooklyn's most eminent physicians and specialists, including Dr. Wm. Browning and the late Dr. John C. Shaw, were called by the local authorities, and they all pronounced her a case of senile dementia, and a proper one for care and treatment in a State hospital. Application was then made to the Supreme Court for a writ of mandamus to compel me to receive her, but the Court refused to grant it, there being no alternative in view of the law. The medical certificate in this case stated that when questioned by the examiners the patient's answers were irrelevant, that she roamed about the hospital ward in an aimless manner, had no idea of time or place, was uncleanly, and unable to dress or undress herself, and that the cause of her insanity was age and neglect.

Physicians in private practice are always extremely careful, so far as I know, about making certificates of lunacy; they are more apt to err on the other side and refuse to take part in committing persons who are undoubtedly insane. Time and again I have been consulted by outside doctors when they were in doubt, and have usually had to assure them they were making no mistake in having the patient committed.

I cannot help feeling that the attitude of the hospitals, speaking generally of course, toward these helpless old folk is open to serious criticism. We must admit they are troublesome and difficult to care for, requiring close attention and good nursing. Accidents occur more frequently to them than to any other class with which we have to deal. Their circumstances are usually such that they cannot get the care they require at home, the relatives being poor in most instances. I have never understood why the State should discriminate against persons who become demented in their old age. Are they not as much, if not more, entitled to the State's bounty than are the rest of the insane? Their presence in almshouses in the old days was one of the very things which led to the agitation for "State Care," and in support of this assertion I will quote from the first annual report of the Commission for 1889, where a lengthy description is given of a tour of inspection of all the insane in almshouses throughout the State at that time: "Within a small room, in an old and dilapidated wooden building, suitable only for an outbuilding, on a bleak and wintry day, was found a demented old woman, apparently about seventy years of age. She was in a state of turbulent dementia, scantily clad, barefooted, exceedingly filthy and unable to appreciate her condition or surroundings. She went about the narrow confines of her cell-like room, beating a spoon against the wall and uttering unintelligible cries. The furniture in the room consisted of a dilapidated bedstead, on which was a tick half-filled with wet and filthy straw, the quantity being insufficient to make a comfortable bed, even if the material had been wholesome and clean. Upon this tick was a soiled and wet cotton quilt. In a corner of the room was a clumsy wooden chair, evidently intended for a commode. The floor was wet and otherwise soiled with excrement, the odor from which was exceedingly offensive. In another institution an old, demented and feeble patient was found in bed, having by his side an invalid's chair upholstered with some white fabric for the evident purpose of making it softer. The covering of this chair was befouled with human excrement, which was thoroughly dry at the time it was observed. An examination of this old creature showed that he was suffering from bed sores; that the sheets were soiled and that he was lying on a straw tick that was not more than half filled."

We boast much of the benefits which have come to the insane as the result of "State Care," and the development of our splendidly organized hospitals, with their modern equipment and trained nurses. We accept without question those suffering from Korsakoff's disease and other forms of alcoholic insanity, and general paralysis. We accept melancholia and presenile delusional insanity classed by Kraepelin with senile dementia as those psychoses belonging to the period of involution. We have to acknowledge that the senile cases can do very little for themselves and require a great deal of care and good nursing, which they cannot get at home nor in the poorhouse. If they are not to be received by the State hospitals, what shall be done

with them? Can they not truly say with King Lear:—

"Where have I been? Where am I? Fair daylight;
I am mightily abused. I should e'en die with pity,
To see another thus. I know not what to say.
I will not swear these are my hands: let's see;
I feel this pin prick. Would I were assured
Of my condition.
Pray do not mock me:
I am a foolish fond old man,
Fourscore and upward, not an hour more nor less;
And to deal plainly,
I fear I am not in my perfect mind.
Methinks I should know you, and know this man;
Yet I am doubtful: for I am mainly ignorant
What place this is; and all the skill I have
Remembers not these garments; nor I know not
Where I did lodge last night . . . . . .
Do not abuse me. You must bear with me."

HISTORY OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK.

By JAMES J. WALSH, M.D., Ph.D.,

NEW YORK.

(*Continued.*)

Chapter XIII.

The editors of the *New Orleans Medical and Surgical Journal,* and indeed, of almost all the other journals, were equally explicit in commending the general object. Thus far, though the faculties connected with the colleges in Philadelphia and Boston had declined to cooperate in the general movement, no open opposition had been manifested from any quarter.

But like all other great movements affecting more or less the interests of a large number of persons, the effort to convene a National Convention of the members of the medical profession was not to be crowned with success without encountering decided and strong opposition. The movement having originated in a State society and during a discussion in which some of the practices and privileges of the medical colleges were severely criticised, it is not surprising that it excited such a feeling of distrust in the minds of many of those connected with the colleges as to deter them from cordially uniting with it. And this distrust was doubtless increased in certain quarters by the strong language, and perhaps, too sweeping assertions contained in one of the communications of Dr. N. S. Davis in the *New York Journal of Medicine* already referred to.

The latter were made the pretext for a severe attack upon the writer, the State Medical Society of New York, and all concerned in the movement for a National meeting, by Prof. Martyn Paine, of the Medical Department of the New York University in the form of a valedictory address to the graduating class of that institution delivered March 11, 1846. The address was styled "A Defence of the Medical Profession of the United States," and was based on the assumption that the active members of the Medical Society of the State of New York generally, and the chairman of their committee (Dr. Davis) in particular, had been slandering and defaming the profession to which they belonged. An assumption, however, so fully refuted, by the whole history and conduct of that society and the individuals concerned, as to require no comments or explanation at the present time. As a very large edition of this address was published and widely circulated throughout the Union, it may not be amiss to quote a paragraph or two for the purpose of enabling the reader to appreciate its spirit and design. On page 20 Dr. Paine says: "Nor shall I have discharged the office which I have assigned to myself till I also place on record who they are that malign the great mass of American physicians who are rendering more service to the cause of humanity than any equal proportion of the same profession in the most favored States of Europe. It is not the man who has officially promulgated the views of the State Medical Society, nor the journals through which the contumelious representation of the profession is circulated, that should be held responsible, any farther than as they, also, hold an influence over the public mind, and according also to the animus and the extent to which that influence may be exerted. We must rather go to the fountain from which it emanates and with acids and caustics try its purity. We must go to the State Medical Society itself, interrogate the general character of those who annually convene at Albany during the very opportune session of the Legislature, inquire how far, and in what way, they contribute to the dignity of the profession, and advance the interests of medical science. Nor would I invite any investigation of this nature for the same reasons that I have quoted Percival's Medical Ethics, were those members of the State Medical Society who annually convene at Albany and do the mining operations, more than a bare handful of the outs, and were they not so erroneously supposed to represent the voice of the profession." Again he says: "And now, perhaps, we shall have no difficulty in understanding why it is so earnestly desired to extend the term of instruction in our medical colleges and also as a preliminary requisite to admission into these institutions. There is an aristocratic feature in this movement, of the worst omen, however the spirit by which it is prompted, may belong to the agrarian policy. It is oppression towards the poor, for the sake of crippling the medical colleges."

The foregoing are among the least exceptional paragraphs of this address, and yet they plainly indicate a feeling of bitter opposition, if not contempt, towards those who were laboring to unite the profession of the whole Union in one general Convention. The actual influence of this address, exhibiting as it did, a curious mixture of egotism. disgusting flattery of the class to which it was addressed, and bitter opposition to the movement for a National Convention, was very important, though widely different from what was designed by its author. It has already been stated that the medical department of the University of Pensylvania, the Jefferson Medical College, and the local societies of Philadelphia, had declined to appoint delegates to the proposed Convention, and the chief apprehension felt by the committee having charge of the subject was that the absence of any representation from so important a locality would seriously lessen the influence and success of the movement. But scarcely had the address of Professor Paine reached the remoter sections of the country before the Chairman of the Committee of the New York State Society received a second letter from Professor Huston, of Philadelphia, stating briefly that they had heretofore declined to appoint delegates to the proposed Convention because, as it had been called to meet in the City of New York, and at the College edifice of the New York University, they had thought it calculated to attract undue attention towards the medical schools of that city. But on reading "the very singular address of Professor Paine," they were satisfied that whatever might have been the motives of those who called the Convention, it was not designed particularly to benefit the medical schools in the City of New York; and hence he would immediately convene the Society over which he presided to take into consideration the propriety of appointing delegates. This was done, and twelve eminent and active members of the profession in that city were appointed to attend the meeting in New York, thereby greatly adding to the success of the movement. We have in these details a most striking illustration of that jealousy and mutual distrust which is engendered by rival interests unmodified by free and frequent personal intercourse. We find the Faculty of the Medical Department of the New York University

violently opposing the movement for a National Convention and stigmatizing its authors as "miners" and "outs" even after they had consented to have the meeting held in their own college hall, because it originated in a State Society whose meetings they had entirely neglected, and of whose influence they were jealous, while other most influential schools were withholding their aid and co-operation because they suspected the whole movement calculated, if not designed, to favor in a special degree that same school in New York. It would be difficult to illustrate more strikingly that sleepless jealousy which pervaded more or less all our medical schools, springing into existence in rapid succession, as they had done, or the necessity of some general organization, by which the representatives of all should be brought into personal contact and intercourse, until mutual distrust should give place to mutual respect and a common object.

On Tuesday, May 5, 1846, the delegates and members of the profession from different parts of the United States who designed attending the proposed National Convention assembled, in accordance with the invitation of the New York State Society, in the Hall of the Medical Department of the New York University. They were called to order by Dr. Edward Delafield, of New York, on whose motion Dr. John Bell, of Philadelphia, was appointed Chairman, and Dr. William P. Buel, of New York, Secretary, until permanent officers should be duly chosen. A Committee was then appointed to receive the credentials of delegates, consisting of Drs. H. W. Baxter, of Maryland, N. S. Davis, of New York, and Richard D. Arnold, of Georgia. This Committee soon reported the reception of credentials containing the names of one hundred and nineteen delegates, eighty of whom were present at the opening of the Convention.

The latter number was subsequently increased to near one hundred, representing societies and colleges in sixteen different States, viz.: New Hampshire, Vermont, Massachusetts, Rhode Island, Conecticut, New York, New Jersey, Pensylvania, Delaware, Maryland, Virginia, Georgia, Mississippi, Indiana, Illinois and Tennessee.

A Committee of one from each State represented reported the names of the following gentlemen for permanent officers of the Convention, and they were unanimously elected, viz.: For President, Dr. Jonathan Knight,* of New Haven, Conn.; for Vice-Presidents, Dr. John Bell, of Philadelphia, Pa., Dr. Edward Delafield, of New York City; for Secretaries, Dr. Richard D. Arnold, of Savannah, Ga.; Dr. Alfred Stillé, of Philadelphia, Pa. Thus was completed in the midst of the most perfect harmony and good feeling the organization of the first National Convention of members of the medical profession ever convened in the United States. And when we remember that the number in attendance was at least respectable; that among them were many of the most eminent in the profession; that they were gathered from all sections of the Union, from the hills of New England, the broad prairies of the West, and the sunny plantations of the South; not, however, for purposes of political preferment or pecuniary gain, but to give each other the warm hand of friendship and unite in the adoption of measures for the elevation and advancement of the noblest of temporal pursuits, we are constrained to regard it as one of the most interesting assemblages ever convened since the organization of the benign government under which we live.

As soon, however, as the officers elect had been conducted to their respective places, Dr. Gunning S. Bedford, the colleague of Dr. Martyn Paine, and a delegate from the faculty of the Medical Department of the New York University, arose, and, after some general remarks in reference to the benefits of a general Convention of medical men, moved the following preamble and resolution, viz.:

"WHEREAS, The Call of the State Medical Society of the State of New York for a National Medical Society, to be held in the City of New York on the first Tuesday in May, has failed in a representation from one-half of the United States and from a majority of the medical colleges, and

"WHEREAS, The State Medical Society has emphatically stated that there is no mode of accomplishing the object of the Convention without a concert of action on the part of medical societies, colleges and institutions of all the United States; therefore,

"Resolved, That this Convention adjourn *sine die."*

This proposition was immediately seconded by Dr. G. S. Pattison, the colleague of Professor Bedford, and delegate from the same faculty. This proposition, coming at such time, and directly from the representatives of the school in whose college building the Convention had assembled, took every member by surprise. But after one or two minutes of entire silence, the question was very generally callled for, and being taken by yeas and nays, resulted as follows, viz.: Yeas, 2, Drs. Bedford and Pattison. Nays, 74.

The result of the vote having been announced, considerable warmth of feeling was manifested by many members, who regarded the motion of Dr. Bedford as a deliberate attempt to break up the convention, and as little less than an insult to all its members.

Several motions were made, having for their object the immediate withdrawal from the college edifice of the New York University, but after explanation and apologies from both Drs. Bedford and Pattison, the subject was laid on the table. A committee of nine was then appointed "to bring the subject of medical education before the convention, in the form of distinct propositions, suitable for discussion and action." This committee readily agreed upon the following propositions, viz.:

First—That it is expedient for the medical profession of the United States to institute a National Medical Association.

Second—That it is desirable that a uniform and elevated standard of requirements for the degree M.D. should be adopted by all the medical schools in the United States.

Third—That it is desirable that young men, before being received as students of medicine, should have acquired a suitable preliminary education.

Fourth—That it is expedient that the medical profession in the United States should be governed by the same code of Medical Ethics.

These were reported to the Convention, with the recommendation that a committee of seven be appointed on each subject, whose duty it should be to report at a meeting to be held in the City of Philadelphia, on the first Wednesday in May, 1847. The same committee also recommended the appointment of a committee of seven "to prepare and discuss an address to the different regularly organized medical societies and chartered medical schools in the United States, setting forth the objects of the National Medical Association, and inviting them to send delegates to the convention to be held in Philadelphia in May, 1847."

After the signal failure of the delegates from the New York University to interrupt the progress of the convention which assembled in New York, no further open opposition to the movement, which had been commenced, was manifested previous to the next meeting. On the contrary, the President, Dr. Knight, shortly after the first meeting, issued an address to the profession on behalf of the committee appointed for that purpose, in which he set forth briefly and clearly the objects aimed at, and urged upon the profession the importance of a more full representation at the meeting to be held in Philadelphia. The medical periodicals of the country, very generally, published the proceedings of the Convention in New York, and thereby aided much to bring the subject to the notice of a much larger number of members of the profession. In the meantime, valedictory and anniversary addresses, discussing, more or less, the subject of medical education, were written and widely circulated by Drs. John

*For Biography of Dr. Knight, see New Jersey Medical Report or January, 1854, page 34.

W. Francis, John Watson, and F. Campbell Stewart, of New York; Drs. Samuel Jackson and Alfred Stillé, of Philadelphia; Dr. S. H. Dickson, of Charleston, and many others. The combined influence of all these agencies, with the continued exertions of those who first put the ball in motion, served to awaken an almost universal interest in the subject. On the fifth of May, 1847, the delegates appointed by the societies, colleges and other medical institutions throughout the several States assembled in the Hall of the "Academy of Natural Sciences," in Philadelphia, and were cordially welcomed by Dr. Isaac Hays, Chairman of the Committee of Arrangements, who called the convention to order, and nominated Dr. Jonathan Knight, of New Haven, as temporary chairman.

This nomination was unanimously confirmed, and Drs. Arnold, of Georgia, and Stillé, of Philadelphia, were appointed secretaries. A committee for the reception of credentials of delegates was appointed, and another, consisting of one member from each State represented, to report the names of suitable candidates for election as permanent officers of the Convention. The first committee reported, as present, the names of near two hundred and fifty delegates, representing more than forty medical societies, and twenty-eight colleges, embracing medical institutions in twenty-two States and the District of Columbia. The Committee on Nominations recommended for President, Dr. Jonathan Knight, of Connecticut; for Vice-Presidents, Drs. Alexander H. Stevens, of New York, George B. Wood, of Pennsylvania, A. H. Buchanan, of Tennessee, John Harrison, of Louisiana; and for Secretaries, Drs. R. D. Arnold, of Georgia, Alfred Stillé, of Pennsylvania, and F. Campbell Stewart, of New York. These were all unanimously elected by the Convention. The first business of importance which engaged the attention of the Convention was the reports of the committees appointed at the previous meeting in New York. Reports were received during the first day from Dr. John Watson, of New York, Chairman of the Committee appointed "to prepare a plan of organization for a National Medical Association," from Dr. John H. Griscom, of New York, Chairman of the Committee appointed to consider the subject of procuring, from the State governments, uniform and efficient laws for the registration of births, marriages and deaths; also, from the same, on a general nomenclature of diseases; from Dr. James Couper, of Delaware, Chairman of the Committee "on Preliminary Education"; and from Dr. Isaac Hays, in the subject of Medical Ethics. These several reports, except the last, were received, laid on the table, and ordered to be printed.

During the following morning session, additional reports were received from Dr. John Bell, Chairman of the Committee appointed to prepare a code of Medical Ethics; from Dr. James McNaughton, of Albany, Chairman of the Committee appointed to consider the subject of the union of teaching and licensing in the same hands, signed by a minority of the Committee; and another report on the same subject, from Dr. Isaac Parrish, of Philadelphia, signed by a majority of the Committee. These reports were also received and ordered to be printed. The report of Dr. Couper, from the Committee on the subject of "Preliminary Education," was first taken up for consideration; and after a free interchange of opinions, the report, with the resolutions appended thereto, was adopted, and ordered to be published as a part of the proceedings of the Convention. The resolutions as adopted were as follows, viz.:

"*Resolved*, That this Convention earnestly recommends to the members of the medical profession throughout the United States, to satisfy themselves, either by personal inquiry or written certificate of competent persons, before receiving young men into their offices as students, that they are of good moral character, and that they have acquired a good English education, a knowledge of natural philosophy, and the elementary mathematical sciences, including geometry and algebra, and such an acquaintance, at least, with the Latin and Greek languages as will enable them to appreciate the technical language of medicine and read and write prescriptions.

"*Resolved*, That this Convention also recommends to the members of the medical profession of the United States, when they have satisfied themselves that a young man possesses the qualifications specified in the preceding resolution, to give him a written certificate stating that fact, and recording also the date of his admission as a medical student, to be carried with him as a warrant for his reception into the medical college in which he may intend to pursue his studies.

"*Resolved*, That all the medical colleges in the United States be and they are hereby recommended and requested to require such a certificate of every student of medicine applying for matriculation, and when publishing their annual lists of graduates to accompany the name of the graduate with the name and residence of his preceptor, the name of the latter being clearly and distinctly presented as certifying to the qualification of preliminary education."

Moderate as is the standard of preliminary attainments required by these resolutions, there were some in the Convention who spoke in opposition to its adoption, on the ground that it would prevent many young men of limited means from entering the profession whose natural endowments would carry them to the highest rank, notwithstanding their inadequate preliminary preparation. On the other hand, it was admitted that there had been countries and periods in the world's history when the obstacles, pecuniary and otherwise, in the way of gaining a knowledge of the ordinary branches of science, were so numerous as to preclude all but the favored few from its enjoyment.

In such places and at such times the objection to the resolutions might have some force. But in our country of schoolhouses and almost unlimited facilities for acquiring a knowledge of, at least, the ordinary branches of learning, that a young man who had not mental energy and perseverance enough to comply with the standard proposed in the resolutions certainly had not enough to enable him to do justice to a profession as extensive, intricate and arduous as ours.

The latter view was urged with much force by Dr. N. S. Davis, then a delegate from the New York State Medical Society. The resolutions were adopted by nearly a unanimous vote, and the recommendations they contain have been reaffirmed by almost every meeting of the American Medical Association since.

[*To be continued.*]

THOMAS JEFFERSON TO DR. JENNER.

MONTICELLO, VIRGINIA, MAY 14, 1806.

SIR:—

I have received the copy of the evidence at large respecting the discovery of the vaccine inoculation, which you have been pleased to send me, and for which I return you my thanks. Having been among the early converts in this part of the globe to its efficacy, I took an early part in recommending it to my countrymen. I avail myself of this occasion to render you my portion of the tribute of gratitude due to you from the whole human family. Medicine has never before produced any single improvement of such utility. Harvey's discovery of the circulation of the blood was a beautiful addition to our knowledge of the human economy; but on a review of the practice of medicine before and since that epoch, I do not see any great amelioration which has been derived from that discovery. You have erased from the calendar of human afflictions one of its greatest. Yours is the comfortable reflection that mankind can never forget that you have lived; future nations will know by history only that the loathsome small-pox has existed, and by you has been extripated. Accept the most fervent wishes for your health and happiness, and assurances of the greatest respect and consideration.

THOMAS JEFFERSON.

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Editorials.

STATE AND COLLEGE MEDICAL EXAMINATIONS.

THE large amount of discussion and the diversity of opinions prevalent upon the subject of medical education and medical examinations show a restlessness and a certain degree of dissatisfaction which are most salutary. An association of American Medical Colleges has been organized, and its work already has resulted in a marked elevation in the standards of requirements for the doctor's degree. While the teaching of medicine has made great advances along practical lines, the examination of the student, to test the learning that he has derived from his teaching, has not progressed so far. The old methods of oral and written examinations, chiefly the latter, are still the main reliance of the examiner. We know how imperfectly these examinations test the merits of the student, and we know how important a part is played by the cramming process and the expedients which constitute short-cuts to success in examinations.

The function of the doctor is a complex one. He has many things to do, all of a practical nature, and he must know many things. A doctor must have knowledge which cannot be condensed in a compend or even in a more pretentious volume, and which the answering of questions does not test. A student may be able to answer as well as his professor the question, What are the symptoms of scarlatina? but, does he know scarlatina when he sees it?—that is the question. How would you treat a fracture of the lower end of the radius? may be glibly and correctly answered by one who does not know how nor is not able to treat correctly a fracture of the lower end of the radius. A practical examination is needed. In many of our medical schools such an examination is conducted in part: the students are marked in their practical and clinical work and these marks figure in the ultimate result. Many hospital examinations for internes combine the practical and theoretical. These examinations often demonstrate that a man who passes an acceptable written examination is not qualified for the honorable title of doctor. If the State recognizes him as such, his title should be *Doctus sed non doctor.* The State examinations are written and not practical, still it would not be difficult to make them practical. If the hospitals can do it the State can do it. It is successfully done in Germany, where the candidate is not granted a license to practice until he has shown actually that he has practical qualifications. He must display his ability to diagnose diseases, to make examinations, and to conduct treatment.

The horrible imputation used to be made that in certain states a man, without medical training, with a good memory and a quiz compend, could pass the state's examination; and if he had the quiz compend in his pocket he need not even have a good memory. We doubt the correctness of these assertions; but the mere fact that such statements have been made reflects upon the practical character of the examinations. It is not only to be hoped, but predicted, that these objections will in due time be overcome.

IS THERE A RELATION BETWEEN PROSTATITIS AND PROSTATIC HYPERTROPHY?

AS much as the prostate has been studied we are still in the dark as to the etiology of its hypertrophy. The surgical treatment has been placed upon a sound basis, and has been perfected to an extraordinary degree within the past ten years, but the development of the treatment of this condition has surpassed the development of its pathology. Much study has been devoted to discovering just what conditions of disease or habits or constitution lie

back of hypertrophy of the prostate. Some of these studies seem to show that the senile changes of the nature of arteriosclerosis are the etiological factors. The similarity and analogous relation existing between the prostate and the uterus and between the hypertrophy of the former and fibromyoma of the latter are well known. Chronic congestion has long been pointed to as a cause of permanent prostatic enlargement with ultimate structural changes. The supposed causative factor which has received most attention has been inflammation.

To what degree prostatitis may be a cause of hypertrophy is discussed by Goldberg, of Cologne, in the *Zentralblatt für Chirurgie*, No. 8, February 28, 1907. The old question as to whether prostatic hypertrophy has a physiological or a neoplastic pathogenesis, he says, is still to be answered. In two hundred and fifty chronically enlarged prostates he found in a few cases glands which microscopically and according to the feeling did not differ from hypertrophied glands, although they were from men of from thirty to forty years of age. These prostates were very large, hard, and narrowed the prostatic urethra in the characteristic manner. No secretion could be expressed. The patients in three cases did not complain of the objective disturbances of micturition of which the prostatic usually suffers. They had no retention of urine. There were, however, the pronounced evidences of neurasthenia and hypochondria with special genito-urinary manifestations.

In another group of patients, Goldberg observed not only the subjective, but the objective, disturbances of micturition, which we see in the second and third stage of prostatic hypertrophy—acute retention of urine, chronic incomplete retention, acute and chronic secondary infection of the urinary tract, distension of the bladder, etc. Such prostates he found in men of twenty-five to forty-five years of age. Of this class he has seen twelve cases among a total of 500 prostatics. These prostates showed a high degree of diffuse endoglandular and interstitial inflammation. This condition he has called "prostatitis chronica cystoparetica" on account of its pathology and the bladder insufficience which accompanies it.

These seem to be the only two conditions found in young men which can be likened to prostatic hypertrophy; on the one hand is the picture of prostatism without the pathological basis for an hypertrophy, and on the other hand is the actual hypertrophy without the clinical picture of hypertrophy.

This condition is very different when we come to the hypertrophy of the real prostatic. Among Goldberg's last fifty cases he found inflammation in some form in twenty, and cites that Motz and Goldschmidt, among eighty hypertrophied glands, found abscess in nine and purulent prostatitis in four cases. Clinically they found among these cases abscess in two and in eight cases pus and bacteria in the prostatic secretion.

Goldberg in his twenty cases found a variety of conditions. In three cases there was a purulent inflammation due to infection from long standing use of the cather. In two cases there was gonorrheal prostatitis in old persons with old hypertrophy; still this prostatitis engrafted upon the hypertrophy seemed to have no influence upon its general course. In seven cases the condition was reversed: first, there was a chronic gonorrhea which did not heal well; then gradually in the course of the year prostatism developed. A careful examination of this last class of cases showed that the only difference between them and the cases put down as "prostatitis chronica cystoparetica" was that they were old men instead of young men. It may be concluded that many of the cases set down as the soft variety of hypertrophy of the prostate really are examples of prostatitis. Goldberg refers to two cases in which several years intervened between the subsidence of the gonorrhea and the development of the urinary difficulty signifying hypertrophy.

Finally, in the cases of five prostatics, who contracted venereal disease, he was able to determine the development of a primary prostatitis. These cases gave no reason to suspect a relationship between inflammation and hypertrophy.

In thirteen of his fifty cases of hypetrophy gonorrheal relation to the disease could be excluded. In two cases the hypertrophy developed after gonorrhea had been present for a long time. In four cases it was from twenty to fifty years after the gonorrhea that symptoms of hypertrophy developed without any intervening recognizable causative factor being introduced. In seven cases there was no cause to be assigned. All of these cases were properly cases of chronic cystoparetic prostatitis.

Very seldom has Goldberg seen prostatic hypertrophy follow prostatitis; and he does not believe that gonorrhea can in any sense be regarded as an etiological factor.

THE SIGNIFICANCE OF THE CHLORIDS IN THE URINE.

NEXT to the urates the chlorids may be regarded as the most important group of solids in the urine. From ten to fifteen grams, estimated in sodium chlorid, are excreted daily. Of course the amount of chlorids excreted depends ultimately upon the amount ingested, but no satisfactory explanation has been offered for the great diminution of the excretion which is observed in fevers. The gradual increase is as important a sign as the fall of temperature. The increase of chlorids excreted is often the first sign of improvement in pneumonia. The disease has reached a grave crisis when the chlorids are absent. Strangely in these conditions the ingestion of chlorids may go on while the excretion becomes less and less, and still an excess of chlorids is not present in the blood, but accumulates in the other fluids and tissue of the body. The sudden return to normal of the ingestion-excretion ratio has been termed by Achard and Sanbry "clorine crisis."

In five fatal cases of pneumonia Emerson (Clinical Diagnosis, 1906, p. 122) describes a steady fall in the chlorids until the end in three of the cases. In one case death was preceded for six days by entire absence of chlorids in the urine. In cases in which the fall in temperature was succeeded by several days of very slight fever the chlorids did not increase until the temperature fell to normal.

In chronic disease, it is shown that if the output drops as low as two grams, not depending upon a diminution of the amount ingested, it is a grave sign. Without explanation it is high in some conditions and low in others. The inhalation of chloroform increases the chlorin excretion. It is very low in meningitis. In typhoid it is only moderately low. It is said to be increased in cirrhosis of the liver.

The work of Widal has shown its retention in nephritis. In this disease, even when the excretion of other solids is normal, there may be a retention of chlorids. The presence of these salts in the tissues gives rise to edema. Many of these observations remain to be reconciled. We have learned practically that the estimation of the chlorids excreted gives a key to the severity of certain diseases, and that, inasmuch as these salts in the tissues cause the edema of nephritis, this edema may be overcome by diminishing the amount of chlorids ingested.

Observations.

ON THE EVOLUTION OF SCIENTIFIC KNOWLEDGE.

Some years ago, at the Marine Biological Laboratory at Woods Holl, a certain biologist was laughed at by the undiscerning because he spent the summer at the apparently unpractical work of studying the biology of the parasites of fishes' fins. This scientific man devoted himself to the proposition that all knowledge is practical; and to this thesis I dedicate these observations.

The true scientist is searching for knowledge. Whatever it is or wherever it is, he knows that it is one of the links in the chain of the great universal truth; and eventually, sooner or later, it will be of practical service to mankind.

There are two classes of investigators: those who are studying for ends of immediate utility and practical application, and those who are at work in the neglected and apparently unpractical fields of research. The first have reward and the eclat of applause for their results; the second hand down to posterity some new facts which in their day have found no great utility, while they have enjoyed the approval and appreciation only of the select few who have known of their work. All honor to those whose deeds remain unsung, who have labored in the cause of science without hope of applause.

While we acknowledge the debt we owe to Finlay, who suggested that the mosquito is the infecting agent in yellow fever; while we erect a monument to Reed, and lay a wreath upon the grave of Lazear, who gave us the proof; let us not forget the pioneer biologists who studied the mosquito, and who were called unpractical. They worked, little thinking of the importance of this insect to human life, but they formulated and made accessable their knowledge, sitting out the hours in the laboratory beside the faithful microscope, and dying never to hear the word "benefactor."

Between these two classes of earnest men is still another: those who belong to the first class but have failed. Suppose that courageous little woman, upon whom MacDowell operated in the cabin in the backwoods of Kentucky, had died—such a result has occurred in less serious cases in the hands of men of even greater skill than he—and the waiting mob had destroyed the surgeon, the name of McDowell would be practically unknown to us; and yet the merit of the man should have been as great. Suppose that O'Dwyer, after the years of labor to perfect his intubation tubes, had found that they failed; he would have been the same meritorious O'Dwyer, he would have labored just as earnestly for mankind, he would have sacrificed as much for them—yes, more—but there would have been no reward, for the goal would not have been attained. If he had lived to this day, he would

see the usefulness of his labors almost made null by the invention of antitoxin; yet the work of O'Dwyer and the motives that inspired him would have been the same. Suppose that Koch's tuberculin had done what he had hoped it would, he would have been acclaimed the greatest benefactor of his time, and honors would have fallen thick and fast upon him. His hopes were not realized, but shall he not have honor for standing upon the threshold where he could not enter in. The work he did and the hopes he cherished should merit it.

Pasteur, who stands pre-eminent and alone, his genius so far transcends all others, is the greatest and most beneficent scientist that continental Europe has produced. (He may be spoken of in the present tense because if ever there was an immortal man it is Louis Pasteur; he lives in every laboratory in the world to-day where original work is carried on.) His early work was devoted to studying the structure of crystals, and the business mind, which demands immediate results, declared him an "impractical scientist." But the study of the crystals of tartaric acid in wine lead him to the discovery of the cause of fermentation, and thence to the effects of micro-organisms upon living things, and thence to bacteria as the causes of diseases, and thence to the nature and prevention of infections and the principles of antitoxins and immunity—the most important revelations in the nature of disease which it has ever been given to any man to make. Had his researches halted with crystallization the world would not have acclaimed him with the glorious title of benefactor, but undoubtedly from his beginnings some others ultimately would have carried on the train of thought and investigation as far as he, and his work among the crystals would have counted for just as much. It matters not to humanity, save for pointing an example, whether its great work is done by one man or by ten. Nothing is lost. Who adds a grain of knowledge to human wisdom is a benefactor. Had Pasteur never reached the goal of glory, still he should have been crowned with wreathes of victory for he gave his life to the task of wresting Nature's secrets from her.

All honor to those who seek for knowledge; honor to those who enter into the dark and unexplored realms of Nature; honor to those who win from her the means of succor for the dying and relief for the suffering; and honor still to those who strive and strive again and fail!

The development of our science and art has been an evolutionary process. There have been no great discoveries *de novo*, but each has been the culmination of a series of efforts mingled with failures and successes. Many predecessors carried the torch before it was handed to him who bore it to the goal and reaped the reward of immortality. All honor to him who thought and toiled—say not, in vain—and died before the crowning of the end. He might have passed this message on; "I may never take you farther than I have been myself, but you may press on when I tell you of the vision I beheld. You may never fashion from the thing I wrought, but you may take your reckoning from the rare design where my clumsy hands fell short."

Items.

A Single Medical Examining Board.—Greatly to the credit of New York State, both houses of the Legislature have passed the bill creating a single medical examining board and the Governor has signed it. While this bill may make into law some features which do not meet with the general approval, still it is a long step in the direction of solidifying the medical profession and making uniform the requirements for medical practice. It places the licensing of physicians in this State upon a reasonable and common-sense basis, and possesses the great merit that it furnishes a definition of the practice of medicine.

Dr. Albert Vander Veer, of Albany, in honor of his services to the Albany Medical College, and to the medical profession, was given a banquet by more than 100 of his former students on May 2d. Among the prominent men who spoke on this occasion, felicitating the students upon the privilege which they had enjoyed in having had Dr. Vander Veer for a teacher and friend, and paying tribute to the guest of honor, were Dr. Joseph D. Bryant, and Dr. Thomas H. Willard, of New York, and Dr. Frederick C. Curtis, Dr. Thomas Wilson and Dr. Samuel B. Ward, of Albany.

Dr. Joseph D. Bryant Honored.—At the last meeting of the faculty of the New York University and Bellevue Hospital Medical College, the Chancellor announced that the University conferred the degree of Doctor of Laws upon Dr. Joseph D. Bryant, Professor of Surgery and President of the American Medical Association.

Dr. Ernst von Bergmann.—In the death of this notable man surgery looses one of its greatest men. He excelled as an original thinker, as a teacher, and as an operator, and was much beloved by the whole German medical profession.

Sixth International Dermatological Congress will convene by special invitation in the City of New York, on the 9th of September of the current year and will remain in session here for one week. The first Congress of this kind met in Paris in 1889, and since that time at intervals of about three years it has been held in Vienna, London, Paris and Berlin. At the Berlin meeting in 1904, New York was selected as the meeting place for 1907, and Dr. James C. White of Boston was elected president of the Congress. The Secretary-General is Dr. John A. Fordyce, of New York.

INTERNATIONAL CONGRESS OF GOUTTES DE LAIT.—The Second International Congress of "Gouttes de Lait"—Protection of Child-Life—will be held in Brussels from the 12th to the 16th of September, 1907. The Congress of Brussels will be the Second International Congress of "Gouttes de Lait," the first having been held in Paris, in October, 1905. This organization has been instituted for the prevention of infantile mortality. Their work falls under three headings: *First,* to give advice to mothers; *Second,* to encourage breast feeding; *Third,* to distribute milk to those infants for whom breast feeding is either impossible or insufficient. The members from the United States are: Dr. Goler, Medical officer of Health, Rochester, New York, and Mr. Nathan Strauss, New York.

THE AMERICAN MEDICAL ASSOCIATION.

The Fifty-eighth Annual Session of the American Medical Association, held at Atlantic City, on June 4 to 7, 1907, has passed into history. It was a meeting which must be declared successful from every point of view. So much that was valuable and instructive in the way of papers and discussions was presented that it was impossible for anyone interested in general medicine to attend all of the sessions which offered attractive programs.

The admirable address of the President, Dr. Joseph D. Bryant was listened to with close attention. It defined in a graphic manner the scope and possibilities of this great Association, and forcibly enunciated the things for which it should stand. As we have already stated, we believe, that the administration of Dr. Bryant will be productive of much good in the strengthening of the Association in the East particularly. New York State can be depended upon to continue increasing its membership.

The election of Dr. Herbert L. Burrell, of Boston, to the presidency to succeed Dr. Bryant meets with general approval. He is a man who can be relied upon to carry on the work in the lines of the high ideals which his predecessors stood for. His experience in executive work will make him at home in the office of president, and the high esteem in which he is held, and the eminence to which he has attained guarantee him the support of a united medical profession.

It is impossible to give an adequate report of the scientific sessions. The papers represented a high standard of merit.

The section on Practice of Medicine had a Joint Meeting with the Sections on Surgery, Pathology and Physiology, at which a number of papers on goiter were presented, including a paper by A. Kocher, of Berne. This section also had papers on The Abdominal Symptoms of Thoracic Disease, Cardiac and Vascular Accompaniments of Diabetes Mellitus, The Venous Pulse and some of its Applications. The Tone of the Respiratory Center in Tabes Dorsalis, and The Study of Gastrointestinal Tracts by means of Roentgen Rays. There was a joint meeting with the section on Pharmacological and Therapeutics given to the consideration of Rheumatism. Other papers were read on Observations on Plague in India, The Opsonic Theory and Therapeutic Inoculation with Bacterial Vaccines, A Critical Estimate of the Fermentation—Specific Gravity Method of Quantitating Sugar in Diabetes, Prepared and Predigested Foods, Experimental Anemia, The Uncinarial Anemia of Porto Rico, Differential Diagnosis of the Various Types of Anemias, and Treatment of Anemia.

The Section on Surgery and Anatomy had a program equal in importance to that of the American Surgical Association. Many papers of distinct merit were presented. The report of this section would not be complete without special mention of the paper of Crile, of Cleveland, upon the direct transfusion of blood.

The section on Obstetrics and Diseases of Women presented an interesting program. The sessions were well attended and the discussions attracted much interest.

The section on Ophthalmology opened its session by a series of formal addresses. The address by Hubbell of Buffalo, on What America has done for Ophthalmology was rich in American Medical History bearing upon this specialty.

The section on Laryngology and Otology gave most attention to middle-ear suppuration. The meetings were well attended.

The section on Diseases of Children presented an attractive program in which dietetics in childhood had an important place. The discussion upon the Ferments of Milk and their relation to Pasteurization was especially instructive and timely.

The section on Stomatology brought out much of the new knowledge on the diseases of the mouth and teeth, and the section on cutaneous diseases enjoyed papers and discusions by the most eminent men in this branch of medicine.

An admirable view into the advanced work in physiology being carried on in this country was given by the section on Pathology and Physiology. This section also held a joint meeting with the section on Practice of Medicine.

No section presented a better series of papers on its special subject than the section on Nervous and Mental Diseases. The discussions involved practically all of the branches of Neurology.

The program of the section on Hygiene and Sanitary Science included a symposium on the Hygiene of the Family in Relation to the Productive Energy and Health of the Offspring, another symposium on Pure Water Supply and Sewage Purification, and a symposium on Tuberculosis. Besides these there were many papers of importance, particularly those dealing with the questions of pure milk supply for municipalities.

The section on Pharmacology and Therapeutics attracted interested audiences because of the awakening interest shown in this branch of medicine. The medical profession may take very seriously to heart the paper by Wiley, of Washington, on "The Connection of M.D. with Proprietary Remedies."

The work of this great Association cannot be regarded as unwieldy. The registration, the arrangements for accommodating the members, the exhibits, the meetings of the various sections, and the general meetings, all testified to the admirable system employed in providing for the business of so great an organization.

Medical Society of the State of New York.

THE DISTRICT BRANCH MEDICAL SOCIETIES.

In this State are eight District Branch Medical Societies, all of which will hold meetings in the fall. These societies occupy an important position between that of the County Societies and the State Society. They are of especial importance in those districts in which the County Societies are small. Here the District Branch Society, made up of a number of County Societies, constitutes a good sized organization, with a membership sufficiently large to provide an attractive scientific program and an appreciative audience.

Many members of the State Society are unable to attend its annual meeting, coming as it does in the latter part of January and when most practitioners are busy. These District Branch meetings give another opportunity for members to come in touch with the profession outside of their own county. They should be well attended. The advantages accruing to medical men in coming together for mutual improvement are recognized by all members of these organizations, and it behooves us to corroborate our sentiment by our presence at these meetings.

ANNUAL MEETINGS OF THE DISTRICT BRANCHES, 1907.

1st District, October 28, in New York City.
2nd District, September 28, in Brooklyn, New York.
3d District, October 22d, in Albany.
4th District, September 18th, in Saranac Lake.
5th District, October 3d, in Syracuse.
6th District, September 24th, in Ithaca.
7th District, November 13th, in Rochester.
8th District, September 25 and 26, in Buffalo.

SCIENTIFIC SESSION: DISCUSSIONS.

ANNUAL MEETING, JANUARY, 1907.

DANGER SIGNALS FROM THE SKIN.

Dr. L. D. Bulkley, of New York, read a paper with the above title, for which see page 219.

Discussion.

Dr. L. Bolton Bangs, of New York, said that he would like to add a word or two, especially of commendation, to Dr. Bulkley's paper. Although largely carrying out the principle of precept upon precept and line upon line, nevertheless it was very important, and he was very sorry the time limit was such that Dr. Bulkley could not lay stress upon the value of the early skin manifestations of syphilis. It certainly could not be too much impressed upon us, and through us upon the community, wherein lay the danger to the innocent. Frequently the danger signals in the early stages of syphilis were present and overlooked. Although Dr. Bangs was not sure that the danger signals from the skin in regard to locomotor ataxia were always present, he was fully aware that if they were present much damage could be prevented. But just what the danger signals are which manifested themselves, in relation to ataxia which generally came years after the primary disease, had not been stated by the reader of the paper. Line upon line and precept upon precept, regarding the early diagnosis of syphilis, leading to vigorous treatment, can not be too much impressed upon medical men.

Dr. Frederic C. Curtis, of Albany, said there were two things in the paper of Dr. Bulkley that had impressed him very much. First is, that the skin is a fascinating point on which to study pathological processes; the other point is the intimate relationship that exists between the morphological processes in the body and those that are to be found upon the skin. In these conditions the inquiry is whether the disease is a blood or a skin disease. There is an old truth which he thought should be emphasized, that the conditions or diseased processes which have been laid before them are largely connected with malaction, functionally or otherwise, of the internal organs. The majority of general practitioners think that it is only necessary to read about a disease of the skin as an external affair. But there is the potent fact that there is something wrong internally in connection with a large proportion of cutaneous disorders that they have to do with. Just as one looks at a tongue to see if it is coated, or red, or what the conditions are in one way or another, so one would think of the skin as an indicator of very important conditions existing internally. Dr. Curtis thought that they were inclined to look too much upon cutaneous changes, whose pathological character is identical on the skin with that in another part of the body, as a thing apart from disease in another part of the body. The least one could do with these cases of skin disease, as eczema developing in a young infant, or psoriasis, etc., is to make inquiry and attempt to find out if there is a departure from the normal, the functionally true action of the body in general. One should try to find something to lay the finger on, and in many cases in remedying this will be rewarded by finding a remedy for the cutaneous disease which to common, superficial thought existed independently and alone.

TOXIC NEPHRITIS DEPENDENT UPON SURGICAL CONDITIONS.

Dr. Nathan Jacobson, of Syracuse, N. Y., read a paper with the above title, for which see page 225.

Discussion.

Dr. A. Jacobi, of New York, said that he failed to see that the three cases reported by Dr. Jacobson had anything to do with surgery; they were only cases of intoxication and subsequent nephritis. So soon as the pus was removed and so soon as the organs were washed out the nephritis ceased. In diphtheria on the third or fourth day there occurred a severe intoxication, and they expected, in many such cases, by no means in all it is true, contrary to what they saw in scarlet fever, such a nephritis to run its full course in three, four or five days. The cases reported were well diagnosed, were well treated, the pus removed, and when the irritation was removed from the circulation and kidneys, they recovered. All credit to the operator who restored their function. But he could not see how these cases should be distinguished from cases of general intoxication that they saw so often.

Dr. N. Jacobson, of Syracuse, N. Y., said that the point he insisted upon, and which is not sufficiently

emphasized and appreciated is that conditions entirely removed from the kidneys could, because of their bacteria or toxines, produce disturbances in the kidney just as diphtheria or scarlet fever do; that it is not generally understood that this renal condition can be relieved only by removing the surgical disease responsible therefor by operation. He stated that he had frequently been confronted by the statement that the existence of nephritis is a contraindication to operation, while he believed the presence of toxic nephritis of this type is a most positive indication for surgical procedure. The subject of nephritis must be rewritten. Ultimately he thought it would be placed upon an etiologic basis. When such a classification will be established there will be found in it a group of cases of toxic or bacterial nephritis demanding surgical attention.

NEW YORK STATE MEDICAL LIBRARY.

DR. A. VANDER VEER, of Albany, read a paper with the above title, for which see page 229.

STATE AID FOR MEDICAL LIBRARIES.

DR. SMITH BAKER, of Utica, read a paper with the above title, for which see page 231.

Discussion.

DR. FREDERICK R. STURGIS, of New York, said that the two papers just presented are of great interest to all medical men, and to the sentiments expressed in that of Dr. Vander Veer he should heartily say, Amen. Not only are the propositions excellent, but one particular point he should ask attention to, viz., that Dr. Vander Veer proposes that this library shall be a State library—a public institution—and not a private concern, which draws money from the public treasury for private purposes. As it is a State institution, meant for the inhabitants of the State, it should receive an appropriation and be controlled by the State authorities.

As to the second paper, that of Dr. Baker, he objected, on the ground that it proposes to obtain public funds, to be controlled by private parties; and where this has occurred, it has usually been found that the State gave none too much, and that the public at large, learning of State aid, immediately refused to subscribe any money, on the ground that the institution was receiving State aid and, therefore, should not ask for private contribution. There is only one course open: The State provides the institution, the State supports it, and the State should control it. If private persons wish a library, let them put their hands in their own pockets and subscribe to it. This has been done for many years in New York. When the Medical Library and Journal Association of that city started its library by private means, with no public aid whatever, they founded quite a respectable library, which later on became merged into the Library of the New York Academy of Medicine, which stands to-day as the third best medical library in this country.

He expressed himself as unalterably opposed to asking State aid for any private institution. In the first place, the need of such an institution often exists in the fevered imagination of the projectors of the scheme, and depending upon assistance from others instead of its own excellence, leads the institution into a condition of atony, which ends in atrophy; extinguishes all efforts at private initiative, deprives the institution of self-respect and creates a feeling of contempt in the State which gives the support; to paraphrase an ancient adage, it curses both him who gives and him who receives.

DR. WILLIAM C. KRAUSS, of Buffalo, called attention to the work in this line that had been done in Cincinnati, Cleveland, Detroit, Denver and other large cities, and to the effort being made in Buffalo leading to the consolidation or amalgamation of the three medical libraries there, the University, the Grosvenor Medical Library and the Buffalo Academy of Medicine, thus consolidating medical libraries containing 15,000 volumes, and forming a good nucleus upon which to expand and develop a satisfactory working library.

In building up a library there were three classes of medical literature to be considered, old historical volumes, current literature and periodicals of to-day, and reprints by men working in the community. Where it was impossible to form such a medical library, or to organize such a system, the method employed for instance at Batavia was recommended. Here each physician subscribes for certain journals which are circulated about among the physicians, thus insuring a much wider range of medical literature than would be possible if each one subscribed for the same journal.

This plan was advocated by the speaker in his presidential address before the Erie County Medical Society on "The Need of a Medical Library in Buffalo."

DR. A. JACOBI, of New York, said that if the subject came now to a vote, he would vote against it. His experience with the Legislature had shown him the difficulties one encountered in medical matters. When they came with the request that the State should pay for a number of medical libraries, they probably would be told that when an individual wanted a tool, let him purchase it himself. Dr. Jacobi was in favor of a single, big State library, but he could not imagine for a moment that the State would bind itself to support a large number of libraries in every little town. He did not believe the State of New York would consent to pay money for that purpose. Moreover, the step proposed was in his opinion undemocratic; the county had grown and developed on democratic lines. Self-help was the foundation of settlements, towns, counties, etc. There is danger of too much paternalism amongst the people.

DR. WM. BROWNING, of Brooklyn, N. Y., moved that a Committee of Five be appointed from different parts of the State to consider the subject of medical libraries, and especially the matter brought up in the papers read by Drs. Vander Veer and Baker, and report at the next annual meeting. Seconded. Caried.

Correspondence.

THE CHILD CRYING IN ITS MOTHER'S WOMB.

Brooklyn, New York, May 21, 1907.

Editor, New York State Journal of Medicine:—

Apropos of the editorial in the May issue of the JOURNAL regarding "The Child Crying in its Mother's Womb," I relate to you a personal experience in the Low maternity of the Brooklyn hospital. Mrs. D., aged 37, a primipara, a large, rather stout, well-developed woman, was sent by her physician to the hospital because of brow presentation. She had been in labor forty-five hours when I saw her. Her last menstruation was on May 23, 1906, and lasted three days. The usual calculation would make her confinement due February 27, 1907. It was now midnight of March 11-12. The head was not at all engaged; the os was moderately dilated; the external pelvic measurements were above the average, but she had a very large frame. The cavity of the pelvis seemed below the average; the internal conjugate was estimated at three inches. The child, in addition to the abnormal position, seemed to be unusually large. After a careful consideration of all the elements of the case I proposed to her physician, who accompanied her to the hospital, to deliver her by cesarian section to which he readily acceded; but the patient declined to be delivered in this way, preferring to take the chances of losing the child by version and delivery through the small pelvic cavity. (She afterward bitterly regretted that she had not been guided by our advice.) Under anesthesia, manual dilatation was completed without difficulty and version performed. After the greater portion of the body had been delivered, while my associate was bringing down the arms (as I now recollect),

I heard the infant distinctly cry, and I called the attention of those about the operating table. They, too, had heard it, but had not noted it so positively as I had. After an interval of perhaps half a minute to a minute, while we were listening as if in expectation that it would be repeated, we again distinctly heard the cry. Unfortunately there was no record made of the exact stage of the delivery nor of the interval of time between the cries. *But of the fact there can be no doubt.* After reading your editorial, I questioned each one of those who heard it and all gave the same account. Dr. Edson, the family physician, two nurses and myself are all positive that we heard the cry twice. Dr. Hussey, my associate, who was at the time engaged in continuing the delivery and so had his attention riveted upon what he was doing, did not hear the cry the first time, but recalls that the others had done so. * * * * * The delivery was extremely difficult. The child's heart was beating but it was impossible to excite respiration. The child weighed eight pounds and one ounce. This is the only instance of the kind that has occurred in my experience, which as you know has been unusually large.

Francis H. Stuart, M. D.
Obstetrician to the Brooklyn Hospital.

THE RATIONALIZATION OF THERAPEUTICS.

May 20, 1907.

Editor, New York State Journal of Medicine:—

In your last issue was published a letter by Dr. W. Parker Worster, of New York, under the heading of "Rationalization of Therapeutics." His statements along that line seem unreasonably extreme in regard to the use of drugs as therapeutic agents. No up-to-date physician will dispute, I think, in this enlightened age, that the medical profession have prescribed, and many are yet prescribing, many inert and even uncalled for drugs, and it is perfectly true, therefore, that so far they should mend their ways. But physicians at large are not pouring down drugs at haphazard as your correspondent would seem to infer, nor are they using them as the sole means of cure, to the exclusion of "the rest cure" treatment, rest, massage, electro-therapeutics, resisting movements, graduated exercises, fresh air, diet and baths. The best results in the treatment of disease, no doubt come from close attention to diagnosis, with the endeavor in each case to form a conception of the existing pathological state or derangement of function, with a view to restoring normal conditions by means of dietetic, climatic, hydro-therapeutic, surgical, electro-therapeutic, or mechano-therapeutic measures, and by use of the best obtainable standardized preparations of appropriate drugs. But to say that "rarely, except as a placebo, is it necessary to resort to drugs," would take away from the physician his best means of combating many general diseases, as acute rheumatism, intermittent fever, syphilis with its countless manifestations, chorea, anemia, the restriction of fits in epilepsy, and treatment of some forms of heart disease, where the beneficient action of digitalis may prolong life for years. These are a few of many examples of every day affections where drugs are indispensible for internal use and by means of which often brilliant and striking results are achieved. Pain, in its manifold forms, and locations, may require the internal or hypodermic use of drugs. The external uses of drugs in skin affections, throat, eye, ear, and genito-urinary disease are so numerous and varied that the loss of their use would make us weak, indeed, in our warfare against disease and death.

Even the much despised blood-letting, described by Dr. Worster as now "entirely fallacious," is in fact notably certain in its beneficial effects in many diseases, for example in iritis, where, as it is practiced at Edinburgh, a leech or two, locally applied and permitted to fill, relieve the excruciating "brow pain" and subdue the violence of the inflammation.

We may, I think, more safely accept the results of experiments, concerning the physiological action of drugs on the human system, which have been conducted by such men as Sydney Ringer, Lauder Brunton, and our own Hare, as more convincing testimony of the beneficial and remedial effects of drugs in the presence of disease, than to be lightly swerved from our path by the chance views of extremists, whose opinions, based on local or personal experience only, are liable to be erroneous.

Seneca Falls, N. Y. Frederick W. Lester, M. D.

CARLSBAD SPRINGS.

Carlsbad, April 29th, 1907.

Dr. J. C. Brunwasser,
Brooklyn.

My dear Doctor: I have received several letters from medical friends in New York, asking me about the condition of the Carlsbad springs.

This induces me to send a few lines to you, to inform you that there is not the slightest cause for any apprehensions regarding our springs.

Having spent the whole winter in Carlsbad I am able to say that I had occasion to see and hear everything that was going on and I am therefore competent to report on it.

Last fall two of the less important springs, viz.: the Schlossbrunn and Bernhardsbrunn required repairs which were done satisfactorily. This gave rise to entirely unfounded reports regarding the springs in general and some of the minor health resorts used it for an advertisement of their own springs, adding a good deal which was imaginary.

The Mayor of Carlsbad, however, has no desire whatever to hush up anything, and upon my request he has had the kindness to hand me an Official Report, which is as follows:

"Dear Sir: Referring to your inquiry, I have the honor to hand you the following Official Report, which I hope will be sufficient to contradict all wrong reports that have been published by some papers in consequence of an erroneous information. After many years of applications from the municipality of Carlsbad, the Minister of the Interior appointed last year an imperial commission of experts, requesting them to examine the present regulations which exist for the protection of the Carlsbad springs against coal and caolin mining, and to forward a report, containing suggestions for the extension of these regulations. This commission has for some considerable time examined all mines in the immediate and distant neighborhood and in consequence of it, warm mine water was found in a mine called Maria II and the qualities of this water admit of the conclusion that the further pumping of it might perhaps do harm to the Carlsbad springs at a future time. As a precaution the pumping of this water and the water in two other deep mines was stopped. This measure being wrongly interpreted, erroneous reports found their way into some papers, headed, 'The Carlsbad Springs Endangered.'

"There is no danger of any kind whatsoever for any of the springs and the principal spring, the Sprudel, yields 1,300 liters or 300 gallons of hot water every minute, *i. e.*, the very same quantity that it gave at all times.

"At Carlsbad, reconstructions were carried out last winter on two small springs, the Schlossbrunn and Bernhardsbrunn with the object to increase the quantity of water by an improved reconstruction, in order that the increasing number of applicants for water might be attended to in a quicker way.

"This work, which was completed a short time ago, had the best possible effect, so that Carlsbad is now prepared to admit a much larger number of applicants for water to its springs than in the year 1906.

"With the expression of my highest esteem,

"I remain,

Dr. Josef Pfeiffer, Mayor.

To Dr. M. Gerst, Carlsbad."

Besides this Carlsbad being located on a vulcanic reservoir of hot water, springs could be opened wherever the people wanted them, but millions of gallons flow away at present, there being no use for them.

Kindly give the enclosed report a look and bestow on it your valuable patronage whenever occasion presents itself.

There is no objection in making use of this whenever you find it convenient to do so.

Soliciting the favor of your further friendship, which I appreciate very much,

I remain yours faithfully,

DR. M. GERSTL.

Progress of Medicine.

PRACTICE OF MEDICINE.

EDITED BY

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POSTERIOR BASIC MENINGITIS AND CEREBRO-SPINAL FEVER.

Langmead, in the *Practitioner* for April, discusses the question whether posterior basic meningitis is a disease *sui generis,* or whether it is only a variety of cerebro-spinal fever.

In support of his belief that both conditions are different manifestations of the same disease he describes the symptoms and pathological features of posterior basic meningitis as commonly of the condition occuring in the rare cases among older children he points out the approaching similarity of the disease to cerebro-spinal fever.

Both diseases have the initial coryza, leading to irritability and headache, in both there are regidity, head retraction, strabismus, and tonic or clonic spasms, and in both hydrocephalus is the most common sequela. The approach of the two diseases to similarity through the cases of posterior basic meningitis in older children are interesting to note. A rash is rare in posterior basic meningitis in infants. Though purpura and herpes are often described as typical symptoms of cerebro-spinal fever, the former was only present in six and the latter in five of thirty cases reported in a recent epidemic. Between these two is the posterior basic meningitis of older children, in which two cases out of ten had herpes. The temperature in posterior basic meningitis in infants is usually slight, being higher and irregular if fatal; in older children with the same disease the temperature was generally intermittent; in cerebro-spinal fever there was no fixed type but one form of fever was intermittent. Optic neuritic occurred in 7 per cent. of the cases of posterior basic meningitis in infants, in 50 per cent. of cases of the same disease in older children, and 15 per cent. of cases of cerebro-spinal fever. Amaurosis was present in one-third of the cases of posterior basic meningitis in infants, one tenth of cases of the same disease in older children, and very rare in cerebro-spinal fever. Though two different pathogenic organisms have been described for two diseases, Dr. Still, who first demonstrated the organism of posterior basic meningitis and differentiated it from the diplococcus of Weichselbaum, states that the features of difference were "the result of natural variation, and represented rather a modification of characteristics than a distinction in kind." The diplococcus described by Dr. Still has been isolated from the blood of a case of malignant epidemic cerebro-spinal fever. Posterior basic meningitis, moreover, can occur in epidemics. It is the author's belief that posterior basic meningitis is sporadic cerebro-spinal fever, modified, but not differering from it more than one epidemic differs from another.

A NEW METHOD OF PERCUSSION.

The new method of percussion recently advocated by Goldscheider, but not yet widely practiced in America or England, though much in favor among German medical men, is described by Hertz, in the *Practitioner*, for April. The method is found to give a complete outline of the heart and great vessels which invariably corresponds closely to the outline of these organs as demonstrated by the X-rays. The percussion is so extremely light that it can only be heard when the ear is placed near the chest. By this means, if it is begun outside the heart area, a just audible resonant note is obtained when vibrations are produced through the whole depth of the lung. As soon as the edge of the heart, however deeply it may be situated, comes under the finger, the column of vibrating lung is diminished in length, so that the minimal resonant note disappears and complete dullness results. Hence the outline is obtained as easily and as accurately in patients with severe emphysema as in those with normal lungs. The tip of the percussed finger alone touches the chest, the terminal phalanx being always held in a direction parallel to a line drawn perpendicularly to the sternum, so that in the lateral part of the chest it is not perpendicular to the surface. The terminal phalanx is flexed to as near a right angle as possible on the second phalanx, and the last interphalangeal joint is percussed.

The position of the percussed finger is particularly important when the heart is enlarged towards the left. When the heart is percussed in the ordinary way, by strokes in a direction perpendicular to the chest, a relatively dull note can be obtained at a point which, viewed from the front, is quite outside the cardiac area, owing to the nearness of the heart to the laterally chest wall. The error of making the border of the heart too far to the left is avoided by sagittal percussion. The proximity of an enlarged heart

to the lateral chest wall also explains why Moritz, using the ordinary method, found that the best results were obtained by moderately light percussion for the left border of the heart, though the right border required strong percussion.

Goldscheider's method of ortho-percussion, as it has been called, demands an absolutely silent room, which renders it often impossible to use in a hospital ward or in an out-patient department.

CULTURAL URINARY EXAMINATIONS.

Concerning the practical value of cultural urine examinations in diseases of the urinary system Goldberg asserts the in hitherto untreated patients who have had healthy urinary systems but in whom marked pyuria develops spontaneously, in case gonorrhea can be excluded, are to be regarded as tuberculous, even if tubercle bacilli are not found, when the urine obtained by sterile methods with the catheter causes no growth in bouillon, gelatine or agar. When a pure culture of staphylococcus is found the prognosis is good; the findings of a pure culture of coli bacilli in a patient who has not been treated is scarcely of prognostic value, but in patients who have been treated antiseptically for some time the indication is that rapid recovery is not to be expected. The comparative number of bacteria which are found in freshly voided urine are prognostically of no special significance. Practical experience has taught the author that in general formaldehyde group of drugs are more effective in treatment of the cocci infections than of the coli infections. The latter are better influenced by salol, quinine and methylene blue. The patient is never necessarily cured as soon as he has clear urine, for if treatment is then stopped he frequently returns soon with his old trouble. Treatment must continue until all cultures of the urine obtained by sterile means are negative. The author insists that the microscope, although of value as an aid, must not be taken as a substitute for cultural methods, for by microscopic methods important bacteriologic finding are often missed.—*Zentralblatt für innere Medizin,* No. 16, 1907.

DIAGNOSIS OF LIVER ABSCESS.

A valuable contribution to the subject of diagnosis of liver abscess is made by Dr. Arthur Axisa of the European Hospital at Alexandria, Egypt, who has had opportunity to observe there a very large number of cases. From the time when Mung, in 1839, first emptied a liver abscess by puncture, the diagnosis of the condition has mainly depended upon surgical means, and the mortality has reached 40 to 50 per cent., due to the fact that in many of the cases the patient was in extremis with pyemia and sepsis before a diagnosis could be verified. In order that surgical means may save life a diagnosis should be made at the earliest possible moment.

It is sufficient for the diagnosis of liver abscess if an increase of volume upwards is demonstrated, all other classical symptoms being secondary. However, several months even may elapse before a swelling of the liver manifests itself, or the patient may never have a single symptom pointing to a localization of the trouble in the liver. If an increase in volume of the liver is awaited the patient is in a condition of general sepsis by the time a diagnosis is made and a fatal outcome is reasonably certain. Demonstration of increase in liver volume upwards may also be made impossible by the possibility of pleuritic effusion. Exploratory punctures where an abscess exists have often without doubt been the cause alone of death from hemorrhage and peritonitis.

Hyperleucocytosis is an important symptom of liver abscess, but by itself is not sufficient for diagnosis. It is of very great significance, however, when associated with enlargement of the liver, as with other liver diseases a leucocytosis of over 18,000 does not occur. Of course the hyperleucocytosis loses all its significance where a pleuritic effusion is present or suspected.

It is the functional diagnosis that solves the problem where the physical methods are insufficient to localize in the liver the suppurative process, proven by the leucocytosis. It is a known fact that in liver diseases the ammonia in the urine is increased in relation to the total nitrogen, while the urea is diminished. This increase of ammonia may be regarded at least indirectly as an expression of liver insufficiency, when of course all morbid conditions which might cause an ammonia increase in the urine are excluded. In acute fevers there is an increase of ammonia but the urea output is also increased; in liver abscess, on the other hand, the urea output is absolutely and relatively diminished. If in a disease with fever there is found an increase of ammonia in which the ammonia nitrogen is 10 to 15 per cent. of the total nitrogen, and the urea is relatively and absolutely diminished, a liver insufficiency is to be assumed; and if repeated observation give these same findings an anatomical damage to the organ may be regarded as present. This assumption may be still farther proven by an ailmentary levulosuria. The presence of levulose in the urine after the administration of 30 to 40 grams speak for a high grade functional disturbance of the liver. Ailmentary levulosuria is present in about ten per cent. of people not suffering from liver disease, but in these cases is present in comparatively slight degree.

In many cases of liver abscess we may wait in vain for liver symptoms, or if they are manifest it is too late for the measures which may save the patient's life. It is then that the blood is examined for a hyperleucocytosis, the urine examined for an increase of ammonia and diminution of urea, and a levulosuria watched for after the administration of small amounts of levulose.

When such are the findings a surgical exploration is a fitting and just proceedure.—*Zentralblatt für innere Medizin*, No. 13, 1907.

THERAPEUTICS.

EDITED BY

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THE AMERICAN THERAPEUTIC SOCIETY.

THE very successful meeting of the American Therapeutic Society at Washington, May 4-7, again demonstrated the value to American therapeutics of this national organization, which places special emphasis upon treatment. Its membership includes teachers of therapeutics, clinicians, government experts, laboratory workers and specialists, which insures a comprehensive consideration of topics discussed. Under the presidency of Dr. Robert Reyburn a rich program was enjoyed, the introduction being the president's address upon "Fifty Years in the Practice of Medicine." With the scene laid in our National Capitol, this address is of great historic interest, as it deals with medical affairs during the Civil War and details the medical facts related to the last days of both Lincoln and Garfield, by one who was intimately concerned. The address should have a place in every public medical library.

Among the many excellent items of the program, the paper on "Pure Drugs," by Dr. Harvey W. Wiley, commands special attention. He sounded a note of progress, emphasizing the advance of to-day, with our pure food laws, over the conditions in the year 1840, when at least one-half of the imported drugs were either adulterated or deteriorated, and when even different grades of drugs were prepared for different sections of the country. On the other hand a problem appears in the fact that there are to-day 50,000 drugs and preparations for sale in the United States, only 1,500 of which are found in the U. S. Pharmacopœia and National Formulary. Many of these contain poisonous drugs and their promoters are often utterly ignorant persons. It seems to be a fact that only educated physicians are required to possess a license to practice, the most ignorant person having the privilege of selling the most poisonous substances and advertise its application to diseased conditions. The postal department is aiding much, within its powers, to stop these frauds through the mails, but further legislation is needed. In this direction Dr. Wiley makes the valuable suggestion that it should be enacted that no person whatever be allowed to advertise or sell any preparation without a license granted upon examination. He also suggested the importance of emphasizing the principles of chemistry, pharmacy and therapeutics in medical education, holding that in the practice of medicine much of the real art lies in the composition of the prescription.

Another note of progress was given by Dr. F. H. Gerrish in regard to legal control of the victims of drug habits. He urges the necessity of establishing laws in the various states which would give the attending physician absolute legal control of the patient for a definite time, so as to permit of proper restraint and supervision until a cure could be effected. A law of this kind has been enacted in Maine.

Dr. McKenzie, of Toronto, placed needed emphasis upon the employment of physical training in the treatment of neurotics. His paper gave results of orthopedic gymnastics, especially in the treatment of neurasthenia. These cases should be regarded as psychic rather than somatic, and as requiring the discipline permitted only by complete submission to the authority of the physician. The treatment should be active rather than passive, and the patient should be led out of egoism into an altruistic attitude. Proper gymnastics, under supervision, will serve to engage the mind and improve the general nutrition. Even cases of chorea have yielded promptly to treatment by exercise.

Dr. T. E. Satterthwaite, in a clear and full presentation of treatment of valvular diseases of the heart, gave due importance to physical treatment, *i. e.*, exercises, saline and effervescent baths, etc., the point of greatest importance being to conserve the nutrition of heart. He made a clear distinction between the use of heart stimulents in sudden failure and heart tonics in persistent disability. In sudden failure digitalis acts too slowly to be of use, while the more diffusible drugs, such as camphor, aromatic spirit of ammonia and, in some cases, the nitrites, are useful.

The Society is squarely upon record against the proprietary drug evil, as its by-laws prohibit communications or discussions of any kind favorable to secret, patented or trade-marked medical products. The attitude of the members upon this general question was well shown in the closing discussion upon iron preparations, where the experiences of those present led to the unanimous expression that the well-known official preparations of iron are superior to the much advertised new proprietary ones. A report was made of comparative clinical observations with the so-called peptonates and the common inorganic forms. These observations, in 14 cases, showed the peptonates to be much inferior to the tincture of the chloride, the carbonate and reduced iron.

SURGERY.

EDITED BY

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AIR MASSAGE.

R. Klapp produces the effects of massage without the necessity of touching the parts by directing strong currents of air on the skin. These strong currents produce hyperemia. To produce a reaction of the hyperemia, which is produced by a cold stream of air, a short application of a hot stream is necessary. The treatment is useful in painful affections, such as recent fractures, in macerated conditions of the skin in the neighborhood of wounds. Infiltrated areas are caused to be absorbed more rapidly. Klapp uses an apparatus constructed by Eschbaum which is capable of producing as strong a current of air, either hot or cold, as is necessary. — *Münchener med. Wochenschrift,* 1907, No. 1.

APPENDICITIS IN CHILDREN.

Illustrative of the frequency with which appendicitis occurs in the very young, Erdmann (*Med. Record,* May 11, 1907) reports one hundred cases of children operated upon by him from January, 1902.

Thirty-seven cases required drainage. Twenty-four cases had perforated. Fifty cases, *half the entire series,* were gangrenous. Since January, 1904, thirty cases out of seventy-eight had pus. Of the entire series only five were interval cases. That thirty-seven cases out of one hundred required drainage is a striking commentary on the necessity of early diagnosis and prompt operation. The actual age of ninety-five of the patients was as follows: One at one year, one at twenty-one months, one at two years, three at three years, seven at five years, four at six years, ten at seven years, seven at eight years, eight at nine years, nine at ten years, fourteen at eleven years, eleven at twelve years, five at thirteen years, four at fourteen years, and ten at fifteen years. The greatest number of cases, therefore, occurred in the eighth, twelfth, thirteenth and sixteenth years of life, being a total of forty-six cases out of this series of ninety-five cases. The fatal cases were seven. Two of these died of pneumonia; two had subphrenic abscess; one died of exhaustion. Four of the children died of general suppurative appendicitis. The age of these children was as follows: One was ten years old, one was eleven and a half, one was an infant of twenty-one months. The age of the fourth child was not given. In view of the fact that thirty-seven per cent. of these cases required drainage, it is not strange to find that Erdmann is of the opinion that when appendicitis has once occurred the patient is always in danger until the appendix has been removed.

ENDOTHELIOMA OF THE OVARY.

Barrett, of Chicago, reports a case of endothelioma of the ovary, this being the sixth case reported in English surgical literature (*Surgery, Gynecology and Obstetrics,* May, 1907). He gives in chronological order eighty-four cases collected from foreign literature, being a complete list of all reported cases up to date. Of the eighty-five cases cited, twenty died during the first month, thirty-four are reported recovered, thirty-one have no record. Eleven of the "recovered" cases are reported as having recurred, death resulting in from six weeks to five years.

Metastases were very common, and were found in the uterus, opposite ovary, peritoneum, omentum, liver, lungs, cord, and in Barrett's case in vagina, groin, body and legs.

The article is well illustrated with numerous micro-photographs. The full literature is appended.

SURGERY OF THE LIVER.

Cullen reports a series of cases in which it was necessary to remove a segment of the liver or suture torn areas.

In the first case, he removed a carcinomatous nodule from the liver 16x14x13 cm., approximating the raw surfaces without difficulty. Little blood was lost in the operation, and patient recovered. This was done seventeen months after nephrectomy for carcinoma of left kidney. Cullen points out the advantages of using blunt needles for liver suture, When he has not had Kousnietzoff's liver needles, he has used ordinary Hagedorn needles, introduced eye first. He has also used a common bodkin successfully. In a second case, after a hysterectomy for large fibroid uterus, Cullen removed a thickened gall bladder containing some pus and two stones, together with a wedge of liver tissue. Mattress sutures of catgut were introduced into the liver with a bodkin and controlled the bleeding. In a third case, Cullen adopted the same proceedings, removing a cauculus and suppurating gall bladder together with a wedge of liver tissue. Eight mattress sutures of catgut were used in this case to control the hemorrhage. In two other cases in which the liver was accidentally injured, hemorrhage was successfully controlled in the same manner.

Cullen gives the credit for devising a liver needle which will push the vessels to one side,

without perforating them, to Kousnietzoff.—*Surgery, Gynecology and Obstetrics,* May, 1907.

STRICTURE OF THE URETHRA IN CHILDREN.

Marshall and Quick call attention to several cases of stricture of the urethra occurring in young children. In one case the child was eight years old, and had a stricture which allowed a No. 11 Fr. to pass with difficulty. There was no history of gonorrhea in this case and the writers are unable to assign a cause. They state however, that they saw an epidemic of gonorrheal urethritis in a charity hospital a few years ago, in which forty or fifty male and female children were affected. Some twenty other cases of stricture are cited from literature of gonorrheal origin. Thirteen references conclude the article.—*Surgery, Gynec. and Obstet.,* May, 1907.

OPERATIONS ON THE STOMACH.

Brewer reviews 16 operations done by him the past year for symptoms thought to be due to chronic gastric ulcer or benign stenosis at the pylorus. He divides the cases into two classes, those in which a definite anatomical lesion was found at operation, and those in which it was absent. Of the first class, there were 10 cases. Eight of these were relieved by operation. One was relieved temporarily, but died later with symptoms pointing to cancer. One case, a woman, died of lobar pneumonia. In each of these cases operation was clearly indicated. In the gastro enterostomy cases, the posterior no-loop operation was performed. In 10 of the 12 the suture method was performed. No vicious circle followed in any of the cases. All of the cases in which the anatomical lesions were found were neurotic apparently. One, however, proved to be a case in which the stomach symptoms were the expansion of the gastric crisis of locomotor-ataxia. One of the neurotic cases was a case of hysteria.

Brewer's conclusions are as follows: 1. Intelligent medical treatment should be given in all primary cases of simple round ulcer. If unrelieved after six weeks of this treatment, operation should be advised. 2. Operation should be done in all cases of indurated chronic ulcer, and in all cases of recurent symptoms after a primary cure. 3. Operation should be done in all cases of pyloric stenosis, excepting those due to gummatous infiltration.—*Annals of Surgery,* 1907.

VERONAL CHLOROFORM ANESTHESIA.

Dr. W. Pokotilo reports on the use of this form of narcosis in the Moscow Surgical Hospital clinic of Prof. Diakonow. (*Centralbl. f. Chirurgie,* 1907, No. 9) Dr. C. Strauch recommended Veronal as a means by which narcosis might be improved. Veronal chloroform was advised by Pokotilo two years ago. (*Chirurgie,* 1905, July.) Since then it has been used in this clinic exclusively for general anesthesia with good results.

Since his original article was written in the Russian language he now gives a short résumé of the theoretic pharmacologic foundation on which the use of this anesthetic is based.

All anesthetics (chloroform, ether, etc.) are injurious to the organism. This injury may be lessened by diminishing the amount of the narcotic used or by giving antidotes. Particularly does chloroform act on the heart. Most methods of combined anesthetics assist either to diminish the amount of chloroform used or to lessen its action on the heart. Finally the combined anesthetic has for its object the quieting of the patient, who is nervous on account of the approaching operation. Such a condition of the patient, frequently accompanied by irregular pulse, must influence the course of the anesthesia.

Further, it is important to shorten the stage of excitement and to lessen the sequalæ, *i. e.,* headache, nausea, vomiting, etc.

It occurred to Pokotilo that veronal would be valuable, because (1) it has the power of producing sleep without any injurious accompanying symptoms; (2) it is a derivative of urea and contains therefore 2 amido groups (NH_2), the latter acting like ammonia as a heart stimulant. It was shown that it also fulfills the above mentioned demands. One and one-half to two hours before operation, in 1.0 gm. dose, the following was observed: Patients either go to sleep or are very drowsy and therefore indifferent to their surroundings to the coming operation. Sometimes too long a time elapses before giving the chloroform and they wake up. The stage of excitement is shorter and milder, the quantity of chloroform less and the after effects less marked. Vomiting is rare.

Prof. Diakonow has collected cases at this clinic and on his report the following table is founded:

	Eth. Brom. ChCl-3	Hedonal. ChCl-3	Veronal. ChCl-3
Anethesia effects appeared in.....	5.21 min.	3.82 min.	2.58 min.
Excitement observed...	45.08%	27.17%	22%
Average duration of excitement	2.89 min.	1.87 min.	1.30 min.
Vomiting observed.....	16.83%	6.79%	2.03%
Asphyxia observed.....	7.62%	5.47%	2.96%
Bad pulse observed....	6.35%	4.53%	1.15%
$ChCl_3$ used in 1 min....	0.69 cem.	0.57cm	0.61 cem.

This shows that veronal, combined with chloroform, gives better results than veronal or ethyl bromide, the latter being of course preferable to simple chloroform.

The quantity used in 1 min. seems to be less in hedonal-chloroform. This may be due to the fact that during veronal-chloroform there were more operations about the head. On the other hand frequently after hedonal, marked excitement was observed.

On account of good results, Prof. Diakonow is using veronal-chloroform and is observing it closely.—*Zentrallatt f. Chir.,* 1907, No. 18.

PROSTATECTOMY.

At the 36th Congress of German Surgeons held in Berlin April 3-6, 1907, *Kümmeld,* of Hamburg, read a paper upon "Extirpation of the Prostate." In brief he holds that the time for operating is not in the early stage but later, when after continued catheterization there is residual urine, especially if cystitis or hemorrhage are present. He advises that all the prostate be removed as extirpation of the middle lobe alone may be followed by recurrence.

Operation is contraindicated in extensive arterio-sclerosis, in insufficiency of kidney, in parenchymal nephritis, in atony of bladder where walls are non-elastic. Prostatectomy gives an operative mortality of 10 per cent. He advises the supra pubic route because it affords better view of diverticula and hidden stones, and leaves generally no fistula, no insufficiency and no impotence. All these disturbances may occur after the perineal operation. In cases presenting marked rectal bulging out in men with much abdominal fat, the perineal route is advisable. In 41 operations (9 carcinomata) the mortality was 33 per cent. In all cases voluntary urination followed with moderate capacity of the bladder. In some instances stricture followed. All were done with lumbar anesthesia. After opening the bladder and pushing the prostate forward from within the rectum the mucous membrane of the bladder is incised in a curved direction around the urethral orifice. The prostate is then shelled out. If there is no infection of the mucosa this is united and the bladder closed, then the abdomen, and a permanent catheter is placed in the uretha.

In the discussion which followed, *Rydygier* (Leurberg) advised early operation, not waiting till daily catheterism is necessary. He always uses the perineal route, and does not open the urethra. He incises the capsule, enucleates the lobes, leaves a narrow 1 cm. strip along the walls of the urethra, closes the wound, and has seen no fistula following. His patients get up on the second day.

Israel is more conservative, on account of the high mortality. He only operates when catheterism is impossible, and always uses the suprapubic route, even in fat men. As he once had severe hemorrhage on the fourteenth day he drains the prostate cavity and leaves the bladder open.

Roosing (Kopenhagen) is also conservative. Only when hemorrhage or stone is present, or when catheterism is impossible, does he resort to operation. He opens the bladder from above and only does a partial operation (removes valve-like flaps, etc.). He condemns general prostatectomy on account of severe psychosis after them (suicides, etc.). After vasectomies he saw 60 per cent. of improvements. In severe cystitis he makes a small fistulous opening in the bladder and inserts a permanent catheter, through which he washes, with silver nitrate. Free exit for urine is important, not removal of prostate.

Payr (Graz) has done two cases under cocaine, and by injecting the solution under the capsule the enucleation was made easier.

Wullstein (Halle), after experiments on the cadaver, attacks the prostate as follows: He makes a convex incision down over the mons veneris and does a double sided temporary pubotomy, leaving a narrow bridge of bone on the lower margin of the symphisis. The bladder is kept dry by placing catheters in the ureters for two or three days. These views are interesting as compared with the more advanced American views on this subject.

OBSTETRICS.

EDITED BY

By CHARLES JEWETT, M.D.,

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THE USE OF SCOPOLAMIN-MORPHINE IN OBSTETRICS.

Preller says, from October, 1905, to October, 1906, 1,000 deliveries occurred in the lying-in hospital at Mannheim. In 220 of these scopolamin-morphine anesthesia was employed. The method was successful in 70 per cent., fairly satisfactory in 18 per cent., and in 12 per cent. gave bad results, chiefly because begun too late. The most significant complications observed were enfeebled action of the heart, which occurred in 20 to 25 per cent. of the cases. In from 20 to 30 per cent. labor was apparently prolonged. The placenta had to be detached by hand in 2 cases; in 3 Créde's method of expression was employed. Atonic hemorrhage followed in 4 cases; secondary hemorrhage, once, owing to retention of placental fragments. In 2 cases there was a high degree of intoxication, with marked hallucinations and complete disorietation. The frequency of operation was 7.6 per cent., as compared with 8.4 per cent. in other cases. One child died soon after birth, and one was born slightly asphyxiated; this was not due, however, to the scopolamin-morphine. Five per cent. were born apnœtic, nearly 25 per cent. oligopnœic.

From this experience the author is inclined to regard scopolamin-morphine anesthesia in obstetrics as a method to be employed with reserve. Contra-indications to its use are marked circulatory and respiratory disturbances, much exhaustion, labor pains primarily weak and gradual exhaustion of the expelling powers, febrile diseases, acute anemias and somnolent conditions.—*Münch. med. Woch.,* Jan. 22, 1907.

OPERATION IN PUERPERAL PYAEMIA.

Fromme quotes Bumm to the effect that the acute form of puerperal pyemia is almost invariably fatal, and that the chronic form has a mortality of 83 per cent. Of 23 cases of chronic pyemia observed by him, only 4 were saved. Winckel reports a mortality of 95 per cent., while in Olshausen's clinic there have been 61 per cent. of recoveries in the past ten years. Conservative methods of treatment have proven unsatisfactory.

Bumm published five cases in which ligation of the spermatic and hypogastric veins was done, with recovery in 3 cases; Lenhartz reports 8 cases, with one recovery; Opitz one case which died; Haeckel 2 cases with one cure; Friedman one case cured. Of a total of 17 operative cases during the past two and a half years only six survived. The great difficulty in establishing a diagnosis sufficiently early no doubt accounts for the low percentage of recoveries. The author agrees with Lenhartz that operation should be done immediately the diagnosis of pyemia has been made by palpation of the thickened uterine and spermatic plexus.—*Münch. med. Woch.*, Jan. 29, 1907.

VAGITUS UTERINUS.

Blum was sent for by a midwife to assist in the delivery of a multipara, aged 28. The case was one of breech presentation and the pains had subsided. On his arrival the bag of waters had ruptured and the patient was walking about the room. On introducing the hand into the vagina and hooking the finger in the child's groin the child uttered a clear and distinct cry. The cry was repeated five different times and was heard by all in the room. Delivery was safely effected and the child lived. (*Zentrlbl. f. Gyn.*, March 2, 1907.)

ECLAMPSIA WITH NEARLY TWO HUNDRED ATTACKS. RECOVERY.

Englemann reports the following case: The patient a primipara, had from 30 to 40 eclamptic attacks before and immediately after labor. The paroxysms wholly ceased after venesection and infusion. Four-and-a-half days later, 155 convulsions occurred within 28 hours with a pulse-rate of 180-200. The woman was well nigh moribund. After a third venesection, followed by intravenous infusion, the attack ceased. The further course of the puerperium was complicated by puerperal mania and a mild pneumonia. Complete recovery followed the third week post partum.

The author attributes the recovery to the systematic withdrawal of blood and the abundant infusion of fluid. In addition to this, cardiac stimulation he finds of great value as well as the employment of narcotics for the prevention of exhaustion in cases in which the attacks are frequent.—*Zentralbl. f. Gyn.*, March 16, 1907.)

THE SIGNIFICANCE OF PLACENTAL RETENTION AND ITS TREATMENT.

Bollenhagen states that Schneider-Geiger observed 558 cases with retention of secundines in which complications subsequently occurred in the form of suppression of lochia, increased bloody flow, hemorrhages, all of which, however, he was able to control without intrauterine intervention. He therefore considers partial retention of secundines as of relatively little significance and does not remove the retained portions prophylactically. Complications which arise later he treats with ergot and douches.

Bollenhagen, however, in seven cases found it necessary to resort to intrauterine removal of the retained secundines, treatment with ergot and irrigations proving of no avail. For this purpose he favors the use of the finger.

The author concludes that, while in most instances partial retention of the membranes is harmless, spontaneous expulsion occurring later, they may be unduly retained and give rise to symptoms demanding manual removal. (*Zentrlbl. f. Gyn.*, Feb. 2, 1907.)

BACTERIOLOGY.

EDITED BY

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THE IMPORTANCE OF BACTERIOLOGICAL METHODS IN THE DIAGNOSIS OF DIPHTHERIA.

(*Die Bedeutung der bacteriologischen Methode für die Diphtheriediagnose.*)

Czerno-Schwarz says that no one to-day doubts the rôle of the Löffler bacillus in the pathogenesis of diphtheria. No diagnosis of diphtheria can have scientific value unless a bacteriological examination has been made. This method of diagnosis is, therefore, very widely employed. Simple coryzas, simple anginas and laryngitis are now very often examined bacteriologically.

It was soon discovered that not only the cases with the typical Bretonneau membrane revealed the Löffler bacillus, but that other anginas, catarrhal, lacunar and follicular, as well as non-membranic laryngitides and simple coryzas contained the same bacillus. The author quotes statistics from many sources to show how often these bacilli are found in healthy persons.

In these cases he thinks it possible that the bacilli found in simple non-membranous anginas are bacilli which were present in the throats before the angina and had not disappeared in spite of the existing tonsillitis.

The difficulty of positively differentiating the true diphtheria bacillus from the pseudo bacillus under the present bacteriological methods is pointed out.

The author gives the histories of a number of cases under his observation at the Children Hospital, where Löffler bacilli had been detected in non-diphtheritic throats. The routine examination of the throats of the scarlet fever and measles patients showed Löffler bacilli in 3.6 per cent. of the scarlet fever cases and 22.9 per cent. of the measles cases.

From his observations the author feels that the present bacteriological methods do not give a definite and decisive answer in the diagnosis of diphtheria. The conclusions reached are as follows:

1. A repeated negative result in the search for the Löffler bacillus is of undoubted value in diagnosis. Membraneous anginas, laryngitis and croup occur without diphtheritic origin. In the author's series of cases there were seven of laryngeal stenosis with clean throats where repeated examinations failed to detect the Löffler bacillus.

2. Even so important is a positive result of the bacteriological examination in cases presenting clinical manifestations of diphtheria. No one to-day can doubt the diphtheritic charactr of a membranous angina in which the Löffler bacillus is found.

3. The bacteriological results in cases where there are no clinical evidences of diphtheria give no sure criterion for diagnosis. In these cases we must not regard the bacteriological findings as conclusive until new methods are worked out not only for the presence of the bacilli, but also on the poisoning of the organism with diphtheria toxins.—*Archiv. für Kinderheilkunde*, Bd. 39, Heft. 1-3, 1904. A. T. L.

A BACTERIOLOGICAL AND HISTOLOGICAL STUDY OF ORGANS REMOVED FROM TUBERCULOUS SUBJECTS.

Working with material from the pathological departments of the Henry Phipps Institute in Philadelphia, Rosenberger has examined the organs from many cases dying of pulmonary tuberculosis for evidence of tuberculous lesions elsewhere than in the lungs. The cases, with but one or two exceptions, were instances of chronic ulcerative tuberculosis, some with small, others with massive, cavity formation. The general idea is gaining ground that with pulmonary tuberculosis there usually exists also a general systematic or visceral infection. The studies here abstracted seem to bear out this view.

The organs examined were the heart, liver, spleen, intestines, appendix, thoracic duct and blood vessels. Of sixty-two livers examined only three showed macroscopical tuberculous involvment (two with miliary tubercles, one with calcified tubercles), while nineteen appeared normal. The others were diagnosed as fatty infiltration, passive congestion or amyloid degeneration. Stained sections, however, showed fifty-two or 83.8 per cent. to contain tuberculous foci, usually miliary tubercles. In forty-two livers examined for the presence of tubercle bacilli these organisms were found in seventeen, or 41 per cent.

The spleen was macroscopically diagnosed tuberculous in but two cases. In seven cases accessory spleens were found; these varied in size from 5 mm. to 2 cm. in diameter and were usually single. Microscopically, 97 per cent. of the spleens showed tubercles, which were present even in the accessory spleens. Tubercle bacilli were demonstrated in 54 per cent. of the former.

In studying tuberculosis of the intestinal tract in this series no tuberculous lesions of the œsophagus, stomach or duodenum were found. The ileum was frequently involved and the appendix as well. Three cases of perforation of the small intestine were observed. In thirty-six cases (58 per cent.) intestinal tuberculosis was found; both the small and large intestine were affected sixteen times; the small intestine and appendix, nine times; and the latter alone, eleven times. The microscopic lesions in the appendix were either distinct ulcers or miliary tubercles. Once only was it macroscopically diseased, and then gave only the appearance of an acute catarrhal process. Tubercle bacilli were found in over 25 per cent. of the appendices examined bacteriologically.

No lesions were found in the aorta or iliac arteries in twenty cases examined. In examining the heart muscle a portion of the left ventricle was always selected. In not one of the eighty-three cases was there the least suggestion of tubercle formation. Occasionally a small accumulation of polymorphonuclear leucocytes and lymphocytes could be seen between the fibres, but at no time were giant cells or caseation encountered. Organisms that resembled the tubercle bacillus morphologically and tinctorially were seen in eight cases; they were quite few in number and only by examining several sections could two or three bacilli be made out.

Twenty-two cases were examined to determine the presence of tubercle bacilli in the thoracic duct. In sixteen cases (72.7 per cent.) bacilli were found in the contents of the duct. In most of the positive cases but one or two organisms were observed and these only after a most patient and careful search, lasting in most cases considerably over an hour; only once was a distinct clump of bacilli found, and this consisted of more than twenty individuals. In none of these cases was tuberculosis of the duct present either macroscopically or microscopically. Histological examination showed some small collections of lymphoid cells, but none resembling in any respect true tubercles.—Randle C. Rosenberger, *Surgery, Gynecology and Obstetrics*, Vol. III, No. 5, November, 1906. C. K. W., Jr.

New Books

MODERN MEDICINE. Its Theory and Practice. In Original Contributions by American and Foreign Authors. Edited by WILLIAM OSLER, M. D., Regius Professor of Medicine in Oxford University, England; formerly Professor of Medicine in Johns Hopkins University, Baltimore; in the University of Pennsylvania, Philadelphia, and in McGill University, Montreal. Assisted by THOMAS MCCREA, M. D., Associate Professor of Medicine and Clinical Therapeutics in Johns Hopkins University, Baltimore. In seven octavo volumes of about 1,000 pages each; illustrated. Volume I. Lea Brothers & Co., Philadelphia, 1907.

This work has been awaited with anticipation of its high character by a large profession. A perusal of this first volume gives one a sense of gratification that the anticipations of the profession have not been placed amiss. It first convinces one that medicine has made great advances since the appearance of the last large work on practice. This new work promises to be the most important yet undertaken in the literature of medicine. It has become necessary to convey a grasp of the present development of medical science and art. This is to be done under the auspices of Osler who combines every quality essential for such an enterprise.

Familiar with the literature of medicine, he is also acquainted with the personnel of the leaders in the various lines of investigation. So recognized, he has been able to unite them in a skillfully planned work covering the whole domain of modern medicine. This work, the editor states, is designed primarily for the practioner who wishes to keep himself informed of the existing state of our knowledge in clinical medicine.

This first volume contains an Introduction by the Editor himself, which he entitles "The Evolution of Internal Medicine"—a fascinating history of medicine from pre-Hippocratic times to the present day, tracing the growth of the science and art in the various schools and countries which have contributed to build up the existing structure of knowledge. To this is added a forecast of the lines on which further development would most fruitfully proceed. The whole Introduction is scholarly and epigrammatic, marked by the keen observation of the trained physician who is also a man of the world. It is full of wisdom and altogether delightful reading.

Dr. J. G. Adami is the author of the chapter on "Heredity and Predisposition," in which he asserts the non-inheritance of acquired changes, and presents this whole subject in its up-to-date light. He also states that it is impossible for there to be inheritance proper of infectious diseases. There is no such thing as inherited smallpox, inherited tuberculosis, or hereditary syphilis.

"Anto-intoxications," by Dr. Alonzo Englebert Taylor, is a section of the work which presents this important subject exhaustively and will make *Osler's Modern Medicine* the rocognized authority for a long time to come. The treatment of the question of Gastro-Intestinal Auto-Intoxication is full of helpful suggestions to the general practioner in the treatment of diseases consequent on malnutrition.

Some sixty pages are devoted by Dr. Charles F. Craig, to the consideration of "Malarial Fevers." The article is comprehensive, and points out that a fever which is not cured by the proper administration of quinine is not of malarial origin. His suggestions as to prophylaxis are in every respect valuable

Other articles of much value are those by Dr. Thomas B. Futcher on "Diabetes and Gout;" by Dr. J. M. Anders on "Obesity;" and by Dr. George F. Still on "Rickets." The scientific physician will regard the profoundly scholarly article on "Metabolism, Normal and in Disease," by Chittenden, of Yale, as of fundamental value. There are excellent articles, also, by Drs. Alfred Gordon and David L. Edsell, Alexander Lambert, F. G. Novy, James H. Wright and others.

Dr. Lambert's chapters on Alcohol, Opium and Cocaine present these subjects in the light of modern knowledge and the author's own experience. In the treatment of delirium tremens he believes in the absolute withdrawal of alcohol; bromides he has found to be practically useless; the necessity of nourishment he insists upon; and among the sedatives he recommends chloral and hyoscyamus. He regards ergot as of much value in this condition. The use of saline intravenous infusions in extreme cases is not mentioned.

If we may judge from this first volume, this promises to be the most important work ever undertaken in compiling the modern and advanced knowledge and views of authorities on general medicine. It will embody medical knowledge up to date. No other work contains the material which it presents, and it will be a necessary part of the armamentarium of the efficient physician. It has been planned in the belief that the great advances of the past decade should find expression in connection with previously established knowledge, so that every physician should be able to place himself upon the plane of the highest development, not only in theory but also and more particularly in practice. This far-reaching conception has been well carried out, and the name of Osler is now attached to a work which will add still more honor to an illustrious name. We congratulate the Editor, the authors and the publishers upon this splendid work.

DIAGNOSTICS OF THE DISEASES OF CHILDREN. By LE GRAND KERR, M. D., Professor of Diseases of Children in the Brooklyn Post Graduate Medical School, Brooklyn, N. Y. W. B. Saunders Co., Philadelphia, 1907.

The first thing that impresses the reader of this book is the original manner in which the subject is presented. The author approaches his subject as nearly as possible in the same way as the child would be approached in the sick room. The objective symptoms, which are the chief source of information in childhood, are particularly emphasized, and are taken up in the same order as they would be in the examination of an actual case. Along with the discussion of the significance of each symptom the differential diagnosis is given. This method of dealing with the subject is different from that commonly followed in books on diagnosis, but it is simple, natural and effective, and justifies itself as soon as it is perceived.

We take at random an example of the method of the book—the section on vomiting. First there is a general consideration of that symptom and its causes Then eructations are discussed. Then vomiting accompanied by little or no temperature, such as that caused by putting the finger down the throat, by habit, by neuroses, by an overdistended stomach, by intestinal worms, by coughing of pertussis, pharyngitis or bronchitis, by eye strain, by the swallowing of irritant poisons, and that which appears very early in some nervous diseases and that which occurs in post diphtheritic paralysis. Next, vomiting accompanied by a decided rise of temperature, such as that due to errors of diet, peritonitis and the infectious diseases, and cerebral vomiting. Next vomiting of toxemia, including recurrent or cyclic vomiting, which the writer considers lithemic. Next, vomiting accompanied by obstinate constipation due to congenital malformations, intussusception, strangulated hernia, or pyloric stenosis. Next, those diseases of the stomach are described which have vomiting for a prominent symptom. And finally, the character of the vomitus is discussed with reference to its diagnostic significance. These topics are clearly set forth in the space of seventeen pages. In the same practical way the other evidences of disease are taken up and discussed.

The illustrations are excellent and numerous (160.) They either portray some condition or show how to do or how not to do some particular thing.

This book fills a distinct want in an eminently satisfactory manner. It will meet the needs of the great mass of physicians who treat the diseases of infancy and childhood. We prophesy for it a great success.

E. A. CORNWALL.

The following books have been received and will be reviewed in due time:

A Text-Book of the Practice of Medicine. By Hobart Amory Hare, M.D., D.Sc. Second Edition. Lea Brothers & Co., Philadelphia, 1907.

Organic and Functional Nervous Diseases. By M. Allen Starr, M.D., Ph.D., LL.D., Sc.D. Second edition. Lea Brothers & Co., Philadelphia, 1907.

Obstetrics for Nurses. By Joseph B. De Lee, A.M., M.D. Second edition. W. B. Saunders Co., Philadelphia, 1906.

Retinoscopy. By James Thorington, A.M., M.D. Fifth edition. Philadelphia. P. Blakiston's Son & Co., 1907.

Outlines of Human Embryology. By George Reese Satterlee, M.A., M.D. First edition. John Wiley & Sons, New York, 1906.

Uric Acid. By Francis H. McCrudden. Paul B. Hoeber, New York, 1905.

Text-Book of Midwifery for Nurses. By Robert Jardine. Third Edition. W. T. Keener & Co., Chicago, 1906.

International Clinics. Edited by A. O. J. Kelly, A.M., M.D. Vols. II and IV, Sixteenth series. J. B. Lippincott Co., Philadelphia and London, 1906.

The American Illustrated Medical Dictionary. By W. A. Newman Dorland, A.M., M.D. Fourth edition. W. B. Saunders Co., Philadelphia, 1906.

Conferences on the Moral Philosophy of Medicine. By An American Physician. New York, Rebman Co., 1906.

Modern Operations for Hernia. By Alexander Hugh Ferguson, M.B., M.D., C.M., F.T.M.S. Cleveland Press, Chicago, 1907.

Race Culture or Race Suicide. By Robert Reid Rentoul. The Walter Scott Publishing Co., Ltd., New York, 1906.

Report of the Sixth Annual Conference of Sanitary Officers of New York. 1907.

A Non-Surgical Treatise on Diseases of the Prostate Gland and Adnexa. By George Whitfield Overall, A.B., M.D. Rowe Publishing Co., Chicago, 1906.

Prevalent Diseases of the Eye. By Samuel Theobald, M.D. W. B. Saunders Co., Philadelphia, 1906.

Photoscopy. By Mark D. Stevenson, M.D., W. B. Saunders Co., Philadelphia, 1906.

Diseases of the Stomach and Intestines. By Boardman Reed, M.D. Second edition. E. B. Treat & Co., New York, 1907.

The Harvey Lectures. Published by The Harvey Society of New York. J. B. Lippincott Co., Philadelphia, 1906.

The Diseases of the Nose, Throat and Ear. By Charles Prevost Grayson, A.M., M.D. Second edition. Lea Brothers & Co., Philadelphia, 1906.

Syllabus of Lectures on Embryology. By Walter Porter Manton, M.D. Third edition. F. A. Davis Co., Philadelphia, 1906.

Conservative Gynecology and Electro-Therapeutics. By G. Betton Massey, M.D. Fifth edition. F. A. Davis Co., Philadelphia, 1906.

A Text-Book of Obstetrics. By Barton Cooke Hirst, M.D. Fifth edition. W. B. Saunders Co., Philadelphia, 1906.

Diet in Health and Disease. By Julius Friedenwald, M.D., and John Ruhrah, M.D. Second edition. W. B. Saunders Co., Philadelphia, 1906.

Diseases of the Nose and Throat. By J. Bruce Ferguson, M.D.. Series edited by Victor Cox Pedersen, A.M., M.D. Lea Brothers & Co., Philadelphia and New York, 1906.

Materia Medica and Therapeutics. By Edward J. Kiepe, Ph.G., M.D., Series edited by V. C. Pederson, A.M., M.D. Lea Brothers & Co., Philadelphia, 1906.

Pathology. By John Stenhouse, M.A, B.Sc., Edin., M. B. and John Ferguson, M.A., M.D. Lea Brothers & Co., Philadelphia, 1906.

Hints on The Management of the Commoner Infections. By R. W. Marsden, M.D., M.R.C.P., D.P.H. E. B. Treat & Co., New York, 1907.

Materia Medica and Therapeutics. By John V. Shoemaker, M.D., LL.D. Sixth edition. F. A. Davis Co., publishers, Philadelphia.

Transactions of the New Hampshire Medical Society. Concord, N. H., 1906.

Essentials of Human Physiology. By D. Hoel Paton, M.D., B.Sc., F.R.C.P. Ed. Second edition. W. T. Keener & Co., Chicago. William Green & Sons, Edinburgh and London, 1905.

Transactions of the Florida Medical Association. 1906.

American Oncologic Hospital. First Annual Report. Philadelphia, 1906.

An Introduction to Physiology. By Wm. Townsend Porter, M.D. J. B. Lippincott Co., Philadelphia, 1906.

The Physiology of Digestion. By Ernest H. Starling, M.D., F.R.S. W. T. Keener & Co., Chicago. 1906.

Essentials of Medical Electricity. By Edward Reginald Morton. W. T. Keener & Co., Chicago, 1905.

Genito-Urinary Diseases and Syphilis. By Henry H. Morton, M.D. Second edition. F. A. Davis Co., Publishers, Philadelphia, 1906.

Abdominal Operations. By G. A. Moynihan, M.S., Second edition. W. B. Saunders Co., Philadelphia, 1906.

A Text-Book on the Practice of Gynecology. By William Easterly Ashton, M.D., LL.D. Third edition. W. B. Saunders Co., Philadelphia, 1906.

A Treatise on Orthopedic Surgery. By Royal Whitman, M.D. Third edition. Lea Brothers & Co., Philadelphia, 1907.

Diseases of the Lungs. By Robert H. Babcock, A. M., M.D. First edition. D. Appleton & Company. New York, 1907.

Practice of Obstetrics. Edited by Reuben Peterson, A.B., M.D. Lea Brothers & Co., Philadelphia, 1907.

A Manual of Obstetrics. By A. F. A. King, A.M., M.D., LL.D. Tenth edition. Lea Brothers & Co., Philadelphia, 1907.

Psychology Applied to Medicine. By David W. Wells, M.D. F. A. Davis Co., Publishers, Philadelphia, 1907.

The Practical Medicine Series. Vols. VIII, IX and X. By Gustavus P. Head, M.D. The Year Book Publishers, Chicago, 1906.

Local Treatment in Diseases of the Skin. By L. Duncan Bulkley, A.M., M.D. Rebman Co., New York, 1907.

Surgery of Genito-Urinary Organs. By J. W. S. Gouley, M.D. Rebman Co., New York, 1907.

Medical and Surgical Electricity. By A. D. Rockwell, A.M., M.D. E. B. Treat Co., 1907.

Human Blood-Vessels. By Arthur V. Meigs, M.D. J. B. Lippincott Co., Philadelphia, 1906.

Transactions of the College of Physicians of Philadelphia. Vol. XXVII. Edited by William Lentmayer. Philadelphia, 1906.

The New Hygiene. By Elie Metchnikoff. W. T. Keener & Co., Chicago.

Modern Medicine. By William Osler, M.D., assisted by Thomas McCrae, M.D. Vol. I. Lea Brothers & Co., Philadelphia, 1907.

County Societies

MEDICAL SOCIETY OF ALLEGANY COUNTY.

Regular Meeting, at Bolivar, N. Y., April 25, 1907.

A committee of three, Drs. Hulett, Gillett and Bowen, was appointed to draft resolutions of respect upon the death of Drs. Barney, of Belmont; and Allen, of Cuba.

Papers Read.

"The Treatment of Pneumonia," by Dr. Jacob Morris, of Olean, N. Y.

"Local Anesthesia," by Dr. H. F. Gillett, of Cuba.

"General Anesthesia with Special Reference to Administration," by Dr. S. S. Mackensie, of Bolivar, N. Y.

The meeting was one of the most enjoyable and profitable the Society ever had. Twenty-four doctors were present. The next regular meeting will be merged into the Tri-County meeting to be held at Bradford, Pa., July 9th and 10th.

Owing to a lack of time the Society was unable to listen to the paper of Dr. Van Orsdale, of Belmont, on "The Physician as Business Man."

COLUMBIA COUNTY MEDICAL SOCIETY.

SEMI-ANNUAL MEETING AT KINDERHOOK, MAY 14. 1907.

Two new members were received and a Committee appointed to confer with the County Supervisors, looking towards establishing a "Bacteriologic Laboratory." The Vice-President, Dr. S. V. Whitbeck, read a paper on "Ectropic Gestation"; Dr. J. T. Wheeler gave a talk on "Variola"; the President, Dr. H. W. Johnson, read a paper on "Symptomology of Typhoid." The annual meeting will be held in Hudson the first Tuesday in October, when the committee will report on their interview with the Supervisors as to the establishing a laboratory.

MEDICAL SOCIETY OF THE COUNTY OF KINGS.

STATED MEETING, MAY 21, 1907.

Scientific Program.

1. "Presentation of Patients Illustrating Early Recovery after Laparotomy," by Russell S. Fowler, M.D., of Brooklyn. Discussed by Herman J. Boldt, M.D. and Algernon T. Bristow, M.D.
2. "Some Points in the Prevention and Treatment of Cystitis," by Paul M. Pilcher, M.D., of Brooklyn. Discussed by William Linder, M.D. and Nathaniel P. Rathbun, M.D.
3. "On the Direct Transfusion of Blood," by George W. Crile, M.D., of Cleveland, Ohio.

SECTION ON GENERAL MEDICINE.

Program.

1. "The Physician and the Pharmacist; the Prescription of the one and the Preparation of the other," by W. F. Anderson, Ph.G.
2. "The Ethical Relations of the Physician and the Surgeon," by E. H. Bartley, M. D.

Discussion by John Harrigan, M.D. and A. T. Bristow, M.D.

SECTION ON LARYNGOLOGY, RHINOLOGY AND OTOLOGY.

CLINICAL MEETING AT THE BROOKLYN EYE AND EAR HOSPITAL, MAY 23D.

1. Presentation of Cases, by Wm. C. Braislin, M.D., H. Arrowsmith, M.D., Stephen H. Lutz, M.D., and others.

ONONDAGA MEDICAL SOCIETY.

SEMI-ANNUAL MEETING, AT SYRACUSE, N. Y., MAY 14, 1907.

Program.

1. "A Case of Combined Sclerosis of the Spinal Cord: Putnam's Type," by N. Wilbur, M.D.
2. "Dementia Præcox," by F. H. Stephenson, M.D.
3. "Our Obligations to Childhood," by J. Robert Johnson, M.D.
4. "The Spirochæta Pallida of Syphilis with Demonstration," by I. Harris Levy, M.D.
2. "Dementia Præcox," by F. H. Stephenson, M.D.

T. H. Halstead, M.D.

THE QUEENS-NASSAU MEDICAL SOCIETY.

ANNUAL MEETING AT MINEOLA, N. Y., MAY 28, 1907.

Scientific Program.

"Municipal Control of Communicable Diseases," by B. H. Waters, M.D., of the New York City Department of Health

"Control of Communicable Diseases in Rural Communities," by Joseph H. Bogart, of Roslyn, for many years the Health Officer of the Town of North Hempstead.

"Treatment of the Adnexa," by W. Travis Gibb, of New York.

MEDICAL SOCIETY OF THE COUNTY OF MONROE.

REGULAR MEETING, MAY 21, 1907, ROCHESTER, N. Y.

1. "Three Cases of Friedreich's Ataxia in One Family," by Robert G. Cook.
2. "Paranoia, or Delusional Insanity," by Robert M. Elliott, Willard State Hospital.
3. "Cardiac Murmurs, Tachycardia, Brachycardia, Arrhythmia," by Abraham Jacobi, New York City.
4. "Some Functional and Physical Defects in Children and their Effect upon Development," by Franklin W. Boch.
5. "Dermatitis Exfoliativa in the New Born," by William M. Brown.
6. "Distribution of Cancer in Rochester," by George W. Goler.
7. "Ectopic Gestation," by Charles H. Ott, Sayre, Pa.
8. "A Consideration of Certain Forms of Left-Sided Intra-Abdominal Abscesses," by George Emerson Brewer, New York City.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

STATED MEETING, MAY 27, 1907.

Program.

Memorial Address: George B. Fowler, M.D., by Frank Van Fleet, M.D.

Scientific Session.

1. Presentation of Apparatus for the Continuous Administration of Nitrous Oxide Gas and Oxygen, by James Tayloe Gwathmey, M.D.
2. Papers:

(*a*) "The Causation and Prevention of Feeble-Mindedness," by A. Ferree, M.D. (by invitation).

(*b*) "Differential Diagnosis of Imbecility and Dementia Precox," by A. R. Diefendorf, M.D. (by invitation).

(*c*) "The Medicolegal Aspect of Mental Defectives," by L. Pierce Clark, M.D.

(*d*) "The School Training of Backward Children in the New York City Schools," by Charles E. Atwood, M.D.

Discussion by Drs. Smith Ely Jelliffe, Elizabeth E. Farrell, Maximilian P. E. Grozmann, Adolf Meyer, Nathan Oppenheim.

Deaths

JUSTICE LLEWLLYN BARNES, M. D., a member of the staff of the Manhattan Eye and Ear Infirmary, died at his home in New York City, April 13; aged 47 years.

JOHN W. BRENNAN, M. D., of New York City, a surgeon of the Civil War, died May 10, after a long illness; aged 78 years.

ALFRED J. BUTTERFIELD, M. D., died in Binghamton, N. Y., on Thursday, April 18.

MARVIN S. BUTTLES, M. D., formerly surgeon to the 71st regiment, N. Y., and president of the Hotel Savoy Company, died in New York City, May 9; aged 84 years.

WILLIAM ROBERTSON CAMPBELL, M. D., Surgeon of the First Battalion, N. Y., curator of Buffalo University, died at his home in Niagara Falls, April 9; aged 53 years.

MELVIN B. HUBBS, M. D., died at his home in Addison, N. Y., April 24; aged 55 years.

HENRY DE WITT JOY, M.D., surgeon of the Pacific Mail Steamship Company and Chief Surgeon at Sailors Snug Harbor, died at his home in West New Brighton, Staten Island, April 15; aged 63 years.

CHARLES M. KELLOGG, M.D., died at his home in Rochester, N. Y., March 29; aged 61 years.

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VOL. 7. JULY, 1907. NO. 7.

Original Articles

BLOOD PRESSURE STUDY.*

SOME UNEXPECTED REVELATIONS.

By HENRY L. ELSNER,

SYRACUSE, N. Y.

IN presenting this subject, I wish at the outset to make the positive statement that the sphygmomanometer gives information which is often strongly suspected before its use; that in a very large and important class of cases, however, conditions are unfolded by cautious blood pressure study which cannot be made positive without it.

It is not an uncommon experience to find ourselves surprised by the revelations of the sphygmomanometer where simple palpation of the pulse has seemed to lead to diametrically opposed conclusions.

Even the erudite and experienced diagnostician will in a large number of his cases, if he seeks to determine peripheral arterial resistance or pulse pressure, reach unsafe and inaccurate conclusions by simple unaided palpation. This fact is easily demonstrated by control observations with the sphygmomanometer.

When we consider the important question of arterial tension, and study it for the purpose of diagnosis and rational treatment, we must insist that palpation of the pulse is not likely to make clear to the clinician the average pressure or arterial resistance in a large percentage of cases. In spite of the fact that we have failed to determine the vascular tension in man with *absolute precision,* because of the many difficulties which present, and which are more readily overcome in the lower animals, it may be assumed that with our newer sphygmomanometers we are in the possession of instruments which, when used, show records sufficiently accurate, of systolic and diastolic, of mean blood and pulse pressure, to justify safe conclusions.

Those methods of diagnosis promise most which make the recognition of disease in its incipiency possible, that prophylactic and curative measures may be early and promptly employed. One of the most important functions of the diagnostician is the correct interpretation of existing blood pressure.

Particularly valuable is the understanding of conditions underlying prolonged increase of arterial tension. In considering the subject of hypertension, we must never fail to appreciate the fact that it may be an expression of a variety of conditions; it often proves to be a conservative and compensatory process, to be left undisturbed, even encouraged, by the therapeutist. Personally, I believe that it is a secondary process, as a rule, one of the balancing and protective measures of nature.

There are three factors to be considered in its production: (1) Increased cardiac force; (2) Increased peripheral (arterial) resistance; (3) Increase in the volume of the blood. It is not within the province of this paper to dilate on these. I wish to deal with clinical data only.

If hypertension continues uninfluenced, it soon causes cardiac hypertrophy, and finally leads to arteriosclerosis, each consecutive and compensatory. Experience proves that these conditions are in turn followed by degeneration of the heart muscle, and far-reaching changes in the various organs of the body. Lauder Brunton, in a recent article on "Longevity and the Means of Attaining It," says: "As a raised blood pressure is itself productive of degenerative changes in the vessels, we have good grounds for believing that if the rise be detected early, and counteracted by proper regimen and treatment, the vascular changes which it would otherwise produce might be prevented, and life very considerably prolonged. . . . The earlier this is done the better, and I think it is only likely to be done by the sphygmomanometer being used as frequently by the physician as the stethescope or thermometer are at present."

Chronic arterial hypertension is found in the active, the strenuous, the thinking, hence its early recognition and control are of economic importance to the state and to the nation. *Longevity largely depends upon cardio-vascular competence.* To save and prolong these lives, or to prevent premature senility, becomes one of the most important functions of the clinician and therapeutist.

*Read before the Medical Society of the State of New York, January 30, 1907.

In my last 600 patients examined with the sphygmomanometer, I found nine of unquestioned chronic arterial hypertension, 1.5 per cent. This gives no idea of the frequency of this condition, for it may exist without giving rise to subjective symptoms, and is too often accidentally discovered. The writer is certain that a larger number of cases would be discovered if an equal number of supposedly healthy individuals engaged in active pursuits between the ages of 35 and 50 were subjected to blood pressure study.

These positive truths emphasize the fact that it is as necessary to measure the blood pressure of these individuals as it is to examine the urines, or for the oculist to properly adjust their glasses. If the medical profession could educate our overworked men, particularly after they turn the corner at 40, to an appreciation of what blood pressure study reveals, we would find as many patients coming to us for an examination of their arteries as now present for urinary analysis, and it is no exaggeration to state that the revelations which would follow such study of the blood pressure of supposedly healthy individuals between the ages which I have mentioned would unfold the presence of a surprisingly large number of cardio-vascular abnormalities in their incipiency.

It is often exceedingly difficult to distinguish between chronic arterial hypertension and incipient arteriosclerosis. So insidious is the onset of these conditions, however, that we are often suddenly brought face to face with symptoms, both subjective and objective, which leave no room for doubt. Pathologists and clinicians working together are doing much to clear the field.

We often find higher readings with simple chronic hypertension than with advanced arteriosclerosis. Allbutt and Broadbent during many years stood practically alone in championing this fact. Blood pressure study proves conclusively that arteriosclerosis is not necessarily a hypertensine disease. This is particularly true when large arteries are invaded. It is not uncommon to find advanced atheroma or the aorta with the blood tension either normal or subnormal.

Angina pectoris dependent upon advanced sclerosis of the coronaries, often associated with advanced aortic changes, has frequently presented with blood pressure, which has remained during long periods below normal, in one case averaging during two weeks 100 mm. of mercury. Many cases have been observed during and between attacks in which the maximum pressure has been surprisingly low. In one of the most alarming seizures which I have witnessed associated with angina pectoris during the past year, the systolic pressure registered 95 mm. of mercury. It is not at all uncommon to find in these cases a normal blood pressure, while in a variety of cases which are in all likelihood associated with interstitial nephritis the blood pressure may continue high during long periods.

If with hypertension there is *marked hypertrophy of the heart,* with even faint suggestion of arteriosclerosis, chronic arterial hypertension is no longer uncomplicated. The existing conditions demand a broader interpretation. The presence of an aortic systolic murmur, accented second aortic sound with hypertension, argues in favor of associated arterial degeneration — against uncomplicated arterial hypertension. The greater the hypertrophy the more likely is the heart called upon to overcome existing peripheral obstruction. Certainly a persistently high blood pressure, with hypertrophy of the left ventricle, accented second arortic sound, with increased frequency of nocturnal urination, with or without albumin, though the specific gravity of the urine continues normal, must, nevertheless, argue in favor of incipient arteriosclerosis. These cases are finally complicated with chronic interstitial nephritis.

I reach this conclusion because in a number of cases with chronic arterial hypertension the specific gravity of the urine has remained normal, or even above normal, during many weeks, in which, after the advent of positive renal change and progressive arteriosclerosis, the specific gravity of the urine only gradually became low, and albumin with but few casts appeared.

If the artery of chronic arterial hypertension is shut off by the sphygmomanometer, it does not give the unevenness or the resistance characteristic of atheroma or arteriosclerosis. It does not feel like a normal artery; the walls seem evenly thickened; there are no spiculæ or lime deposits; no characteristic millet seed kernels.

The high resistance which an artery sometimes offers with associated myocardial degeneration becomes puzzling. It is in these cases that we are likely to reach wrong conclusions, if we depend on a study of systolic blood pressure alone, for without a knowledge of the diastolic and pulse pressure conclusions may be reached which are not justified, and which may lead to fallacious treatment. The fact that a pulse is full, systolic blood pressure high, does not indicate the presence of a sufficient myocardium.

It is important to recognize as accurately as our means allow existing pulse pressure, for it is not at all uncommon to demonstrate from its study cardiac insufficiency in cases in which systolic pressure is abnormally high. Thus in some cases of nephritis systolic pressure may be found to be above 200 mm. of mercury and diastolic pressure 190 mm. of mercury, pulse pressure, therefore, abnormally low. This fact made positive by the sphygmomanometer

gives valuable indications for treatment, and suggests at once the administration of digitalis, in spite of the fact that the systolic pressure is unusually high.

Professor Sansom considers "when the pulse tracing shows an ample dicrotic wave, indicating on the part of the vessel lack of ability to accommodate caliber to its contents, that degenerative changes are present rather than true muscular hypertrophy." Dr. Oliver considers "the loss of normal variation in caliber, in response to changes in physiologic condition, an important aid in distinguishing sclerosis." Cook declares that "a decided loss of ability on the part of the artery to respond to vaso-dilator drugs is another condition which may be associated with sclerosis."

Given the case of a young man with a syphilitic history, hypertension, and *dyspnœa,* with or without evidence of nephritis, and it is safe to conclude that the underlying condition is one of endarteritis, involving not only the peripheral arteries, but the myocardium, and not uncomplicated chronic arterial hypertension.

Another fact which makes the recognition of uncomplicated chronic arterial hypertension difficult is the coexistence of moderate hypertrophy of the left ventricle, a compensatory change which is found in practically all conditions with which it may be confounded.

Cook, in his recent article on Hypertension, makes this statement: "Arteriosclerosis is a pathologic change of tissues for which the physician has no remedy." "Arterial tension is a cardio-vascular function, the perversion and abnormality of which the diagnostician can now recognize, and should attempt to correct." This differentiation, however, is not so easy as this statement would presuppose.

If we become one-sided in our reasoning, *we will overlook many co-existing* pathologic conditions in which the sphygmomanometer reveals a high blood tension; it is against such faulty conclusions that the clinician must brace himself.

Whenever we discover exalted peripheral arterial resistance in young or old subjects, we are not at once to conclude that we are dealing with simple uncomplicated chronic arterial hypertension; thorough search of all organs must follow, that we may by a process of exclusion reach justifiable and profitable conclusions. Unless this rule is followed, the sphygmomanometer will lead to many serious errors, and to harmful treatment.

Change in the function of the artery which is present with chronic hypertension, if uninfluenced, must of necessity shorten the lives of these patients, and exposes them to the greatest danger. In considering the causes of arteriosclerosis, Brunton says: "The one most likely, I think, is diminished movement in the vascular walls, due to high tension, and the loss of self-massage which occurs in the vessels, and maintains in their walls a constant interchange of lymph. The oscillation is very small when the pressure is raised."

Before chronic interstitial nephritis shows itself with well-marked symptoms referable to the urine, and possibly the heart, there is unquestionably in a large number of cases a long period of chronic arterial hypertension. A recent work on "Studies in Blood Pressure," by Oliver, seems to have made clear, to the reviewer, at least, the following fact. I quote: "We should say that sphygmomanometry has done this for us: it has supplied us with the means of observation which, in comparison with the older methods of determining renal disturbance in its relation to exalted blood pressure, is as a clean photographic picture to a fogged one." This is a very strong statement, which, if accepted without reservation, may mislead. The fact may be accepted as true, however, that blood pressure study arouses a strong suspicion of the incipient stage of chronic interstitial nephritis long before albumin, polyuria and other symptoms show themselves, because of the presence of hypertension with few suggestive symptoms, a revelation which is of the very greatest importance to the physician and to the patient. Repeated urine analyses are needed, therefore, in connection with the blood pressure study of these cases, in spite of the absence of symptoms referable to the kidney.

The early subjective symptoms which are present in chronic arterial hypertension may be few. Neurasthenia or melancholia, with vague symptoms of indigestion in the active and strenuous, demand thorough blood pressure study. In many of these the tension is persistently high. Increased blood tension within the splanchnic area, which is often associated with long-continued gastro-intestinal disturbance, often with constipation, is certainly an important factor in causing chronic hypertension. The Leipsic School, several years ago, called attention to the fact that these conditions are provocative of cardiac hypertrophy and ultimate degenerative changes. Clinical experience corroborates these conclusions. We have seen a number of cases in which long-continued intestinal symptoms dependent upon anatomic changes have finally been associated with serious cardio-vascular and renal complications. I recently saw such a case in consultation. The patient was a woman 36 years of age, with a clear and positive history of chronic ulcer of the stomach, probably a duodenal ulcer, also with consecutive constriction and dilatation of the stomach. This case was associated with enormous hypertension, registering 220 mm. of mercury, cardiac hypertrophy, with occasional albuminuria. The albuminuria was not a constant accompaniment. The specific gravity of the urine

averaged between 1010 and 1015. The albuminuria, however, was recurrent, and with the microscopic find was suggestive of existing interstitial nephritis. The sufferings of the patient were so intense that she finally persuaded the surgeon to perform a gastro-enterostomy. Following the operation, hypertension persisted, uremia developed in the course of a few weeks, the patient dying after a number of days of urinary suppression, with associated uremic vomiting. It is, therefore, wise to remember the great importance of changed circulation within the splanchnic area in connection with hypertension and changes in other organs remote from the original source of the disease.

There are so many factors which influence blood pressure that to reach safe conclusions measurements must be made at different times and under varying conditions. The following may be accepted as the typical history of a case of chronic hypertension. A man always active, of large responsibilities, 40 years of age, shows increasing inability to attend to his usual duties, complains of a heavy head, a sense of weight in the occiput, inability to express himself as promptly or as clearly as he formerly did, finds work, which was formerly a pleasure, irksome, has occasional roaring in his ears, this may be persistent, has occasional palpitation, he may suffer from vertigo and insomnia. During this early stage there is no change in the urine, or in the frequency of urination; he is likely to be constipated. The sphygmomanometer toward the end of a day of work registers 180 mm. of mercury, or higher; occasionally over 200. A fall below 160 mm. of mercury is unlikely. The heart sounds are accented, the pulse may be full or surprisingly small and feeble, in spite of the hypertension. There is likely to be a slightly heaving impulse, with an increased area to the left of the cardiac dulness. Having excluded all other organic disturbances, and failing to find the urine suggestive of nephritis, absence of symptoms referable to the heart, save the slight hypertrophy of the left ventricle, with a smooth, slightly thickened artery, we must depend upon the sphygmomanometer to make the diagnosis positive. Such a man, as the result of his work and methods of living, in all likelihood is suffering from chronic arterial hypertension, with, in all probability, beginning arterial obstruction, most likely within the renal circuit.

The neurasthenic condition often accompanies chronic arterial hypertension. It must be remembered, however, that there are many cases of neurasthenia which are hypotensine, or blood pressure may be normal.

There are many cases of chronic arterial hypertension which do not long remain in the uncomplicated stage. It is surprising to note, particularly among professional men, how rapid is the onward march of far-reaching disease after a short period of chronic hypertension. The writer recalls a number of cases in which uncomplicated hypertension had been diagnosticated, in which he found, within from six months to a year, far-reaching arteriosclerosis, nephritis, cardiac weakness, rapidly developing dropsies, uremia and death. Such a case I recently saw: An attorney, aged about 48, who had concentrated his energies upon the promoting of a large scheme, presented with chronic arterial hypertension. The arteries were smooth, slightly thickened. In less than one year he had whipcord arteries, monstrous hypertrophy, and dilatation of the left ventricle, all the symptoms of chronic interstitial nephritis, including uremia. Death was not long postponed. Probably there existed at the time we recognized chronic arterial hypertension, incipient change in the arterioles of the kidney. In the majority of similar cases patient search will reveal factors which invite the rapid development of arteriosclerosis; among these are infections, including syphilis, heredity, toxemia, tobacco, alcohol, overwork, overeating, or other excesses.

Associate any one of these factors with long-continued worry, not with the wear of ordinary work, which, Weir Mitchell has said, is "the result of use," but with tear "the result of abuse," and we have factors which will not only produce cardio-vascular changes, but promptly promote secondary ravages in many of the organs of the body to cut short these very valuable lives.

A chronic syphilitic who has a low or normal blood pressure with a strong and normal heart, and who is faithful to his treatment and regimen, may be considered fairly safe against cardio-vascular complications, other things being equal, he will be more likely to develop arteriosclerosis and earlier than those without specific taint. The sphygmomanometer is exceedingly valuable in detecting early the changes in heart and blood vessels too often overlooked in the syphilitic. The earliest rise of blood pressure in a syphilitic should arouse suspicion, and demands active interference.

Prudent and cautious self-control, with the ability to bring appetite to reason, will work wonders and prevent far-reaching changes not only in the arterial system, but in many other vital organs. It was Benjamin Franklin who said, "Against diseases known, the strongest fence is the defensive virtue, abstinence."

Cornaro, the Venetian Doge, presented a discourse on "The Art of Living Long," which has for centuries interested many. Cornaro, I dare say, had subjected himself to overwork, and possibly to many other baneful influences, in spite of which he reached his 83d year. He appreciated the fact that he had made many mistakes, and that he was fast nearing his end. His later experience justified the production

of a series of articles, "Wherein the Author Details the Method by Which He Corrected His Infirm Condition and Strengthened His Naturally Weak Constitution and Thenceforth Continued in the Enjoyment of Perfect Health." He lived to be 100 years of age, enjoying to his last day the full possession of his faculties and many other pleasures which he was quite sure he would not have enjoyed had he disobeyed the laws of nature. A single quotation is justified. "Divine sobriety, pleasing to God, the friend of nature, the daughter of reason, the sister of virtue, the companion of temperate living, the loving mother of human life, the true medicine both of soul and body, how much should men praise and thank thee for thy courteous gifts, for that gives them the means of preserving life in health, that blessing which it did not please God we should have a greater in this world, life and existence, so naturally prized, so willingly guarded by every living man." This paragraph contains the essence of therapy which the thinking physician must apply against hypertension, whatever the cause.

Clinical and therapeutic experiences prove that drugs alone are inadequate to meet the indications offered by high blood pressure. If we would succeed in treating these cases, the regimen, the diet, everything which pertains to the lives of these patients must be cautiously considered, and detailed directions must be given that the onward march of disease may be staid. *The underlying theory of success will always include the practice of sobriety, abstinence and temperance.* In no otherway can we postpone the onset of cardio-vascular disease, or when present modify its baneful effects.

We read much of the influence of the nitrites, of chloral, of the iodides, but in practice we find that the action of all these drugs is evanescent, that to get enduring results it is necessary for the patient to observe the laws of nature. Nature will brook no insult, revolt will certainly follow. It would be exceedingly irrational to undermine processes which are at once protective and conservative.

One of the most interesting revelations in connection with the sphygmomanometer is the study of blood pressure in exophthalmic goitre. Naturally we would expect to find a low tension with a heart beating from 150 to 200 times per minute, with a small artery and a thready pulse. In the majority of cases of exophthalmic goitre, however, we have found either a normal blood pressure or moderate hypertension. A number of these cases I have watched during many years, and I am satisfied that Grave's disease not infrequently leads to arteriosclerosis.

An interesting condition was found in a man whom I saw 12 years ago with symptoms of atypical exophthalmic goitre. There was a large parenchymatous thyroid. Recently he again presented, his goitre unchanged, now 42 years of age, with advanced atheromatous degeneration of the arteries, and all of the symptoms of the atypical form of the disease, and systolic blood pressure between 180 and 200 mm. of mercury. The underlying factor is the long continued hypertension associated with exophthalmic goitre. These are indeed surprising results.

We are often surprised to note that diabetic conditions are promptly associated with hypertension, and marvel at the rapidity with which diabetics develop arteriosclerosis. The majority of diabetics during long periods continue to show hypertension.

In connection with this subject, it is interesting to note that reliable experimenters report that "the condition of extreme splanchnic vasodilatation, and a consequent fall of blood pressure, is sufficient to cause the glycosuria produced by vagus stimulation in dogs to disappear, or, at least, to become very much less marked."

For example, "if the central end of the vagi be stimulated until the urine becomes strongly saccharine, and the dog be then gradually bled from its femoral artery until the blood pressure has fallen to almost one-third its normal level, it will be found that the sugar disappears or diminishes markedly in amount; or, conversely, if the dog be first of all bled until its blood pressure has considerably fallen, and the central end of the vagi then stimulated, no glycosuria will be induced. The glycosuria we have found likewise to disappear when the blood pressure has been caused to fall from other causes than bleeding, such as by opening the thorax."

In studying acute infections, particularly peritonitis, we have found during the early hours of almost all forms, whether perforative or not, a raised blood pressure. This becomes a valuable fact in the recognition of localized peritonitis or perforation.

In connection with abdominal operations it has been noted in several cases which, through the courtesy of the surgeon, we have carefully measured, that while the peritoneum was being handled systolic blood pressure was not likely to fall unless there was great loss of blood—another instance of the great tolerance of the peritoneum and nature's kindness to the surgeon.

We have had a number of opportunities in our hospital and private practice in connection with typhoid fever to establish the fact that during the early hours of intestinal perforation blood pressure promptly rises; this is also true of the localized peritonitis of typhoid fever and other diseases. A cautiously watched typhoid ought always to include repeated sphygmomanometry. It is always encouraging in the course of an acute or subacute infection, when the reading has been low during

a long period, to find a gradual rise of systolic blood pressure with returning normal pulse pressure.

Sudden rises of blood pressure with advanced arteriosclerosis, it has been held by some, may foretell the possible approach of cerebral hemorrhage. I fear that such conclusions are not warranted. All who have worked in this field have often been surprised to note the ease with which high pressure is borne during long periods by the aged. On the other hand, we are ready to attest to the frequency with which cerebral hemorrhage has followed low pressure. We have records to prove that patients dying of cerebral hemorrhage with advanced arteriosclerosis may hold a high blood pressure to the end, while the pulse pressure is reduced to a minimum.

It is a physiological as well as a pathological fact that when the blood pressure falls the pulse rate is increased, while the pulse is decreased with a rise of blood pressure. This inverse relationship between pressure and rate, according to Howell, is a "purposeful adaptation."

These are but few of the revelations made positive by blood pressure study. The time limit of this paper precludes the possibility of a discussion of the many conditions which are aided by sphygmomanometry.

Drugs effects met during the course of disease when watched with this added aid prove exceedingly valuable. Thus we have learned much of the required dosage of strychnia and digitalis in individual cases by noting the quantities required to increase blood and pulse pressure. Strychnia when most needed must be given in larger doses than have been administered in the past, a fact made positive by the study of blood pressure.

Alcohol, it has been shown in practice, does not *per se* raise blood pressure, but in the end it causes fibrotic change in the various organs of the body, which in turn offer a sufficient obstacle to induce hypertension and ultimate arteriosclerosis. The production, therefore, of hypertension resulting from the use of alcohol may be considered to be secondary.

He who desires to study the baneful influences of tobacco upon the heart and vessels has an opportunity in connection with the study of arterial resistance to glean important data.

Among other conditions in which the study of blood pressure has taught valuable lessons are those of pulmonary odema, associated with insufficient hearts and peripheral arterial obstruction in which the free use of nitroglycerin with adjuvants have filled the splanchnic vessels and have thus promptly relieved threatening conditions.

In conclusion, we cannot too often or too earnestly warn against one-sided reasoning in connection with blood pressure study; to reach safe conclusions we must think clearly, and in order to do this all clinical facts must be considered that the chain may be made complete and strong.

THE CLASSIFICATION OF BLOOD PRESSURE CASES.*

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IT is not my intention on this occasion to attempt a complete classification of circulatory diseases, all of which involve in their ultimate analysis the distribution of blood pressure, but rather to advocate that a particular set of cases, which I shall describe as Hypertonia Vasorum Idiopathica, have a place in such a classification. On former occasions I have classified departures from the normal in blood pressure under three principal classes—primary low arterial tension, high arterial tension, and secondary low tension.

I have also described certain special cases under the name "Constitutional Low Arterial Tension," etc. I now wish to sub-divide the high pressure cases into those due to nervous causes, and those due to other causes. As high arterial tension in connection with the classical cases of kidney disease have been so often described, I will pass them over to go on to the description of the other type.

Hypertonia Vasorum Idiopathica stands for a class of cases in which high arterial tension often exists, but which evidently are neither of nephritic origin, nor had their origin in changes in the blood vessels. This group of cases is becoming of relatively much more importance than formerly because it is the first departure in health noticed in those who break down under the strain of modern life.

The cause is found in a change in men's habits. Every generation has considered itself as remarkable for its hurry and bustle, and has looked backward to a time when people lived more quietly and under less strain. Still we are not mistaken in supposing that the present time is characterized by overwork and worry on the part of a larger proportion of the community than formerly. More people in proportion to those living have minds educated so as to be capable of mental overwork. The complications of modern life have given rise to many more vocations demanding over activity of the brain. The high cost of living and the high average of education have made it very difficult for those whose livelihood depends upon brain work to maintain anything like a commanding position. The result of all

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this is that men live in a state of mental tension that we believe to be the cause of the increasing number of persons who suffer from disorder of the circulation.

The circulation is maintained in a state of regularity by a tone maintaining influence that constantly emanates from the central nervous system. It would seem that over-activity of the organ of the mind, which same organ presides over this force, often leads to an exaggeration of this tone maintaining influence so that the blood vessels habitually are in a state of overtone. This interferes with the circulatio nof the blood and brings into play the compensating mechanisms so that there results a hypertrophy of the heart and later damage to the blood vessels and a whole train of symptoms easy to explain on a mechanical basis.

The treatment of this condition must of necessity be by creation of such influence as will counteract the tendency. This is possible by the employment of drugs which for the time being will prevent damage, but other means also must be employed.

It has long been known that physical exercise would prevent or postpone the breakdown that eventually follows overwork and worry. This is due to something more than the indirect general good effect of exercise on the health.

It is due to the fact that there exists a muscle tone maintaining function of the central nervous system that has a close relation to the blood vessel tone maintaining function. By bringing into healthy activity the one by exercise of the voluntary muscles, the other is favorably influenced. While this is true of ordinary use of the voluntary muscles it seems to be more true when resistance exercises are employed, that is, when the subject makes movements of a limb, which is forcibly resisted by the manipulations of an attendant. Walking down stairs seems to be a resistance exercise, and has undoubted value in cases of weak heart with a tendency to hypertonia.

Diet is also an important element, and must usually take the form in these cases of restricting certain articles of food. Whatever theory may be proposed, it is certainly a fact that sugar is harmful to patients suffering from hypertonia vasorum, and probably does more harm than any other single article of diet. Red meat can also be pronounced as a matter of experience to be harmful. This is not a fancied distinction, but one which seems to be borne out where the experiment has been tried of restricting it, and of not restricting it. In these days of the use of animal products to influence a number of functions, might it not be natural to suppose that red meat may have some direct influence on the tone maintaining function of the muscles of the blood vessels.

We have called the disease idiopathic because that is the custom when the exact causes have not been definitely traced out. It simply means that it is not due to the previously recognized causes. The symptoms of a disturbance of the tone maintaining function is earliest found in irregularity of blood pressure, and this is frequently first noticed in a reflex irregularity of the heart. Thus, if a man under the strain of mental overwork develops irregularity of the heart, I believe that it means ordinarily a disturbance of vascular tone, and shows a tendency to hypertonia. We have traced this relationship in a patient who afterward went through the cycle of hypertonia followed by hemiplegia and aphasia. In this case I must confess that several years before I made the circulation a particular study I placed irregularity of the heart in that depository of ignorance that receives the names of "cardiac neurosis." The better the peripheral circulation is understood the fewer cases of cardiac neurosis will be found.

To the physician as well as to the patient this class of circulatory diseases presents a great difficulty, in that there is no apparent disease to treat.

If a man has indigestion, or an eruption on his skin, there is something very apparent, and he is willing to employ a physician to overcome it. In hypertonia, before the development of serious symptoms, the indications are all masked, and the sufferer cannot realize the importance of treatment.

Indeed, there is nothing wrong in the early stages with the circulatory system. There is only something wrong with the way in which it is acting.

That this inevitably leads to a breakdown, is just as apparent to the well-informed medical observer as is the impending breakdown of an engine to the expert engineer when he hears a knock as it runs. A knock in an engine means a loose bearing that is being pounded to pieces; just so vascular overtone means that a heart and blood vessels are being injured. Both of these occurrences are entirely unnecessary if the defect is remedied and the machinery made to run smoothly.

The cure of hypertonia vasorum consists in regulating the functional activity of the brain, heart and blood vessels so that they shall run smoothly. In some cases this is easily accomplished, and in others only with great difficulty, but it is never accomplished by a single prescription or any other single measure. It would be just as irrational to employ a physician to cure a circulatory disorder by a single prescription as to employ an engineer to start an engine, and then dismiss him, only to be employed again in case of a breakdown. The only successful treatment is by the regulation of the circulation and the gradual adjustment of measures to this end, until finally the vicious

habit is broken up and the tendency to hypertonia overcome.

The most valuable drugs cannot be given in efficient doses except under constant supervision. It is easy also to carry exercises too far, which at the time when they were ordered were entirely correct. Nowhere else in medicine do we come more forcibly to the consciousness of the wrong position in which the physician is placed, when he is only called upon to repair damage—in this case damage which never should have occurred.

I have seen a patient develop the early symptoms of hypertonia, even to distinct indications of circulatory failure in the central nervous system, go on for eight years without any accident, except a single attack of dilatation of the heart, due to a specific imprudence. This patient is still alive and well, because the condition was recognized and the person was trained to prevent its further development.

During these years how many other patients have we seen heedless of the warning of human experience and medical precepts, go on through the stages of hypertonia, cardiac hypertrophy, vascular and cardiac degeneration, breaking down of the cerebral circulation, paralysis and tedious invalidism.

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AURAL INSPECTIONS AND FUNCTIONAL TESTS IN HEALTHY INDIVIDUALS.

A PLEA FOR THE PREVENTION OF DEAFNESS.*

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NO organ of the human body can undergo greater deterioration without the knowledge of its possessor than the ear. It is not at all unusual for an otologist to observe patients who complain of some other defect than hearing, and who do not consider themselves deficient in this respect, although their hearing distance is less than one-tenth of normal. According to the law that the intensity of sound varies as the square of the distance, these people have less than one per cent. of normal sound perception. Man inherits much greater acuteness of hearing than he is called upon to use if he lives in a civilized community. Consequently, he does not notice the loss of the accessory increment of this sense, and is able to dispense with all but a very small fraction of his natural hearing, even to below one per cent., without interference with his daily life. If one ear has normal hearing, the other may lose all its hearing power without the knowledge of the individual, unless his attention is called to the fact by some peculiar circumstance interfering with the function of the good ear.

The acuteness of normal hearing may be described by a curve which rises from zero at birth, attains its maximum at the completion of adolescence, and generally declines to a very low point in old age. If anything prevents the normal rise of the curve during adolescence or depresses it to a point below normal, the subsequent curve is parallel to the normal, approaching the abscissa at an early period, and causing premature loss of efficient hearing. Usually chronic defects in hearing do not tend to spontaneous recovery or even to a position of *statu quo,* but, on the contrary, are likely to grow worse. In these cases, the descending curve, instead of falling parallel to the normal, drops much more abruptly, causing a still earlier loss of hearing than would otherwise obtain.

There is an important difference between the sense of hearing and that of sight, which explains the fact that a considerable diminution in hearing power may occur without the patient's knowledge, whereas, a much smaller loss of sight would cause serious annoyance. The power to hear decreases as the square of the distance, or in proportion to the intensity of sound. Sight decreases in proportion, as defects in the transparent media, cloud the details of the object, thus emphasizing slight imperfections of the sense organ. With hearing, on the other hand, it is a question of the volume of sound—as long as the volume is sufficiently loud to be perceived, no defect is noted by the individual.

Since hearing may be lost to a large extent before any notice is taken of it by the patient, his cognizance of the loss is an indication of considerable functional impairment, the result of proportionately advanced pathological processes, which are, proverbially, hard to check, and the effects of which are still more difficult to eradicate. The chief reason these conditions resist treatment is because the pathological processes have gone so far by the time the loss of hearing is sufficiently great to attract the patient's attention.

Most cases of deafness occurring in middle or later life are due to so-called chronic middle ear catarrh, in which there is a gradual process of fibrosis, atrophy, and degeneration affecting the drum membrane and the contents of the middle ear. This results in sclerosis, loss of normal cell elements and deposition of lime salts—conditions which can be combated successfully in their incipiency, but which, when the tissue changes are long-standing and extensive, make stubborn resistance, just as similar conditions would affect the eye, or any other organ.

Chronic suppurative diseases of the ear are

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the cause of most of the remaining cases of deafness. This affection is dangerous to life as well as detrimental to hearing. The decrease of hearing is in proportion to the destruction of the tissues of the sound-conducting and sound-perceiving mechanisms of the ear, and becomes greater with the continued formation of pus. The parts which are lost in the ulcerative lesion consequent to the suppuration cannot be restored any more than can other joints, bones, or tissues which are lost in a similar way; therefore, the restoration of the hearing even after the suppurative

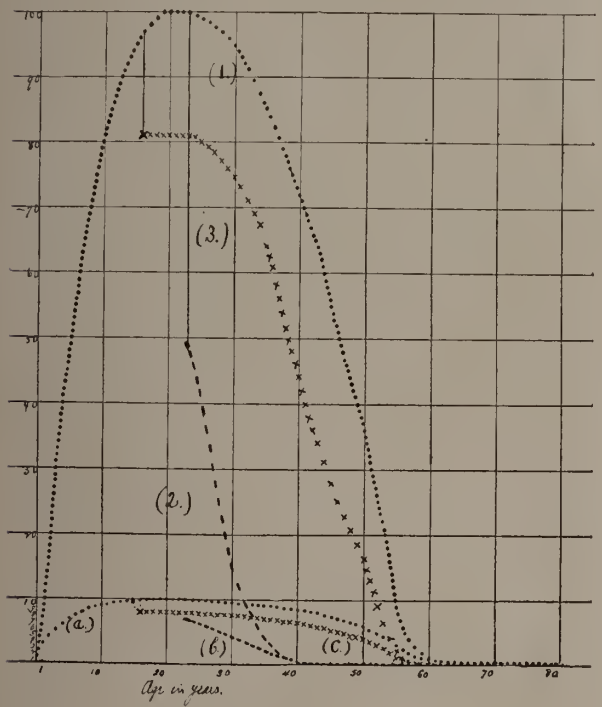

Diagram.

(a) The curve of the normal hearing distance. (1) The curve of the normal hearing capacity, which is the square of a. Both curves reach their maximum in the nineteenth year, continuing there till the twenty-fifth year, when they begin to fall.

(b) A curve of the hearing distance. Here there is a diseased condition of the ears, untreated. The curve begins with a sudden drop in the twenty-third year, goes abruptly down, reaching o about the fortieth year. (2) The curve of hearing power under the same conditions.

(c) A curve of the hearing distance. Here the hearing has been affected by some accident or non-progressive disturbance of hearing, without treatment. The curve begins with a sudden drop in the fifteenth year, from this point its course is nearly parallel to a. (3) is the hearing power of c.

process has been arrested, is largely, except for the cessation of inflammation, dependent upon mechanical appliances rather than upon restoration of any of the lost parts. This is true with the exception of the drum membrane, which has a remarkable power of repairing its defects by substituting a cicatricial membrane for the parts destroyed. The suppurative process may be so slow and the ulcerative destruction of tissue may go on so imperceptibly that the patient does not realize his condition. Carious destruction of bone may progress under these circumstances, even to exposure of the meninges without any definite subjective symptom save an occasional headache. Early examination of the ears will detect the cause of insidious loss of hearing most dreaded by the otologist; namely, rarefaction of the labyrinthine capsule—a disease which, taken in time, offers fair hope of arrest before the damage is irremediable.

Accumulations of cerumen in the external auditory canal do not interfere markedly with hearing until the canal is hermetically closed. But their presence is detrimental to the healthy condition of the canal and middle ear. The diagnosis of osteomata, which are the commonest new growths to cause occlusion of the canal, is readily made on inspection, and treatment is satisfactory in its results. If these growths are allowed to close the canal, the danger to the individual is considerable, not only because the patient loses the hearing in the ear for the time being, but also because of the irritation which this stoppage engenders, and the consequent suppuration of the middle ear.

Parasitic growths, such as the aspergillii, may exist in the external meatus and flourish there without causing any special symptom until they penetrate the deeper layers of the epithelium. The violent inflammation which results is not only distressing to the patient, but by perforating the drum membrane and infecting the cavities within, invades the middle ear and mastoid cells.

Besides the destruction of the tissue of the ear and the diminution of hearing distance, which may occur without the knowledge of the patient, he may unconsciously suffer curtailment in the range of his hearing. The perception for notes at either end of the scale is sometimes lost or there may be blanks anywhere. The higher notes which are rarely used in daily life may be completely lost as well as the lower tones. Unless a person is a trained musician a considerable deficiency may not be recognized. Decreased high-tone perception indicates serious labyrinthine changes which may not be suspected until the middle register is interfered with. Decrease of low-tone perception is consequnt upon disturbances in the sound-conducting apparatus of the middle ear. Deviations from the normal range of sound perception indicate pathological conditions which, if unchecked, are apt to progress and cause still greater defects.

It is customary to seek an otologist's advice when there is an acute aural disease, or when there is enough loss of efficient hearing to

cause much inconvenience, which, as we have seen, indicates very far advanced pathological changes. It is not generally understood that changes in the ear, unlike the eye or other organs of the body, may progress and cause serious damage before their presence is suspected by the patient. The patient usually does not seek advice until he can no longer carry on his daily vocation, when the hearing is so bad that the effort to listen has become a serious burden. I maintain that more can be accomplished by prophylactic watchfulness of the ears than by similar care of other parts of the body. Vertigo, tinnitus, deafness, and the danger of systematic infection and intracranial lesions from chronic suppuration can commonly be prevented if the morbid changes in the ear which cause them receive adequate treatment in their incipiency.

The subjective feelings of the patient, or tests carelessly applied, are very uncertain and misleading, because the results are so largely affected by mental bias and preconceived estimate of the conditions present. The only way to determine the actual condition of the hearing distance is that of careful, scientific tests.

If the ear is examined it will give early indications of impairment of function, either of the sound-conducting mechanism (middle ear disease), of the sound-perceiving mechanism (labyrinthine disease), or of the nerve itself (neuritis or pressing tumors), or of the auditory centers (intracranial disturbances), or of the whole nervous system, as in neurasthenia.

I recommend that the otologist be consulted during the patient's health for the detection of commencing changes in the ears. These organs are then amenable to treatment, and thus can the later chronic, deplorable conditions be avoided. The ears should be tested to determine the hearing distance and range. This should be done whenever there has been any severe constitutional disturbance, or when there has been an affection of the upper air tract. The ears should be tested at intervals of a year or two, according to the age of the patient.

CONCLUSIONS.

Periodical examinations of the ears should be made and functional tests applied at all ages, and after any general disease or affection of the upper air tract, inasmuch as serious damage to the ears may take place without the knowledge of the patient. When the individual is aware of the impairment, the pathological changes have advanced far enough to render recovery difficult. The early detection of aural disturbances allows adequate treatment, with the expectation of the prevention of aural vertigo, tinnitus, deafness, intracranial lesions from middle ear suppuration, and the dangers of systematic infection.

SYPHILITIC LESIONS OF THE EYE-LIDS,*

WITH REPORTS OF CASES.

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THAT the appendages of the eye may be the seat of any or all of the lesions of the three stages of syphilis has long been known and often recorded. The most common are the exanthematous lesions which usually are of a papular or tubercular variety, varying as the cutaneous lesions in other parts of the body. They usually result in breaking down and in a sloughing surface, are of rapid growth, and often involve the entire lid. Being superficial, there is little destruction of tissue. These may occur at any age and at any period of the infection. They are most frequent in infants as a pustular eruption in congenital syphilis. The tubercular variety, which is microscopically a diffuse gumma, results in general infiltration. This is common on the face and not infrequent on the eyelids in the earlier stages of diffuse syphilitic eruption. The circumscribed gumma usually appears at the cilliary margin, and is regarded as a late symptom, but cases have been recorded where they followed shortly after the initial lesion. The diffuse variety rapidly involves the entire lid, which becomes inflamed and swollen, and in children sometimes results in sloughing of the cornea.

True gummata occur upon and beneath the conjunctiva. Trousseau reported two such cases occurring in the ninth and twelfth month of severe syphilis. They may also develop upon the lachrymal caruncle as reported by Taylor. As a general thing gummata of the conjunctiva begin in the tarsal cartilage or tissue of the upper lid; they ulcerate rapidly and cicatrize; and they may resemble the initial lesion. Inflammation and swelling of the tarsal cartilage is nearly always syphilitic. The swelling involves the entire cartilage, is hard to the touch, and the skin is freely movable over it. Wecker reported a case of amyloid degeneration of the tarsus following hypertrophy. Tarsitis yields rapidly to specific treatment. Entropian frequently results. Dachryocystitis with stenosis of the lachrymal canal may result from extension of the disease from the nasal mucous membrane; this may extend to the orbit resulting in necrosis of the walls, lachrymal fistula, swelling of the lids and chemosis of the conjunctiva. The diagnosis in these cases depends largely on the history and the results of specific treatment. Goldzreher and Sattler have reported a disease of the lids resembling trachoma which yielded only to specific treatment. Arlt de-

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scribed four cases of recurrent conjunctival hyperæmia, but the direct connection of this with syphilis was doubted.

The lachrymal glands have been found to be enlarged and gummatous in rare cases, resisting all other forms of therapeutic effort, subsiding rapidly under specific treatment. Knies described a grayish yellow infiltration of the cornea, which he considered gumma, just beneath the transparent epithelium, three millimeters in diameter, occuring three years after syphilitic infection. Antisyphilitic treatment had no effect upon this, due probably to its being in a non-vascular structure. Specific inflammation of Tenons capsule is very rare; it produces tenonitis and yields readily to treatment. Inflammation of the sclara by itself is rare; it is frequent as an extension of specific uveitis. Gumma may start in the sclara but usually involves it secondarily.

While numerous cases of chancre of the eyelids have been recorded the condition is among the rare forms of extra-genital lesions and may be easily overlooked in the ophthalmic clinics where these cases are most liable to be seen. In the two years from September, 1894, to September, 1896, out of 33,960 eye cases at the clinics of the Manhattan Eye, Ear and Throat Hospital, five were diagnosed as chancre of the eyelid. Sturgis, in 1873, collected 1,646 cases of chancre of which six were on the eyelids. DeBeck collected ninety-six cases from the literature up to 1886; while Bulkley, in 1893, in his collection of nine thousand cases of extra-genital chancre, found four per cent. were of the eyelids and conjunctiva. Helbron, in 1898, collected four hundred cases of chancre of the eyelids in the literature up to that time. Büchler reported six hundred and twelve cases of acquired syphilis treated at the clinic of the Presbyterian Hospital; in thirty-five the initial lesion was extra-genital; and in one case it was at the outer canthus of the eye. These statistics show either a more careful observation or a marked increase of the eyelids as the point of infection.

Chancre of the eyelids is much more common in males, and has been observed at all ages. The right eye is the most often infected, being the one more frequently rubbed. Occular infection is frequently due to purely accidental causes. Direct infection is usually caused by kissing, young children being especially exposed to this. Infection may be caused by expectoration in coughing by a patient with a syphilic throat. Physicians are exposed to this in examining and treating these patients. Fournier reported five cases that he has observed in physicians who have been infected in this way, and he strongly advises immediate washing of the face in perchloride of mercury, one to one thousand, after treating these cases. The tongue may convey the infection to the eye as it is used to remove foreign bodies from the eye in some countries. Fournier mentions sixty-eight such cases in a Russian village caused by a so-called magician who removed foreign bodies and treated trachoma with his tongue.

Indirect infection may occur by rubbing the eyelids with the fingers that have been in contact with a sore. The use of handkerchiefs, surgical instruments, sponges, and towels may be the means of infection. Standish reported two cases of chancre of the eyelids that were traced directly to a towel used by a syphilitic case. Bourn also reported a similar case. The existence of lesions of the eyelids, such as conjunctivitis, hordeolum, chalazion, and blephoritis is a predisposition to infection in this way, as the tender epithelium of the conjunctiva and the edge of the lid may be easily abraded by rubbing with a rough towel. These cases illustrate the danger of a towel or sponge in public places. Graefe thought that the virus entered the openings of the Meibomium glands and inocculated the lids in this way.

Chancres of the lids usually apear on the conjunctival surface, but may appear on the skin or edge of the lid if there is an abrasion. It begins near the margin, and the ulceration rapidly involves the entire lid. They may be mistaken for a lupus or an epitheloma or a suppurating chalazion or hordeolum. Cases have been reported where the lid has been excised for epithelioma.

The age of the patient will be of help in diagnosis; enlargement of the pre-auricular glands or submaxillary glands always occurs with true chancre of the eyelids; these glands also enlarge with chancroid as reported in two cases by Knies. In some cases the appearance of the secondary manifestations must decide the diagnosis, unless a microscopic examination can be made. The swelling of the lymphatic glands may be very pronounced and extend from the lobe of the ear to the supra-clavicular fossa. From the glandular enlargement in chancre of the eyelids, Lavergue and Perrin concluded that the lymphatics from the inner part of the eyelids pass to the submaxillary glands, from the outer half to the parotid and pre-auricular glands. The prognosis in these cases is the same as in other extra-genital infections. This has long been the subject of very diverging opinions; many consider that these cases are a much severer type; Neuman, of Vienna, considers that the secondary stage is more severe, while there is no difference in the tertiary. Krefting considered this form more severe, and noted that iritis is more prevalent in these extra-genital cases. In Büchler's cases the secondary symptoms were not especially severe and none had iritis. Fournier, from a study of ten thousand cases of chancre, found from six to seven per cent. to be extra-genital, and his conclusions were that cerebral, tertiary, and malignant syphilis are evidence of the gravity of the disease rather than the site of the initial lesion. Hutchinson held that the site of the lesion in no way influences the gravity or prognosis. In treating chancres and syphilitic ulcers of the eyelids, no attempt should be made to destroy them with caustics. Local applications of antiseptics and

the internal administration of mercury will cause them to heal, as in other parts, with very little destruction of tissue. The following cases came under my personal observation at the Manhattan Eye, Ear and Throat Hospital, and are typical cases of the two most common of the syphilitic lesions of the eyelids:

Mr. G. D., aged 31, a clerk, came to the clinic on July 25, 1904, and gave the following history: He had a small sore on left upper eyelid eight weeks ago; under physician's care this healed rapidly. Two weeks ago a small sore appeared on left lower lid. He attended a clinic where it was cauterized. It increased rapidly in size involving entire lower lid. Examination showed an indurated base with infiltration of surrounding tissues and a sloughing center (Fig. 1). The patient denied ever having had a chancre or any syphilitic manifestation. A section of tissue was examined by Dr. Oatman, the Pathologist of the Hospital, who reported "a rapid cellular infiltration suggesting syphilitic granuloma." On further questioning the patient, he acknowledged having had a chancre and being under treatment two months before. Protiodide one sixth gr. every three hours prescribed, and healing was rapid. When I last saw this patient, on August 22d, there was only a very slight scar on the eyelid.

Mr. D. S., aged 21, a clerk, came to the hospital on April 25, 1906. He was under the care of Dr. H. F. Gibson, with whom I saw the case and whose permission I have for this report. Small sore appeared on right upper lid three days ago (Fig. 2). It increased rapidly in size. Five weeks before he was with a prostitute. No other lesion had appeared. The point

FIG. 1.—SYPHILITIC GRANULOMA OF THE EYE-LID.

of infection was at the edge of the eyelid, and the entire tarsal cartilage was swollen and very hard. The skin was freely movable, there was enlargement of the cervical glands on the same side, a specific roseola on the body. A section was made and examined by the

FIG. 2.—CHANCRE OF THE EYE-LID.

pathologist, who reported chancre. Inunctions were started and rapid improvement noted. This patient was last seen on May 16th, when only slight traces of the lesion were left. The accompanying illustrations of these lesions were made at the time of diagnosis.

In closing let me emphasize my object in presenting this paper, but the general practitioner who is liable to see these cases at any time will keep in mind the possibility of a sore on the eyelid being a chancre, as an early diagnosis is most desirable, and to keep in mind the ease with which the physician himself may become infected in examining the throats of syphilitic patients.

BIBLOGRAPHY.

1. *Ann. de Dermat. et Syphilis,* IX.
2. Sturgis: *American Journal Med. Science,* 1873.
3. Taylor: *Jahr. f. Aug.,* 1875.
4. Wecker: Vol., 1 Pg. 133.
5. Sattler: *Prag. Med. Woch.,* 1888.
6. Alt: *Centr. f. Aug.,* 1899.
7. Hutchinson: Syphilis, Pg. 102.
8. Standish: *Boston Med. and Surg. Journal,* 1894.
9. Giles, J. E.: *Amer. Jour. Dermat.,* Aug., 1896.
10. Helbron: *Münch. Med. Woch.,* 1898.
11. Knies: 1895, Pg. 404.
12. Norris and Oliver: Vol. III., p. 74.
13. Bulkley: Syphilis of the Innocent.
14. Büchler: Presbyterian Hospital Report, VII, 1906.
15. Fournier: Treat. and Prophy. of Syphilis, 1906.
16. Sanoineau: *Annals de Occulistique,* Paris, May, 1906.

THE PHYSICIAN AS AN EDUCATOR.*

By S. A. MERENESS, M.D.,
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SOMEWHAT unusual and perhaps uninteresting may be the theme on which I shall address you briefly, The physican as an educator.

It is not at all unusual for physicians, in foreign lands at least, to occupy high public positions in many of the diverse realms of intellectual effort and attainment. Very often are they chosen as teachers of things other than theoretical and practical medicine, and they usually fulfill their duties with credit to themselves and approval of the public. It should be thus, since there is probably no other profession which in its ideal attainment demands better mental and physical organization, together with the qualities of heart and of conscience of which the "still small voice" is heard ever and anon.

A noble profession, indeed, and one entirely unsuited to the accomplishment of personal gain and selfish ambition. I repeat, in its ideal attainment, the demands are greater than in any other profession.

We cannot reach the goal of our ideals. Nature has endowed us with capabilities of progress, but not finality; and it is well, otherwise there could be no evolution of the individual or society. How far short of our ideals we stop is for each to determine as to himself, but not for others. As a profession we have progressed. The history of the advancement of medicine and the physical and natural sciences, on which the theories and practice are based, during the last half century, is nothing short of marvelous. So great, indeed, that few care to undertake to trace its history fully and accurately; to say nothing of the utter impossibility for one individual to accomplish such a task. The salient points of all mediæval, together with unknown centuries of ancient scientific history, could be presented in a volume not large enough to encompass the rim of scientific progress during the past two or three generations; and yet the physician and scientist of to-day is the result of all this advancement, even if, as is too often the case, he is oblivious of the history of his profession.

As much, however, as this might appeal to one's satisfaction and egotism, this feeling can be only transient, since for every "Eureka" there has opened up new methods untried, new problems unsolved, until in despair we say, as did the grand old Philosopher, we only know that we know nothing. Stars of the fifth magnitude visible to the unaided, undimmed human eye; to the tenth or twelfth with moderate power telescopes; to the sixteenth or twentieth with the latest wonders of optical art, and still they come: so in science every demonstrated truth as a beginning has factors which spread out perhaps even as the square of intellectual distance increases, if we might be permitted to make such an unusual comparison.

All this simply to show our debt to the past and possibilities of the future. What has been accomplished has required untold millions of hours of unselfish, intelligent effort given for the satisfaction of seeking the truth, and having found it, to proclaim it for the good of future generations, that they might be wiser, healthier and more efficient; and that they may, after their mite has been added, pass it still further on toward the goal of universal competency and happiness, to fulfill the destiny of mankind which the great Creator alone knows.

What has all this to do with the practice of medicine, one may well ask. The common practitioner with his bread-winning necessities, the cares and discouragements which are heavy and inseparable from his daily labor; often selfish competition from within the profession and few commendations and small remuneration from without; all this, we may concede, is not a bed of roses for one striving for ideals. Still, gentlemen, to me there is nothing in the practice of medicine more discouraging than the fact that, apart from the knowledge we may impart, for the good of future generations, our work, in its last analysis, largely comes to naught. Grant that, by our advice and ministrations, a life has been saved or prolonged. What then? If the life is a valuable one; if without it nature and humanity would have suffered loss, then we have done well, but if that life would have been neutral, or productive of actual harm to society, then you may draw your own conclusions as to the worth of those services.

Again, we bring about a cessation of pain and suffering, and sorrow.

It is a noble thing indeed to benefit our fellowman. I do not in the least disparage the services, but in the end all comes to naught like the house founded on the sands.

Modern industrial efforts are based almost without exception largely for future use. The father and mother of a family labor assidiously, and often suffer great deprivation that the coming generation may be more capable and suffer less. The modern railroad engineer advises bridges of iron and strongest concrete, our public buildings are built for future generations, as well as for the present.

Educators strive not only to have pupils learn facts, but especially to instil in them a desire for future advancement toward a higher culture and civilization. This is true even in governmental policies, in the construction of water ways, overcoming appalling natural obstacles with much present human suffering and unusually large mortalities.

*President's address read before the 101st Annual Meeting of the Otsego County Medical Society, Oneonta, N. Y., December 11, 1906.

Even the great life insurance companies are said by the managing boards to be looking toward the future general welfare, although in this case it is doubtful if they forget to benefit themselves. Be this as it may, it may be granted that a large part of the energy of every commonwealth is expended for future generations.

So far as I know, the medical profession is the only one of which it is true that the more efficient it becomes the less it has to do, and consequently in the end if a state of universal bodily and mental health could be secured, there would be no longer need for the practice of physic.

But even then there must be maintained the knowledge of how to remain well, and the service of the physician would be still desired but as an educator to the young, an adviser to the mature, and as a comforter to the aged and suffering. Yes, we shall have no lack of occupation in that far off day when diseases are prevented rather than cured, and pain and suffering cease instead of being endured.

It should be our ideal to impart knowledge to others in our profession. If we learn from the unselfish efforts of our teachers it is no less our duty to impart this information to others if they wish it. And our teaching should be frank and represent the truth as we know it. The medical man who withholds knowledge from his fellow that might be of service to the community is not only a charlatan but an offender against society. If we are brought in contact with men superior in attainments, we should strive to reach their level, and if by opportunity or otherwise one has more ability than another, he should lend a helping hand, and gladly. As to this we are probably agreed, but what about the physician as a public educator?

Founded with theology long ages ago in mysticism, when the medicine man did all by operating on the fears and desires, based on superstition, medicine has still to combat this practice. To my mind not all the public evils together pertaining to health and sickness can fill the measure that holds the one great obstacle to rational medicine, viz.: superstition.

It may be a relic of the ancient medical-man-priest, with his fetichs and incantations, and it has lost its primitive meaning, but the essence still remains.

This makes all the medical fakes and fakirs possible, and causes a consumption of nostrums and pharmaceuticals sufficient to keep alive continually a small river. Advertisements fill the press, fostering this pestferous superstition; and many of the medical advertisements "to the profession only," together with the ubiquitous sample man, are sometimes not far behind, only they are more harmful, if possible, because they wound the root of all progress by appealing to the uncertainties, if not superstitions of the physician, who alone can combat the general public ignorance in medical matters.

As physicians we should try and adopt the old maxim of "know thyself," and keep ourselves ever looking toward cause and effect, and scientific rationalism, leaving as far as possible mere beliefs to the spirit world, where we should obtain from them much comfort and good.

In the meantime in the daily routine of practical life we should keep alive to the desirability of eradicating unnecessary fears and irrational beliefs along with disease, and especially to instil in the minds of children respect for custom and tradition, but teaching them not to look with superstitious fear on the things which cannot be explained.

What a world of opportunities to the physician as an educator. Not only as to physical development, hygiene, diet, occupation and proper intervals of rest and pleasure, but also as to the inheritance and contracting of diseases.

Not less important is the advice and teaching on the mental side; the discouragement of things vile and criminal, of bad associations, and the misfortune of being mentally idle. To others, to inspire hopefulness and the feeling that things are worth while; to be patient and free from unnatural suspense and fear; to instil in the minds of the young that a useful life is God-given, while a useless one brings unhappiness and often disaster; not to be exalted with unworthy ambitions, and to shun unbounded luxury as the evil one—philosophical things of this nature might be continued at length, all of which you fully realize.

No objection should be made to a physician educating the public as to their welfare if the motives are good and unselfish.

Some of the best medical minds of our time have been zealous public educators. One has only to mention the great Virchow, whose efforts during a full life were to enlighten public opinion on every proper occasion, and to the popular writings of Charcot, that prince of modern clinicians, to say nothing of our kinsman, Thomas Huxley, to whom more than any other one the public and profession owe a debt of gratitude for his able exposition of methods of thought in scientific training.

In conclusion, let me suggest that no more satisfactory method of acquiring and imparting knowledge in our profession can obtain than the frequent meetings of bodies such as is represented by our various societies, provided there is a general interest manifested, and an unselfish willingness for each one to add his knowledge and experience to that of others.

Gentlemen, let us strive to be worthy of our predecessors in the profession and make those to come still more worthy.

PERSONAL HYGIENE.*

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PERSONAL hygiene must necessarily be treated from two standpoints, the mental and the physical. Mental hygiene prepares one to do for himself, and what he does for himself depends upon his education and moral training. If either of these are defective, then such diseases as alcoholism, syphilis, and gonorrhea are very easily engrafted upon the physical. Mental hygiene includes courage, determination and a high ideal for one's self and for others associated with him. The body is made up of many organs, and each organ is composed of many cells, and these cells and organs support specific functions. During the process of their function, a substance, natural waste, or by-product is thrown out, which must find a channel or channels through which it is conducted to the external world. If these sewers are not kept open, the cells, the organs, the body become diseased.

For a few minutes I wish to discuss with you the influence of retained discharges, or closed channels upon neighboring organs of the body.

This subject, which rightfully belongs to personal hygiene, is so vast that the time allowed to me will only permit of suggestions. We will begin with the organs of excretion. The skin is the first to engage our attention, it is the largest and one of the most important organs of the body. It radiates heat, it eliminates moisture and salts of the body, and it is an organ often called upon to relieve the kidneys of overwork. As you may imagine, a closure of the glands of the skin, by dirt or from other influences, will load the system with eliminative products, which are detrimental to the functions of other glands and organs of the body. Regular exercise and baths are necessary for health, as far as the skin is concerned.

A stricture of the urethra is often accompanied with baneful results. Insanity is sometimes a sequel. Any affection of the reproductive organs has a depressing influence on even a well ordered mind of either sex. A narrowing of the lumen of the urethral tube is often followed by enlarged prostate, cystitis, ureteritis, pyelitis, nephritis and uremia. It is essential that the normal diameter of the urethral tube be maintained by a removal of the obstruction, which is usually accomplished by surgery.

Proctology is fast becoming a popular specialty with those who have given considerable attention to the study of the diseases of the rectum.

Constipation is regarded by Dr. W. J. Tyson as the most important feature to be considered, in the prevention of appendicitis, also the improper posture during defecation.

Improper diet, spasm of the sphincter ani, piles, atresia of the rectum, rectocele, tumors, malignant or benign, eczema and pruritis ani may cause an inactivity of the lower bowel, with all of the attendant bad results that come from pent up contents of the tube. (e. g. faintness, nausea, headache, backache and abdominal pain.) If taken early, diet and surgery can relieve the larger portion of these patients of their distresses.

I wish to say right here that any physician who does not make a physical examination of these parts, in obscure cases, may strike wide of the mark in making a correct diagnosis. I saw a physician operate for appendicitis, and find a normal appendix, but afterward it was discovered that there existed a stenosis of the rectum, which would probably have accounted for the symptoms.

It is my personal opinion that fibroid tumors of the uterus are of an inflammatory nature. As yet I also believe that the cancer cell is an overproduction of normal cells, which become malignant in type, because of the inability of the lymphatics to eliminate the kind of toxin which is produced by the cells' excesive function, excited by traumatism. This traumatism may be, from within chemical, or from without accidental.

If the discharges of the vaginal and uterine canal are retarded by any mechanical cause, such as anteflexion of the uterus, narrowing of the internal os, atresia of the vagina, we may have developed, as a result, neurasthenia, with its obstinate headache and a chronic inflammation of the structure of the uterus, which will in time be manifested in that common symptom, dysmenorrhea, which is usually the forerunner of uterine tumors. Surgery can do a great deal for such cases. Drainage of the part must be maintained. For a few minutes let me direct your attention to the nose, throat and ear. If the eye sustains a loss of vision 50 per cent., it is usually discovered at once, and corrected by the occulist, but Hammond says, "half the hearing power may be lost without the patient being aware of it." This may go for some time without correction, while the patient is seeking help for a very curable case of headache. The external auditory canal is separated from the tympanic cavity by the membrana tympani. The tympanic cavity is in communication with the naso-pharynx through the eustachian tube. A closure of the external auditory canal with cerumen or a catarrhal closure of the eustachian tube, or a closure of the tube by adenoids, will cause the severest headache, which can only be relieved by removing the causes. The removal of the cerumen is sometimes effected after a considerable amount of trouble. Peroxide of hydrogen is one of the best means of softening the obstructing mass. The eustachian tube should be catherized; this is easily accomplished, by skilled hands, when there is a closure by catarrh. Adenoids

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are always a menace to good, acute hearing, and a fine mental development.

With Gottstein's curette in a dexterous hand, with ethyl chlorid as the anesthetic, the operation for the removal of adenoids, from start to finish, can be thoroughly performed in two and a half minutes.

Face illumination is of the utmost service in determining whether the accessory nasal sinuses are well drained. A four-volt incandescent lamp is necessary for this. A mouth breather is surely a person to receive our profoundest pity, especially if the condition is due to a curable cause. Silvio von Ruck characterizes the normal nose as a "filtering plant." He describes how the current of inspired air should strike the mucous surfaces in order to leave the dust and germs filtered out, so that the air is practically germ free as it pursues its downward course to the lungs. This function of the membrane is changed if the septum nasi is deviated, turbinates hypertrophied, or the tonsils enlarged to such a degree as to shut off the natural ingress and egress of air through the nasal chambers.

The exact function of the tonsils is still a mooted question. Whether they are organs of defense against an invasion of germs is still a problem to be solved. All must know that the faucial tonsils were placed in the throat, by the Creator, for some good purpose, which has not, as yet, been discovered by man. The structure is like that of the lymphatic glands, which are known to arrest bacteria. It is possible that the tonsils secrete a substance that is a germicide. All theories in regard to their functions are, as yet, mere speculations. The tonsils often become diseased with the germs of tuberculosis, diphtheria, and by pyogenic bacteria. Hypertrophied tonsils are often present, and is a condition that we are obliged to reckon with.

We often find the crypts filled with cheesy masses, which have a disintegrating effect on the tonsillar tissue. These masses will, in time, amputate the tonsils, as it were, accomplishing, in seasons of time, what the throat surgeon wishes to do in a very few minutes. Diseased and hypertrophied tonsils cause headache, deafness, mouth breathing, and with adenoids, that peculiar repulsive physiognomy denominated "frog face." The enlarged and somewhat pedunculated tonsil is easily removed, but a sessile tonsil, which is buried deeply between the anterior and posterior pillars of the fauces, and arches over on to the soft palate is extremely difficult to amputate.

To accomplish this I have found that a curved dissector, to break up the attachments of the tonsils from the pillars of the fauces, a pair of long thumb forceps, to grasp and pull out the tonsillar tissue, and a long pair of curved scissors, are the best instruments and the method to complete this operation. None of the short anesthesias allow sufficient time to complete this delicate dissection. Many times the tonsil is thoroughly diseased although it is small in size.

Dmochowski attributes to the crypt of the tonsil a sucking power, by which, under pressure of the contraction of the muscles, in deglutition, the crypts are first emptied of their secretion, and during relaxation are filled with sputum that may be laden with the germs of tuberculosis, diphtheria, etc.

I had a little patient who suffered constantly from cold and protracted cough. It was my opinion that a portion of the tonsil should be removed, and so advised. The mother in her anxiety, sought the advice of an esteemed collegue, who deemed it best to advise non-interference, notwithstanding the fact, that was easily demonstrated, that some of the tonsillar crypts contained cheesy masses, and the patient had a very offensive breath. It is my custom to split such tonsils, allowing the crypts to close from the bottom, and I believe it is good hygienic surgery. In closing I wish to say that decayed teeth, with unclean mouth, should be quickly turned over to the dentist.

I have covered in my paper a wide range of subjects, but all within the proper bounds of Personal Hygiene.

LOCAL ANESTHESIA FOR MAJOR AND MINOR OPERATIONS.*

FACTORS INFLUENCING SUCCESS.

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THERE is still a great deal of scepticism among many physicians and patients with regard to the possibilities of local anesthesia. Any fair-minded observer must admit that this distrust is not ungrounded, for in too many cases the unfavorable opinion is founded on disagreeable experience. The patient is often maltreated, as in the following case, reported to me by a student in one of our large medical schools: "A hypodermic needle, containing a strong cocain solution was jabbed into the patient two or three times, and the contents of the syringe injected. The operation was begun at once with the patient squirming and howling." And this, in a clinic attended by students, was offered as an example of the use of local anesthesia. It was not an operation under local anesthesia. It was an operation with no anesthesia at all, and if this were the best that could be expected of local anesthesia for the relief of pain, it should be unqualifiedly condemned. Numerous men throughout the country have attempted one operation, not infrequently a major one, and, failing to obtain a satisfactory result, have dropped any further at-

*Read before the Genesee County Medical Society, Batavia, N. Y.

tempt at using the method. Yet there are reliable men, in this and many other countries, who are constantly using local anesthesia in the case of patients, whose condition makes the use of general anesthetics unsafe, for grave and difficult operations, and with perfect success. Whence comes this difference of opinion among competent surgeons on this, as on many other questions? I shall attempt to point out some factors which it has occurred to me may account for the failure of some surgeons to use local anesthesia successfully, and to suggest some points, which I trust will be of some value, in using local anesthesia *effectually* to prevent pain. Taking a few of the most probable causes of failure, I would specially mention: (1) Lack of familiarity with the relative importance in causing pain of different structures to be divided. It should always be remembered that the skin is everywhere provided with sensitive nerve endings, while the deeper structures can, most of them, be divided and handled with impunity; with the important exceptions of nerve trunks, blood vessels and the parietal peritoneum; (2) The use of unsuitable solutions and instruments, especially the use of too strong solutions; (3) The lack of tact and patience on the part of the operator. In this connection, it should be mentioned that a display of instruments is likely to frighten nervous patients, hence, when the patient is brought into the operating room, the tables should be covered with sterile towels. To call loudly for a knife may so alarm a sensitive patient as to ruin the prospect of completing the operation under local anesthesia. Not alone such gross lack of consideration, but any evidence of want of sympathy or disregard of comfort, at once shakes the patient's confidence. To attain the highest degree of success, in this, as in most other affairs, attention to details is important. In order that these factors, which so greatly influence our success, may be all considered, and in such a way as to be more easily remembered, I will speak of those which more directly concern: *the patient, the surgeon, the materials used and the best manner of applying them.*

The patient's mental attitude at the time of the operation, his confidence in the surgeon and his methods, always proves a factor of great importance, influencing the success of local anesthesia. Before attempting any major operation under local anesthesia, it is well worth while to take time to reassure the patient as far as possible. The surgeon's own statements will be accepted in most cases, but the testimony that will have the most weight comes from others who have undergone operations without suffering. Among my patients there are a number in town who have given me permission to refer to them; others who are interested to learn about the success of the method. Their statements are usually much stronger and carry far more weight than anything I can personally say. This is particularly true when the person contemplating operation can talk with a person who has recently undergone an operation of exactly the same character as that advised for the one who makes the inquiry. In order that the patients may be as free from nervousness as possible, we should make sure that they have a good night's sleep the night before operation, even if this necessitates the use of some sleeping potion. With specially nervous patients, I have frequently given bromides during the day preceding operation; also almost invariably a hypodermic injection of some quieting drug immediately before a major operation. Most frequently I have used morphin, 1-8 grain, but of late I have combined with it a small dose of hyoscin (1-150 grain), and I have also used, in a few cases, scopolamin hydrobromate, though never in large enough doses to produce general anesthesia, as has been suggested by many recent writers. Several adverse criticisms of this drug have been published, and until its safety is well established, I feel that it should be used in doses small enough to be certainly safe. The field of operation should be screened off: I use a screen the frame of which is attached to the operating table as Kocher has suggested for use in breast excisions. The patient should be in the recumbent position, even for minor operations, for many persons are affected by the sight of blood; frequently, even those who appear the strongest, will faint. It is also highly important that the patient should be made absolutely comfortable on the operating table. Major operations under local anesthesia are always considerably longer than under general anesthesia, because of the necessity for handling the tissues gently to avoid pain, and to lie in one position an hour or more is something of a hardship. The operating table should be covered with a layer of soft pillows, or, in institutions where a great deal of local anesthesia operating is done, a soft mattress, constructed specially for use on the operating table, may be used. The pillows or the mattress should be protected by a rubber sheet, and the patient should be placed in as comfortable a position on the table as the operation to be performed will permit.

Of essentials on the part of the surgeon, plenty of time to devote to the operation should be mentioned first. A local anesthesia operation does not fit in well with an engagement for consultation in a distant part of the town or the necessity for catching a train. It is so necessary to exercise great care to avoid pain in most major operations that a sign, "handle with care," might be well placed on every patient who comes to the operating table for a local anesthesia operation. Tact in managing the patient, combined with such unlimited care and patience, always go far toward the success of the procedure. Thorough knowledge of the anatomy of the field of operation, with special reference to nerve trunks and even smaller nerve filaments, as well as the location of all blood vessels of any size, is absolutely

essential. It should be remembered that blood vessels are provided with nervi vasorum and give pain when divided unless anesthetized. Most of the major operations now commonly performed under local anesthesia would be impractical without such study of anatomy. Those interested in the subject I would refer to the monograph of Schleich (Schmerzlose Operationen) and important articles which have been published by Matas (*Philadelphia Medical Journal,* 1900, volume 6, page 820), and Lennander giving details with regard to the nerve supply and the best methods of operations in a large variety of cases. My work in Perineal Prostatectomy Under Local Anesthesia (*Journal American Medical Association,* February 11, 1905), illustrates the possibilities of the method.

Among the materials to be used should be mentioned a syringe that can be readily boiled. Leather packed syringes are unsatisfactory because the packing shrivels when a high degree of heat is applied. The asbestos or rubber packed syringes I have found most satisfactory. A special form of hypodermic syringe supplied by Sharp & Dohme, of Baltimore, is one of the best, and for more massive infiltration I have found a 5 c. c. rubber packed syringe, which is manufactured by the Randall Faichney Company, of Boston, perfectly satisfactory. There should be no leakage about the washer or packing, and in order that we may see that there is no leakage back of the piston, a glass barrel is essential. Some of the solid metal syringes are very satisfactory at first, but with wear I have found that most of them leak when pressure is used for infiltration; the leakage cannot be seen, and of course fluid that leaks out around the piston is of no effect in relieving pain. The solid glass syringes are seldom strong enough to stand the pressure of infiltration. A sharp needle is more comfortable for the patient not only at the first prick but throughout the infiltration, and the location of the point can be much more certainly controlled. At present I always freeze an area the size of a dime with ethyl chloride at the location where I wish to begin infiltration. This prevents even the slight pain of the first prick of the needle; the succeeding pricks are painless because the needle is inserted in infiltrated areas and the fluid is injected ahead of the needle as it is pushed along the line of incision. A sharp jab from a hypodermic needle is not a good beginning for a major operation with a nervous patient.

Numerous drugs have been recommended for use in local anesthesia work, but after a trial of a number, I use, generally, only cocain and eucain. Most of the special local anesthetic solutions now on the market depend for their effect entirely upon the presence of one or both of these drugs. Poisonous effects have been reported in numerous cases from the use of cocain, but I believe that these have been caused invariably by the use of too concentrated solutions. A solution stronger than one per cent. should never be used for infiltration work, and one per cent. solutions should be used in very small amounts and with great care. The tendency to use too strong solutions has, no doubt, come from the fact that cocain was first used as an anesthetic by application to the mucous membranes of the eye, nose and throat, where concentrated solutions have to be used to produce effect.. This is not true of the use of these drugs by injection. It should also be remembered that one-half grain is the average dose of cocain. Eucain is estimated five or more times less poisonous than cocain and can be used in proportionately larger doses. Local anesthetic solutions injected a little at a time, for a prolonged period through an operation, cause less poisonous effects than when a much smaller amount of the drug is injected at once; no doubt, too, much solution oozes from the wound. The anesthetic drugs are best used with normal saline solution, and for ordinary use, Schleich's, formula No. 2, is very satisfactory. Practically all manufacturing chemists put up a tablet containing:

Cocain Hydrochlorate, gr. ½.
Morphin Hydrochlorate, gr. ⅛.
Sodium Chlorid, gr. 1.

One of these tablets dissolved in 500 minims of water makes more than enough solution for any ordinary operation, and if this amount of cocain is not exceeded, there need be no fear of poisoning. It should be remembered in preparing solutions that cocain does not stand boiling. However, if one of these tablets is dropped in a sufficient quantity of boiling water, all but the more resistant spore bearing bacteria are certainly killed, and these should certainly not be present in a properly prepared tablet for hypodermic use. Cocain has the decided advantages of rapid action and certainty of effect. The incision can be begun almost immediately after infiltration with cocain solution, whereas if eucain be used it is necessary to wait at least five minutes to get the full effect of the drug. The disadvantages of cocain are the uncertainty of its strength after boiling even a short time, danger of poisoning if large quantities of the solution are used, and the fact that it is readily decomposed on standing, so that a solution which has not been freshly made is of uncertain value and a solution that has stood for a week or more is useless in most cases. Eucain has the decided advantage that it can be boiled without decomposition, that it keeps well for a longer time than cocain; hence stock solutions can be kept in bottles for use when desired, and most important of all, it is at least five times less poisonous than cocain. Its disadvantages are: slower action and less certainty of action than cocain. At present I am accustomed to use cocain for infiltration of the skin and superficial tissues that are to be

divided at the beginning of the operation, while I use eucain in weak solution for massive infiltration of the deeper parts as suggested by Matas, although I have not used the solution in nearly so large quantities, as suggested by Matas, finding sufficiently satisfactory results from smaller amounts. For the injection of nerve trunks and in cases where specially sensitive structures may be encountered through the operation, I am accustomed to use a few drops of one per cent. solution of cocain. It is easy to identify solutions of cocain and eucain and the stronger from the weaker solutions if different formed medicine glasses be used as containers, or colored glasses may be used.

During the past few years since its discovery by Dr. Takamine of New York, adrenalin has been combined with cocain, applied for anesthesia to the mucous membranes, but much less commonly in solutions used for infiltration. I first noticed an account of its use in this way by Elsberg (*American Medicine,* 1902, vol. 3, page 355), but the strength of solution, which he suggested, was higher than is desirable for ordinary work. Soon after this its use was adopted by a number of German surgeons, especially by Braum (*Archiv. für Klinische Chirurgie,* 1903, vol. 69, page 541). I have used it in much weaker solutions than has been recommended by others, for it has seemed to me that it would be easy to give a poisonous dose. Death of the tissues has also been reported following the use of strong solutions, but I have never seen trouble from the weak solutions which I am accustomed to use. The solutions prepared by manufacturing chemists are generally one to one thousand, and for infiltration work this solution should be diluted a hundred times or more, making a strength of about one to one hundred thousand. Besides arresting capillary oozing, the purpose for which it was originally used, its use has several advantages of even greater importance in local anesthesia. Perhaps the greatest of these is the lessened danger of poisoning from the use of the anesthetic drugs with people who have idiosyncrasy to them. By constricting the capillaries it greatly lessens the rapidity of absorption and likelihood of poisoning. Slower absorption also greatly prolongs and deepens the anesthesia. Other advantages are that there is less edema and swelling, and consequently less pain after operation. The advantages of adrenalin are so great that I now use it in connection with other anesthetic drugs in nearly all local anesthesia operations. It gives the same effect as the application of the tourniquet, not only preventing bleeding during operation, but deepening and prolonging anesthesia, and reducing the danger of poisoning by rendering the parts bloodless. Some have suggested the application of ice to the parts to be operated upon, for the same purpose, but I have found it difficult to apply cold to surfaces to be operated upon under strictly antiseptic conditions, and besides it requires considerable time.

It may seem hardly necessary to call attention to details of the two general methods of using local anesthesia, which have been in use for many years, but so many men are not acquainted with the methods of local anesthesia that I venture to refer briefly to the technic of nerve blocking and massive infiltration. In planning any operation our first thought should be of the nerve supply of the part. If the part to be operated upon gets its sensory nerve supply from one or two nerve trunks the problem may be easy, for in many cases these nerves are accessible, and by infiltrating the nerve trunk the entire area below the point thus blocked is anesthetized. To illustrate this: in case we are operating upon a finger it is usually possible to strike the digital nerves which run along the sides of the finger near the palmar surface. Infiltrations of a few minims of solution will so effectually block the nerves that the portion of the finger beyond will be entirely insensitive to pain. A minor point of considerable importance in inflammatory conditions is to elevate the hand before infiltration. This allows the blood to flow out of the part, and tension from the infiltrating fluid is less likely to be felt disagreeably. After the few drops of anesthetic solution are infiltrated in the region of each of the nerves, a piece of small rubber tubing is wound about the base of the finger as a tourniquet, for the purposes which we have just mentioned. In the case of a lacerated wound on the outside of the thigh it would be impractical to attempt to anesthetize the main nerve trunks, as the nerve supply of almost any area on the outside of the thigh would probably come from several different nerve trunks both of the front and back of the thigh. It would be much simpler to thoroughly infiltrate the edges of the wound, after which it could be thoroughly cleansed and sutured. Questions which I have been frequently asked are: do wounds heal well after local anesthesia operations, and why do you not use spinal anesthesia? In answer to the first question I can truthfully say that in my own experience wounds have healed as well, if not better, than after the use of general anesthesia. If too strong solutions of adrenalin were used in infiltration, it is easy to see that the capillary blood supply might be permanently damaged by coagulation of the blood in the vessels before the constriction of the capillaries relaxed, but strong solutions should not be used. Ordinarily the wounds heal as well, and probably better, chiefly for the reason that in a local anesthesia operation the tissues are more carefully handled to avoid pain. Rough handling of tissues, pinching and

bruising delicate structures, are among the most frequent causes of imperfect union and the suppuration of wounds. In local anesthesia operations this is very unlikely to occur. Another factor of considerable importance is that one does not feel in the least hurried, as time is not an element of anywhere near as great importance as in a general anesthesia operation, and approximation of the tissues is more likely to be carefully and thoroughly accomplished. Moreover, local anesthesia operations are almost entirely free from shock. Some authorities tell us that surgical shock is produced by insult to large sensory nerve trunks or to repeated lesser insults to smaller nerves or their endings, hence Crile has suggested that we prevent surgical shock by injecting cocain into the large nerve trunks before dividing them in the amputation of the extremities, even under general anesthesia. Under local anesthesia no such sensory impressions are carried to the central nervous system, and it is surprising to see how old and feeble patients will undergo an extensive operation without the slightest evidence of shock.

With regard to spinal anesthesia, the question of its use is only raised by those who have not followed the published results of its use. At the time of its introduction it was enthusiastically taken up by men all over the world, and some surgeons used it as a routine anesthetic in several hundred operations. A few individuals have possibly carried the number above a thousand, but it would be difficult to find a dozen surgeons of note throughout the world who have continued to use spinal anethesia. The reason is not difficult to find, for there have been repeated reports of fatal results from the use of spinal anesthesia. It should always be remembered that in ether, the standard general anesthetic of this country, we have an extremely safe drug. The number of deaths from its use will not average over one in eight thousand at the highest estimate. Yet this or any other general anesthetic is dangerous in certain very weak and feeble patients. There is only one other form of anesthetic of which I have knowledge that is safer than ether, and that is the infiltration of weak solutions of anesthetic drugs. I do not know that a single death can be fairly attributed to this method, something that cannot be said of any other anesthetic in use, I believe. But even with its great safety, there are certain contraindications to the use of local anesthesia. It is almost impossible to use it successfully in the case of young children who are very easily frightened, and who do not appreciate the meaning of an operation or what is to be accomplished. Children old enough to reason well, however, can be very satisfactorily operated upon in this way. I have used it frequently with children fifteen years of age or older with great success. It is not well adapted for use in very extensive operations, as a rule, though in such cases as thigh amputations where the nerve supply comes from several different nerve trunks, which can be readily infiltrated, it is possible to use local anesthesia very satisfactorily in extensive operations. In such operations as amputation of the breast or amputation at the hip joint it seems to me that its use is distinctly contraindictated. It is also unlikely that local anesthesia would be successful in wounds of great depth, particularly in cases where it would be clearly impossible to infiltrate before dividing tissues lying behind bone or some other barrier. In most operations upon the external female genital organs it seems undesirable to use local anesthesia, because of shock to the modesty of the patients; however, I have used it in many such cases, where there was some special indication, and with good success. Sampson has shown that we are favored by a very limited number of sensory nerve endings in the vagina, and when we are not obliged to make traction on the organs, operations are not likely to be painful. In my experience this is specially true in old women well past the menopause, when the organs have greatly atrophied and sensation has largely disappeared. Local anesthesia is indicated in almost all the operations of minor surgery, and many operations of major surgery. It is specially desirable that it should be used in the very old and feeble, who are usually unsatisfactory subjects for general anesthesia, and particularly in the case of patients who have advanced atheroma and arteriosclerosis, whose cerebral arteries are likely to give way under the stress of increased blood pressure, which comes with the primary stages of general anesthesia. It is also very desirable in case of advanced disease of the heart, lungs or kidneys; in all cases in which nausea, retching and vomiting will be of disadvantage. In the latter class I should place the radical cure of hernia. I firmly believe that a considerable proportion of the failures of the radical cure of hernia may be traced to the giving way of stitches under the retching and vomiting that has followed the use of general anesthetics in such cases. Some persons have a special dread of loss of consciousness and will do almost anything to avoid it. In such cases, if the operation advised is of such a character as to permit local anesthesia, it is desirable to use it for this if for no other reason. In very many cases I have found it easy to persuade patients greatly needing operation to undertake it under local anesthesia, when it would have been difficult to have induced them to lose consciousness by the use of ether or chloroform. Several patients have traveled several hundred miles to me from large cities, past surgeons of national reputation, in order to avoid the disagreeable consequences of general anesthesia.

In a considerable number of cases I have undertaken operations where I felt certain that complete freedom of pain could not be obtained by the use of local anesthesia, but in which I felt that the operation was very urgently needed, and the patient's condition made general anesthesia

hazardous. If patients are told frankly at the beginning, they will seldom object to considerable suffering if they feel that the result to be obtained justifies it. Among such operations in which local anesthesia cannot be used with complete freedom from pain, but in which I have felt that its use was justified because of patient's condition, I would mention the case of an old and feeble woman, with arteriosclerosis and a bad heart lesion, upon whom I operated successfully under local anesthesia for carcinoma of the rectum. With the help of scopolamin the amount of suffering was trifling. There was practically no shock. I feel that had this method not been applied, the woman would have been doomed to a death of great suffering from the disease, or to practically certain death on the table under general anesthesia. She has remained free from recurrence over one year.

In conclusion I would say that all who are accustomed to do minor surgery will find in the methods I have suggested a means of preventing pain, quite as effective, in most cases, as any general anesthetic and free from dangers and discomforts. And those of you who do major surgery, if you will persevere in the use of these methods until you have developed familiarity and confidence in them, will be satisfied that by their application in suitable cases, you can save life and suffering for many patients whose condition does not permit the use of general anesthesia.

HISTORY OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK.

By JAMES J. WALSH, M.D., Ph.D.,

NEW YORK.

(*Continued.*)

Chapter XIII.

The Convention next took up the report of Dr. R. W. Haxall, of Virginia, Chairman of the Committee appointed to recommend a uniform standard of requirements for the degree of M. D. The several resolutions appended to the report were considered seriatim, and after receiving various amendments, were adopted as follows, viz.:

"*Resolved*, 1st, That it be recommended to all the colleges to extend the period employed in lecturing from four to six months.

"2d, That no student shall become a candidate for the degree of M. D. unless he shall have devoted three entire years to the study of medicine, including the time allotted to attendance upon the lectures.

"3d, That the candidate shall have attended two full courses of lectures; that he shall be twenty-one years of age, and in all cases shall produce the certificate of his preceptor to prove when he commenced his studies.

"4th, That the certificate of no preceptor shall be received who is avowedly and notoriously an irregular practitioner, whether he shall possess the degree of M.D. or not.

"5th, That the several branches of medical education already named in this report, (viz.: theory and practice of medicine, principles and practice of surgery, general and special anatomy, physiology and pathology, materia medica, therapeutics and pharmacy, midwifery, and diseases of women and children, chemistry and medical jurisprudence), be taught in all the colleges, and that the number of professors be increased to seven.

"6th, That it is required of candidates that they shall have steadily devoted three months to dissections.

"7th, That it is incumbent upon preceptors to avail themselves of every opportunity to impart clinical instruction to their pupils, and upon medical colleges to require candidates for graduation to show that they have attended on hospital practice for one session, whenever it can be accomplished, for the advancement of the same end.

"8th, That it be suggested to the faculties of the various medical institutions of the country to adopt some efficient means for ascertaining that their students are actually in attendance on their lectures.

"9th, That it is incumbent on all schools and colleges granting diplomas fully to carry out the above requisitions.

"10th, That it be considered the duty of preceptors to advise their students to attend only such institutions as shall rigidly adhere to the recommendations herein contained."

Much opposition was manifected by some of those connected with the colleges to the adoption of the first of the foregoing resolutions. It was alleged that the great majority of medical students could not be kept in attendance on the colleges continuously for six months, there being many in all the colleges who practically cut short even a four months' course by coming late or leaving before the close. This, together with all the other resolutions, were adopted, however, by large majorities, and it is worthy of remark that very few, if any, were found to claim that less than six months was really sufficient to present the various branches of medical science with that fulness which ought to be enforced in a college course.

The report on Medical Ethics made by Drs. Bell and Hays was very full and explicit, and was unanimously adopted by the Convention. The same was true of the reports of Dr. Griscom on "a registration of births, marriages and deaths," and on "nomenclature of diseases adapted to the United States, having reference to a general registration of deaths." These were all adopted, and may be found in the first volume of Transactions of the American Medical Association. Another subject which elicited discussion and much attention was that embodied in the following resolution, viz.:

"*Resolved*, That the union of the business of teaching and licensing in the same hands is wrong in principle and liable to great abuse in practice. Instead of conferring the right to license on medical colleges and State and county medical societies, it should be restricted to one board in each State, composed in fair proportion of the representatives from its medical colleges and the profession at large, and the pay for whose services as examiners should in no degree depend on the number licensed by them."

[How much Mr. York's influence preponderated in the organization of the National Association can be thoroughly appreciated from the makeup of the important committee whose report is thus summarized.—Ed.]

Perhaps the most important subject which engaged the attention of this Convention was the report of the Committee on a Plan for Organizing a Permanent National Association. This Committee, consisting of Drs. John Watson, John Stearns, F. Campbell Stewart and N. S. Davis, of New York; A. Stillé, of Philadelphia; W. H. Cogswell, of New London, Conn., and E. D. Fenner, of New Orleans, La., reported in full, a constitution designed to effect a permanent National organization. The Committee adopted as the basis of organization the principle of representation by making the active members of the Association consist of delegates from medical societies and institutions in acordance with a fixed numeral ratio. In the preamble attached to the constitution, the purposes for which the Association is organized are declared to be "for cultivating and advancing medical knowledge, for ele-

vating the standard of medical education, for promoting the usefulness, honor and interests of the medical profession, for enlightening and directing public opinion in regard to the duties, responsibilities and requirements of medical men, for exciting and encouraging emulation and concert of action in the medical profession, and for facilitating and fastening friendly intercourse between those engaged in it."

To more certainly effect these objects the Committee deemed it important to hold out the strongest inducements for the formation of State and local associations which should be auxiliary to the national one. Hence, they so framed the constitution as to make the great majority of the members of the National Association consist of delegates from permanently organized State and county medical societies throughout the Union.

To insure, also, a due share of the attention of the Association to the cultivation of medical science and literature, the constitution provided for the annual appointment of standing committees, each consisting of seven members, on the following subjects, viz.:

A Committee on Medical Sciences; on Practical Medicine; on Surgery; on Obstetrics; on Medical Education; on Medical Literature, and on Publication. The Articles of the Constitution were considered separately, and also various amendments, only one of which, however, proposed to alter essentially the basis or principle of organization. This was presented by Dr. Isaac Hays, of Philadelphia, and was as follows, viz.:

"*Resolved,* That the report be referred back to the Committee, with instructions to report a plan of organization in accordance with the following sketch:

"1st. The Society to consist of members to be elected by the Association, directly or through its council.

"2d. Members, before admission to the Association, to sign a promise to conform to the laws of the Association.

"3d, Members who violate this pledge to be liable to expulsion, and to be deprived of the rights of brotherhood.

"4th, For the appointment of a council, to consist of the officers of the Society and of ——— councillors to be elected annually, or all the former, and a portion, at least, of the latter, to be elected annually. The councillors to have the superintendence of the concerns and publications of the Association, and to report the proceedings of the Association at its annual meeting."

[New York constantly kept the basic question of the reform of medical education before the convention.—ED.]

These propositions were all adopted by the convention, and the required committees appointed. Dr. N. S. Davis, who was Chairman of the Business Committee, urged the following resolution as one suitable to be recommended as an additional subject for the consideration of the Convention. It was opposed by Dr. Hays, and other members of the committee, on the ground that it would be likely to excite discord, and was rejected by the committee.

"*Resolved,* That the union of the business of teaching and licensing in the same hands is wrong in principle, and liable to great abuse in practice. Instead of conferring the right to license on medical colleges, and State and county medical societies, it should be restricted to one board in each State, composed in fair proportion of representatives from its medical colleges, and the profession at large, and the pay for whose services as examiners should in no degree depend on the number licensed by them."

The same resolution was subsequently handed to Dr. O. S. Bartles, and by him presented to the Convention. An interesting and spirited discussion followed, which was participated in by Drs. Sumner, F. Campbell Stewart, Meredith Clymer, Isaac Parrish, H. W. Baxley, J. R. Manley, S. Hasbrouck, and N. S. Davis. Motions were made by those opposed to entertaining the resolution to lay it on the table, and to refer it to some one of the committees already appointed. These motions were either withdrawn, or severally voted down, and the resolution was finally referred to a special committee of seven, with instructions to report on the same, at the meeting proposed to be held in Philadelphia, in May, 1847. On motion of Dr. John H. Griscom, committees were appointed to report at the same time and place on the most efficient measures for effecting a registration of births, marriages, and deaths, throughout all the States of the Union; and also on a nomenclature of diseases adapted to the United States, having reference to a general registration of deaths. After passing the usual resolutions, complimenting the officers of the Convention, and thanking the medical colleges of the city for freely tendering the use of their rooms for its meetings, the session was adjourned *sine die* on the evening of May 6, 1846. All the business of the Convention was conducted with decorum, and the most cordial friendship, except that relating to the preamble and resolution introduced by Dr. Bedford, and even this gave rise to only a momentary feeling of excitement, or rather indignation, which was quickly lost in the universal determination to act solely for the elevation and advancement of the whole profession. The Convention was fortunate in the selection of its officers. Dr. Knight not only presided with dignity, but displayed a familiarity with parliamentary usages, and promptness, and pleasing urbanity rarely united in the same individual. In looking over the list of delegates in attendance, the reader will be surprised at the disparity of representation from States located equally contiguous to the place of meeting.

Thus, of the New England States, Connecticut had five delegates; Massachusetts, one; Rhode Island, one; Vermont, three; New Hampshire, two; and Maine, none. Of the middle States, Pennsylvania had fourteen, two of whom represented the Medical Department of Pennsylvania College, while all the rest were delegates from the Philadelphia Medical Society; Delaware had five, all of whom represented medical societies; and New Jersey had only two, who were made members by invitation. Of the Southern States, Maryland had one; Virginia, three; Georgia, one; Mississippi, one; and Tennessee, one. Of the Western States, Indiana had one; and Illinois, one. This leaves little more than half of the entire number present, to represent the State of New York, while Maine, North and South Carolina, Alabama, Louisiana, Kentucky, Missouri, Ohio, Michigan and Texas were entirely unrepresented. Eleven medical colleges were represented, constituting only about one-third of the whole number in the United States. The absence of a representation from so large a number of States and colleges was owing to various causes. In some States, neither medical societies nor colleges existed, and individual members of the profession did not feel free to take upon themselves the office of delegates. This was the case in North Carolina, and virtually so in most of the unrepresented States in the South and West. For though State and district medical societies had been previously organized in most of them, yet they had ceased to maintain an active existence. Another cause was a want of confidence in the success of the movement.

Many who ardently desired a full convention, and were friendly to any measures calculated to elevate the standard of medical education, were deterred from attending by the belief that not a sufficient number of others would attend to warrant the transaction of any business of importance. But still another cause, which affected more particularly the medical colleges, was a feeling of distrust in regard to the motives of those who issued the call for the Convention. There was a feeling of apprehension, increased to some extent, doubtless, by the address of Professor Paine, that the whole movement originated in a spirit of radicalism and enmity to the schools. And though such a feeling was without the shadow of a foundation in fact, yet it was evidently the chief cause of preventing the attendance of delegates from a majority of the medical

colleges in the Union. Another feature which will strike the mind, in looking over the list of delegates in attendance, is the absence of those to whom the profession had long been accustomed to look as leaders in all important professional matters. We look over the list in vain for the names of Warren, Murray, Stevens, Chapman, Drake, and other veteran teachers in medicine. Almost the only ones present belonging to this class were Drs. Knight, Manley, Stevens and Delafield. Hence it may be said with propriety that the Convention was composed of the younger, more active, and, perhaps, more ambitious members of the profession.

And yet, both the discussions and action of the Convention were characterized by that moderation, coupled with a spirit of determined perseverance, which was well calculated to inspire confidence alike in the motives of its members, and the final success of the enterprise in which they had engaged. It will be noticed, that all the proceedings of this meeting were made to assume the character strictly of preliminary action. Instead of hastily declaring their sentiments by formal resolutions, or at once recommending measures about which there might be differences of opinion, they simply selected the most important topics connected with the education of the profession, and referred them to able committees, with instructions to report after ample time for deliberation.

(*To be Continued.*)

Clinical Report.

THE RELIEF OF SYMPTOMATIC DISTURBANCES DURING PREGNANCY.

By S. H. MONELL, M.D.,

NEW YORK.

As nearly every physician in general practice has obstetric cases, I desire to place before my colleagues a brief report of the usefulness of a simple means of giving relief to many of the discomforts attending the period of gestation and parturition.

When about four months pregnant, Mrs. ——— was troubled with hemorrhoids and backache. A single application of a high frequency current with a rectal electrode for less than five minutes would remove the discomfort, the relief sometimes lasting for several days, sometimes for only a day. Despite the regulation of her bowels with diet and mild laxatives she had repeated attacks of acute hemorrhoidal pain and soreness, and the protrusion of a single grape-like tumor after each stool. When these attacks first occurred a daily application of high frequency treatment for two or three days gave her ease for one or two weeks. The spasmodic tendency of the sphincter was always relaxed by the current, and a sense of general tonic effect was imparted. Either high frequency or static administrations promptly removed the backache at each recurrence.

In treating the rectum it was observed that the perineum muscles anterior to the anus were hard, whitish, and non-elastic. They were non-sensitive to touch. The patient did not feel the examining finger. It was surmised that this was a condition predisposing to laceration during delivery, and possibly a similar unnoticed state of the muscle accounts for many tears of the perineum. An application of a relaxing current was made to these evternal muscles, and immediately after the treatment the tissues were pinkish with improved circulation. They were softened, elastic, and the patient could feel the touch. In order to see if laceration could be prevented this treatment was repeated some ten times, the last being three days prior to delivery. The tissues became elastic and pliable, and were apparently in good condition for labor. After a difficult delivery, the patient losing the waters before the pains began, and the second stage lasting thirty-two hours, a very small tear resulted in the edge of the vulva. It was repaired by a single stitch. The perineum remained intact. This result was interesting under the circumstances, and very satisfactory to the patient.

At various times this patient developed symptomatic disturbances which yielded promptly to some administration of static electricity to meet the indications. For example, when within about six weeks of term she complained of a peculiar sensation in the abdomen which made her very nervous and anxious. She described it as feeling "as if the child had turned over," or in some way dislocated the normal relation of the parts. It was very uncomfortable and disquieting. She was given a sedative static spray on the region and relief was immediate. The normal sensation was restored and remained to the end of term.

Earlier in gestation she caught cold and a moderate bronchitis resulted. After this abated under medical treatment it was found that she had albuminuria, which persisted despite diet and drugs. As soon as she was able to leave bed she was treated daily for a week with static electricity, and the condition of the kidneys cleared up and gave no further trouble. In all the functional cases of albuminuria met in my experience static counter-irritation on the region of the kidneys has been efficient to remove the cause and the symptom.

As previously stated, the second stage of this labor lasted tediously for thirty-two hours, and was only ended by mechanical aid. The slightest use of chloroform arrested contractions, hence the patient became tired and discouraged. At about the sixteenth hour she felt extremely fatigued, and declared that she could stand it no longer. It was then thirty-six hours since she had slept, and during that time she had been able to take but little nourishment. She was so much refreshed by a few minutes of spinal stimulation with static electricity that she went on with renewed vigor and pains. A severe soreness just above the pubes that had developed from pressure of the child's head was removed by a sedative static spray at the same time. During the first five months of pregnancy in this case the symptomatic comfort promoted by resort to static electricity was marked. One disturbance often allayed in this and some other cases in my experience is nausea. Purely reflex nausea is almost always controlled by selected administrations of static currents.

The child born was much given to fretting and crying, had considerable colic, and did not sleep as much as it should. The mother's milk did not come well. The breasts were sore, and irregular hard lumps were felt in them. An application of high frequency current softened them, removed the hard areas, and made them feel "exhilarated." In the hope of increasing the secretion the treatment of the breasts was repeated daily for a week and was most agreeable. When the breast was lax before treatment it could be seen to take on tonicity and erectness of the tissues, and the mother felt that secretion was being stimulated. But during a month of effort, using special diet, selected beverages, and all the promising galactagogues, the milk remained scanty, and the infant was about two-thirds bottle fed. This accounted for its indigestion and nervous state.

When it was three days old it was given five minutes of simple static electrification as a sedative-tonic. It cried before and after treatment, but was perfectly quiet during electrification. During the first month of its existence it had twelve similar treatments, with manifest quieting effects, only once failing to stop its crying when on the platform. It was subject to cold hands and feet, and these always became warm during insulation.

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Editorials.

THE TRUTH CONCERNING THE MEDICAL EXPERT WITNESS.

WE are hearing a great deal nowadays concerning the medical expert witness. Often he is spoken of in derision. Unfortunately the derisive comments are not confined to the lay press, but the medical press also has not hesitated to cast its calumny upon him. We assert that this opprobrium is not justified by the facts.

Medical men are subject to the same defects of judgment and limitations of insight as belong to other men. They are not peculiar in freedom from human weaknesses. Medical men can be differentiated from other men in two respects: they represent as a whole the highest moral qualities of any class, and they possess the greatest knowledge of the human body and its diseases. These two assertions we stand ready to defend.

If expert medical testimony is required, the best man from whom to get it is a doctor of medicine. Occasions always will arise when such testimony will be desired. It is sought from him, according to Mr. Chief Justice Shaw, "because his professional pursuits, his peculiar skill and knowledge in some department of science, not common to men in general, enables him to draw an inference, where men of common experience, after all the facts proved, would be left in doubt."

Now, why do the apparent discrepancies of testimony occur which foster the misconceptions concerning the medical expert witness with which we are so familiar? The answer is to be found in the codes of proceedings of the courts, in certain laws of the State which make for injustice, in the license which the courts place in the hands of the examining counsel, and the limitations to which the witness is confined, and not in the honesty or knowledge of the expert or the converse of these.

Of all the devices created by the law, which make for the subversion of justice, the hypothetical question stands among the preeminent. Give a skilful lawyer the privilege of asking questions, real or hypothetical, to be answered by only one word, "yes" or "no," and he can frame them in such a way as to put the answer in the witness' mouth; the lawyer who cannot ask an hypothetical question in such a way as to get the answer he desires is not a clever lawyer. It is framed so as to secure in one word the answer to a number of questions; and few medical experts ever answered such a question without a feeling of resentment at its unfairness, or at least a desire to qualify the answer by further explanations. The witness is required to give his opinion upon a great collection of supposed facts, but we do not know what his opinion would be if one of these supposed facts were withdrawn or were discovered not to be a fact. He is asked for the truth, and nothing but the truth, and then is not permitted to tell it.

It is, moreover, clearly unfair to ask from a medical man judgment upon a case without his having had an opportunity to examine the patient. Particularly is this so if another medical man, who is to testify "on the other side," has had such an opportunity. We earnestly wish that lawyers might realize that in medicine there is no "other side." The truth is all there is for us.

Let the medical witnesses, summoned by the two sides, have a fair and equal opportunity to examine the patient *together,* and discuss the case as they would in a consultation, and it will be found pretty generally that they agree. Men who are really experts are all

possessed of the best knowledge of their subject. Medicine as a science is not inexact. Let these men be called upon the witness stand. Let them not be handed over as automatons and tools to the contending counsels to be bandied about; but, as men of intelligence and knowledge from whom the court desires the truth, let them be allowed to elucidate the question, and it will be found that they are of the same opinion in the court room as they are in the examining room.

It is the trick of the lawyer to make the medical expert his tool. It is to the discredit of the courts that this is so. The lawyer's practice is to present one side of a case, the doctor's practice is to deal squarely with the whole, and to subvert this practice means misunderstandings.

We insist that the hue and cry against the medical expert is virtually a reflection not upon him, but upon the practice of our courts and the laws which govern them, and which are responsible for the injustice which makes him one of its victims.

THE INFECTION CARRIER.

SHORTLY after the nature of diphtheria became known it was observed that many persons, apparently well, carried this disease from house to house until the presence of the specific organism was discovered in the offender's throat. This was notoriously so in the case of a nurse who innocently carried the disease into a number of homes, and left a trail of diphtheria and mortality. That certain persons in good health harbor the coccus of pneumonia has often been demonstrated; and this is undoubtedly true of the organisms causative of many other diseases. The Germans call these persons "Bacterienträger."

How long the bacillus of typhoid fever persists in the intestine of persons who have recovered from typhoid is not known, but recent studies show that it may be for a long time. We know the typhoid disseminating property of the railroads. These great paths of traffic, and the streams they cross, are typhoid impregnated avenues. The trackman who leaves his dinner pail uncovered against the swirl of nebulized excrement arising in the wake of a passing train need not be surprised to find himself transformed into a clinical corroboration of these facts; and the village which takes its water from a stream crossed by a railroad must expect its quota of typhoid fever, though the source of the stream be the crystal springs of Mount Olymphus and its banks the abode of the Aesculapidæ.

As an illustration of the work of a typhoid germ distributor, Dr. G. A. Soper, of New York, has contributed a report of the case of a cook, who to his knowledge had worked for eight families during a period of ten years, and in seven of these typhoid fever followed her advent.* In all, there have been twenty-six cases and one death traced to this woman, but there were intervening periods and places of employment which have not yet been accounted for. Two years out of the past five years of the woman's whereabouts are not known. Soper has followed up this case in a scientific and admirable manner, and the chain of evidence is conclusive. The families by whom she was employed were people of means. In each household there had been four or five in the family, and from five to seven servants. Usually the serving personnel was first attacked. All but two of the epidemics had occurred in the country. The cook herself had escaped sickness in every instance. In only one instance could it be found that she had not been followed by typhoid in a household where she had gone to work, and that was in a family consisting of two aged people and one old servant. The woman was first associated with an outbreak at Oyster Bay, N. Y., where six persons in a household of eleven were attacked. Every possible origin of infection was minutely investigated until the source was discovered. A search into the history of the woman revealed that as far back as 1900 typhoid had developed in a household where she worked at Mamaroneck, N. Y. Again she appeared in New York in 1901, and her advent was followed by typhoid. In 1902 she is traced to Dark Harbor, Maine, where seven members of a household of nine persons were attacked, the two escaping being the cook herself and the head of the house, who had once had typhoid. Again she is found in a family at Sand's Point, N. Y., in 1904, where typhoid developed in four of the servants. This was followed by the outbreak in the family at Oyster Bay, in 1906. The woman was at last located in the employ of a family in New York

*Jour. Am. Med. Assoc., June 15, 1907.

City, in 1907, in which two cases of typhoid had developed a few weeks after her arrival. This is only a part of this woman's history, her whereabouts for the last ten years not being all accounted for. At this juncture she was taken into custody by the New York City Department of Health and removed to the Detention Hospital. She was robust and in good health, but repeated examinations of the stools showed typhoid bacilli, and the blood gave a positive Widal reaction. This is a striking example of a "Typhusbazillenträgerin."

The detention of this woman by the New York Department of Health was against her will and physical resistance. A question of personal liberty in the case of infection carriers naturally arises in these cases. Just who are the dangerous individuals? How far may the State go to determine this point? To what degree may they be deprived of their liberty? These are questions of medico-legal significance which must be answered, we believe, upon the basis of the general public good being the supreme law.

The unpleasant inference from this test case is clear, that, if the typhoid bacillus is present in the fecal discharges of those who handle our food, we may expect to ingest the typhoid bacillus; if it is not present we shall at least be spared the ingestion of this particular body; but an unpleasant inference remains notwithstanding. In fact it is something more than an inference.

THE EFFECTS OF ALCOHOL DRINKING UPON THE UPPER AIR PASSAGES.

IT has long been believed that alcohol is a stimulant, and that in moderation (if there is such a thing) its harmful effect upon the mucous membranes is confined to the abdominal organs. Recent studies showing that alcohol is locally corrosive and generally narcotic seem to be well founded, but that the effects of alcohol goes further than this and influences mucous membranes remote from its place of absorption has attracted but little attention.

Crothers,* after a prolonged study of this subject, says that it is exceptional to find persons who use spirits and drugs that do not suffer from catarrh and subacute inflammations of the throat and nose. He believes that the paralysis of the capillaries caused by repeated doses of alcohol becomes a permanent condition, and he finds this especially in the respiratory mucous membranes. We are familiar with the dilated capillaries of the spirit drinker's face. Crothers finds this is an exact duplication of what takes place also in the mucous membrane of the nose and throat, and recalls the old dictum of Gross, of Philadelphia, that, "The upper air passages reflect the damage of alcohol and tobacco and should always be considered in a study of inflammations of these parts."

It is pointed out by Crothers how sensitive to alcohol are the voices of singers. Clinical observation confirms this, not only by examinations of the throats of drinkers, but the changed tone of voice indicates thickening and changes in the vocal cords. Both the bronchial and nasal tones are pronounced in chronic cases, and the carrying property of the voice is lowered. McKenzie, of London, said that it is comparatively easy to cure bronchial and nasal inflammatory conditions in persons who abandon all use of alcohol or narcotics, but unless this is done the disease will continue almost indefinitely. Sir William Barlow said that alcohol is a large factor in the production of grip and chronic catarrhs of the throat by deranging the capillary circulation and interfering with the vitality of the nerve cells.

A number of cases of bronchial diseases supposed to be tuberculosis have been observed by Crothers in moderate drinkers, in which removal of alcohol was followed by recovery. Many such cases, he points out, exist among the so-called secret drinkers, which puzzle the throat specialists who do not know of their drinking habits. It seems accepted that the burden of the damaging effect of alcohol falls first upon the capillaries, and from this a train of sequelæ develops. The well accepted belief that alcohol is a prominent etiological factor in pulmonary tuberculosis rests partly upon these conclusions.

Med. Record, June 8, 1907.

POST-DIPHTHERITIC BRAIN EMBOLISM.

MULTIPLE embolism has from time to time been observed as a complication of the heart weakness of diphtheria. Such emboli have been discovered to occur in the kidneys and lungs in cases of diphtheria with severe toxemia. Escherich (*Wiener Med. Woch.* Nov. 10, 1907.) reports two cases in which the embolism involved the vessels of the brain. One was the case of a child two years old with profound diphtheretic infection. On the fifth day the child was restless and it was observed that the right side of the body was paralyzed. On the next day the child showed convulsive movements; and on the seventh day it died. The autopsy showed a pedunculated thrombus on the ventricular side of the aortic valve, embolism of the left arteria cerebralis media, embolism of the left arteria iliaca communis, with softening of the left hemisphere and beginning gangrene of the left leg.

Escherich reports another case of a child nine years old with severe diphtheria with prostration. Three weeks after the beginning of the disease a sudden attack like apoplexy occurred, but the right half of the body, face, and right arm and leg remained paralyzed. This paralysis of the right side presented the characteristics of paralysis of central origin, and there is every reason to believe it to be due to central embolism.

These emboli are attributed to heart weakness and retarded circulation, but it is most probable that to this must be added, in most cases at least, the clot forming tendency of actual infection of the blood.

LIGATURE OF THE RENAL VESSELS FOR THE CURE OF PERSISTENT URINARY RENAL FISTULA.

URINARY renal fistula, following abscess, injury or operation, often baffles the best efforts of the surgeon. The cure of this condition by plastic operation, after time and tentative surgical measures have failed, has been the expedient of choice. This operation has been of use chiefly in the cases of fistula of the pelvis of the kidney and of the ureter.

Nephrectomy has become an accepted expedient in these cases, and, on the whole, is giving fairly satisfactory results. It certainly cures the fistula. However, it seems like "a large operation for a small disorder," and it is by no means free from danger. The conditions which caused and accompany the fistula commonly involve the kidney in so much cicatricial tissue, distorting its relations and anchoring it fast, that its removal is often accomplished with difficulty.

Holt, of England, after making unsuccessful attempts to remove a kidney for this condition, from which he had to desist on account of hemorrhage and the impossibility of distinguishing renal from surrounding scar tissue, practiced transperitoneal ligation of the renal artery and vein.* He recalls Beddard's experiments upon frogs, showing that ligation of the renal vessels causes a cessation of function of the cells of the glomeruli, also Heidenhain's law that, "the amount of urine secreted is directly proportional to the velocity of the blood flow through the kidney." These conclusions prompted the operation, which resulted in the cure of the condition.

This is an important contribution to the surgery of the kidney. Recent knowledge of the internal secretions of glandular organs has prompted conservative surgery in dealing with these structures. We know that the kidney has important functions besides that of excreting urine. Any operation which furthers the preservation of a glandular organ is to be looked to as of value. It would seem, however, that in ligating both vessels of the kidney the surgeon is going farther than is necessary to produce the desired results. Ligation of either one or the other, artery or vein, would suffice; and of still more utility would be temporary ligation (by means of soft catgut) of the renal artery. The object of the operation should be to check urine excretion until the fistula has closed, and still, if possible, preserve the kidney as a functionating gland. Of course, in the event of obstruction in the ureter or pelvis, plastic operation or dilatation is indicated, and these failing, permanent suppression of urine excreting function is the next desideratum.

*The Lancet, June 8, 1907.

Observations.

ON IDLE WIVES, UNMATED MEN, AND THE VENEREAL PERIL.

The question of sexual immorality and the venereal peril is by no means a simple one, and because of its complexity the remedy can be said to lie in no single expedient. There is the one great cause, which we cannot change, nor would we if we could—the sexual instinct, upon which the preservation of the race depends. There are certain social conditions, however, which may properly be regarded in the light of contributing causes, the elimination of which would constitute a long step in the direction of sexual purity. To the one of these which is the greatest I desire to call attention. It is not wine, nor idleness, nor the absence of proper instruction in childhood, nor lewd companions, nor the easy accessibility and prevalence of women of moral perversity, nor the waning influence of the church,—all of which have been held accountable—but it is the social condition which postpones normal marriage.

* * *

Here again we encounter complex sociological problems. Among these the most important are the increasing complications and concomitant expenses of domestic life. We have drifted away from the happy old habit of thinking of the wife as an helpmeet, to the habit of treating her as a luxury, to be maintained at a certain necessary expense, just as one's yacht must be maintained. In the larger towns this condition is so prevalent that in many instances the most useful women are the unmarried ones, and for a woman to marry is to retire into the seraglio of pampered luxuries. There are whole blocks in our great cities in which the women are essentially useless creatures, outside of contributing to the joy of their husbands. They do not even have the elevating responsibility of caring for their own hands or hair or feet, let alone the care of their children or households. The morning bath, the novel, the luncheon, the drive, bridge, the theatre—the home cannot thrive by these.

* * *

Every young business man who would lead the normal life has before him the goal of his aspirations in business success, which is very high and attained by few; and also the domestic outfit which goes with it, which usually remains beyond his reach; and marriage is postponed.

The household is not upon a normal basis unless the woman works and helps the man maintain it. She should be engaged in useful occupation within the limits of her strength. Employment which is not useful is idleness. If her husband can afford to keep her in idleness, it is to insult her to demand that she should live so. The woman who is idle degenerates, and her household, her children, the community, and her husband all suffer for it. He would treat his horse better than to demand idleness from it. And yet this is the state in which many young men think a wife wants to live, and few young men can afford to maintain a luxurious appurtenance of this sort, at least not until they have frittered away the most precious years of their lives in discovering the dangers and incompleteness of bachelorhood.

* * *

This unfortunate condition is most prevalent in the large cities. In the country, a larger proportion of the women are useful, and for that reason marriage is less expensive. But in the city, the prevalence of the practice of marrying a woman to support her in idleness deters the young man from organizing a home. Marriage is postponed, with its evil consequences.

This evil will not be overcome until the rush to the cities subsides. and the country becomes economically and socially attractive. The huddled life of the city is not well adapted for man's advancement. A better prosperity is possible in the less crowded communities. The city works a hardship to both men and women. Its allurements deplete the country of the flower of its young manhood. I should not blame the spinsters of New England if they should organize and *en masse* march upon Boston, whence the boys of their childhood have gone, with banners bearing the slogan, "We demand our birthright; we demand to be loved!"

* * *

But before this desperate expedient is resorted to, the growing improvements in communication and transportation will have removed from the country its objection of remoteness, and civilizing education will have made its advantages take the place of the disadvantages of the city. The normal life should then be more prevalent. The social conditions of the city also should improve. It should be easier for married women to be useful. The financial burdens of the home should be reduced. The roaming about of unmated men, seeking who may devour them, should be less prevalent; and a great cause of the venereal peril overcome.

Items.

Appropriation for Cancer Research Laboratory.—The Legislature has granted an appropriation of $20,000 for the cancer laboratory at Buffalo to continue its investigations. It is much to be regretted that this work connot have an assured income. The uncertainties of an annual appropriation greatly hamper scientific work. Such investigation as this should not be compelled to live by the "from hand to mouth" exigencies of legislative favor.

Death Rate in New York State.—The last monthly report of the State Department of Health shows a death rate during the month of April of 17.9. There were 12,447 deaths. The average rate for April for the last five years is 18.7. The largest causes of death were pulmonary tuberculosis (1,394), pneumonia (1,185), and organic heart disease (1,027).

Tuberculosis Diminishing in New York.—Dr. Herman M. Biggs, of the New York City Health Department, reports that in 1881 the death rate from pulmonary tuberculosis was 4.27 per 1,000, and in 1906 it was 2.16. The latter statistics include all of the greater city. The report of 1881 includes only that part of New York which is now called Manhattan and the Bronx. The 1906 report reduces this mortality by adding the more sanitary and salubrious boroughs of Brooklyn, Richmond and Queens.

The Difficulty of Diagnosing Typhoid Fever, or rather the frequency of incorrect diagnosis, is illustrated in the annual report of the Metropolitan Asylum Board, which has under its jurisdiction all of the hospitals of London devoted to contagious diseases. This report shows that of the cases sent to the hospitals with a diagnosis of typhoid fever, 33.7 per cent. did not have typhoid.

Good Milk.—Clarence B. Lane said before the School of Philanthropy of New York that the strongest incentive towards the production and marketing of better milk will come when the dairyman is paid for his product according to its value. It is wrong for all milk to bring the same price, and when rich milk and clean milk command a higher price than thin and dirty milk the producer will desire to have his product in the first class.

Watered Milk in London.—The annual report of a London health officer discloses that the inhabitants of London pay at least $150,000 for water added to milk. This shows that watering milk can be made a profitable business enterprise, since the fines imposed are utterly inadequate to stop it. The way to stop the watering of milk is to stop it; and this has been done in a large number of American cities.

A Medical College at Manilla is shortly to be opened, the Philippine government having appropriated $62,000 for the first year's expenses. The college will begin work in a building formerly used by the engineers of the Army. It is intended that this shall be the beginning of the University of the Philippine Islands. The development of medicine in this country has been very great during the past five years. The Philippine Islands Medical Association is a strong organization and doing admirable work.

An English Opinion of American Surgery is found in a little book by C. Hamilton Whiteford, M.R.C.S., who recently honored us with a visit. He says in Glimpses of American Surgery, "American surgery is, with one notable exception—that of the treatment of the vermiform appendix—of the highest class, being based on logical reasoning and common sense." While we are glad to know that outside of the vermiform appendix our surgery is acceptable to Mr. Whiteford, it is something of a surprise to learn that in his judgment we fail in just the field in which we have laid to ourselves the flattering opinion that here we excel.

The Saranac Lake Industrial Settlement has been organized to give employment to persons who has reached the "arrested stage" of pulmonary tuberculosis and need no longer be kept in institutions for the treatment of this disease. These patients particularly have needed such provision for their case. They are not well enough to return to the city and to their usual occupations, or if they do the disease is apt to return. This industrial settlement gives them proper employment under hygienic environment—gardening, poultry raising, handicrafts, etc. It is an admirable institution, and should receive every possible support.

The New York State Board of Medical Examiners has been appointed in conformity to the new law providing for one board. The Board of Regents has appointed Drs. W. W. Potter and L. H. Smith, of Buffalo, and W. S. Searle, of New York, for a term of three years; Drs. W. S. Ely, of Rochester, Eugene Beach, of Gloversville, and F. M. Crandall, of New York, for two years; Dr. F. W. Adriance, of Elmira, F. S. Farnsworth, of Plattsburg, and R. H. Williams, of Rochester, for one year. Dr. Maurice K. Sewi, of New York, has been elected by the Regents as secretary of the Board. Of this board of nine members, four members are regular physicians, three are homeopaths, one is an eclectic, and one is an osteopath.

Dr. I. Boas, of Berlin, pursued independently his work in gastro-enterology until he came to be recognized as one of the greatest specialists in this branch of medicine, if not the greatest. This work he did without having any university teaching connection, simply as a private practitioner.

As editor of the *Archiv für Verdauungskrankheiten* and as a prolific writer his name and work have become widely known. Students from all parts of the world have sought him. By virtue of his acknowledged eminence and his ability as a teacher the University of Berlin has wisely appointed him to a professorship.

THE ELEVENTH ANTI-ALCOHOLIC CONGRESS will be held July 28, 1907, at Stockholm, Sweden. This meeting is under control of the departments of State and of Education of the Swedish Government, which is putting forth a strong effort to make the meeting productive of much good. Every country in Europe and the United States and Canada have been invited to send delegates. The United States Government has designated as delegates Surgeon-General O'Reilly, Medical Inspector Beyer, of the Navy, Dr. T. D. Crothers, Dr. T. A. McNicholl and Mr. B. A. Hockhert. These meetings have been held in different cities of Europe for the past ten years and have been productive of much good.

AGAINST TUBERCULOSIS.—The Missouri Association for the Relief and Control of Tuberculosis has been organized in affiliation with the National Association for the Study and Prevention of Tuberculosis. Such a State organization as this should be able to accomplish great good. Its purpose, as defined in its constitution, commends itself as being drawn up in the lines of the greatest usefulness. Its objects are:

The dissemination of knowledge concerning the causes, treatment and prevention of tuberculosis; investigation of the prevalence of tuberculosis in Missouri and the collection and publishing of useful information; securing of proper legislation for the relief and prevention of tuberculosis; co-operation with the public authorities (State and local boards of health), the National Association for the Study and Prevention of Tuberculosis, medical societies and other organizations in approved measures adopted for the prevention of the disease; promotion of the organization and work of local societies in all parts of Missouri; encouragement of adequate provisions for consumptives by the establishment of sanatoria, hospitals, dispensaries and otherwise; and in general to do all things and acts having as their object the relief of those afflicted with tuberculosis and the control and prevention of that disease throughout the entire State.

THE SO-CALLED FREE PRESS.—The *California State Journal of Medicine*, according to the *Journal of the American Medical Association*, exposed an atrocious humbug, the "Viavi Treatment," which has been doing incalculable damage to gullible invalids. It is clearly shown that this "system" is operated without even a suggestion of consideration for its dupes. The California journal sent marked copies of this exposure to every San Francisco newspaper. One weekly and one daily made faint reference to it. Immediately, however, in all of the San Francisco newspapers large advertisements of Viavi appeared, and no further news notice was paid the subject—excepting that the daily which had referred to the fraud repented of its freedom of speech, and published as reading matter a complimentary write-up of the humbug and its backers. In other words, the press prostitutes itself to the criminals who prey upon the sick, and sells its freedom of expression for their patronage. Little boys at school are no longer making declamations, as was once the custom, upon "the freedom of the press."

CORONER'S JURY CENSURES PHYSICIANS.—The recent death of a woman in New York who had not been seen by a physician in her last illness, but who had been under the so-called care of a "Christian Science healer," lead to a coroner's inquest. In this inquest it developed that it is the practice of some physicians to give death certificates in cases in which the patients have been attended only by these "healers." The jury returned among other items of the verdict this: "We find that a number of medical doctors in New York City make it a practice to furnish death certificates for persons who die under so-called Christian Science treatment, thus enabling Christian Science practitioners to evade the laws of the State of New York in their so-called treatment, and we respectfully call the attention of the Department of Health of New York City, and the District Attorney of New York County, and the Medical Society of New York County to the practice of such physicians, and request them to take all necessary steps required by law to put a stop to such practice and punish the perpetrators thereof."

THE NEGLECT OF CHEMICAL RESEARCH.—The President of the Chemical Society, Prof. Meldola, deplores the public failure of appreciation of chemical research. His remarks apply not only to chemistry, but to all of the sciences, and are worthy of thoughful consideration. He says: "The nation, as a whole, has not recognized the principle that the productive activity of the scientific worker is one of the prime factors in national development. Attention to this national weakness has from time to time been called by the publicists, but public interest in scientific research is still at a low level, lower than in many leading nations. A temporary flicker of excitement is caused when some sensational discovery is announced or when some result of immediate practical (commercial) value is made known. Research as a cult is not understood; the national attitude toward the worker is one of 'payment by result,' the very narrowest sense of the term. Our universities are failures as centers of chemical research. The deterrent causes are ancient traditions, defective educational methods, want of sufficient means leading to frittering away of the research faculty by the drudgery of coaching, the poor outlook for chemical research as a career, and the pedantic notion that a subject requiring for its advancement something akin to manual labor is derogatory to high scholarship."

THE PLAGUE IN INDIA.—The London correspondent of the *Jour. of the A. M. A.* writes that two facts stand prominently out in connection with the epidemic of plague in India—the appalling magnitude of the mortality and the inability of the government to cope with the disease. In January of this year there were 58,000 deaths; in February, 98,000; in March, 171,000, and in April, 314,000, making a total of 641,000 for the four months. Since the beginning of the present epidemic in 1896 the deaths have reached the enormous total of 5,326,000. The *Lancet* points out the inadequacy of a small service like the Indian Medical Service, which is fully occupied in its ordinary duties, to cope with the epidemic, and urges the government to appoint a special plague service. In this connection the findings of the Indian Plague Commission, appointed to investigate the disease with regard to the use of Haffkine's prophylactic, are of interest. They found: 1. Inoculation sensibly diminishes the incidence of plague attacks on the inoculated population, but the protection is not absolute. 2. Inoculation diminishes the death rate among the inoculated population. This is due not only to the fact that the rate of the attack is diminished, but also to the fact that the fatality of the attack is diminished. 3. Inoculation does not appear to confer any great degree of protection within the first few days. 4. Inoculation confers a protection which certainly lasts for some considerable number of weeks. It is possible that the protection lasts for a number of months.

THE BARLOW MEDICAL LIBRARY. — The *Southern California Practitioner* (February, 1907) publishes an account of the dedication and opening, in Los Angeles, Cal., of the Barlow Medical Library, appropriately named by the Board of Trustees after its donor. This structure, costing about $30,000, is the gift of a single member of the profession, Dr. W. Jarvis Barlow, who turned the building over to his profession without restrictions or reservations of any kind. This noble gift of Dr. Barlow, it is to be hoped, may have an influence not confined to Southern California alone.

The value of a medical library to the community at large as well as to the profession has been emphasized again and again. The *Medical Library and Historical Journal* appropriately says:

"It seems to us that sufficient attention has not been directed to one phase of the influence which the medical library exerts on the profession. Reference is made, not to its educative value, but to its influence, as perhaps the most powerful factor in welding together different factions and bringing together into closer fellowship the individual members of the profession. If the medical library is made the medical center, as it should be, different factions will vie with one another in promoting its growth. Men will unexpectedly find themselves sinking their personal differences for the time being, and working shoulder to shoulder in a common cause in which all take pride. This closer personal contact brings about that mutual understanding and respect, the lack of which has produced so much dissension within the ranks of the medical profession." Osler has said: "The organization of a library means effort, it means union, it means progress. It does good to the men who start it, who help with money, with time and with the gifts of books. It does good to the young men, with whom our hopes rest, and a library gradually and insensibly molds the profession of a town to a better and higher status."

AMERICAN MEDICAL ASSOCIATION.

The American Medical Association at its meeting this year at Atlantic City transacted a larger amount of business than has ever previously come before this body.

The report of the General Secretary showed the present membership of the Association to be 27,515, an increase during the year of 3,879 members.

The net income for 1896 was $325,300. The total expenses for the year were $293,385.00, leaving a net revenue of $31,915.00.

The report of the Council on Medical Education showed that during the past year the following work has been done: (1) Collecting, tabulating and publishing the results of State Board examinations; (2) Securing, tabulating and publishing statistics regarding medical students; (3) Compiling and publishing abstracts of laws and rulings regarding license; (4) Co-operating with State examining boards, State committees on medical education and medical colleges to secure the adoption of the standard of medical education of the Association; (5) Collecting information regarding medical colleges through reports and through a systematic inspection; (6) Obtaining information regarding proposed changes in medical practice acts and rendering any possible assistance to State boards or State societies in obtaining improved legislation; (7) Obtaining information regarding reciprocity and securing reports of licenses issued on that basis; (8) Collecting all possible information regarding medical education. The Reference Committee on Medical Education in its report, approved the compilation of tables, showing the standing of the various colleges, as well as the personal inspection of medical colleges, undertaken by the Council. The Committee recommended that all medical schools be annually inspected for the next three years. The Committee also approved the report of the Council regarding existing medical schools, emphasizing the following points: The minimum preliminary educational standard to be sufficient education to enable the student to enter the freshman class of a recognized university or college; this minimum to be increased as soon as possible by adding physics, chemistry, biology and one modern language; four years' work of thirty weeks, and thirty hours per week to be regarded as the minimum amount of time for a medical course. The Committee endorsed the action of the Council in refusing to recognize night schools or schools conducted solely for profit. It urged the Association to ask the State licensing boards to make an annual inspection of the medical schools in their State and to refuse to license undergraduates. The principle of reciprocity was endorsed, as well as the annual conference held by the Council, which the Committee recommended should be composed of delegates from each State licensing board and from each State medical society. The report was unanimously adopted.

A report from the Committee on Medical Legislation reviewed the work of the Committee on the following bills: National food and drugs act; bill for the relief of Dr. James Carroll; bill for the Army General Hospital; bill for improvements in the Surgeon-Generals offices; bill reorganizing the medical department of the United States Army; the Canteen bill; bill for the relief of the widow of Surgeon-General W. A. Hammond.

The last paragraph of the report is significant of the developing importance of this Committee: "It is evident that with the increasing necessity for the formation of certain standard laws, must come an increasing necessity for their uniform adoption, and this must call for a harmonious and uniform organization to carry the plan into effect. The chain of influence points directly to the American Medical Association. It would seem, therefore, that we may as well arrange, first as last, for precisely this direction of our labors." The report was adopted with the exception of the recommendation regarding the Army Canteen bill, which was omitted.

The report of the Committee on Organization showed that regarding post-graduate study course, such a course was now being prepared for distribution and criticism, and that it would later on be ready for distribution to county societies desiring to take up this work. It emphasized the necessity of the Association educating the public to a proper conception of the work of the organized profession, and also reported on the matter of branch associations, recommending the organization of seven branches composed of the various State associations.

The Committee on Ophthalmia Neonatorum showed from the census report the necessity of counteracting this evil. The Committee recommended that it be continued, and that it carry on its work in connection with the Sections on Ophthalmology, Obstetrics and Hygiene and Sanitary Science, as well as with the Conference of State and Provincial Boards of Health.

The report of the Committee on the Establishment of a Board of Public Instruction, appointed at Boston last year, recommended the establishment of a Board of Public Instruction on Medical Subjects, which should endeavor to educate the public through the press, through distribution of pamphlets, through public lectures and circular letters.

The Committee on Scientific Research recommended that the Board of Trustees make four grants for 1907, as follows: (1) Dr. G. F. Reudiger, Chicago, for a continuation of his work on the bacteria of scarlatinal and normal throats; (2) Dr. H. T. Ricketts, Chicago, for a further study on Rocky Mountain spotted fever; (3) Dr. Richard M. Pearce, Albany, for a study on proteid soap compounds; (4) Dr. J. N. Wainwright, Scranton, for experimental work on carcinoma.

Dr. Lund presented a resolution from the Section on Surgery and Anatomy, asking for the appointment of a committee of five, to be known as the Anesthesia Commission, to devote five years to the accumulation and analysis of data regarding anesthetics and to render an annual report to the Section on Surgery and Anatomy.

The election of officers resulted as follows: President, Dr. Herbert L. Burrell, Boston; First Vice-President, Dr. Edwin Walker, Evansville, Ind.; Second Vice-President, Dr. Hiram R. Burton, Lewes, Del.; Third Vice-President, Dr. George W. Crile, Cleveland, Ohio; Fourth Vice-President, Dr. W. Blair Stewart, Atlantic City, N. J.; General Secretary, Dr. George H. Simmons, Chicago; Treasurer, Dr. Frank Billings, Chicago; Trustees, Dr. T. J. Happel, Trenton, Tenn., re-elected (1907-1910); Dr. W. W. Grant, Denver, Colo., re-elected (1907-1910); Dr. Philip Marvel, Atlantic City, N. J., re-elected (1907-1910). The other members of the Board are: Dr. E. E. Montgomery, Philadelphia, Pa., 1908; Dr. A. L. Wright, Carroll, Ia., 1908; Dr. H. L. E. Johnson, Washington, D. C., 1908; Dr. M. L. Harris, Chicago, Ill., 1909; Dr. Wm. H. Welch, Baltimore, Md., 1909; Dr. Miles F. Porter, Ft. Wayne, Ind., 1909.

The following nominations for committees were then made by the President and confirmed by the House of Delegates: Committee on Medical Legislation, in place of Dr. W. L. Rodman; Dr. C. S. Bacon, Illinois. The other members of the Committee are: Dr. C. A. L. Reed, Cincinnati, Ohio, Chairman, 1909; Dr. Wm. H. Welch, Baltimore, Md., 1908.

Council on Medical Education: In place of Dr. Charles F. Frasier, Dr. James W. Holland, Pennsylvania. The other members of the Council are: Dr. Arthur Dean Bevan, Chicago, Ill., Chairman, 1909; Dr. W. T. Councilman, Boston, Mass., 1910; Dr. J. A. Witherspoon, Nashville, Tenn., 1911; Dr. Victor C. Vaughn, Ann Arbor, Mich., 1908.

Committee on Transportation and Place of Session: Dr. M. L. Harris, Chicago; Dr. E. Eliot Harris, New York; Dr. W. A. Jayne, Denver; Dr. W. T. Sarles, Sparta, Wis.; Dr. John C. Munro, Boston, is Chairman of this Committee.

Committee on Organization: Dr. J. N. McCormack, Bowling Green, Ky.; Dr. George H. Simmons, Chicago; Dr. Philip Mills Jones, San Francisco.

Board of Public Instruction on Medical Subjects: Dr. J. G. Clark, Philadelphia, 1907-1911; Dr. F. F. Simpson, Pittsburg, 1907-1911; Dr. Frank Billings, Chicago, 1907-1910; Dr. George H. Monks, Boston, 1907-1910; Dr. L. S. McMurtry, Louisville, Ky., 1907-1909; Dr. Howard Kelly, Baltimore, 1907-1909; Dr. L. Emmett Holt, New York, 1907-1908.

Judicial Council: Dr. C. E. Cantrell, Texas; Dr. R. C. Cabot, Massachusetts; Dr. G. W. Guthrie, Pennsylvania; Dr Thomas McDavitt, Minnesota, Dr. Charles J. Kipp, New Jersey.

Medical Society of the State of New York.

SCIENTIFIC SESSION: DISCUSSIONS.

ANNUAL MEETING, JANUARY 29 AND 30, 1907.

BLOOD PRESSURE STUDY: SOME UNEXPECTED REVELATIONS.

Dr. Henry L. Elsner, of Syracuse, N. Y., read a paper with the above title, for which see page 263.

THE CLASSIFICATION OF BLOOD PRESSURE CASES.

Dr. Louis F. Bishop, of New York, read a paper with the above title, for which see page 268.

Discussion.

Dr. Theodor Schott, Bad Nauheim, Germany, said that he was glad to agree in the main with what the two speakers, Dr. Elsner and Dr. Bishop, had said in their excellent papers. We have to take into consideration that blood-pressure is only a sign which helps us to clear up somewhat the state of the patient concerning the condition of the heart, circulation, and the blood-vessels. We must not neglect the other means of physical diagnosis, such as osculation, percussion, pulse, etc. The blood-pressure is made up of many factors. We have further to consider that by different instruments we get a different degree of blood-pressure. Thus, if we measure the pressure by the Riva instrument we get a different pressure than that shown by the instrument of Gaertner. In a recent paper of his on the subject of blood-pressure, he drew attention to the fact that the results were very different with the instrument if one uses the tonometer of Gaertner either below, on a level, or above the position of the heart, the difference being as much as 20 or 30 mm. of mercury or more.

Professor Schott desired to draw particular attention to the point that the absolute height of the blood-pressure is no indication, as Basch has claimed, that arteriosclerosis has taken place or not. Where he found by one instrument already a considerable increase of blood pressure he found by another instrument a low blood-pressure, the latter being the case when Gaertner's

tonometer was used in cases of weak heart. It will be found, as Elsner has already mentioned, that in Grave's disease the blood-pressure may be found abnormally high or abnormally low. He desired further to state also that the blood-pressure is no criterion by which to judge that a balneological treatment is indicated, as some French and German medical men have claimed. It will be found that in cases of heart complaints complicated by kidney disease, or when there is a considerable degree of dyspnœa or Cheyne-Stokes phenomena the abnormally high blood-pressure decreases as in other heart debilities the previously low blood-pressure increases under the same treatment.

Dr. L. F. Bishop, of New York, said that in the treatment of these cases one should pay some attention to the natural diurnal variations of the blood-pressure. He had found as a matter of clinical experience that the blood-pressure in these cases was low in the morning and towards night it became high. There might be a time in the middle of the day when the blood pressure would be what it ought to be. In advanced cases it was too high at night and too low in the morning.

Dr. Bishop reported a case he saw during the last two weeks, a patient who developed a hemiplegia. This patient had been going for years to a prominent man in New York who made a record of the blood pressure every time he came at 10 A. M., and each time the report was that the blood-pressure was all right. He next developed a dilated heart from playing golf. He then went to Europe, and on the ship on his way home he developed hemiplegia. This patient, no doubt, had been suffering from high arterial tension which for years had been held in abeyance in the morning. In treating these cases Dr. Bishop thought it always best to see the patient first in the morning, the next time in the evening, and to prescribe nitroglycerine accordingly.

He said that at the present time he had a patient who said she could not take nitroglycerine and yet who needed it greatly because her tension was high. Experience has shown that she could take it in the evening. Under nitroglycerine and exercise her condition improved very much; and he said that he got these good results by giving digitalis in the morning and nitroglycerine in the evening. There is no safer drug to give, he believed, than nitroglycerine, because the patients would not allow one to give more than a certain amount. The same precautions are necessary in regard to digitalis, and it is unreliable. One could prescribe his own tablets with advantage. If one doubted the strength of the tablet, let him try it on himself. On Dr. Bishop 1-100th of a grain of nitroglycerine would give him a throbbing headache. 1-250th of a grain of reliable nitroglycerine would be better than 1-100th of a grain that was unreliable. Dr. Bishop used small doses because he found people could stand them when they were made uncomfortable with large doses.

With regard to drug treatment, it was like applying extra pressure to a machine. The real cure in hypertonia must come through hygienic measures, change in the home life, diet, etc. He believed very greatly in the treatment at Nauheim, and he was sorry Dr. Schott did not say more and describe it more carefully. To Dr. Bishop it was a mystery. He could not understand why those patients were so much benefited. The people came back better, and he did not know why. Now he thought that he understood, if his theory is correct. He believed that there emanated from the central nervous system a tone maintaining function; it was different from the vaso-motor system; it was a local affair. There was also a muscle tone maintaining mechanism. If a limb became paralyzed it became flaccid. There was no organic change in the muscles which showed the tone maintaining influence had been cut off. So the blood vessels of a limb dilate if one cut the nerve. The success at Nauheim, he believed, depended upon the relationship between this muscle tone maintaining and the blood vessel tone maintaining influence. That is why exercise is so valuable.

Dr. De Lancey Rochester, of Buffalo, said he was particularly interested in Dr. Elsner's paper and in the conclusions that he came to. He wished to emphasize the importance of using one instrument in determining blood-pressure and, as Dr. Schott had stated, becoming an expert in the use of that one, and not to change off to other instruments. After becoming an expert with one instrument, make numerous observations with that instrument.

With regard to the rise of blood-pressure in impending perforation in typhoid fever, they had been able to report three cases where, by this means, great service in diagnosis was given, and life saved by surgical procedure.

In regard to nitro-glycerine and its evanescent effect, Dr. Rochester told of one case in the hospital of persistent high blood-pressure, not yielding to any drugs or other procedures except for a short time. Nitroglycerine as given then had no effect. It was suggested that nitroglycerine be given and the blood-pressure be taken every five minutes. During the first half-hour the blood-pressure fell 40 or 50 points, but at the end of one hour it persisted where it was before.

Dr. B. O. Kinnear, of Clifton Springs, wished to draw the attention of members of the Society to the fact that it was a physiological fact that there could not be an expansion of blood vessels in one part of the body without a diminuition in the arterial circulation in the other part of the body. For instance, in pneumonia, in the early stages, or in peritonitis, there was a large amount of blood flowing in that part of the body afflicted, and they then had a diminution in the circulation as shown at the wrist and ankle. Here there would be a diminished circulation in the lower half of the body. Therefore, he suggested that all remedies which would tone or restore the circulation to the normal would materially aid in overcoming the cases of arterial tension not due to organic disease.

In speaking of diabetes as a cause of hypertension, he said that they know this to be so. In diabetes the sympathetic ganglion becomes hypertrophied and the general superficial circulation becomes diminished, and there is a great tendency to chills and internal congestion. This showed that the general systematic circulation is contracted, and this is due to the excessive functionating of the sympathetic centers as a result of this hypertrophy and, therefore, excessive circulation within them and excessive functionating. The chief function of these centers he believed to be contracting the arteries. He believed that the regulation of the circulation in the lower part of the body would do a great deal in overcoming arterial hypertension not due to organic disease.

Dr. A. Jacobi, of New York, said that he did not take the floor to discuss the papers, because their value could not be added to or undermined by any long discussion. They stood for themselves, particularly that of Dr. Elsner's which showed great clinical experience and ripe judgment. Dr. Jacobi wished to make some remarks in regard to nitroglycerine. He believed that all present placed great reliance upon that agent, but confidence in it was often misplaced. In New York, chemical experiments had been carried on by the Board of Health, or rather under its supervision. Tablets of nitroglycerine were purchased in many quarters from the wholesale drug stores and it was found that, although supposed to contain 1-100th of a grain of nitroglycerine, they seldom contained that amount. It was found that occasionally 1-400th or 1-500th or even 1-1600th and 1-2500th of a grain was present instead of 1-100th. A great many different results had been told of the experiences with this drug in practice. Dr. Jacobi said that if one used nitroglycerine, particularly in tablet form, one was sometimes in danger of getting a worthless preparation.

Dr. H. L. Elsner, of Syracuse, said that it was necessary for clinicians to bear the fact in mind that the sphygmomanometer could not be depended upon alone for diagnosis. The paper emphasized the fact that it was an aid and often very valuable. To reach safe conclusions the clinical history must be associated with the revelations of the sphygmomanometer; not alone the

systolic, but the diastolic and pulse pressure as well must be considered. The latter being the difference between systolic and diastolic pressure. The tolerance of the peritoneum was considered; proving nature's kindness, more particularly to the surgeon, but also to the physician. When the peritoneum is irritated or handled the blood-pressure at first rises, a salutary and conservative process which assists the surgeon materially during the prolonged period of operative interference. If it were not for this tolerance many patients would die on the operating table.

The splanchnic area, which can often be promptly filled with blood when indications demand, as for instance with pulmonary edema and possible associated arteriosclerosis, offers another ready means of saving life when in imminent danger. In cases of pulmonary edema, with or without arteriosclerosis, the only hope often lies in filling the abdominal vessels with blood by the free use of nitroglycerine *in solution, not in tablet form,* and counter-irritation and cupping. It is surprising to note how promptly patients are relieved of cardiac and pulmonary symptoms by these means. For instance, in a case of angina pectoris or pulmonary edema, where the life of the patient is in the balance, our action must be prompt. Rapidly increasing doses of nitroglycerine, giving as much as 15 drops of a one per cent. solution, will often carry the patient through the crisis while *with a single small dose or with inadequate doses the patient is lost.*

Dr. Elsner said that he was recently consulted by a patient who came to Central New York from New Jersey, and who had been taking for the relief of almost continuous angina 15 drops of nitroglycerine every hour so long as the symptoms persisted. The dose appeared so large to the druggist that he refused to fill the prescription. The patient, however, volunteered the information that he had been taking the remedy in these large doses for weeks before coming to Syracuse, and that it had been the only means of controlling cardiac and vascular spasm.

With regard to strychnia, Dr. Elsner said that patients were often lost because of insufficient doses. The sphygmomanometer is needed to prove these drug effects. In pneumonia, where we need the full effect of strychnia to counteract the influence of toxæmia upon the spinal centers, the dose of strychnia must be large. Dr. Elsner believes that the revelations of the sphygmomanometer interested all. Physicians in particular must heed its call and warning; busy as they are their arteries give many examples of high tension.

Diet and methods of living must be regulated in accordance with the height of blood pressure. *Men must learn more of their arterial condition.* When the professional or busy layman finds that he is carrying a high blood-pressure continuously then he must be advised to seek rest and relaxation from all duties. This is better than medicine.

THE IMPORTANCE OF AURAL EXAMINATIONS AND FUNCTIONAL TESTS FOR HEALTHY PEOPLE.

DR. W. SOHIER BRYANT, of New York, read a paper with the above title, for which see page 270.

Discussion.

DR. BUSBY ALLEN, of New York, said that an otitis media extending from the naso-pharynx was so insidious that it was common to find one ear almost entirely gone, and in forty cases, thirty-nine of the patients would not be aware of it. The prevention of this is very simple. A common watch should be held about forty inches or thereabouts from the ear. This should be tried from time to time. This is a means of discovering and preventing deafness which is simple, the carrying out of which would be an asset to the State.

DR. A. EDWARD DAVIS, of New York, thought that the paper read was a very timely one, but there was one point which should not be left unsaid, and which should be called to the attention of the Society—the question of hereditary tendency to deafness. In such cases the patients should be examined every two years.

Dr. Davis said that he had seen a patient absolutely blind from senile cataract in one eye, which had been coming on for months and years, and the patient did not discover it until he accidentally covered the other eye. This showed that one might have such disease of the eye as to become absolutely blind and yet the patient not be aware of it.

AMENDMENT TO THE CONSTITUTION.

The following proposed amendment to the Constitution was submitted in writing at the Annual Meeting held in Albany, January 28, 1907 (see February issue of NEW YORK STATE JOURNAL OF MEDICINE, page 80):

Amend the Constitution by adding to Article VI, a Section 3, as follows:

The notices of the annual, regular and special meetings of the Medical Society of the State of New York, its House of Delegates, Council and Censors, shall state the date, place and hour, and shall be mailed in securely postpaid wrapper to each member at least ten days before said meeting. The affidavit of mailing by the Secretary of the Society to the last recorded address of the member, shall be deemed sufficient proof of the service of such notice upon each and every member for any and all purposes.

This proposed amendment is printed in this issue to comply with Article X of the Constitution of the Medical Society of the State of New York.

ART. X. AMENDMENTS. No article of this Constitution shall be amended except by a two-thirds vote of the delegates present at any annual meeting, nor unless notice of the proposed amendment shall have been given at a previous annual meeting and shall have been published twice during the year in the official bulletin or journal of the Society, or sent by order of the House of Delegates to each County Society in affiliation with the Society at least two months before the meeting at which final action shall be taken thereon.

ANNUAL MEETINGS OF THE DISTRICT BRANCHES, 1907.

1st District, October 28, in New York City.
2nd District, September 28, in Brooklyn, New York.
3d District, October 22d, in Albany.
4th District, September 18th, in Saranac Lake.
5th District, October 3d, in Syracuse
6th District, September 24th, in Ithaca.
7th District, November 13th, in Rochester.
8th District, September 25 and 26, in Buffalo.

If pulmonary tuberculosis is to be prevented either in the family or at large it must be by the abandonment of the old dominant notion of an inherited diathesis and the substitution therefor of the vital belief in infection. The possibility of infection by cow's milk is too great to warrant its being ignored or held in disdain. Tuberculous cattle are a menace to society, and laws for their detection and death are salutary as has been shown in Denmark, where, thanks to strict enforcement of such provisions, tuberculosis has almost been eradicated from the dairy herds. Every physician who is the regular medical attendant of any family in which there has been a case of pulmonary tuberculosis, should regard himself as personally responsible for the prevention of the disease in other members of the household. This applies in particular to the children, who, by reason of their tender age, are especially liable to infection, and cannot be expected to appreciate the necessity and wisdom of prophylactic measures.—*Babcock on "Diseases of the Lungs."*

Progress of Medicine.

PRACTICE OF MEDICINE.

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VAGAL AND VASO-VAGAL ATTACKS.

In a recent lecture on "Vagal and Vaso-Vagal Attacks" Sir William Gowers describes a condition which, although rare, is possibly met more frequently than recognized. The designation "Vagal attacks" he gives to those prolonged seizures, the symptoms of which consist chiefly in disturbance of some of the functions of the pneumogastric, for the most part sensory and subjective. With the vagal symptoms there is often combined a slight mental change, and also disturbance of the vaso-motor centre, causing constriction of the vessels and coldness, especially of the extremities. Associated with the latter may be some sensory impairment and sometimes also a slight form of tetanoid spasm. These features vary much in relative proportion, so as to often obscure the relative resemblance. When the vaso-motor spasm preponderates the case may seem to differ from the type more than it really does. Such cases may be termed "vaso-vagal." The attacks are never really brief; they seldom last less than ten minutes, and more often continue for half an hour or more. There is a sudden onset of slight symptoms, rapidly increasing, and the end is gradual. The seizures recur at varying intervals, often for months or years.

Though these attacks are met in men, they occur most frequently in women, and this, coupled with the fact that the pneumogastric and vaso-motor systems are readily influenced by emotions, has probably led to the submergence of these attacks beneath the vague conception of hysteria, a conception which conceals whatever it covers.

A brief description of the symptoms may be considered. The vagal symptoms are chiefly sensations referred to the stomach, the respiratory system and the heart. We may probably ascribe to the gastric nerves a sensation referred to the epigastrium, described as a sense of oppression or fullness, but often indescribable. It begins suddenly, irrespective of the state of the stomach or of its functions, and often seems to ascend to the chest, though very rarely to the throat or head, as does the aura of epilepsy. There is seldom nausea and never vomiting. Even more common, especially as an early symptom, is a sense of respiratory distress, of difficulty in breathing. It is sometimes so intense as to amount to orthopnœa, and compel the sufferer if lying to sit upright, although there is no corresponding sign of impairment of breathing. With this may be cambined cardiac symptoms, discomfort, acute pain in some cases, followed by rapid action. With the dyspnœa, or the cardiac sensation, or both, is often associated a sense of impending death, so intense that no recollection of its falsity in preceding attacks prevents the conviction of its present reality. It naturally causes alarm, but apart from this there is sometimes a sense of intense fear and dread, which is recognized to have no adequate cause.

Although there is no impairment of consciousness in typical cases, a peculiar slight mental state is common, and may even be the first symptom. It is generally described as a difficulty or slowness of mental operations, a difficulty in thinking or in concentrating attention. Trifling as it may seem, it always begins suddenly and strikes the patient as a state quite unlike the normal condition.

The vaso-motor spasm sometimes attains a high degree. To it the symmetrical coldness is certainly due, for the pulse becomes small at the same time. When general there is pallor of the face. Shivering is common and may amount to a definite rigor, but this occurs when the coldness is beginning to lessen. With the coldness of the extremities, tingling and numbness in them are often described.

In the treatment from such attacks it is essential, of course, to discover any defect in the general health, and to remedy that. Constipation, with attending indigestion, is often a harmful influence. The patient should be freed from all causes of over-fatigue. With an epileptic element much good can come from the administration of the bromides in moderate doses, combined with belladonna or digitalis. But in all cases where there is vaso-motor spasm, the regular administration of nitroglycerine is by far the most effective agent. Taken regularly, although no effect may be perceived from it at the time, it seems to exercise a permanent, steadying effect on the vaso-motor centre. Strychnine may be combined with it to advantage, one patient describing it as "working like a charm" when he had been left free from any tendency to these attacks, which had gone on for eleven years. The author presents eleven instructive cases to illustrate this condition.—*Lancet*, June 8, 1907.

THYROID DEAFNESS.

King describes a case of deafness in myxœdema in a man aged 56 years. The patient had suffered for the past four years of myxœdema, improving each time after thyroid treatment. Before this trouble began his hear-

ing was normal, but with advance of the disease, complete deafness came on. Treatment with thyroid preparation caused the deafness to improve simultaneously with the other symptoms.—*British Medical Journal,* March 9, 1907.

JUVENILE PHYSIOLOGICAL ALBUMINURIA.

Ullman examined the urine of 42 healthy children, between the ages of 2½ and 13 years, and in 33 1-3 per cent. of these found albumin. Three of the cases had a very large amount of albumin, five had a moderate amount, and six had only a trace. The greatest amount of albumin was in the case of a girl, 12 years old, who was strong, healthy and well nourished. Microscopically were found bacteria, leucocytes and cylindroids. In a seven year old girl, who was at all times healthy and free from symptoms, granular casts were also found. Anæmia, weak constitutions, and preceding infectious diseases appear to have no part in the occurrence of such albuminuria. Oftentimes albumin is found in one specimen, but not in another passed shortly before or afterwards. In some children the first morning urine shows albumin, but there is none later in the day.

Ullman is of the opinion that in these cases there is an abnormal, but not pathological, physiological process which is peculiar to youth, but which may even persist in older persons. As many cases of nephritis have some of the features of the so-called orthostatic albuminuria, the author would designate such cases as he has described as "juvenile physiological albuminuria."—*Berliner Klinische Wochenschrift,* 1907, No. 5.

ORCHITIS FOLLOWING PAROTITIS.

Rebandi, in the description of an epidemic of parotitis, calls attention to the orchitis, which is a frequent complication. Though the importance of this complication is often overlooked, and writers such as Velpeau speak of it as the least serious of all forms of orchitis, the author draws attention to the fact that it is so often this form of orchitis which leads to atrophy and sterility. Laveran describes an epidemic of parotitis in the Hospital Val de Grace in which there were 111 cases of orchitis, and among these were 37 cases in which atrophy followed. It is the experience that atrophy is preceded by several months by an abnormally soft consistence of the testicle. As atrophy takes place so comparatively late it often escapes the attention of the physician. If the atrophy only affects one testicle, as is so commonly the case, the effect upon sterility is scarcely probable. In all cases of orchitis complicating paortitis, atrophy with sterility are the important factors to be considered.—*Gazz. degli ospedali,* 1907, No. 15.

DEATH FOLLOWING ATROPHY OF THE SALIVARY GLANDS.

A rare case of functional disturbance of the salivary glands, to which the author found no analogy in literature, is described by Zagari. This case he believes may serve to call special attention to the importance of the salivary glands in the general economy of metabolism.

The patient was a woman, aged 50 years, who suffered from an increasing dryness of the mouth until the secretion of saliva entirely disappeared. The immediate results were of course manifest in the processes of mastication, deglutition and articulation. After six or seven months the sense of taste completely disappeared on the anterior one-third of the tongue on both sides. In spite of this the patient felt strong, had a good appetite, and digested her food normally. Emaciation began to take place slowly, however, in spite of plentiful feeding and the administration of cod-liver oil. On account of a suspicion of syphilis, a specific treatment was tried, but without result. Death followed from marasmus after two years and four months.

Zagari concludes, after clinical observations and experiments upon animals, that there is a *nucleus salivaris* or *nucleus gustationus* in the upper part of the medulla. A lesion of this center, of a syphilitic or parasyphilitic nature, in this case affected the neuron which, through the chorda tympani, acted on the salivary glands. The results were lack of salivary secretion because of atrophy of all the salivary glands, parotid, maxillary and sublingual, and loss of the sense of taste on both anterior thirds of the tongue. The increasing emaciation and marasmus were caused by lack of the internal secretion of the salivary glands. That such a lack of internal glandular secretion can cause severe cachexia and degenerations the author states is well known. However close theory and fact may come in this case, consideration of it is not without profit.—*Policlinico,* February, 1907; *Zentralblatt F. Inn. Med.,* 1907, No. 19.

Amongst the useful bacteria the place of honor should be reserved to the lactic bacilli. They produce lactic acid, and thus prevent the development of butyric and putrefactive ferments, which we should regard as some of our redoubtable enemies. It has been shown by an extensive series of experiments, which I cannot here treat of in detail, that certain lactic ferments esaily accustom themselves to live in our intestines, and thus produce a beneficial influence. They prevent putrefaction, and thus diminish the excretion of sulphonic acid esthers. These same ferments help to regulate the functions of our intestine and kidneys, rendering valuable service to the entire body.

One can take such carefully selected lactic ferments either in milk that has become acid under their influence or in the form of a powder or compressed tabloids. Dr. Tissier employed them in the treatment of the various intestinal troubles occurring at any age. To this end he advises the use of cultures of lactic microbes made in the lactose peptone water.—*Metchnikoff.*

SURGERY.

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TYPHLITIS WITHOUT APPENDICITIS.

M. Williams (*Annals of Surgery*, 1907), reporting a case of inflammation of the cecum which appeared to be independent of a precedent appendicitis, remarks that primary acute suppurative inflammation of the cecum does occur occasionally, in spite of the fact that many authors, notably Deaver and Ochsner, deny its occurrence. In support of his contention he cites the 14 cases mentioned by Kelly in his book, in which there were primary lesions in the cecum, the appendix being normal. He also quotes, Nauwerk, Bozzi, Reisinger and others, who report cases of inflammation of the cecum with normal appendices. His conclusion may be summarized as follows: Primary typhlitis occurs independently of appendicitis, dysentery, tuberculosis, actinomycosis or cancer, and depends on coprostasis. It may lead to perforation, the symptoms of which are identical with those of appendicitis, the indications for operation being the same in both cases. The recurrence of symptoms after removal of the appendix may be due to attacks of typhlitis, the treatment for which consists in the regulation of the diet and the use of oil enemata, etc.

END RESULTS IN BENIGN LESIONS OF THE STOMACH SURGICALLY TREATED.

Munro, of Boston, analyzes 150 cases of benign stomach lesion operated upon at the Carney Hospital (*Annals of Surgery*, June, 1907). 87 of these cases showed grave ulcers of the stomach; 16 cases belonged to the class of so-called medical ulcer, no gross lesion being found at operation; 25 more exhibited well marked adhesions without evidence of an active ulcer. There were among the earlier cases 15 so-called neuroses, and 9 cases classed as spasm of pylorus, ptosis, etc. Among the types of gross lesion in which immediate and permanent benefit followed operation were congenital pyloric obstruction and perforated chronic ulcer.

In perforation, Munro thinks that if the patient's condition warrants, an anastomosis is wise, because it shortens convalescence and obviates the necessity of a secondary operation. Munro obtained good results also in (a) active ulcers near the pylorus, but not occluding it; (b) ulcer of the duodenum; (c) gross chronic ulcers of lesser curvature and anterior wall, especially if active hemorrhage is present; (d) saddle ulcer; (e) ulcers near cardia; (f) ulcer of lesser curvature with adhesions; (g) some ulcers of posterior wall when pylorus has not been interfered with; (j) hour glass stomach; (k) stricture of pylorus; (l) thickening of pylorus without evidence of an active ulcer; (m) dilated sagging stomachs.

Munro states that patients who come to the surgeon after long periods of persistent vomiting are bad surgical risks, not influenced either way by gastro-enterostomy. These cases he lets alone.

In the 16 cases of so-called medical ulcer, hemorrhage from the entire mucous membrane was found, or from localized areas. An open soft pylorus was always found. Munro states that in the so-called medical ulcer there is functional interference from ptosis, minor adhesions or other cause. An anastomosis may be made, but we cannot count on the same brilliant results as in typical ulcer and stenosis.

Munro does not believe that it is always possible to differentiate a medical case that is bleeding before operation. The worst subjects for interference were those classed as neurotics. Most of the cases were made worse. With regard to technique, Munro says the simpler the better. He now uses the Mayo no-loop operation with the opening in the stomach transverse to the gastric stream. Here the jejunum points to the left as in the majority of cases.

Excision of the ulcer would be ideal in all suspicious cases beyond middle life. Munro questions, however, whether we can insure against a fatal operative outcome as in a simple gastro-enterostomy.

CONCERNING PERSISTENT PRIAPISM.

Terrier and Dujarier (*Revue de Chirurgie*, May, 1907) report a case of persistent priapism which came under their observation at La Pitie during May, 1906. They give a review of the literature, collecting 48 cases, including their own. Of these 48 cases, thirty-one recovered spontaneously. Five died of leukemia. Two died with the priapism unrelieved, one of suppurative phlebitis, one of a fractured spine. Operation was done in ten cases, all cured. In the case reported, syphilis and gonorrhœa were absent. Three years previous the patient, 30 years of age, an acrobat, fell 50 feet and received a "complicated" fracture of the left thigh requiring amputation. No spinal symptom. Patient entered hospital, May 19th, 1906. On the night of May 14th, patient had intercourse six times. After this nothing abnormal until May 17th when patient awoke at 3 o'clock in the morning with an erection. This was persistent, but not painful, until ten o'clock. No

urethral discharge, but persistent and painful erection. At 5 P. M., patient came to hospital. On examination the erection appeared to be restricted to the corpora cavernosa, the corpus spongiosum being flaccid. Palpation showed fluctuation with great tension in both corpora cavernosa. Testicles and scrotum normal. Some spasm of sphincter ani, vesicles and prostate normal. The erection persisted both day and night and the pain required morphine injections for relief. No evidence of a lesion of central nervous system. No leukemia. On the 21st temperature reached 100 F. A general bath afforded no relief. On the 24th it was necessary to catheterize the patient. On the 26th the tumefaction was greatest in the right corpus, and the penis inclined to the left. The retention, however, ceased and the patient noticed some pus at the meatus. The urethritis was probably due to the use of the catheter. It was not specific on the 27th; the pain was less severe and the penis had diminished in volume. The pain and swelling returned the following day and June 1st M. Terrier operated. An incision was made into the side of the right corpus, 2 cm. in length, which gave vent to thick blood of the color of treacle, viscid, but without any clots. By squeezing both corpora cavernosa, they were emptied of a great quantity of dark viscid blood. A second incision was made in left corpus, with similar results. The penis now became flaccid. The corpora cavernosa were sutured with catgut; the skin with horse hair. Cultures taken from the expressed blood showed colon bacilli subsequently. Some wound infection followed and the wounds were drained. The patient left the hospital July 2d, but returned on the 12th with a swelling at the base of the penis. A sound introduced into the sinus, which remained, was followed on its withdrawal by a large quantity of pus, the cavity extending to the root of the right corpus.

Patient left hospital, the second time, the 19th of August. At this time there had been a few erections, but no ejaculations.

The authors state that the causes of persistent priapism may be classified as follows: nervous, traumatic, infiammatory, leukemic and idiopathic. Two of the 48 cases cited belonged to the first type, one occurring in a patient with paraplegia from fracture of cervical spine, and one is a patient with "cerebro-medullary" syphilis. The authors remark, however, that the fact that persistent priapism does not yield to chloroform is a sufficient proof that, as a rule, the nervous origin of the disease cannot be accepted. In two cases of the series, priapism followed injury to the perineum, one from a fall, the other from a kick. Hæmatoma of the corpus cavernosa was found compressing the urethra.

With one exception the priapism, which is the result of specific infections, is transient.

The authors make a distinction between "penitis," "cavernitis," and persistent priapism.

Leukemia in sixteen out of the 48 cases was found to be the cause of the priapism.

Of unknown (idiopathic) origin were twenty of the 48 cases.

All those writers who have opened the corpora cavernosa in patients with priapism have failed to find thrombosis, but have observed that the cavernosa tissues were distended with thick syrupy blood rarely mingled with little clots.

The authors state that these cases of persistent priapism, as a rule, recover, but that their recovery is more prompt and complete, particularly as to function, when operated than when allowed to recover spontaneously, an affair which is a matter of weeks and months.

RUPTURES OF THE LUNG WITHOUT FRACTURE OF THE RIBS.

Schwarz and Dreyfus (*Revue de Chir.*, May, 1907) report a case of rupture of the lung, without fracture of the ribs, occurring in a young man of 19 years, who was run over by a carriage wheel passing over the left side of the chest.

There was no mark on the body, but patient complained of severe pain in the chest, was cyanosed, gasping for air with rapid pulse, with difficulty he expectorated a little blood-stained mucus.

There was no special point of tenderness, but patient complained of general pain over the whole chest, most noticeably the left side. Physical examination showed hemo-pneumothorax of left pleural cavity, great emphysema of the base of the neck. Diagnosis: subcutaneous rupture of the lung. The patient died, but at the autopsy a dislocation of the first and second ribs of the right side at the chondro-sternal junction was found. The left lung sank in water. Underneath the visceral pleura were numerous dark patches due to little hemorrhages. In this case, therefore, there was a contusion of the lung, without any fracture of a rib nor considerable rent in the lung, but rather numerous small ruptures.

The authors collected 29 cases of similar injury, 21 of which are to be found in the work of Dionis due Sejour ("Contribution a l'etude de contusions profondis de thorax," Thèse de Paris, 1901, 263).

In all the reported cases, the traumatism was most often inflicted by a vehicle.

Age seemed to be a predisposing cause of contusion of the lung without fracture of ribs. In the 21 observations of Dionis du Sejour, the age was reported in 15 cases. In 6 cases the subjects were under 20; in 8 cases the individuals were between 20 and 30; in one case the individual was 43. In cases reported since that, two cases occured in children less than ten; one in a boy of 11; one in a soldier of 35. One exception was that of Sicard, in which the individual was 60 years of age.

The authors ascribe the accident in their own case to the violent compression to which the lung was subjected, owing to the dislocation of the first two ribs. It is possible, they remark, that luxation has existed in other cases which have passed unnoticed. Twenty-nine references close the article, which is exhaustive and well worthy of study.

OPERATION FOR KRYPTORCHISM.

At a meeting of the Aerztlicher Verein of Danzig, Storp reports two cases of kryptorchism operated upon by the method of Keetley. In this procedure the estopic testicle is drawn down through a slit made at the lowest portion of the scrotum, and fastened by a few sutures to the bared fascia lata of the thigh. The edges of the scrotal and thigh wounds are next united in such a manner that the organ is enclosed in a tube. After four to six weeks the testicle is freed from the thigh and scrotal wound closed. The operator called attention to the advantages of this operation over other procedures. Its great value lies in the fact that by the frequent movement of the thigh the cord is permanently stretched, making a subsequent retraction of the organ very unlikely. It should be noted that after 12 to 14 days, or after the scrotum and thigh wounds have united over the testicle, the patient is gotten out of bed and instructed to walk about. Storp observed in his cases that the transplanted organ, atrophied by its position in the inguinal canal, soon exceeded its fellow in size and weight. He attributes this to a venous congestion brought about by its new position and by the manipulations that it underwent. Keetley, in reporting a series of 25 cases (*Lancet,* July 29, 1905), fixes the time for the final enclosure of the testicle in the scrotum at 5 months. These 25 cases, of which 12 were right sided, 2 on left side, 5 on both sides, and six in which side was not recorded, all terminated with an excellent result. —*Deutsche med. Wochenschrift,* No. 22, 1907.

CHOLECYSTITIS CAUSED BY INFLUENZA BACILLUS.

At a meeting of the Medical Society of Giessen, Laubenheimer reported a rare bacteriologic finding in a case of cholecystitis. The pus from the gall bladder was examined and found to contain a pure culture of the influenza bacillus of Pfeiffer. The growth of the organism was characteristic on agar and on serum agar. Serum taken from the patient agglutinated the bacillus in a dilution of 1.150.

This is the second case that has been reported. Heyrovsky (*Wiener Klin. Wochenschrift,* 1904, No. 23) reported a case in which a pure culture of the influenza bacillus was obtained from the pus taken from a gall bladder. —*Deutsche Med. Wochenschrift,* No. 22, 5, 30, 1907.

BACTERIOLOGY.

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THE BACTERIOLOGY OF WHOOPING COUGH.

Davis has studied by smear and culture the sputum of sixty-one individuals with pertussis. His results may be stated briefly as follows: *Cocci*—Pneumococci were found in every instance, and were usually very numerous. Streptococci were found almost constantly, but were much less frequent than the pneumococci. Organisms corresponding to the *M. catarrhalis* of Pfeiffer occurred in large numbers in a few instances. *Baccilli*—In eight cases, bacilli belonging to the diphtheria group were found; in none were they numerous; no case gave a history of recent diphtheria, and in only one did the disease develop later.

Influenza-like organisms—Special attention was directed to the occurrence of such bacilli. They were found in fifty-six of the sixty-one cases examined, usually on the first examination (forty-one) cases. In two, the organisms were found several days before the patients had been heard to whoop, but they had at this time a severe cough and expectorated considerable mucus. In six, that had been exposed to the disease and had a dry cough, no bacilli were found. These all developed typical whooping cough in from one to two weeks later.

As to the length of time the organisms will persist in the throat, present data will not suffice to determine. The bacilli were often extremely numerous, in a few cases being nearly in pure culture; this, however, depends somewhat upon how thoroughly the sputum is washed. In smears from the sputum they often appeared as the only organisms present.

The bacillus is small, non-motile, not encapsulated and not taking Gram's stain. It stains more deeply at the ends, especially with methylene blue, and may thus be mistaken for a small diplococcus. In the sputum it is nearly always single, but occasionally 2 or 3 bacilli may be seen in a chain. The morphological characteristics in sputum are very uniform, but in culture they are quite different. There is here often a marked tendency to thread or chain formation, and frequently the organisms occur as cocci or in thick, curved or S-shaped threads. It will thus be seen that it corresponds closely with the influenza or pseudo-influenza bacillus of Pfeiffer. The most important point is that the presence in the media of at least a small percentage of hemoglobin is absolutely essential for its growth,

unless it be grown in the presence of some other organism. The presence of other dead bacteria or of culture filtrates in non-hemoglobin media are not sufficient to cause their growth. All the experiments performed indicate that the symbiosis is dependent on the presence of living organisms.

The bacilli isolated from this series of cases showed, on the whole, a low degree of virulence for animals; however, some very definite results were obtained when guinea pigs were injected intra-peritoneally.

One attempt was made to produce whooping cough in a human subject by inoculation with this organism. A distinct febrile reaction with chill, sweating and a temperature of 100.2° F., was produced in forty-eight hours. A hacking cough with large amounts of thick tenacious sputum developed, but it was not spasmodic and did not resemble whooping cough. The sputum showed practically a pure culture of the bacillus in smear and culture. Thus, though distinct whooping cough was not produced, one cannot say that the results of the inoculation excludes the bacillus as the cause of the disease; various factors migh arise to modify the final result. The fact that the organisms multiplied in the throat and caused a distinct febrile reaction in an adult is significant and shows at least that it is not a harmless saprophyte.

The occurrence of this organism in other diseases is of interest. A number of examinations of the throat in measles, acute influenza, epidemic cerebro-spinal meningitis, bronchitis, varicella, and from normal throats gave the following results: measles, twenty-two cases, bacilli found in sixteen, in four of which they were the predominating organism. Clinical influenza, seventeen cases, bacilli found only three times. Meningitis, five cases, the organism was found in four, in all of which nose and throat symptoms were present. Bronchitis, bacilli found in five of the twelve cases examined. Varicella, eleven cases, influenza organisms found seven times. Normal throats, twenty cases, in only two were the organisms found. The cultural characteristics and the pathogenic properties of these various strains of bacilli were practically identical with those found in the cases of whooping cough.

All the results taken together indicate that we have in these bacilli an organism occurring very commonly in a large number of diseases, and undoubtedly present, at times, at least, in all inflammatory conditions of the respiratory passages whatever their character may be. The evidence is conclusive that this organism at times exists as a saprophyte, as indicated by its appearance in normal throats, and that it is also capable of causing inflammatory changes, as shown both by human and by animal experiments. The all-important question is, whether we are dealing in all these various conditions with the same organism, varying only in its degree of virulence, or whether we have to do here with a group of very closely related organisms. Reasoning from analogy, we should expect a group, as occurs with so many of the other bacteria; and the chief problem now before us is the careful application of every possible means, particularly in the way of biological experimentation, to differentiate the organisms.

The writer calls attention to the fact, already noted by Jochman, that whatever may be said in favor of the influenza bacillus as the cause of influenza, practically the same thing may be said in favor of the organism isolated from the cases of pertussis as the cause of that disease. The constant occurrence of the organism at the apparent seat of disease is practically all uncomplicated cases, the parallelism between the general course of the disease and the relative abundance of the organisms, the presence of the organisms in the lungs and various secretions in post-mortems, the low pathogenicity of the organisms for animals—all these hold true for one equally as well as for the other. The medical world, with few exceptions, has come to recognize the B. influenza as specific for this disease, but it surely is not yet ready to accept the cause of whooping cough as settled. This fact may be interpreted in two ways: It may be used to indicate upon how insecure a foundation the specificity of the influenza bacillus rests, or it may be used as an argument in favor of the specificity of the pertussis organism. Evidently, with the present data at hand, it is impossible to settle either question absolutely. David J. Davis, *Journal of Infectious Diseases*, 1906, III, No. 1.

C. K. W., JR.

MOUTH DISINFECTION IN THE PROPHYLAXIS AND TREATMENT OF PNEUMONIA.

From experimental tests of the action of different antiseptics on pneumococci in broth cultures, in exudates and in sputum, Wadsworth came to the conclusion that the pneumococci is much more susceptible to disinfection in broth cultures than in exudates, and that in sputum they are exceptionally well protected, so much in fact that few substances in bland solutions have any appreciable action on either the viability or the virulence of these organisms under such circumstances. Hydrogen peroxide, which quickly destroyed the organisms in broth cultures, proved worthless in the presence of the exudates, and lysol was little better. Of all the solutions studied, alcohol was the least influenced by the presence of the albuminous material and detritus in the exudates or the mucus of the sputum. In fact, little variation in the susceptibility of the pneumococcus could be observed in any of these tests. Alcohol only offered any promise of solving the problem of ridding the mouth of pneumococci by means of antiseptics.

Although the results of these researches *in vitro* were definite, the problem of clearing the mouth of pneumococci is so different, and there are so many uncertain factors, that before the final tests on pneumonia patients were attempted, studies of the diffusion of alcoholic and other solutions with sputum were made in the hope that the practical efficiency of alcoholic solutions might be increased. The results of these observations on the diffusion of different solutions with saliva or sputum suggest that the addition of sodium chloride and sodium bicarbonate in small quantities may facilitate the diffusion of these solutions with the secretions, but that the best results are secured when these solutions are used hot. By the addition of glycerin, the diffusion of such solutions with the secretions of the mouth is greatly accelerated. For the practical tests, therefore, the bland solutions, containing sodium chloride, 0.5 per cent., and sodium bicarbonate, 0.25 per cent., were used hot. The alcoholic solutions, on the other hand, contained 30 per cent. alcohol, the lowest percentage which could be safely relied on to destroy the pneumococci in sputum, and in addition 10 per cent. glycerin, and the isotonic quantities of sodium chloride and bicarbonate used in the bland solutions. Spirits of chloroform and oil of wintergreen were used to disguise the taste of the alcohol. With these solutions, the practical studies were conducted on pneumonia patients. The bland solutions were used with a view of determining the effect of simple rinsing of the mouth, diluting and removing the secretions with the bacteria; the alcoholic solutions with a view of determining the value of disinfection. As shown by these practical studies, cleansing the mouth with simple isotonic salt solution removed a certain amount of the secretion, and with it some of the infectious material; it does not destroy the bacteria. With the alcohol wash, however, many of the bacteria are destroyed, and the contaminating secretions more rapidly removed, and at the same time disinfected. It was thus determined that alcoholic solutions containing glycerin and salts in bland quantities were in every particular more efficient than any of the washes hitherto recommended for mouth cleansing or disinfection; 30 per cent. alcohol being the strongest that can be comfortably and habitually used in the mouth, and the weakest that will give reliable disinfection.—Augustus Wadsworth, *Journal of Infectious Diseases*, 1906, v. 774. L. K. B.

THE STREPTOCOCCI FROM SCARLATINAL AND NORMAL THROATS AND FROM OTHER SOURCES.

In his recent study of the organisms obtained from scarlatinal and normal throats, Ruediger classed those organisms as typical pneumococci which (1) when, grown on blood-agar slants, were found to be Grampositive cocci arranged chiefly in pairs, (2) fermented inulin, and (3) produced green or slightly hemolyzing colonies in blood agar plates. On litmus inulin-agar plates, most pneumococci produce red colonies which are easily recognized on the blue background. As practically no other mouth bacteria produce red colonies in this medium, it is easy to isolate pneumococci from the mouth and throat with the aid of these plates. After twenty-four hours' incubation, it is possible to pick out the streptococcus colonies in the blood-agar plates, They appear as small grey colonies, surrounded by a perfectly clear zone of hemolysis. Diphtheria bacilli may, however, produce colonies which closely resemble the streptococcus colonies.

A total of 154 cultures were made—normal, 51; scarlatinal, 75; measles, 14; tonsilitis, 5; pneumonia, 5; and laryngitis, 4.

Scarlatinal.—All the blood-agar plates inoculated with material from scarlatinal throats contained many colonies of streptococcus pyogenes and varying numbers of green colonies. As a rule, the streptococcus colonies predominate when the inflammation of the throat is pronounced, and rapidly decrease in number with the subsidence of the throat symptoms.

Normal Throats.—All blood-agar plates inoculated with material from normal throats contained many green and slightly hemolyzing greenish colonies. Streptococcus colonies were found in 30 of the 51 throats, but were never present in large numbers.

Measles.—The findings in the throats of measles patients corresponded closely to those of normal throats.

Tonsilitis.—Streptococcus colonies always predominated in these plates, but green colonies were also present. In one case, influenza bacilli were found in great abundance.

Pharyngitis.—Four cases of so-called pharyngitis were examined, but none of the blood-agar plates inoculated with material from these throats contained streptococcus colonies. All plates contained many green colonies.

Pneumonia.—Three of the five sets of plates inoculated with material from the tonsils of pneumonia patients contained very few streptococcus colonies, and the other two sets did not contain any. Typical pneumococci were easily isolated from all plates.

A large number of organisms which lie between the typical streptococcus pyogenes and the pneumococcus were found in all normal throats and in nearly all diseased throats. These organisms have very little virulence for rabbits, and as they are found in great abundance in practically all throats, they appear to be normal inhabitants of the upper air passages. —Gustav F. Ruediger, *Journal of Infectious Diseases*, 1906, v. 75. L. K. B.

NEUROLOGY.

EDITED BY
WILLIAM BROWNING, M.D.,
Neurologist to Kings County, Brooklyn, Long Island College and German Hospitals, Brooklyn, New York.

ADAPTATIONS OF THE COTTAGE SYSTEM FOR THE INSANE.

In an article on "Application of the Cottage System to the New Hospital," Dr. G. A. Smith, of Central Islip, N. Y. (*Am. Jrnl. Insanity*, 1907, April) offers several plans for the practical application of this principle to present conditions. His solution consists in a suitable grouping of several small buildings, thus facilitating economic care.

DIRECT STIMULATION OF THE IRIS BY LIGHT.

From experimental work, Hertel (*Arch. of Ophthal.*, 1906, Dec.) concludes, "As a result of all our observations it follows that we must consider, even in warm-blooded animals, the pupil-contraction to light after interruption of the optic paths, as a direct action of the light rays on the sphincters of the iris." Its onset and course is too slow to be often misleading. But where the reflex-action is very slow, it might confuse, and require some care in selecting the intensity and quality of light for tests.

EPILEPSY IN CHILDHOOD; ITS RELATION TO OTHER DISEASES.

Keeling (*Brit. Jrnl. Children's Dis.*, 1907, May), from a study of 150 cases and some review of the literature, summarizes his conclusions as follows: 1. The pathology of epilepsy appears to resemble in some respects that of cerebral diplegia, chorea, paralysis agitans, neurasthenia, myoclonus and migraine. 2. Etiologically, rickets is an important factor in the causation of epilepsy. 3. A variety of epilepsy, which may be termed toxic epilepsy, is chiefly gastro-intestinal in origin. 4. Reflex epilepsy is apparently rare, peripheral irritation probably plays a very small part in the production of the fits. 5. The effect of measles on epilepsy is uncertain. 6. Chorea is very rarely found associated with epilepsy. 7. Infantile paralysis, especially the congenital forms, are closely related to epilepsy. 8. An injury or a fright is frequently the exciting cause of a fit. Instrumental delivery may be followed by paresis with subsequent epilepsy. 9. Enuresis is an occasional sequela of epilepsy. 10. The disease known as night terrors is probably a mild form of epilepsy. 11. The three affections most frequently found in the family history of epileptics are epilepsy, migraine and alcoholism. 12. Migraine apears to be very closely allied to epilepsy, both in the family history and symptomatically. 13. The differential diagnosis betwen Ménière's disease and epilepsy is occasionally difficult.

PARALYSES OF OCULAR MUSCLES IN SPINAL ANESTHESIA.

A number of cases of transient paralysis of the external rectus muscles of the eyes, occurring in consequence of the lumbar injection of various analgesics, have ben collected by Lévy and Baudoin (*Rev. Neurolg.*, 1907, Feb. 15.) They attribute these accidents to a special susceptibility of the sixth pair of nerves. In a later number (March 30) Bonnier disputes this explanation, and attributes the affection to a reflex iritation from the labyrinth of the ear, through the intermediation of Deiter's nucleus.

New Books.

THE INFLUENCE OF THE MENSTRUAL FUNCTION ON CERTAIN DISEASES OF THE SKIN. By L. DUNCAN BULKLEY, A.M., M.D. New York, 1906. Rebman Company.

The author of this work has shown very clearly and positively the close relation between the menstrual function and a large number of skin manifestations. He has carried the study much farther than Danlos or any other writer, and has succeeded in throwing light upon conditions which show the dependability of certain skin lesions upon the presence of certain irritating materials circulating in the body. This work is the outcome of systematic observation carried on for some twelve years with the view of connecting these two sets of organs as common participants in certain phenomena.

It is shown in the first place that a large number of systemic changes accompany the menstrual cycle even in the normal woman—changes in blood pressure, in the amount of urea, in body temperature, in the pulse rate, in the thyroid gland, in the composition of the blood, etc. Dr. Bulkley then goes on to report the skin diseases which he has observed in this relation. Of acne he says, "So commonly have I observed its occurrence that I have long since ceased to make any particular note of cases in the special record just referred to." He says, "The connection between acne simplex and puberty, and acne rosacea and the menopause, is a matter of daily observation."

The influence of menstruation upon eczema is exhibited in a striking manner. He presents a study of eight thousand cases which he has personally observed, and shows that in the beginning years of adolescence eczema is more than twice as frequent in the female as in the male. Herpes he gives as the next most frequent eruption having relation to the menstrual function. Pemphigus is closely allied to this. Dermatitis herpetiformis is commonly observed. He also discusses papular eruptions, urticaria, œdema, and erythema. So many writers besides Bulkley have mentioned the connection of true erysipelas with menstruation that it must be regarded as an accepted fact. In many of these bacteriological examinations and high temperatures have confirmed the diagnosis. Many cases are reported in which erysipelas has repeatedly recovered at the time of menstruation.

So this interesting book goes on through a large list of skin diseases. The author then proceeds to analyze the facts and theories which have been advanced. The most plausible explanations seem to be: (1) That of the cyclic changes taking place in the general system, (2) autointoxication of genital origin, and (3) nervous reflex irritation from the congested condition of the uterus and ovaries. Each of these theories is discussed in the light of the author's studies. He does not regard them as conflicting, but looks upon them as even complimentary one to the other. Each may be invoked to explain some of the cutaneous phenomena in connection with menstruation. He says, however, that the cyclic changes in the female organism which occur each month must be accepted as the bottom fact upon which to build any understanding of these phenomena.

It would seem to the reviewer that Dr. Bulkley has

not only rendered a service to his own specialty, but especially has he contributed valuable and systematized knowledge to physiology and gynecology, for he has thrown light upon that little understood function—menstruation. It is reasonable to assume that these skin eruptions occur in persons in whom some abnormal condition exists. They have the "tendency" to the skin lesions, and a slight addition to their abnormalities is required to produce the skin manifestation. This is furnished by the changes which accompany, or rather, which lead up to menstruation. One of the chief of these is the presence in the blood of certain toxic substances, the products of metabolism or internal secretion which are eliminated during menstruation. Just how this elimination process takes place we do not know, although the presence of toxins in menstrual blood is well recognized. Still other phenomena of menstruation may be involved besides that of mere excretion. The simple mechanical diminution of arterial pressure by the loss of blood may enter into the symptom complex. Surely we are confronted by a most complicated set of phenomena.

We commend this book to the gynecologist and especially to the general practitioner who stands between the two widely separated specialties here represented.

TEXT-BOOK OF PSYCHIATRY. A Psychological Study of Insanity for Practitioners and Students. By DR. E. MENDEL, A. O. Professor in the University of Berlin. Authorized Translation. Edited and enlarged by William C. Krauss, M.D., Buffalo, N. Y. F. A. Davis Company, Publishers, Philadelphia, Pa.

This excellent work is divided into two parts, general psychiatry and special psychiatry. The first part deals with general symptomatology, etiology of mental diseases, outbreak, cause, duration, result of psychoses, pathological anatomy of mental diseases, diagnosis, prognosis, and general treatment.

While the author's division of the psychoses cannot be said to be wholly free from objections, still the same must be said of all of the groupings of the psychoses heretofore made. It will, if followed, however, enable the physician to make a diagnosis in the great majority of cases. In defining mental diseases the author says "not all diseases of the brain cortex engender mental disease; many of the fecal diseases run their course without mental obliquity; a diffuse disturbance of the function of the cortex of the brain is necessary for the development of mental diseases; these, accordingly, represent diffuse disturbances of the brain cortex." He further says, "It is not known at present what pathological processes are present, which of them lead to a mental disturbance or to a delusion, or the nature of the physiological processes which lead to normal thought. What is offered as an explanation is in reality only an interpretation of the facts."

An illusion is defined as the sensory perception of an external object changed by an hallucination. The translator has rendered dämmerungs-zustände "twilight states," instead of the usual designation, "subconsciousness states." Zwangsvorstellungen is translated "imperative concepts," instead of "obsessions."

This book is systematized most admirably. Take, for example, the consideration of Disturbances of the Feelings. This is subdivided into (1) Disturbances of the Sensory Feelings, and into (2) Disturbances of the Feelings of Judgment. Under the first we find (*a*) Pathological Heightening; (*b*). Pathological Diminution or Destruction; (*c*) Pathological Inversion of the Feelings, and Feelings of Disease. Under the second are considered *a, b,* and *c,* and also normal insanity. A good proportion of habitual criminals come under the class of pathological inversion of the feelings. They include the so-called moral insanity.

The part of the back devoted to special psychiatry is devoted to chapters on idiotism, functional psychoses, the psychoses arising from central neuroses, the psychoses of intoxication, and the organic psychoses. All of these subjects are made admirably clear, and presented most tensely.

The German edition of this book contains the Prussian proceedings in relation to the insane. These have been omitted, and the New York State laws and commitment form inserted.

The chapters on Pregnancy and Heredity present this subject briefly, but give the reader a most intelligent and practical grasp.

THE PHYSICIAN'S VISITING LIST, 1907. Philadelphia. P. Blakiston's Sons & Co.

This is the fifty-sixth year of this publication. For compactness and simplicity there is no better day-book for keeping account of the physician's visits than this.

ESSENTIALS OF OBSTETRICS. By CHARLES JEWETT, M.D., Professor of Obstetrics and Gynecology, in the Long Island College Hospital, Brooklyn, N. Y. Third edition. Lea Brothers & Co., Philadelphia and New York, 1907.

Professor Jewett's object has evidently been to place the essential facts and principles of Obstetrics within easy grasp. It is the ideal book as an introduction to the more elaborate treatises, and as a guide in following the didactic and practical teaching of college courses. That the author has interested both students and practitioners is shown by the demand for this new edition.

This excellent work is now a standard text-book. This third edition represents a complete revision, and while the author modestly states that it is intended for the use of students, still it seems to the reviewer that if the general practitioner would master its contents we should have practical admirable obstetrics. This book is so concise, so practical and yet complete that it should be not only in the hands of the students but in the obstetric kit of the general practitioner. It reflects much credit upon the wisdom of its eminent author who has displayed his judgment in knowing what to put in and what to leave out.

PARAFFIN IN SURGERY. By WM. H. LUCKETT, M.D., and FRANK I. HORNE, M.D. Surgery Publishing Co. New York. 1907.

The investigations made by these authors in the use of Paraffin have exploded many fallacies previously mentarium. It thoroughly covers the use of Paraffin Early Disposition of Paraffin in the Tissues, Physical state of the Paraffin bearing on its Disposition, the ultimate Disposition of Paraffin, Technic and Armamentarium. It thoroughly covers the use of Paraffin in cosmetic work, such as Saddle-Nose Deformity, Depressed Scars, Hemiatrophia Facialis, with a number of photographs showing cases before and after operation, with illustrations of micro-photographs of the Disposition of the Paraffin in the Tissues. It also presents other conditions of a functional character, where Paraffin can be used, such as Incontinence of Urin, and the subject is presented in a scientific and comprehensive manner.

Details are given as to the method of Preparing the Paraffin, as well as the method and manner in which it should be injected. This book presents a wide field for the use of Paraffin.

PLASTER OF PARIS AND HOW TO USE IT. By MARTIN W. WARE, M.D. Surgery Pub. Co., New York. 1907.

This is a most useful book, not only on account of the general demand for the information and instructions upon the subject which it comprehensively covers, but because this knowledge was not previously available from such a vast experience as enjoyed by Dr. Ware.

It well illustrates the many uses to which Plaster of Paris is adaptable in Surgery. The subject, from the making of the Bandage to its use as a support in every form of splint, corset or dressing, is described and illustrated. The use of Plaster of Paris in Dental Surgery is also covered. The book is printed upon coated book paper and attractively bound in heavy red buckrum.

County Societies

MEDICAL SOCIETY OF THE COUNTY OF ALBANY.

ANNUAL MEETING HELD IN THE ALBANY MEDICAL COLLEGE, MAY 8, 1907.

The Committee having in charge the matter of calling the attention of the city authorities to the need of providing means for the collection and disposal of garbage made its final report, and was discharged.

The President, Dr. Geo. Gustave Lempe, presented his address, which consisted of a résumé of the history of the Society and commendation of the subsidiary societies of the County of Albany, also of thanking the members for the support they had given him during the past year, thus making the year one of the most successful in the history of the Society.

The following officers were elected: President, Geo. Gustave Lempe; Vice-President, Howard E. Lomax; Secretary, Arthur J. Bedell; Treasurer, W. H. George; Censors, F. C. Curtis, Joseph D. Craig, F. L. Classen, E. A. Vander Veer, James H. Mitchell.

MEDICAL SOCIETY OF THE COUNTY OF CHEMUNG.

SEMI-ANNUAL MEETING, JUNE 18, 1907.

The following papers were presented:

Vice-President's address, "Flat-foot Deformity," Dr. Arthur W. Booth.

"Fracture of the Hip in the Aged," Dr. C. G. R. Jennings.

"Congenital Stricture of the Urethra," Dr. J. A. Westlake.

MEDICAL SOCIETY OF THE COUNTY OF KINGS.

STATED MEETING, JUNE 18, 1907.

Scientific Program.

1. Presentation of a Case of Ichthyosis Simplex, by George F. Little, M.D.
2. History of a Case of Infantile Scorbutus. By Eugene La F. Swan, M.D.
3. "Infantile Scorbutus." By John Lovett Morse, M.D., of Boston. Discussion by Henry N. Read, M.D., and Charles G. Kerley, M.D.
4. "Typhoid Fever in Infants and Children." By Louis C. Ager, M.D. Discussion by John Lovett Morse, M.D., of Boston and Le Grand Kerr, M.D.
5. The Provisions of the "Medical Unity Bill." By Algernon T. Bristow, M.D.

MEDICAL SOCIETY OF THE COUNTY OF DUTCHESS.

MEETING, JULY 10, 1907.

AT THE HUDSON RIVER STATE HOSPITAL, POUGHKEEPSIE.

Program.

"Commitment of the Insane," Dr. Pilgrim. Discussion opened by Dr. Borst.

"Anxiety Depressions," Dr. Parsons.

"Improper Commitments of Alcoholics," Dr. Hyde. Discussion opened by Dr. Cotter.

"Training Schools in State Hospitals," Dr. Harris.

Deaths.

RICHARD CALDWELL BREWSTER, M.D., physician and dentist, of Brooklyn, died at his home, May 18; aged 62 years.

JAMES E. CASEY, M.D., for fifty years a practitioner of Mohawk, N. Y., died at his home in that city, May 17.

HENRY W. CARPENTER, M.D., surgeon in the Civil War, coroner of Madison County, and visiting physician to the Oneida Hospital, died at his home in Oneida, May 19; aged 72.

CASPER S. DECKER, M.D., formerly Commissioner of the State Reformatory, died at his home in Elmira, N. Y., May 7; aged 87 years.

DAVID H. GOODWILLIE, M.D., died at his home in Yonkers, N. Y., May 15; aged 73 years.

DANIEL DEWITT HARNDEN, M.D., died at his home in Waverly, N. Y., May 6, from old age; aged 87 years.

CHARLES LAIGHT, M.D., formerly connected with the New York Eye and Ear Infirmary, died in Rome, Italy, March 31; aged 60 years.

GUY DAVENPORT LOMBARD, M.D., instructor in histology, Cornell Medical School, died at his home in New York City, May 22; aged 34 years.

DANIEL E. MCSWEENY, M.D., died at his home in Manhattan, New York City, May 20; aged 65 years. He was a graduate of the College of St. Francis Xavier and of the College of Physicians and Surgeons, New York, in the class of 1864. He served as assistant surgeon with the 69th Regiment, N. Y. Vols., and as acting assistant surgeon in the regular artillery during the Civil War, and had been in active practice since, up to the time of his death. He had attended an extraordinary number of labor cases, having records of over five thousand living children personally delivered. He was a member of many medical societies, the New York Catholic Club, and had served two terms as Commissioner of Education, being especially active in the work of establishing high schools and in furthering the elaborate building programme undertaken during Mayor Strong's term of office. As an active practitioner and prominent Catholic layman he was widely known and beloved.

WILLARD PARKER, M.D., son of the late Dr. Willard Parker who was one of the first American surgeons to perform the operation for appendicitis and who was also head of the first college clinic in the United States and one of the founders of Bellevue Hospital, died on Monday, June 24, at his home in New York City. He was a graduate of Columbia University, class of '66, and took his degree from the College of Physicians and Surgeons in 1870.

MILTON GODFREY PLANCK, M.D., formerly coroner's physician of Schenectady County, died at his home in Schenectady, May 12; aged 65 years.

JOHN ALDEN ROBINSON, M.D., of Elmira, Cornell University Medical College, 1904, died at the Arnot-Ogden Memorial Hospital of tetanus, on June 14, 1907. Dr. Robinson was born in Southold, L. I., May 11, 1876, receiving his preliminary education in the common schools of Elmira, in the Ithaca High School and in the Oswego State Normal School. His brief professional career was spent in Elmira, where he had won the respect and esteem of his colleagues and a substantial practice. He held the appointment as pathologist at the Arnot-Ogden Memorial Hospital and Coroner of the city. After adopting appropriate resolutions upon his untimely death, the Elmira Academy of Medicine and the Medical Society of the County of Chemung attended his funeral in a body

MILTON SEE SHERWOOD, M.D., of New York City, died at Pocantico Hills, N. Y., May 14.

WALTER DAY TRENWITH, M.D., surgeon to the O. P. D. of New York Hospital, died from typhoid fever May 16, at his home in New York City; aged 35 years.

ORRIN A. TOMPKINS, M.D., born February 2, 1841, in Ellery, Chautauqua Co., N. Y., died June 11, 1907, at his home in Randolph, N. Y. He studied medicine in the University of Michigan, 1863-4; graduated from the University of Buffalo, 1865. He practised medicine in Randolph and vicinity for forty-two years, and was an original Fellow of the New York Medical Association. He was a member of the Medical Society of the State of New York, Medical Society of the County of Cattaraugus and Association of Erie R. R. Surgeons. The funeral was held at his late residence June 17. His character was compared to that of Dr. McClure in Ian McLaren's "Beside the Bonnie Brier Bush."

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Original Articles

THE IRRITABLE (NON-INFLAMMATORY) APPENDIX.

By J. FIELDING BLACK, M.D.,

WHITE PLAINS, N. Y.

THIS is a condition of frequent occurrence, but not always (perhaps I might be tempted to say but seldom) recognized by the general practitioner. It is a condition not generally understood, but of vast interest and importance, and as far as I am aware has not been afforded space in surgical literature as a definite entity.

Here we have a surgical condition of its own, that bears absolutely no relation to appendicitis, acute, subacute, chronic, quiescent, recurrent, or any other inflammatory lesion that the appendix is heir to, with one exception, viz.: it may be a pre-appendicitis state in many cases.

While there are many irritable appendices of post-inflammatory origin, that can give rise to similar symptoms as the non-inflammatory irritable appendix, I am not considering that condition with the one in question, although the treatment is precisely the same. The post-inflammatory irritable appendix is easily recognized, because in most cases we are aided by a history of one or more attacks of acute appendicitis, or the patient may call it peritonitis, his physician having so diagnosed his disease. With the non-inflammatory irritable appendix we get no such history; and that for one reason is why the appendix is overlooked.

It is in order to draw attention to this oft repeated oversight that I now produce my impressions of this most interesting condition.

DEFINITION.

An irritable appendix, void of all past or present inflammatory influences, bearing no direct relation to appendicitis, but being often a purely mechanical condition, setting up such continuous symptoms as may undermine the patient's health, and warrant surgical interference.

PATHOLOGICAL FEATURES.

The irritation is caused by mechanical abnormalities within the appendix, its mesentery, or involving the organ as a whole; or a hyperplasia of lymphoid tissue; or changes in the nerve supply.

The following are some of the commoner types met with:

1. *Residuary Concretion Type.*—This is a common form of irritable appendix. The "stones" may be single or multiple, usually quite small. They do not obstruct the lumen of the organ, except it be momentarily, or as a ball-and-valve action. They are a fruitful source of simple irritation. We all know how hardened scybala will cause in time an irritation and subsequent ulceration of the mucous membrance of the sigmoid and rectum. Here the irritation is local for a while, and no inflammation can be detected on the outer coats of the bowel. Yet a distressing sense of irritation and discomfort amounting at times to pain is felt in the region. By point pressure deep down in the pelvis on the left side a tender spot can be found corresponding to the ulceration. So it is with the appendix, a superficial ulceration may be present at the site of a coprolith.

The lodging of these bodies in the lumen of the organ causes a decided feeling of unrest and irritation, as a foreign body would do if lodged in the external auditory canal, or in the nasal chambers.

A "stone" snugly confined in the very tip of a long appendix is apt to cause misleading signs, as one of my cases will show.

I say that these masses do not cause obstruction, but produce an irritation without obstruction. If they did obstruct for any length of time, of course we would get an acute attack of appendicitis. And I will say here that a majority of our cases of acute appendicitis that we operate on, and find a concretion as the cause of the attack, had this prodromal stage of appendicular irritation. Had it been complained of and recognized, with the proper treatment instituted, lives might have been saved, for we all know that the perforative appendicitis is a dangerous variety, the perforation being frequently caused by "stone" pressure on the coats of the appendix, causing local gangrene and rupture.

2. *Appendicular Colic Type.*—In some patients there are recurrent attacks of appendicular colic, when it would seem as though the organ was trying to rid itself of an offender. The colic is produced by spasmodic contractions of the longitudinal and circular muscular coats, in the effort

to produce a forcible vermicular movement. And it may be assumed that by this means it does rid itself of the foreign matter, for the pain will often stop suddenly as though the irritation had suddenly ceased to exist. The muscular coats have been shown by Testut to exist in some appendices.

Attacks of colic may be the only evidence of the existence of an irritable appendix, there being none of the felling of unrest or vague sensations in the right iliac fossa between the attacks. Why a concretion should cause colic in one case and continuous irritation in another is not quite clear. It may be that the colicky appendices are much more sensitive to the presence of extraneous substances and concretions than others, with a highly irritable reflex mechanism.

Tilamon has said that with appendicular colic there is also an inflammation of the mucous lining. I have not found this to be the case unless the colic was associated with some form of appendicitis. In this type of irritable appendix the pain is referred to the right iliac region, to the epigastrium, or to the umbilical region.

3. *The Foreign Body Type.*—Objects foreign to the intestinal canal as pins, solid particles of foodstuff as seeds, peas, etc., have entered the appendix from the cecum and set up acute attacks. That they may lie in the appendix unsuspectedly, but setting up an obscure and unrecognized irritation for a definite period is very probable, finally to end in an acute attack when the colon bacilli have got to work on the abraded mucous membrane.

4. *The Angulation Type.*—Normally the mesoappendix does not reach to the end of the appendix, and for this reason the portion without the mesentery is more movable than the portion that has the mesentery attached. Hence the distal portion is apt to form a more or less obtuse angle with the proximal part. Sometimes there are graceful curves like the letter S. In these normal cases the mucus contents of the appendix flows on smoothly to its outlet into the cecum, and all goes well. Now, should the appendix for some reason become hyperacutely angulated, with single or multiple kinks, the egress of the secretion within will be partially obstructed, setting up a train of discomforting symptoms that should be quite characteristic. The circulation may be partially interfered with, amounting to a passive congestion of the parts distal to the angulation. This causes a feeling of weight, a dull boring in the appendicular region. In some cases the retention of the secretions may set up an attack of appendicular colic till the organ has righted itself. These pathologically flexed appendices will continue in their evil way till at last an acute attack supervenes.

The acute angulation may be periodic as seen in very long appendices that are prone to become bent and held between coils of intestines, especially when the latter are overloaded or distended. The most persistently angulated appendices are those that are long of body and short in mesenteric attachment. Here an acute angle is most likely to exist and persist.

5. *The Incarcerated Type.*—The appendix may be persistently and continuously doubly angulated and setting up a most decided set of symptoms without the slightest trace of inflammatory envolvement, by being imprisoned in one of the neighboring natural intra-abdominal fossæ One of my cases hereinafter cited shows clearly this possibility.

6. *The Thick Adenoid Type.*—These appenddices are long, thick and heavy from a superabundance of lympoid tissue. They are pressed upon by intestinal coils, and drag on their own bases. They lack flexibility and offer resistance to surrounding pressures. They are always in the way, so to speak.

7. *The Involution Type.*—A very frequent form of appendicular irritation is the normal involution process seen about the age of 40. Here the tissues of the appendix, especially the lymphoid tissue, is gradually replaced by connective tissue. In time this new formed tissue, like all scar tissue, contracts, squeezes sensory nerve endings, and sets up a state of nervous irritability, and annoying feelings, amounting at times to pain, in the right lower abdomen.

8. *The Passive Hyperemic Type.*—A passive congestion of the organ is produced by pressure on the vessels of the mesoappendix. This if oft repeated causes trophic changes in the walls of the appendix, and disturbance of the nerve endings. Sooner or later this condition will surely end in an acute attack, the vitality of the tissues has become so lowered that the ever ready colon bacilli make an easy prey to the weakened organ.

9. *The Interstitial Neuritis Type.*—Some authorities describe a chronic interstitial neuritis involving the nerves of the mesoappendix. The illy-defined neuralgias supposed to be of the intestines, or of the ovaries, or of the abdominal walls, probably in many cases belonged to this type.

10. *Combination Type.*—Various combinations of the foregoing may exist at the one time.

CLINICAL FEATURES.

A considerable proportion of these patients give a family history of acute appendicitis, and as it is considered by many that an hereditary predisposition to appendicitis exists, these two facts would strengthen the belief that this is a pre-appendicitis stage in numerous cases. It is, therefore, all the more worthy of early recognition. The irritable, non-inflammatory appendix is found in children as well as in adults, but I have not sufficient data to show reliably whether it is found more in one sex than the other. Of my own cases women have been in the majority.

These patients frequently present the picture belonging to so-called chronic dyspepsia. They are often constipated, due to intestinal atony,

the atony being especially marked in the cecum and ascending colon. These latter are relaxed and dilated, and retain for an abnormally long time their fluid contents, which sag back into the iliac fossa as though the muscular coats of the bowel could not pass the fluid along or absorb them fast enough. A loud gurgling sound may be heard when the fingers of the right hand are pressed deeply into the iliac fossa. This bag of fluid presses on the appendix that is already the seat of some of the foregoing abnormalities, and increases the discomfort.

Along with the constipation there is a varying degree of flatulence in different people, but a majority complain of indigestion which is in some a real and in other a reflex symptom. It is a common occurrence to treat these patients for dyspepsia and constipation, with no permanent result, and unless the true cause of their malady is discovered, they drift from one doctor to another, until finally they have an acute attack, or give up in despair.

There is another class of patients who do not belong to the dyspeptic variety, but appear to be in good health, and complain of nothing but the local irritation. They all, however, complain of a local feeling of unrest in the right iliac region. It may be a feeling of weight, a vague illy-defined pain or boring; a desire to press the hand against the parts to get relief. In some the colic only is complained of, and in others a neuralgic pain. It is these subjective symptoms that first draw our attention to the appendix.

We now commence a careful and thorough examination of the abdomen and exclude, if possible, other organic abdominal diseases. In the iliac region we search for the inevitable tender spot, and this will usually be found half an inch below McBurney's point (towards the pelvis). If it is not found here we must not give up but continue palpating in all the possible localities in which the appendix may be hidden. It may be at the brim of the pelvis, or laying along the ascending colon above McBurney's point, or even above the umbilicus at the median line. One finger only must be used in palpating if an accurate conclusion is to be arrived at, and the best finger to use is the second or middle finger of the left hand. Not the tip, but the palmar surface of the last section must be used, as very deep pressure is often necessary. The pressure can be reinforced by the second finger of the right hand being pressed on the nail of the examining finger. Cover as small an area as possible at one time, and make the direction of the line of pressure at right angles to the posterior abdominal wall. The examination will be made easier if the patient flexes his thighs and breathes deeply. By this method nothing will have escaped us, and soon a spot of varying degree of tenderness will be discovered. This is the tender irritable appendix.

There is another class that only have attacks of appendicular colic. These attacks come rather suddenly, last from a few minutes to a several hours, and cease, sometimes abruptly. There is no rise of temperature, the pulse remains normal in all respects. There may or may not be vomiting. The pain is often excessive, and yet there is no rigidity of the abdomen, only a slight defensive action of the right rectus on deep palpation. The day following the atack we may not be able to find the slightest trace of a tender spot.

In all these cases there is no febrile movement nor deviation from the normal pulse rate or quality, that belongs to the appendicular lesion. If there is vomiting it is only when an attack of colic is on, just as there might be vomiting with an attack of colic elsewhere in the intestinal canal. In other words there is no septic focus, hence no systemic infection coming from the appendix proper. And for the same reason, there being no localized peritonitis, we get no muscular rigidity of the abdominal walls. After a heavy meal the irritation is frequently at its height.

DIFFERENTIAL DIAGNOSIS

We have now arrived at, indeed, a knotty problem. By the thorough exertation of diagnostic acumen we play the trump card of a game that starts with the general practitioner, passes on to the surgeon, and ends well in the hands of the former. Some of the cases are easily diagnosticated, some are not.

The condition is apt to be mistaken for any one of the following diseases: Chronic dyspepsia, chronic constipation, torpid liver (so called), gall stones, gall bladder disease, intestinal indigestion, neuralgias, hysteria, tape worm, ureteral colic, ovarian disorders, gastralgia, etc.

Of course, any of these may co-exist, but it is of first importance to ascertain if the appendix also is involved, especially with the dyspeptic and intestinal cases, as these will not get well until the appendix is removed. There is only one way to make the diagnosis clear, and that is to first eliminate other abdominal diseases; then put the patient on the most thorough treatment for coexisting symptoms; and then if the patient makes little or no improvement, or even if he does improve but with, in either case, the point tenderness remaining in the same spot as previously found, then and only then can we confirm our suspicion. If there is flatulent distention of the abdomen, a satisfactory examination may not be possible. With such cases a fluid diet for a day, followed by a brisk cathartic will make matters considerably easier.

In appendicular colic we must eliminate acute appendicitis, ureteral colic, even biliary colic, acute obstruction of the bowels from any cause, hysteria, tortion of and other diseases of the ovary, dysmenorrhoea, acute indigestion, etc. Seeing the patient in the attack is of course the greatest aid. The history of the case, examination of the urine, color of the skin, absence of flatulence (acute), ability to pass flatus, absence

of fever, or rapid pulse, no rigidity, and shortness of the attack, will help us to arrive at a correct conclusion.

TREATMENT.

The diagnosis having been made there is but one way in which we can ever hope to restore our patient to health, to relieve him of his subjective symptoms, his dyscrasias, and his tender spot, and that is by the removal of the offensive organ. The sooner his appendix is gone the sooner will his lost health return; and it is astonishing how, in so short a time, such a complete transformation takes place. I do not mean to infer that the moment the appendix is excised that the patient is cured. But from this time on improvement is continuous, though it may be three weeks or three months before the relaxed intestinal canal and the digestive apparatus has regained its normal tone, and the constipation habit is overcome. But we have placed the patient in a position where his family physician can take up where the surgeon left off, and surely and intelligently complete the cure.

As regards the operation it is needless to say that the intermuscular method should always be used. A one-inch incision is all that is necessary in most cases. If there is much subcutaneous fat, one and one-half to two inches may be necessary. The opening in the peritoneum should be only made long enough to admit one finger and a pair of forceps.

I will take this opportunity of mentioning an incision I have devised for these cases. Instead of the conventional oblique skin cut, I make a transverse one, starting one-half inch to the right of the rectus muscle on a line drawn between the two superior iliac spines. Continue the incision towards the right superior iliac spine for one inch or more as the case demands. The incision includes all the tissues down to the external oblique. If the rectus cannot be felt the incision starts on the same line midway between the median line of the body and the superior iliac spine. The edges of the wound are sharply retracted upward and downward so as to allow of the incision into the external oblique aponeurosis. The operation is then completed in the usual manner.

The advantages I claim for this incision are:

1. The fibres of the internal oblique and transversalis muscles can be separated with greater ease both from a manual and visual standpoint, the skin opening being almost in the same direction as the opening to be made in these muscles.

2. That it crosses the external oblique at almost right angles, making a slightly stronger abdominal wall.

3. In case of skin abscesses forming in the skin the chances of infecting the external oblique incision are greatly lessened, as the two incisions only come in contact at one point.

4. This incision is probably more directly over the base of the appendix than any other.

When the appendix has been cut away it is not necessary to apply pure carbolic to the stump, nor is it necessary to cut away the appendix with the thermo-cautery. After I excise the organ I simply invert the stump using a single purse string suture of No. 2 plain catgut. I then apply three Lembert sutures of the same material over the site of the purse string suture. I do not think the method of applying a ligature around the stump of the appendix and then burying the ligated stump in the wall of the cecum a good surgical procedure. I would rather leave the ligated stump loose in the peritoneal cavity as is often done.

Post Operative Treatment.

This has already been hinted at, and consists in establishing proper hygienic habits, especially in regard to food, exercise and rest. Tonics, massage, hydrotherapy, and so on.

Prophylactic Treatment of Appendicitis.

The recognition of the irritable appendix affords us a valuable space of time during which we can apply a prophylactic treatment to appendicitis. Till recently the treatment has been aimed directly towards an inflammatory or post-inflammatory condition: now we go a step further and remove an appendix that is irritable and would probably some day become inflamed. An operation during the simple irritable stage is practically without danger, and in a majority of cases the patient can be back at work within two weeks.

The following are examples of irritable appendix cases.

CASE I. W. G. E. Single; 28.

Family History. One brother and one sister had attacks of acute appendicitis.

Personal History. Had usual childrens' diseases. At 20 had grippe; at 24, jaundice, lasting three weeks, unassociated with pain. Has never had acute appendicitis. The present trouble began about a year ago when he noticed griping pains coming after eating. The pains would only last a minute or so, but came at short intervals for twenty-four hours, and then not occur again for two months. A cathartic would not relieve the pain. There never was any vomiting with the attack, nor did he think he was feverish. He usually kept on with his work. A soreness would persist for a short while, at the site of the pain. Latterly these attacks have become much more frequent.

Examination. Patient came to my office on May 7, 1906, complaining of one of these attacks, and a feeling of soreness just below the umbilicus. He had not vomited, and felt well otherwise. There was no rise of temperature; pulse was normal in all respects. He had not eaten anything that could cause the condition. Examination of the abdomen revealed nothing but a decided point of tenderness an inch below the umbilicus, and a little to right of the median line. Urine was negative. He was directed to keep on a fluid diet the rest of the day, and to take four grains of calomel at bedtime and an ounce of castor oil in the morning.

May 9th he called again and told me that the pains had gone but the tenderness remained. At this time he had a moderate leucocytosis. As he appeared somewhat below par, I put him on general tonic treatment, and cautioned him to be extra careful about what he ate, and for a few weeks he improved physically and did not have an attack until July 17th. At this time he was

suffering with crampy (never severe) pains, intermittent in character, in the neighborhood of the umbilicus. There were no other symptoms, but the point tenderness persisted in the same spot. There was only a vague sense of discomfort over the base of the appendix.

Diagnosis. An irritable (non-inflammatory) appendix. Operation was advised, and later accepted.

Operation. July 30th I operated and found a long appendix that lay over towards the median line and pointed towards the umbilicus. There was no evidence of past or present inflammation, but the organ contained a moderate-sized concretion at the tip and several smaller ones in the canal. The crampy pains were, no doubt, caused by the effort of the appendix to expel its contents. The patient left the hospital in five days, and in two weeks was horse-back riding.

Result. January, 1907. Has gained several pounds in weight and says "he never felt better in his life." He has had no recurrence of the crampy pains at the umbilicus or elsewhere in the abdomen.

CASE II. R. C. S. Male; married; 35.

Family History. Father had an appendicular abscess, operation, recovery. One brother had acute appendicitis; recovered. One sister had acute appendicitis; recovered.

Personal History. Negative up to two years ago, when he began to feel what he calls a slight pressure in the right lower abdomen, which could be improved by a cathartic, then he would not have the trouble for a month or six weeks. When he had eaten fast and had indigestion the condition was most apt to present itself. For the past eight months the vague distress has become more intense, but never amounting to pain. He has always been constipated. Several physicians treated him for intestinal indigestion with no lasting results.

Examination. In July, 1906, he came to my office complaining of general weakness, tired, "no ambition." He had a dull pressure in the right side of the abdomen, which he thought was a "disordered liver." He had been taking calomel to "clear up the liver," but the condition always returned. He never had jaundice, gallstone colic or other liver disorders that could account for his present symptoms. The man is tall and well built, but many pounds below his proper weight. He appears to be dragged down by some chronic disease. His face has a despondent look. He points to the appendicular region and slightly above it as being the seat of his trouble. Examination of the abdomen eliminates other diseases. But over McBurney's point deep finger-point pressure shows a tenderness, not very intense, but duplicating his subjective sensations, and rather exaggerating them. The cecum was dilated and contained much fluid that could be forced up and down, giving a loud gurgling sound. The urine was negative. Pulse and temperature normal. Regular medical treatment was now instituted with a view of building up the man's strength and counteracting the constipation. He was recommended to take a "course of sprouts" in a gymnasium, as his life was a sedentary one, along with outdoor exercise.

At the end of September he came back saying he felt better in every way, but that he could not get rid of the troublesome feeling in his side, although his bowels were moving much more regularly. Examination of the parts showed that the tender spot still existed in the same place, and was possibly a little more tender than before.

Diagnosis. An irritable (non-inflammatory) appendix.

Operation. October 17th. The appendix was found tightly coiled up and immoveably fixed in the inferior ilio-cecal fossa. It was only with difficulty extricated from its abnormal position. There were no adhesions, and except for the appendix remaining kinked with several acute angles along its course, it looked normal. It contained a thin muco-fecal substance, with no concretions.

This peculiar incarcerated position of the appendix, causing partial obstruction to the outlet of its contents, and restraining its vermicular movements, easily accounted for the vague distress in the appendicular region. The dilated and frequently distended cecum pressed on the appendix and aggravated the condition. This also explains how a cathartic would temporarily relieve the symptoms by removing the contents of the cecum and colon, and hence removing the weight from the appendix.

Result. It is now three months since I operated on this patient and he has had no return of the distress in his side. He is heavier than he ever was in his life. The intestinal indigestion has gradually improved as the cecum is regaining its normal size and tonicity.

CASE III. E. L. Female; married; 37.

Family History. Daughter had appendicitis at 13, operation, recovery; otherwise of no interest.

Personal History. Has had no illnesses of note. For the last ten months she had a "distress in the right side of abdomen," as though something was "pressing inside." Often she cannot sit still as the feeling is making her nervous. At times there are colicky pains lasting a minute or two. Sometimes she would vomit when the colic was present, but she never had to go to bed, and she kept on with her work. She nas always been very constipated. There has never been any menstrual disorder of any kind. Two different doctors have treated her for "neuralgia," and another told her there was nothing the matter with her. She says, "I have taken many different prescriptions and nothing has done me a bit of good."

Examination. I saw the patient in my office in the spring of 1903. She was in a very nervous and run down condition. She looked thin and anemic. She complained of a feeling of fullness and vague distress in the right iliac region. She could not just describe the feeling. It was usually not painful, but uncomfortable and made her "fidgety," as she expressed it. Vaginal examination is negative, and so is the rectum except for small hemorrhoids.

The abdomen was negative except for a decided area of tenderness on deep finger-point pressure over McBurney's point, and downwards and inwards for two inches. Then the tenderness ceased. There was no rigidity of the rectus. Medical treatment was at once intsituted with a view to building up the woman's health, improving the anemia and constipation. This was carried on till the following July in which time she greatly improved in every way with the exception of her distress in the abdomen. This did not leave her nor did the tender spot disappear, and as she was getting anxious, I recommended the removal of her appendix. She gladly accepted.

Diagnosis. An irritable appendix.

Operation. July, 1903. Through the inter-muscular incision I removed an appendix that was six inches long. It was lying in an inward and downward direction towards the pelvis. The mesoappendix was unusually short, and was probably the cause of an acute angle being formed at its termination on the organ. At any rate there was a very acute angle, sufficient to spasmodically and temporarily close off the secretion in the distal end of the tube. The efforts of the muscular coats to force on this secretion against the resistance caused by the angulated canal, accounts for the short colicky pains complained of. Besides this there were two "stones" half as large as cherry stones, one proximal and one distal to the angulation. Their presence we may be sure accounts for the tiresome feeling in this lady's side for the past months. The uterine adnexa examined at the operation were found normal.

Result. Left the hospital in two weeks. It is now three and one-half years since the operation, there has been not the slightest suspicion of pain or distress in the abdomen since. The constipation has markedly improved, and she has gained ten pounds in weight.

CASE IV. Mrs. H. H. Age, 40.

Family History. Father died after an operation for gangrene of the foot. Mother died of cancer of the stomach. She had once what was supposed to be appendicitis. One brother had three attacks of appendicitis.

Personal History. Has had five children. Has had no important illnesses. Never had appendicitis. Menstruation regular and not painful. She has not been constipated. She states that for several years she has been troubled with pain in the back (sacral region). The pain is made worse by bending forward or by fatiguing work. There is frequently a bearing down sensation and feeling of fullness in the pelvis. A leucorrheal discharge, often profuse. For the past year or so she has felt a sharp pain in the right iliac fossa, lasting a minute or so, and then becoming dull, though intensely aggravating. She wants to press on the parts, which seems to give relief. When she is tired or walks much these pains seem to trouble her most. They are making her very "nervous," and trouble her a great deal more than the pelvic condition. She never vomits, nor does she even feel nauseated when the iliac distress is present, and the latter is becoming a daily occurrence. She never has to go to bed, but can keep on working.

Examination. February 9, 1905. A well-nourished woman, but flabby and very much out of condition. The abdomen is negative, except at a point one-half inch below McBurney's point there is an area of distinct tenderness to deep finger-point pressure. She flinches perceptibly when this point is pressed on. Vaginal examination reveals a marked retroflexed uterus. The fallopian tubes are thickened and sensitive. Rectal examination reveals nothing further. The temperature and pulse are normal.

Diagnosis. Retroflexion of the uterus, salpingitis, and most probably an irritable (non-inflammatory) appendix.

A combination operation for the cure of the existing conditions was advised and later accepted.

Operation. May 9, 1906. Median incision. The tubes were considered to be in a chronic state of inflammation and of no further functional use, hence they were removed. The appendix was excised and the uterus freed from a few adhesions and suspended to the anterior abdominal wall. Anterior colporrhaphy and perineorrhaphy. The appendix was of average length, contained no angulations nor coproliths. There were no adhesions nor signs of previous inflammation. But its distal one-third was thickened, due to a hyperplasia of lymphoid tissue, and its canal was becoming obliterated. It belongs, therefore, to the involution type of irritable appendix.

Result. It is now eight months since I operated on this patient, and I can record the fact that none of the above-mentioned symptoms have recurred, with the exception of a little backache after exertion. There has been absolutely no more pain or discomfort in the appendix region. Vaginal examination shows the uterus to be in place though not tight up against the abdominal wall. While the operation was successful, a week later a thrombo-phlebitis developed in the right side, causing pain and oedema in the right leg. This persisted, though gradually getting better, for six months and greatly prevented the patient regaining her strength as fast as she should have done. She is now, however, in perfect health.

CASE V. Mrs. L. E. M.; 30; no children. Family history negative.

Personal History. Of no interest in this case. Menstruation every 28 days and has always been regular since marriage, that is, for the past ten years. The period is always attended with pain during the first two days, sometimes quite severe. She is never constipated. There was no history of previous abdominal pain, or attacks or indigestion. Never has been jaundiced, and there is no suspicion of cholecystitis having existed at any time. No history nor suspicion of renal calculous. It is two weeks since the last menstrual period. At eight o'clock this morning, April 17th, a severe pain started in the right iliac region. The pain was intense. It radiated towards the umbilicus. There was never any cessation of the pain, and it was becoming worse and worse.

Examination. April 17, 1906. When I arrived at the bedside about 9 A. M., I found her in very considerable pain, but not as intense as one sees in biliary or ureteral colic. The pain was referred to the appendicular region and towards the umbilicus. Temperature 97.4; pulse, 85. No vomiting or nausea. The patient did not look sick for the amount of pain she was in, and I felt sure there was no hysteria. She is a robust, healthy looking young woman. The abdomen was normal, except for tenderness over the appendix region and for two inches around it. The right rectus was resistant, but there was no true rigidity. In a few hours the pain ceased, quite rapidly, and the patient felt as well as before the attack.

Examination of the vagina negative. No pain or undue tenderness in either ovary when pressed upon. Examination of the rectum was negative. An ocular examination of the urine, seen by a sample that was present and had been voided during the attack, showed it to be clear and apparently free from blood and pus.

Diagnosis. Appendicular colic. This was arrived at by a simple process of exclusion and by the severity and location of the pain. McBurney says we are apt to have a subnormal temperature with appendicular colic, and so we found it in this case.

Operation was advised, but in view of the rapid cessation of the pain and the absence of other symptoms, was not at the time accepted. It was decided upon, however, the next day; and on the day following, an appendectomy was performed. The appendix was about three inches long, and was without the slightest trace of past or present inflammatory remains. There was no angulation, nor a concretion in its lumen. The mucous membrance was normal, and, in other words, it was a perfectly normal, healthy appendix. This goes to show that colic can occur without inflammation of the mucous lining, and I hardly think that if it had been present it could vanish so completely in so short a time.

What caused the colic in this case it is hard to suggest. It is possible that a small coprolith had formed in the lumen of the organ, and the efforts of the muscular coats to expel it had caused the colic, and that when the stone fell into the cecum the pain rapidly ceased. It must be remembered, however, that the pain came suddenly and why a "stone," which must have been present in the organ for some time should cause this sudden attack of pain is somewhat hard to understand.

The possibility of a foreign body or particle of solid food-stuff entering the appendix from the cecum and setting up the painful condition is worthy of consideration. If this be true and the appendix had not succeeded in ridding itself of the intruder, then more than probably we would soon have been dealing with an acute attack of appendicitis.

It is now nearly a year since the operation, and while the dysmenorrhea continued there has been no recurrence of the attack in the right iliac region.

That attacks of appendicular colic, such as in this last case, are a great deal more common than is generally supposed, there is no doubt in my mind. And they are probably due to a temporary acute angulation, a coprolith, or to the entrance and rapid exit of particles of food-stuff from the large intestine. If the organ is sensitive enough to respond by colic instead of going on to an acute attack, it would seem as though it were a direct provision of nature.

As it is impossible to tell exactly what the state of the appendix is before operation, I deem it best to remove the organ in all cases where we are at least reasonably positive that it is involved.

ROUTINE EXAMINATION OF THE URINE FOR INDICAN.*

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THIS paper is intended merely as a suggestion to the busy practitioner.

In the examination of a large number of specimens of urine during the past year, I was struck with the frequency of a marked reaction in the routine test made for indican. The cases were of varied nature, but the larger part of them gastrointestinal.

It seemed to me regrettable that a condition so marked in such a large number of pathological urines was constantly passing unnoticed in the majority of instances because of the failure of physicians to make a simple, quick test. In all probability some of the important office tests of the urine now generally employed would be omitted as a routine, and often even only those made which the history, symptoms, and physical signs frankly indicated, did not their simplicity conduce to facility of investigation.

A urine may show no sign of renal trouble nor yet any marked indication of disordered metabolism, and yet be distinctly pathological. Quantitative estimations bearing on metabolic disturbances are, for the most part, impracticable for the office. Chemical tests for rarely occurring substances are often difficult and disappointing. The presence of increased indican is usually, however, both of sufficiently definite significance and of easy and prompt demonstration, adding but a minute or two to the time required for urinalysis.

Of the conjugate sulfates found in the urine, indoxyl and skatoxyl sulfates are of chief clinical importance. Though their amount is influenced by the character and quantity of the food, the formation of indol and skatol has been demonstrated to be directly dependent upon bacterial decomposition of proteids, whether or not previously modified by the action of the digestive ferments. These substances, to which, in association with hydrogen sulfid, the fæces owe their rank odor, are absorbed and subsequently oxidized (probably largely in the liver; may be also in the lungs and parenchyma of the kidneys) combine with sulfuric acid and, in a lesser degree, with glycuronic acid, and are normally excreted in small traces in the urine where they further combine with a base and occur chiefly as the protassium salts of sulfuric acid.

When, because of increased production or increased opportunity for absorption, or both, more of these bodies are taken up into the circulation, there will, provided of course, other conditions are equal and the kidneys remain competent, a proportionally large amount of their conjugate sulfates appear in the urine. Indol and skatol have been shown to owe their origin respectively to the atcion of specific bacteria. Practically there is never an excess of skatoxyl in the urine where there is not also an excess of indoxyl. Though rarely the former may be most pronounced, yet almost always the indoxyl is seen to predominate. So that, as a rule, we may say that indoxyl sulfate of potash, or indican, is a reliable index of the absorption of the products of intestinal putrifaction.

Among the conditions productive of indicanuria are:

I. Those where the stomach is primarily at fault:

(*a*) Through a decrease of hydrochloric acid secretion, as in gastritis.

(*b*) Through stasis of its contents more or less pronounced, resulting from impaired motility or pyloric stenosis, or like cause, though the hydrochloric acid remain normal or in some cases be even increased.

(*c*) Gastric ulcer.

(*d*) Malignancy, acting by one or more of the above factors, or through decomposition of the necrotic mass in advanced cases. (In certain cases of malignancy, a marked formation of lactic acid tends to retard putrifaction).

II. When, either primarily or secondarily, the intestine is at fault.

The proteid matter from which these aromatic compounds are derived is chiefly present in the small rather than the large intestine and therefore it is that in disturbances of the small intestine the larger amounts of indican are found in the urine. The excessive amount occurring in ileus constitutes a diagnostic point between stasis of the large and that of the small bowel.

In catarrh of the small intestines, even though the diarrha may be extreme, the excessive putrification often causes a notable indicanuria. The condition is said to be invariably present in asiatic cholera. In tubercular euteritis it is usually marked.

In peritonitis, whether traumatic or septic, indicanuria is present and varies with the amount and character of the involvement.

In typhoid fever it is a constant feature and may be of diagnostic aid. It is the rule, also, in jaundice; and intestinal intoxication may contribute considerably to the toxaemia of these conditions.

Again, as in the case of the stomach, malignancy of the intestine may caues large increase of indican.

But besides the indicanuria of gastrointestinal origin, must be mentioned that from the absorption of putrifactive products from septic abscesses and particularly from empyemas and pyonephroses. Owing to the occasional obscurity of this last named condition it may also here be of cumulative value in diagnosis.

When, then, the analysis of representative

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specimens has shown indican in excess, and all allowance has been made for the effect of ingesta, we know that, either we have to do with a septic process, or some disturbance of the alimentary tract demands our attention.

In acute conditions the demonstration of indican may be of considerable diagnostic import, as in a differentiation between obstruction of the large and small intestine, in the former of which there is a quick and great increase in indican, in the latter rarely such a large increase except in the later stages.

A variety of symptoms such as headache, rheumatoid pains, lassitude, mental dullness, nerve fatigue, may be directly due to an intestinal intoxication evidence of which is furnished by the indican test.

Indicanuria may be the only symptom which leads to the discovery of a chronic gastritis, achylia or malignant disease.

Increase or diminution of indican may be of value in the prognosis of peritoneal affections, particularly of periappendicular inflammation.

A persistent indicanuria may explain a profound anemia. It is notable that leukaemia commences with intestinal symptoms. Indicanuria was found to aid us in explaining a case of simple anemia with hemoglobin reduced to 30 per cent.; and a correction of it by diet, hygiene and eliminative measures restored the patient to comparative health though a valvular difficulty complicated the case.

The occurrence of indicanuria may be simply a warning of errors in diet, but is not therefore of less importance. In this connection be it admitted that the question of idiosyncrasy must be weighed, some persons exhibiting a considerable degree of indicanuria without marked symptoms. But the constant occurrence of indican in considerable quantity may be said to be pathological.

In cases of heightened blood pressure and sclerotic kidney, the condition of the gastrointestinal tract may have been first at fault. Albuminuria in these cases is often slight and at times absent and the quantity and specific gravity normal. The indicanuria may, however, be marked and, if detected early, lead to the proper treatment to check the sclerotic process.

Dr. Harris A. Houghton (*American Medicine,* Oct. 7, 1905,) reviews three interesting cases of interstitial nephritis in which the administration of intestinal antiseptics was of considerable value in reducing the blood pressure. He concludes: "When, in the course of nephritis characterized by high blood pressure, there is indican in the urine, treatment designed to lesson the amount of proteid putrifaction in the bowel will have a tendency to lower the blood pressure by preventing the absorption of substances which, although rapidly eliminated with a normal kidney are allowed to accumulate in the blood and other organs by reason of reduced kidney capacity."

The large class of neurasthenic, headachy patients, whose intestinal action is sluggish and in whom indicanuria, usually of a less marked degree, is more or less constantly present, are cases which demand every aid we can render to a weakened nervous system. In them, whatever be the starting point of their trouble (be it hereditary or otherwise), the toxemia of which the indicanuria is an indication completes a viscious circle which must be broken before there can be much improvement. I have in mind an illustrative case, one of persistent migraine of years standing, in which this was accomplished by simple means and without sedatives. The indican was the first clue to the situation.

The statement that simple constipation is not accompanied by indicanuria is not true. Indican is usually present in this class of cases, though in a less degree than in obstruction.

In an estimation of urinary indican the relation to the specific gravity must, of course, be considered. Out of 1,035 miscellaneous specimens with average specific gravity of 1020 (many of them 24-hour specimens) with which I had to do, a marked increase of indican was noted in 525 with average specific gravity of 1024.5, a slight increase in 255 with average specific gravity of 1021, while in 275 cases in which no indican or merely a normal amount was found, the average specific gravity was 1015¼. The seemingly high proportion of cases with large increase of indican is not real, as several specimens were usually examined from the patients presenting this condition. But though the indican was usually most marked in specimens of high specific gravity, it was interesting to see in different specimens from the same patient that, where the condition was ameliorated, a higher specific gravity would not bring back the indicanuria formerly noted with a lower one. Rarely a marked reaction was noted in urines with a specific gravity as low as 1008 or 1007.

Unfortunately, there is no quick way of estimating accurately the quantity of indican in the 24 hours. The qualitative tests are, however, easy, quick and reliable, and by using always the same quantities of the urine and of the reagents the degree of indicanuria may be watched with sufficient accuracy for careful clinical work, provided the examinations are made by the same observer or one who has worked with him.

The tests are based on the liberation of indoxyl by shaking the urine with a strong mineral acid (an equal volume of pure hydrochloric acid is usually employed), and further oxidation of the chromogen by some oxidizing agent such as chloride of lime, hydrogen peroxide or potassium permanganate till the color of indigo blue is produecd, this being next extracted with chloroform. Care must be used not to carry the oxidation too far and destroy the color. Sometimes the indican is chiefly evidenced by a red-

dish pigment, and in these cases it is well to further employ Rosenbach's indigo-red test.

Though the presence of a considerable amount of indican may be regarded as positive evidence of the absorption of the products of putrefaction from the alimentary tract (with the exception noted above), a negative reaction gives no assurance that this condition does not exist. The function of the liver in controlling the metabolism of these substances is little understood, and the relative competency of the kidneys must always be taken into account.

The toxicity of indol has been disputed; but, though experimentation has shown it to be somewhat toxic, it is to other substances of unknown nature but of higher toxicity, which are increased and absorbed with the indol under like conditions of production, that the various symptoms of indicanuria are chiefly due.

The psycnic influence upon the observer of a striking indican reaction may cause him to overestimate its sginificance, but when he has directed his attention carefully and persistently to the removal of the causative factors of the indicanuria, the results will, in the vast majority of cases, sufficiently demonstrate the rationality of his therapeusis.

THE CRIMINAL LUNATIC — HIS STATUS AND DISPOSITION.*

By ROBERT B. LAMB, M.D.,
MATTEAWAN, N. Y.

SOME TIME ago a representative of the German Government sent to this country a series of inquiries concerning our practice of dealing with the criminal insane. Among these questions was an inquiry for the comprehensive literature on the subject so far as the State of New York was concerned. This particular question, so far as I am aware, has not been treated in any single paper. It has been my effort to put practically the whole subject into condensed form for the use and information of medical men who may be appointed to various commissions in lunacy dealing with criminal cases. It is to be regretted that New York State, in common with most other states of the country, adheres to the old legal definition of insanity. The status of the criminal lunatic is therefore easily defined. Before the courts any man who is able to understand the nature and quality of the act and to distinguish between right and wrong is considered sane and responsible. If he is unable to distinguish between right and wrong and to understand the nature and quality of the act, he is insane and irresponsible in the eyes of the law. To show the possible evil in this system, I shall quote a single case wherein limited responsibility was more than probable. Last July it became my duty to examine, by direction of the Governor, a man under sentence of death. To be brief, the records of the court showed the man to have been drunk and irresponsible at 1 o'clock in the afternoon, and again drunk and irresponsible at between 3 and 3:30 o'clock on the same day. The courts make allowance for chronic alcoholism and treat it as an organic mental disease. But for acute alcoholism, which produces temporarily a mental alienation equally irresponsible, no legal allowance is made. The court found that the man above referred to was sane and responsible at the time of the murder and he was sentenced to death. Careful examination failed to show any signs whatever of insanity at the time of the examination, which was less than a month previous to the date fixed for his electrocution. My report to the Governor so stated and furthermore the opinion was offered that it was extremely doubtful whether a man could be drunk and irresponsible at 1 o'clock, drunk and irresponsible at 3 o'clock, and sane and responsible during the intervening two hours. On the strength of the report the man's sentence was commuted to imprisonment for life, which seems an equitable solution of the case.

It is known to you all that certain individuals present positive evidence of constitutional inferiority. The mental responsibility is diminished and always in question. If properly classified, they would be called mental defectives, rather than lunatics. As a class, they receive no legal consideration whatever. The present law takes no cognizance of any mental disease other than actual insanity, the imbecile, idiot and all defective classes being included under this one general heading. Despite these peculiarities, New York State goes further in her classification of the criminal insane than any other State or country in the world. Let us see how it is done.

Up to 1900 the criminal and convict insane were housed in a single building. Their characteristics are so radically different that efforts for separation were made during their detention under a single roof. The criminal class were kept on one side of the hospital, the convict class on the other. Naturally, when the one hospital became crowded beyond its capacity, provision was at once made for the permanent separation of the two classes. The criminal lunatics, those who had never gone to trial or who are convicted misdemeanants, are now received at Matteawan. The convicted lunatics, those who have been convicted of felonies and are serving sentences, are cared for at the Dannemora State Hospital. Commitments to Matteawan State Hospital are made:

First, by the court direct.

Second, by transfer from penitentiaries of misdemeanant lunatics.

Third, by transfer from civil hospitals.

The courts commit practically three classes of

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cases to the Matteawan State Hospital: First, those adjudged insane at the time of trial and who are found insane before the case is submitted to a jury. Second, those found insane by verdict of the jury and who are deemed dangerous to the public peace and safety. Third, those under sentence of death who are committed by the Governor direct, he having all powers of the courts for this particular purpose.

In addition to these classes committed by the courts, there are received at Matteawan all cases of insanity which appear in the county penitentiaries and who are under sentence for petty crimes and misdemeanors, the sentence for which is one year or less. If any patient be received in a State hospital for the civil insane, and it can be satisfactorily shown that criminal tendencies are present or that the man has ever been convicted of crime, he may be transferred to the Matteawan State Hospital upon order of the State Commission in Lunacy. Commitments to general State hospitals and of the misdemeanent class to Matteawan are made by a judge of a court of record on the certificate of two physicians qualified to examine in lunacy. Commitments to the Dannemora State Hospital are made upon the order of the warden or superintendent of the prison, penitentiary or reformatory, the prison physician having first certified to the insanity of the prisoner.

The Dannemora State Hospital receives all cases of insanity which arise in the various prisons and penitentiaries of the State and in which the sentence is for a felony and of more than one year's duration. At both Matteawan and Dannemora, the time served in the hospital counts exactly as if it had been served in the penal institution from which the man was received. At Matteawan the superintendent is legally authorized to detain prisoners whose sentences have expired until they recover or become safe. At Dannemora when a prisoner's sentence expires and he is still insane, the superintendent so certifies to a judge, who appoints two medical examiners to ascertain if this be true. On their report, the judge orders his detention, or not, as the mental condition of the prisoner warrants.

It is a common belief that the plea of insanity is often made as a shield for crime. I say to you that ten insane persons pass through the courts and are made convicts where one sane rascal successfully interposes the plea of insanity. During the year past only twenty-seven cases were committed to Matteawan direct from the court, and only in a single instance was there any question about the correctness of the commitment. As much cannot be said for the convicts received at the various prisons of the State, though it is a lamentable fact that little or no effort is made to correctly analyze the mental capacity of the convict. There is no clause in the present law which makes requisite for the prison physician any training whatever in the diagnosis of mental disease. In certain foreign countries this is a present requirement. The example appears worthy of emulation. It is my belief based on experience that lunatics constantly pass in and out of prisons without detection; or, if the detection is made, no asylum or hospital commitment follows so long as the prisoner causes no trouble to the prison authorities. A great number of commitments of the insane on the part of any one prison is regarded as evidence of bad administration. As a matter of fact, when the truth is known, it is evidence to the contrary. A good administrator studies his men as individuals and classifies them accordingly. If he finds lunatics, they are promptly separated from the prison population and placed in proper custody for treatment. The confined man, has, therefore, the same medical advantage that is given his free brother. Some states transfer their criminal insane to civil hospitals. Others care for them in a detached portion of the prison. But a civil hospital cannot properly be made a prison, neither can a prison satisfactorily be made a hospital for the housing of lunatics. It is on a medium ground that New York has solved the problem of caring for this class. She has constructed a hospital sufficiently secure to provide the strong custody requisite for the criminal lunatic. At the same time she has removed him from the rigid discipline of the prison which it is quite impossible for him to successfully meet. Dannemora State Hospital becomes, therefore, an adjunct to the prison. The Matteawan State Hospital serves in a like relation to the courts. Patients committed to the Matteawan State Hospital by a court may not be discharged except by order of the court, no matter what their mental condition is, be it recovered, improved or unimproved. The mental condition of the patient is the sole guide as to the time he shall stay. He is under no definite sentence whatever, but remains until, in the opinion of the court, he is mentally fit to assume the social relation. If he be recovered, the medical superintendent of the hospital so certifies to the court, whereupon the court and district attorney may place him on trial or otherwise proceed as circumstances dictate. The legal processes which lead to an actual determination of lunacy in criminal cases are far from satisfactory. When expert medical evidence is obtained by the court on its own initiative the results are good. A commission thus constituted has no grounds for bias. When expert evidence offered by the two sides in controversy is heard, only limited credence is given it. The medical expert involuntarily becomes partisan to the side which retains him.

Moreover, the average lay jury is not competent to sift and weigh the technical evidence offered by the experts. When in deliberation the jury in many cases disregard it in its entirety. It would appear far more satisfactory if when the plea of insanity as a defense for the criminal act is made, the court appoint a commission composed of experts who should be allowed suit-

able fees by the court itself. The evidence of these gentlemen should be final with the court and their report should be included as a part of the charge to the jury. In questions of law the presiding judge is supreme. In a question of medicine, competent medical authorities designated by law should hold equal power. As a matter of fact, a man may be made a criminal lunatic without any medical evidence whatever (Sec. 658, Penal Code). The law provides that if a defendant is under indictment, either before or after conviction (except under sentence of death), the court in which the indictment is pending may appoint a commission of not more than three disinterested persons to examine him and to report to the court as to his sanity at the time of the commission of his crime. This entire law (Sec. 658, Code Criminal Procedure) fails to designate the composition of the commission. It may be made up without a medical man on it if the court so elects. It is impossible to so make a civil lunatic, the certificate of two qualified examiners in lunacy being necessary. In capital cases the Governor of the State has all the powers and discretions of the courts. The present system which permits consideration of lunacy cases by lay juries proves in actual practice but little short of farcical. This is particularly true when lunatics in confinement in the various State hospitals are brought into court on writs of habeas corpus. The problem presented is how to make an untrained lay jury see with trained medical eyes. Very likely many of the jurymen have never seen a lunatic to know him. Yet they hold power and jurisdiction over men trained in the observance and analysis of symptoms of mental disease.

Few men of average intelligence would undertake to pass on a question of internal medicine, such as disease of the heart or lung. They would show the same hesitancy in passing on mental disease, were the privilege allowed them. But they are drawn on the jury and must serve. Finally, the responsibility is so minutely divided that the part that each man takes to himself is small. So, at the rate of one per month, they go on releasing men who have been declared dangerous to the public peace and safety. The single redeeming feature of it all is the marked display of real sympathy which the jury has for the lunatic and its wish to give him every opportunity. In many cases the sympathy is far from well placed and would more rightly be given to those who shall care for the patient when he comes from the hospital.

In summarizing briefly we find the following conclusions are not wholly unwarranted:

First, that the present legal definition of insanity does not include cases of diminished responsibility, be the condition inherited or acquired.

Second, that a study, classification and report on the mentality of convicts would be a valuable contribution.

Third, that the State makes liberal and adequate provision for the care of the criminal insane once their status is determined.

Fourth, that the methods of determining lunacy in such cases are not fair and convincing to either the medical profession or to the public.

Fifth, that the consideration of medical questions by juries of laymen is neither wise nor just to either the lunatic or society.

THE SURGERY OF FOREIGN BODIES IN THE RESPIRATORY TRACT.*

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FOREIGN bodies aspirated into the respiratory tract will always be an interesting and important chapter of emergency surgery as long as infants are permitted and adults voluntarily use their mouths as storehouses for an infinite variety of foreign bodies. To infants that aspirate toy elephants, beans, grains of corn, pencil caps, the wheels of dissected clocks, with other infantile objects for amusement, to maids that indulge in safety and hat pins, and corset hooks, and to adults that inspire false teeth, coins, nails, collar buttons, pieces of bone, oyster shells, leaches, and an innumerable variety of objects that should not naturally find the way to the mouth—the results are equally distressing, dangerous and often disastrous. Until very recently the mortality associated with the accident was very great, being from the collected statistics of Gross, Kuhn, Durham, Behrens and Weist, from fifteen to twenty-seven per cent. in operated cases and from twenty-three to fifty-one per cent, in non-operative cases. The diligent studies of Weist and Behrens, embracing an analysis of more than sixteen hundred cases, are very instructive as to detail but rather contradictory as to ultimate conclusion. Pohl, who has recently made a careful study of the subject of foreign bodies in the air passages after a critical study of all contemporary literature, notes very important progress in the ultimate results of treatment with a material reduction in the mortality. He states that the rate of mortality generally has decreased from thirty-six to fifteen per cent. during the last decennium, and that the mortality following tracheotomy and allied operations has decreased twenty per cent. during the same period.

This material improvement in our mortality may be attributed to the greatly increased skill of those who are especially interested in the field of respiratory surgery. To the discovery and universal employment of the Roentgen ray for diagnostic purposes, to the inventions of

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Kirstein, Killian and Pienazek in mechanism of the direct inspection of the larynx, trachea, and bronchi, and in the recent developments in the technique due to Sainbruch, Peterson, Tell, O'Dwyer and Matas, all of these discoveries have conspired to make diagnosis more certain and operative technique more simple, sure and successful.

A recent group of clinical cases has renewed the writer's general interest in the subject and lead to a study of his own case—fourteen operative and two non-operative ones—and a cursory review of the contemporaneous literature.

A very striking feature lies in the extreme size of the bodies aspirated. In one of the writer's cases the object was a hat pin fourteen centimetres long and having a glass head more than a centimetre in diameter. Artificial tooth plates having as many as four teeth have been aspirated, and pieces of bone two and a half centimetres long and nearly two centimetres wide have been repeatedly found in the trachea at operation. The great size of the bodies aspirated may, in the absence of trustworthy report, lead to serious errors in diagnosis under the notion that so large objects may not pass through the glottis or subsequently find adequate lodgment in the trachea and bronchii. Such an opinion lead, in the case of the long hat pin, to an erroneous diagnosis of lodgment in the esophagus, a thorough exploration of which only increased the obscurity in diagnosis.

The general impression, gained through a conservative estimate of contemporaneous literature, corresponds with the writer's clinical experience in that the normal plan of treatment of foreign bodies lodged in the deep trachea or bronchii is a preliminary inferior tracheotomy. If the body is mobile, a wide trachea incision held well open will soon lead to expulsion through the violent expirating efforts of coughing. If the body is fixed in the bronchus or the lower trachea, bronchoscopy, using a shorter tube, may be employed with far greater precision. Recent years have shown unusual improvement in all the electrical apparatus required by the surgeon. The primative and uncertain electro-magnet of a decade ago has given place to a highly efficient instrument of to-day. A very slight modification of a popular model of the ophthalmologist can be passed through the bronchoscope and employed in the removal of hat pins, tacks, wire nails, screws and, in brief, all objects of iron and steel. Such a device has been in use on several occasions and has been very successful.

With bodies fixed deeply within the bronchi failure to secure their removal at the primary stage occurs in about ten per cent. of the cases. Under such circumstances the edges of the trachial would be sewed to the skin, a large tube introduced and the operation ended.

FOREIGN BODIES IN THE UTERUS.

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IN recent years the number of cases of intrauterine foreign bodies recorded was not so very small, and it would appear like carrying water to the ocean to report new cases of this kind. Still the occurrence is, after all, relatively rare. Besides every case offers particular interest through the details of the accident and the gravity of the consequences.

The cases of foreign bodies in the uterus may be divided into three classes. In the first class belong those introduced into the uterus for the purpose of emptying the contents of conception either by the patient herself or by professional abortionists. In this class belong the majority of cases. Of Negebauer's[1] 74 cases of foreign bodies in the uterus 37 were introduced for criminal purposes. In the second class belong the cases where accidents have happened either to the physician during his treatment of patients, as in Brothers'[2] case, where the instrument broke during a curettage and the steel loop of the currette remained in the uterine cavity, or to the patient herself, as in Lambinon's[3] case, where the patient tried to introduce a tampon into the vagina by means of a hairpin for her leucorrhea. The hairpin was introduced too far, and she could not get it back. In the third class of cases the foreign body is introduced for onanistic purposes. Such cases are naturally very rare. As a rule the woman does not need to go as far as the os uteri to attain her purpose. The manipulations are practiced within the vestibulum. If an accident then happens to her and the foreign body slips out of her hand it enters into the urethra rather than into the uterus. Still such things do happen, as the history of a young girl shows where a silver needle was found in the uterus. M. D'Ennery,[4] who describes the case, says: "Elle avait été souvent agitée de ces secrètes et violentes émotions qui tourmentent les jeunes filles: et sou impatience l'avait forcée, pour se soulager de porter une aiguille d'argent dans les lieux de la sedition." Later on D'Ennery continues: "L'avidité échauffée par les plaisirs, attira l'aiguille si avant qu' elle s'arrête par le milieu de l'orifice intérieur de la matrice d'où il fut impossible à cette fille de l'en arracher." This is the history of a case which happened in 1680. That such queer things do also happen nowadays shows the following case:

Miss A. B., 19 years old, was operated on by me April 16, 1905. Her history reads as follows: The patient took sick four months previously with great abdominal pains. The case was diagnosed as appendicitis, and she was operated upon outside of the city of New York. The appendix was removed and she was somewhat relieved of her pains. Two months after this operation the patient began again to complain of severe abdominal pains. She then came to New York City to con-

sult Dr. H. B. Sheffield, who called me in to see the patient in consultation. On acount of her youth and virginal state I avoided the vaginal way to determine the cause of her trouble. The examination per rectum revealed a retroflexio of a somewhat enlarged and flabby uterus. The ovaries and tubes were very sensitive. My diagnosis was endometritis of a retroflected uterus, and I recommended the curettage of the uterus.

The next day the patient was put under an anæsthetic to be operated upon. I then made for the first time the vaginal examination and found the arm of a hairpin sticking out of the os of the cervix. The blunt end reached upwards as far as the internal os. Of the two arms the shorter was imbedded within the tissue of the anterior wall of the cervix, while the longer arm was lying within the cervical canal, the point extending outside of the external os. There was no difficulty in recognizing the presence of a foreign body, but the removal of the broken piece of pin, four centimetres long, could not be acomplished without some difficulty, the point of the shorter arm being tightly fixed into the uterine tissue. After the removal of the pin the uterus was curetted and the patient brought back to bed. From this moment the pains have entirely disappeared. Dr. Sheffield informed me that two months later he himself extracted a part of an ordinary pin from under the skin in the right epigastrium.

The latter fact shows that this hysterical girl was used to play with all kinds of pins. But there is no doubt in my mind that the hairpin was introduced into the cervix for the purposes of masturbation, and while trying to extract the pin, which she had bent at one end to give her a long arm to reach the os, this arm broke at the original bending and the blunt end remained four months within the uterus.

This case is very interesting from the aetiological point of view. In another place[5] I mentioned a case where I was called to remove a carrot from the vagina, which a young woman had used to obtain erotic gratification. Morestin[6] mentions a case where the husband himself has pushed a hairpin in his wife's uterus to excite her libidio. Such cases do, therefore, happen, and it is incumbent upon the practitioner of medicine to think of them when called to cases of obscure abdominal pains in young girls.

My second case belongs to the first class where the foreign body, a bougie, 22 centimetres long and of a diameter of 5 millimetres, was introduced into the uterus to induce an abortion:

Mrs. G., 25 years of age, is married for the last three years, and has a baby 17 months old. The patient began to menstruate when 19 years old and was always irregular. She had her last menstruation on the 8th of December, 1905. On the 21st of February, 1906, about ten weeks after her last menstruation, believing herself pregnant, the patient introduced a bougie into the uterus to produce an abortion. The bougie slipped and she saw no more of it. Three days later she came to see Dr. M. Jackson. When the doctor asked her for her complaint her answer was like that of Lewer's patient, "a bougie in her womb." The doctor examined her and thought he felt a bougie within the uterus and sent the patient to the hospital.

I saw the patient for the first time in the afternon of February 24, 1906. The temperature was 100 degrees F. The pulse 110 beats to the minute. The abdomen was somewhat tympanitic and very sensitive. She was complaining of great pain in the entire abdomen. There was only a slight blood-stained discharge from the cervix. The patient was not quite sure that the bougie had not come out without her knowledge.

The abdominal sensitiveness did not admit the combined examination and the patient had to be chloroformed for that purpose. The uterus was then found to be of normal size and somewhat antiflected. Both ovaries were somewhat enlarged. At the posterior wall of the uterus at the level of the internal os I could make out a conical mass with the base of the size of a hen's egg in the back of the uterus, the top extending towards the umbilicus. Nothing could be felt suggesting the presence of a bougie either in the vagina or in the uterus. I was, therefore, not sure whether the patient had not made a mistake, for the bougie may have dropped out of the vagina without her knowledge. I left, therefore, the diagnosis in doubt between an ectopic gestation and an inflammatory mass around the bougie. I could not operate upon the patient the same day, the husband not having as yet given his consent. In the night from Saturday to Sunday the pulse became so weak that strychnin had to be administered. The next day, Sunday, the 25th of February, the patient was first curetted and some mucous membrane was removed. No traces of any previous pregnancy could be discovered. When I went in with the uterine catheter to wash out the uterus and turned the catheter to the right it went in about 15 centimetres deep. The diagnosis perforation of the uterus was now assured. The patient was, therefore, placed into the Trendelenburg position and a laparotomy performed. The mass in the back of the uterus was found to be the inflamed omentum, surounding the open end of the bougie which was lying in front of the proximal edge of the right kidney, the closed end vertically directed towards the stomach. The bougie was now extracted with considerable difficulty and the uterus brought out of the abdominal wound for inspection.

The perforation was found to be in the fundus about one and a half centimetres from the right tubo-uterine ostium, the diameter of the perforation being about five millimetres, about the same as that of the bougie. The edges of the wound were somewhat bluish. The perforation was now closed with Claudius catgut, the Douglas packed with iodoform gauze, drained through the posterior fornix of the vagina and the abdomen closed. The patient left the hospital three weeks later entirely cured.

The inflamed indurated mass surrounding the bougie shows that the same had been within the abdomen several days previous to my first examination. The bougie having passed completely out of reach, its position within the abdomen made the correct diagnosis entirely impossible. Even the skiagraph does not always give a positive result, as in the case of Lewers, who discovered a hairpin in the uterus by means of the X-rays. For in Lockhart's[8] case of a crochet needle in the uterus, at the examination a linear mass was made out, yet the skiagraph gave a negative result. In this case the needle was found in front of the left kidney, half imbedded in the wall of the intestine. In such cases the correct diagnosis, as Neugebauer justly remarks, is impossible without a laparotomy. Even such a diagnostician as Freund[9] has made the diagnosis "probable ectopic gestation" in his case of a piece of hairpin in the uterus. The inflammatory pseudo-tumors, developed around the foreign bodies, may simulate almost every kind of genital disturbance, but in the majority of cases the foreign body is introduced to induce an abortion, hence the symptoms of a preceded pregnancy will be present. Therefore, the examiner, feeling the

mass produced by the prolonged impaction of the foreign body, will naturally think first of an ectopic gestation.

In our first case the pin remained four months within the uterus, yet the inflammation it caused was very slight. This gives us a good lesson of the tolerance of the female generative organs. In Howk's[10] case the retained catheter remained three years. In Knoop's[11] case the hairpin remained six years within the uterus.

All these facts seem to me to be of quite sufficient interest for the general practitioner. Although he will rarely meet with foreign bodies in the uterus, still it will be of some use even for him to be familiar with this question.

BIBLIOGRAPHY.

[1]Neugebauer: *Révue de Gynécologie et de Chirurgie Abdomin.* Vol. II, 1898, p. 983.
[2]Brothers: *Amer. Jour. of Obst.*, New York, 1903, p. 835.
[3]Lambinon: *Journal d'accouchements Liège*, 1903, p. 405.
[4]D'Ennery: *Jour. de médecine de Paris*, 1905, p. 3.
[5]Talmey: "Woman," New York, 1906.
[6]Morestin: *Bulletin de la société anatomique de Paris*, 1893.
[7]Lewers: *Brit. Med. Jour.*, 1903, p. 814.
[8]Lockhart: *Montreal Med. Jour.*, 1904, p. 160.
[9]Freund: *Centralbl. f. Gynaecologie*, 1887, p. 817.
[10]Howk: *Detroit Med. Jour.*, 1903-4, p. 188.
[11]Knoop: *Centralbl. f. Gynaec.*, 1905, p. 585.

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CYST OF THE MESENTERY.*

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CYSTS of the mesentery are so very rare that the report of the following case at this time may not be out of place.

To Dr. Neuman, by whom the patient was referred to me, I am indebted for the clinical notes and history of the case.

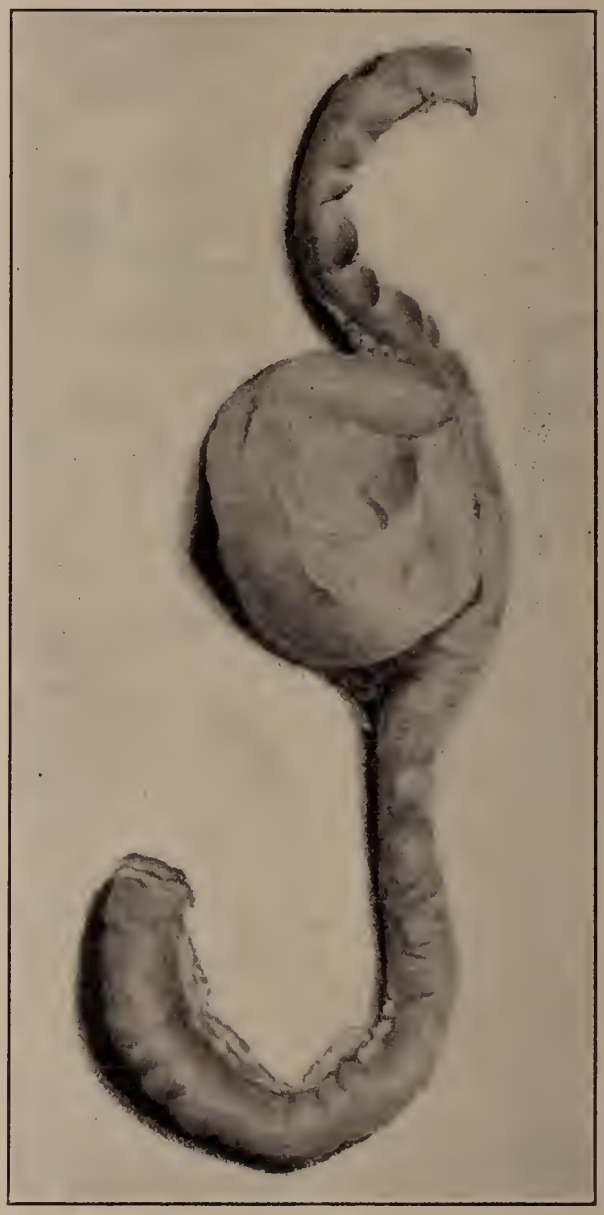
S. A., aged 30, born in Italy, single, laborer, complains of pain in the head and epigastrium.

Family History: Father died of tuberculosis; otherwise negative.

Past History: Had mumps; four years ago had malaria in South Carolina, but before that in Italy; no history of injury; denies any venereal history; has never been operated upon; had "ground itch" while in the South.

Present Illness: After his severe attack of malaria, patient noticed a tumor on the left side just beneath the ribs. This tumor was movable on deep inspiration. At present time patient complains of pain in the epigastrium and the left lumbar region, also in the head. After eating, patient usually has great distress, lasting about one hour; is better at times. Appetite poor; food not relished; bowels constipated; urine scalds him occasionally; has lost strength.

Physical Examination: Patient is up and about. Well built and developed. Expression intelligent. Skin and mucous membranes dark. Pupils are midwide, react to light and accommodation. Tongue protrudes in the median line and is slightly coated. Pulse is regular, full and of good tension. Thorax is symmetrical; expansion good. Resonance is good; vocal fremitus is normal. Heart area extends from the midsternum to the nipple, and begins above at the upper portion of the third rib, and is continuous, with the liver dullness below. Heart sounds are loud; second sound accentuated; no thrill present. Liver dullness extends from the upper portion of the sixth rib to the free border; margin is not palpable. Abdomen is flat and soft, except in the left hypochondriac region a tumor can be palpated. Percussion under tympanitic splenic area extends from the



CHYLE CYST OF THE MESENTERY.

ninth to the twelfth rib; margin is palpable. On deep inspiration the upper margin may be felt. Rectal and genital examination, negative. Blood examination: hemoglobin, 85 per cent.; leucocytes, 11,577; red blood cells, 5,030,000. Differential count: leucocytes (poly), 83 per cent.; mononuclear, 14 per cent.; eosinophyls, 3 per cent. Malarial crescents present. (Stomach was empty one hour after test breakfast.)

Patient entered the hospital January 31, 1906, and after a thorough treatment with a saturated solution of potassium iodide and tincture of nux vomica, with little or no benefit, he was referred to me with the diagnosis

*Read before the Medical Society of the State of New York, January 30, 1907.

of either movable spleen or possibly floating kidney on the left side. The mass on the left side, while it could not be easily palpated, could be easily pushed back under the border of the ribs, and gave all the evidences of a floating spleen. The patient entered my service on April 17th, and the operation was performed on April 23d.

Operation: An incision six inches long in the left semi-lunaris was made. Upon opening the peritoneal cavity a cyst the size of a large orange, situated in the left hypochondriac region, was lifted through the incision. The cyst was situated in the mesentery of the small intestine, partially closed the lumen of the intestine and extended almost to its attachment posteriorly. The spleen was found to be normal and in its right place, the left kidney being also apparently normal. The patient being in good condition, a resection of the small intestine was decided upon, in preference to bringing the cyst up into the wound and draining it of its contents. Intestinal clamps were placed on each side of the cyst, far enough away from it so that when the intestine was resected there would be enough blood supplied to the remaining healthy intestine, and thus not cause necrosis. The distance between the clamps was approximately twenty inches. A V-shaped portion of the mesentery, which included the cyst and the intestine, was now removed. There was considerable hemorrhage from the mesentery, but it was easily controlled. The ends of the healthy intestine were brought together and united by No. 1 silk Lembert sutures. The divided edges of the mesentery were next approximated with No. 2 silk and the abdomen closed with silkworm-gut sutures, without drainage.

Upon leaving the operating table the patient's temperature was 99.8 degrees, and pulse 104. During the night his temperature dropped to 97.8 degrees and pulse went up to 140. He was given a stimulating enema, consisting of whiskey, one ounce; liquid peptonoids, one ounce; saline, four ounces; every four hours, per rectum. On the afternoon of the second day after the operation his temperature was 101.4 degrees, pulse 130, the highest the temperature reached at any time, and practically the same for the pulse. His bowels moved on the third day, and moved daily thereafter. The patient made a slow and uneventful recovery, with only one complication, that of some suppuration of the wound. He left the hospital on the 30th of June, not quite ten weeks after the operation, fully recovered in health. He even secured a position as helper in the hospital.

I have seen him several times since, and he complains of no trouble whatsoever .

As near as I can judge, the cyst of the small intestine was situated in the ilium very near its junction with the jejunum.

Pathological report was that of cyst of the mysentery, with resected intestine. Because of the beauty of the specimen the contents of the cyst were not examined, it being desired to retain the cyst as nearly as possible in the same condition as when it was removed.

There have been several discussions on the causes of mesenteric cysts, but even to the present time the etiology is somewhat obscure. In the *Annals of Surgery* for October, 1900, Dr. Charles N. Dowd, of New York, has an exhaustive article on the subject of Mesenteric Cyst, and one which covers the ground so thoroughly that I do not think it would be profitable to elaborate this paper much further. He gives Moynihan's classification of the mesenteric cyst, as follows:

(1) Serous cysts, (2) Chyle cysts, (3) Hydatid cysts, (4) Blood cysts, (5) Dermoid cysts, (6) Cystic malignant disease.

The cyst which I removed appeared to be an example of the second classification, or chyle cyst, the most common of the variety.

In regard to treatment, two methods have been proposed: the one of bringing the cyst up into the wound and draining it, causing a sinus to form, which in time closes up; the other being excision of the cyst, together with whatever adherent intestine may be necessary. In earlier times the first method seemed to be that of election, because more particularly of the less tendency to shock to the patient and the meagre means of combating that, and of the great risk of peritonitis, when the cyst was removed, the idea being to get in and get out as soon as possible. Of late years removal of the cyst has been more generally adopted.

In my opinion the latter method is the ideal treatment, because at the present time we run very little chance of infecting the patient and our means of combating the shock are numerous. We thus do away with the discharging sinus which may last for months or years, and often may never heal. The chances also of complications, such as adhesions forming, causing obstruction of the bowels, etc., are numerous in the first method.

The matter of a differential diagnosis is a very difficult one. Most of the cases, like mine, have been diagnosed at the operation, the operation having been advised for movable spleen, floating kidney, ovarian cyst, etc.

The number of cases occurring at the Albany Hospital has been very few. In the *Albany Medical Annals* for January, 1904, Dr. Traver, of the Hospital Staff, reports a case of a child six years old, which was brought to him, complaining of pain in the stomach, and upon whom he made a diagnosis of mesenteric cyst, and advised operation. The parents, however, refused, and he lost track of the case for six months. The patient at the end of that time was again brought to him, complaining of severe pain in the abdomen in the same region as before, and at this time an operation was advised and accepted, when a cyst of the mesentery about the size of an orange was discovered. This and one or two other cases are the only ones so far that I know of that appear in the records of the Albany Hospital.

The problems of the social evil which is the great hotbed of these vile diseases we must pass over, with the expression of our conviction that the dismal failure of reglementation everywhere, in limiting venereal diseases, lies in the simple fact that the chief offender, the male purveyor of venereal diseases, is completely ignored in the reckoning, and is allowed perfect freedom to scatter his private pestilence wherever he chooses.

The duty of the physician seems plain in this matter. He should work, in season and out of season, in private office and in public function, in medical societies and in law-making bodies, until aroused and intelligent public sentiment enacts measures to restrict and to suppress the contagious perils of venery. Only when we have accomplished this can we count on a reasonable guarantee of safety for women in the marriage contract.—Dr. Albert H. Burr.

HISTORY OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK.

By JAMES J. WALSH, M.D., Ph.D.,
NEW YORK.

(*Continued.*)

PART III.

CHAPTER I.

SEMI-CENTENNIAL OF THE SOCIETY.

The only formal celebration of the fiftieth anniversary of the foundation of the State Medical Society seems to have been the semi-centennial address delivered by Dr. Alden March, the President of the Society, in the capitol at Albany, February 4, 1857. Dr. March reviewed the progress of science and industry during the preceding half century and called attention to the fact that medicine had kept pace with the rest of progress in the arts and sciences. Because of the occasion of its delivery, this address has seemed worth while presenting in rather lengthy abstracts. There are included in Dr. March's address, lists of the original charter members and the presidents of the Society up to his time, which more properly find their place in other parts of the present volume, and consequently have been omitted here. Dr. March's address has an additional interest on account of a certain naievete of expression and an enthusiastic recognition of advances in the arts and in industrial applications that we are much more apt to think of as a characteristic of the latter half of the nineteenth century rather than the middle of it.

As a matter of fact, however, there are so many things in his laudatory review of the accomplishments of the preceding half century, that would occur to us of the twentieth century as probably much more near to us than the date he assigns to them, that the reader is sure to be impressed by the rapid progress made by the American people at a time when we are inclined to think of them as rather backward. Dr. Marsh's address contains an immense amount of precious knowledge, condensed into a very short space, and really serves to give a very vivid picture of the times he wished to recall. This is true not only with regard to medicine, but with regard to practically all the arts and sciences and even agriculture.

It is extremely interesting to find that a half century ago the president of the State Medical Society of New York considered that pathological chemistry should be studied much more than had been hitherto the custom. At the present time this is still, and since the beginning of the twentieth century even more insistently, the advice of those of largest experience in medicine. In 1857, Dr. March expected that the explanation of the cause of disease would be found in various chemical changes in the fluids of the body. The study of diseased tissues had meant so much for medicine that at least as much more advance might be expected from the detailed investigation of the changes in the fluids of the body, and he pointed to the then comparatively recent work of Dr. Bright as a proof of this. At that time there was as yet no hint of the development that bacteriology was to take, a development that was to have as one of its principal results the diversion of attention from pathological chemistry to that of the minute organisms directly causative of disease.

Those who are interested in vital statistics will find an extremely informing review of certain phases of the death-rate and of the average length of life in the large cities of the civilized world that may not readily be encountered in such short space elsewhere. Dr. March notes that, during the half century of the existence of the Medical Society of the State of New York, the length of life had been increased very materially. At the beginning of the twentieth century at least one-half the population of the large cities of the world perished before the age of eighteen years. At the time of the celebration of the semi-centennial one-half the population reached the age of nearly 44 years.

ABSTRACT OF THE SEMI-CENTENNIAL ADDRESS, DELIVERED BEFORE THE MEDICAL SOCIETY OF THE STATE OF NEW YORK AND MEMBERS OF THE LEGISLATURE, IN THE CAPITOL AT ALBANY, FEBRUARY 4, 1857, BY ALDEN MARCH, M.D., PRESIDENT OF THE SOCIETY.

The poet speaks of the wheels of time—the philosopher of the irresistible march of time—and the good old patient and afflicted man of God compared the course of time of the "days of his years" to the rapid flight of the eagle, as he cleaves the vault of heaven in seeking his prey; or to the lightning speed of the weaver's shuttle, as it flits across the eye's field of vision.

Swift and irresistible as is the course of time, nevertheless, by the ingenuity of man, it has been measured and divided into periods.

The steady and unvarying tick—tick—of yonder clock marks its smaller divisions. A certain number of these ticks make a second—a minute—an hour—a day—a week—a month—a year! And when we come to increase the last division by fifty—half a century! we arrive at a period which indicates the semi-centennial anniversary of the Medical Society of the State of New York—an event which we are now convened to celebrate.

In youth we are full of ambition and look to the developments of riper years to crown the joys of our highest aspirations. The prospective is the most prominent.

In manhood we begin to feel our strength, both physically and intellectually. At an advanced period of life we are more prone to dwell on the retrospective.

As a Society we have passed the season of youth, and have accomplished half of the journey of a centennial existence. We have arrived at a stage of life and at a position where it may be proper for us to look in both directions—backwards and forwards.

It is enough to show that the whole face of the civilized physical world is stamped with progress; and that her motto is "Onward."

And has there been no corresponding advancement in the art and science of medicine during the last fifty years? To aid in the solution of this question, let us refer to the origin and progress of our Society; to the power it has exerted in extending new discoveries; and to the social and happy influence its annual gatherings disseminate among its members.

To say that medical knowledge has increased in the

same proportion as that of other arts and sciences would not be sufficient. We should most likely be called on to particularize; and to show wherein the greatest achievements have been accomplished during the past half a century.

In pursuing our enquiry we shall, from necessity—for want of time and the necessary ability to do the subject justice, pass by the consideration of the accessory or collateral branches, and proceed to refer at once to the practical, the demonstrative part of our subject.

It is only within the last half century that pathological anatomy has attained to anything like a high position in the education of a good physician or surgeon. For a long time the discoveries in pathological anatomy were unfolded only by use of the scalpel. Quite recently the solids and fluids of the body, both in health and disease, have been examined with the aid of the microscope in a way that has thrown new light on a great many points heretofore shrouded in darkness. Pathological chemistry, or that science by which the chances of the elementary principles, or constituents of the organism may be detected, should be more thoroughly cultivated by medical chemists.

The secretions of the kidneys and urinary calculi may be analyzed by a chemical process with so much accuracy as to decide the proportions of alkalies, of acids, of earths and of the animal matter each specimen may contain; as the somewhat recent investigations of Dr. Bright will show.

Prof. Simpson says, "If we knew the pathological chemistry of the blood and fluids, as well as we do the pathological anatomy of the solids of the body—a knowledge, I repeat, that is to be longed for, but which has been only yet most slightly acquired—then in medicine, both as a science and an art, would probably make a forward march of the greatest moment."

If the fluids which enter into the formation of animal existence are in the proportion of ten to one of the solidity, as it is alleged by physiologists, is it not reasonable that we should look for still further developments of the nature of disease by a thorough chemical analysis of the fluids? It has been suggested whether some peculiar form of toxemia or blood poisoning may not produce specific inflammations of the skin, as smallpox, scarletina, measles, erysipelas, phlebitis and inflammation of puerperal fever. If we compare the extent and the variety of use of the means of physical diagnosis of the present day with those of half a century ago, we shall find that great advances have been made in this important branch of our science. Of late years the special senses have been educated and trained to detect the most minute distinctions in color, in form and in density, of morbid structures. By the eye, the ear and the fingers, often the signs of diseased parts may be as clearly indicated as by the scalpel of the dissector after death.

Fifty years ago, who ever heard of the physician or surgeon making use of the stethoscope, or of his applying his ear to the chest of his patient to ascertain the physical condition of his lungs, or the heart's action? The terms "ausculation" and "percussion," as applied to physical diagnosis, were altogether unknown.

Similar means have been employed to detect the existence of diseases in other cavities and organs. If precision and accuracy in detecting the physical signs of disease stamp the present as a new era in physical diagnosis, our means of successfully treating diseases have been enlarged and improved in a corresponding degree.

The exploring needle, which is a modern invention, is used by the surgeon to ascertain the character of the structure of a tumor, or the contents of a cyst or sac. Quite recently there has been invented the instrument called Opthalmoscope, by which the diseases of the deep tissues of the eye may be examined with ease and accuracy. In June last I found this instrument extensively used by the opthalmic surgeons of Vienna and Berlin; and at that time I thought it was hardly known to the profession in America. But in the *Boston Medical and Surgical Journal,* of the 28th of June, I found the instrument described and its use explained by our countryman, John H. Dix, M.D., of Boston. This will not only serve to show that we are constantly making new discoveries and improvements in our profession, but also the rapidity with which they are hurried across the Atlantic or pass from continent to continent.

In the domains of materia medica some most remarkable advances have been made within the last few years. New medical agents have been added to our list of remedies: such as iodine, with its various compounds —hydrocyanic acid, gallic acid, cod liver oil, etc.—whilst by a chemical process many of the old vegetable and bulky articles that were in use have been converted into alkaloids or the alkalies extracted from them in which all their medical potency resides.

Obstetrics and the diseases peculiar to females are now far better understood and managed than formerly. Although surgery at the commencement of the past century was in advance of some other departments of medicine, yet we observe a marked change within the last twenty-five or thirty years.

To point out the contract between the present and former practice of surgery, we need not go back to the days of barber practice, as was exhibited in the operative art of our profession. Now medical surgery is studied as a science, and with the unbounded resources of an enlarged and improved materia medica, diseases and lesions that were once deemed incurable, are now medicated successfully. In the treatment of wounds, hemorrhage, inflammation and ulcers, there is great improvement.

It is but a few years since the subject of tenotomy was introduced as a means of correcting deformity. Twenty years ago club feet and crooked eyes were to be met with at almost any turn in our streets. Now, especially in young persons, scarcely any such deformity is to be seen. The success of the operation for dividing tendons and muscles, and subsequent mechanical treatment to correct deformities and malpositions of the extremities, may be calculated on with great certainty, among infants and young children. The great variety of plastic operations for removing other kinds of deformities are of modern invention and work wonders when nicely executed. Less than fifty years since, in almost all cases of compound dislocation of a large joint, the practice was to resort to amputation. Now but few primary amputations take place in compound dislocations. Before the day of Sir Benj. Brodie and the improved treatment of diseases of the joints for saving the life of the patient under such grave affections, amputation was deemed indispensable. Now we remove decayed bone, excise joints and save limbs of far more utility and comfort than the best Palmer's artificial leg ever manufactured.

By a limited explanation of the subject, we shall see that practical medicine, within the last fifty or sixty years, has advanced in the same proportion as surgery. This has been chiefly brought about by a more accurate knowledge of pathology, of diagnosis and of the nature and powers of many new remedies. The resources of nature have been more thoroughly studied, and the observant physician knows better when to proffer his services to aid nature, and when to withhold the interference of art.

The improvements in the healing art that may be regarded of recent date are not to be considered as solely dependent on a more accurate pathological knowledge, and a more extended acquaintance with materia medica; but we now entertain more correct views of prophylactic and hygienic measures. Air and exercise, food and raiment, pure water and cleanliness, are as important to health and contribute as much to the longevity of our species, as the best medicines when judiciously employed. The following statement will serve to illustrate these facts:

"Formerly, towards the middle of the last century, fifty or sixty out of every hundred children born in London, died before they had reached their fifth year of age; but the mortality has gradually and steadily diminished, so that now not above thirty-five in every hundred die at that early period."

At the present time there are more than 600,000 children born annually in Great Britain. According to the above scale of mortality, more than 300,000 of these would have perished formerly before they were five years of age; now only about 200,000 die during the first five years of life, thus showing a saving of human life in this item alone in the population of the British Isles, to the extent of 100,000 a year.

By reference to the tables of Vital Statistics we farther learn that "in the latter part of the 16th century one-half of all who were born died under five years of age; the average longevity of the whole population was but eighteen years. In the seventeenth century one-half of the population died under 12 years of age. But in the first 60 years of the eighteenth century one-half of the population lived over 27 years. In the latter 40 years one-half exceeded 34 years of age. At the beginning of the present century one-half exceeded 40 years of age, and from 1838 to 1845 one-half exceeded 43 years. The average longevity of these successive periods has been increased from 18 years in the sixteenth century up to 43 7-10 by the last reports."

There are certain classes of moral as well as physical defects and derangements that have of late years, and I am quite certain within the last half century, at least, attracted the attention of the humane physician. And I think we may say with confidence and pride that no class of men, professional or otherwise, have done more to ameliorate the moral and physical condition of the unfortunate, the poor and the degraded and to aid the cause of religion than our profession.

Fifty years ago, where were our medical and surgical hospitals, our houses of correction for juvenile delinquents, our insane hospitals, our asylums for the deaf and dumb, our retreat for the idiot, and, as is now contemplated, a refuge for the poor, besotted inebriate? My sensitive and sympathizing audience hardly needs to be excited with the recital of the dark picture of the condition of the unfortunate and unhappy maniac previous to the commencement of the present century. Then his habitation was either a dark, narrow cell, or a cage; he was secured by a straight-jacket or manacled and chained with as much unfeeling severity as a galley slave; his treatment was starvation and filth, stripes and bruises, scorn and hatred. Now the body and mind are cared for and scientifically treated. All these benevolent and praiseworthy institutions are under the superintendence of kind-hearted physicians.

Let us next devote a few minutes to the consideration of the agencies that have been employed during the last half century in enlarging the field of medical knowledge.

At the present time colleges and schools devoted to medical instruction, and hospitals managed by physicians and surgeons, afford the chief means of educating young men in the practice of physic and surgery.

In 1807 there were not half a dozen medical schools in the United States; nor scarcely a greater number of hospitals. Now there are about forty medical colleges or associations where medicine and surgery are taught, and it is probable that there are twice that number of hospitals scattered through the cities and towns of the United States.

The names and dates of the organization of the five oldest medical institutions in this country are the following: The Medical Department of the University of Pennsylvania was established in 1765. The College of Physicians and Surgeons of the City of New York was instituted in 1768, in connection with Columbia College, and in 1807 obtained an independent charter. The Medical School of Boston, Mass., now the Medical Department of Harvard University, was organized in 1782. The Medical Department of Dartmouth College in 1798; and the University of Maryland, Baltimore, in 1807.

When our medical colleges or schools were limited to five, and the hospitals of this country but a little more numerous; when the whole apparatus, chemicals, and chemical tests of the chemist's laboratory could be almost packed in a bushel; when the anatomical museum of the college consisted of two or three smoky skeletons, a handful of disjointed bones and a few injected preparations; and when a pathological cabinet was not known in the country; it requires no very great stretch of the imagination to draw the contrast between the advantage of 1807 and those of 1857, for obtaining a thorough practical medical education.

We are now prepared to ask the question: What agency do medical societies exert in advancing and improving medical science? If the act to incorporate medical societies had been made to read, "for the purpose of extending and improving medical science," instead of simply "for the purpose of regulating the practice of physic and surgery," it would have been more in conformity to the spirit and practical working of our Society as it is now organized.

In addressing the Medico-Chirurgical Society of Edinburgh on the modern advancement of physic, Prof. Simpson says: "I believe that at the present time there exists but one opinion in relation to the fact that the study of medicine, like the study of other departments of practical science and art, has been vastly promoted by associations like our own."

Professor Wood, late president of the American Medical Association, in his address before that body, in speaking of the tendency of that profession to become indolent, careless and mercenary, in protecting the best interests of the profession, says: "The medical mind, anterior to the birth of this association, was in a state of comparative inertia. In all the departments and of the profession, the educational as well as the practical, material interests began to preponderate. The great struggle seems to be in the teaching department to gather pupils; in the practical to gather patients; in both, to swell the pockets. No wonder that quackery, boomed upwards as regular medicine, began to sink." He adds: "But the Association arose, and a new spirit was awakened. Many had been watching this apparent abasement of the profession with sorrow, but they were powerless in their isolation. No sooner had the flag of the Association been given to the breeze than they hastened to join its standard. From all quarters and from the remotests bounds of the country volunteers poured in to join this great crusade against the evils which had been usurping the sacred places of the profession. The mass of medical society was moved to its very depth. Hundreds upon hundreds came forth from their sheltering privacy and threw their souls into the grand movement which was to conquer, to purify and regenerate the prostrated glory of their calling. The feeble voice of opposition was heard for a moment, but it was soon drowned in the overwhelming shouts of the masses crying, "Onward! Onward!"

Those who felt but little confidence in the anticipated good that was to arise from the organization of the American Medical Association, either to the public or to the profession, must acknowledge that a new impulse has been given to the science of medicine in this country since it was founded. And the glory of starting the ball is due to the State of New York—to this Society; and almost entirely to the untired exertions of Prof. N. S. Davis, now of Chicago, in the call of a convention, suggested by the writer, out of which the Association grew. It appears on record that Dr. Hays, of Philadelphia, first suggested the idea of instituting a "National Medical Association"; and that the honor of submitting the plan for the permanent organization of the American Medical Association is due to John Watson, M.D., of New York, Chairman of the Committee of Organization.

Well may we be proud not only of our own Society and its achievements in literature and science, but also of the agency it has had in promoting the national prosperity of our noble profession. Let us, then, continue to act honestly and faithfully in the discharge of our professional duties to each other, and to the public, even if our motives should be impugned or fail to be properly appreciated. We may meet with discouragement, neglect and insult, but let us not weary in well doing.

The storms and tempests of quackery may assault the

citadel of the science of medicine and surgery. The good, old and well-tried "Regular," commanded by officers and recruits of the orthodox profession of medicine, may be tossed and veered about by the popular "isms" of the day—nay, she may occasionally lose a spar, or receive a breach of continuity in some of her light cordage, yet her mainmast stands erect without fracture of her beams, without dislocation of her helm, and with a hull as sound and as safe as on the day she was launched. She still floats on the sea of "Confidence," and even though she may now and then be threatened with a mutiny among some of her undisciplined recruits, yet we find the captain in command, the pilot at his post, the helmsman on duty and the watchman at mast-head, warning us of approaching danger.

Rapid and imperfect as has been our sketch of the past, may we not see enough in it to fill us with high and encouraging hopes for the future? As we look forward through the vista of another half century, may we not confidently hope that our successors will be able in their turn to leave upon record an account of far greater and more numerous achievements in the arts and sciences and advancements of our profession than has ben our privilege to record.

Our social relations and the kindly feelings our annual reunions are calculated to promote, are well fitted to exert a happy influence on our hearts and to inspire confidence in and respect for each other.

Let these sentiments be cherished, and whether it shall be our lot again to meet here, or hereafter, may it be one of severe and unalloyed enjoyment.

A COUNTRY DOCTOR OF THE FIRST HALF CENTURY.

For many years the oldest member of the New York State Medical Society was the Hon. John Miller, M. D., of Truxton, Cortland County, N. Y., who died on the 30th of March, 1862, in the 88th year of his age. Dr. Miller seems to deserve a special biography for many more reasons than the happy accident that for over ten years he was the dean of the society. His life is in many ways thoroughly representative of that of the practitioners in country places, in New York State, in the first half of the 19th century. His wonderful powers of endurance that enabled him to stand more fatigue than the horses that he road to his distant patients, so that during times of epidemic at least he kept relays of animals along roads that he was likely to travel, only gives some idea of the wonderfully strenuous life that he led. There is in addition to this a tinge of romance about his earlier years, that his biographor, Dr. George W. Bradford, the Secretary of the Cortland County Medicical Society, has brought out very effectively. Besides the tender regard in which he was held by many friends during his life and his sympathy for animals, especially his favorite faithful horse, stamped him as a man of eminently humane nature, a true devotee of what are so well called the humanities in the midst of all his strenuosity.

Those who might doubt that such country doctors as the Rev. Mr. Watson has painted so delightfully for us in his portrait of Weelum MacLure, the Scotch country doctor, in "Under the Bonnie Briar Bush," developed also in this country, will find ample proof in this sketch of Dr. Miller's life. Besides being a busy practitioner of medicine, however, Dr. Miller took his full share of duties as a citizen, even serving as a justice of the peace for nearly ten years. He was a county judge for three years, was elected to the Assembly for several terms, and represented his district in Congress for one term. His life is typical in many ways of the busy, almost over full careers of his contemporaries, who did so much for themselves, for their fellowmen and for their fellow-practitioners. He was one of those present at the celebration of the semi-centennial by special invitation.

The following is from the Transactions of the State Society of 1862.

MEMOIR OF HON. JOHN MILLER, M.D., LATE OF TRUXTON, CORTLAND COUNTY, N. Y. BY GEO. W. BRADFORD, M.D., SECRETARY OF CORTLAND COUNTY MEDICAL SOCIETY.

"It is a remark as true as it is old, that the life and labors of the most eminent physicians are known and appreciated by a very limited number of their contemporaries. Their abstracted and almost isolated position in society arises from the very nature of their avocation." His daily routine of attendance on the sick, in relieving the pains and ministering relief for the ills flesh is heir to, forbid his striving for wealth and power in the very marts of commerce, or in other scenes where these are acquired almost in a day. Even in the toils and sacrifices of war, his arena is in the chamber of suffering and death, while all the glory that gilds the battle-field is lavished freely upon others. True as the above remarks are in relation to a very large portion of the medical profession, yet instances do occur in which by a combination of strong natural abilities, and physical endurance, indomitable perseverance and moral courage, so overcome all obstacles that the possessor attains to an eminence of position, professionally and publicly, that is wide and permanent.

Such, if we mistake not, is the one whose name stands at the head of our sketch, and whose useful life we would attempt to delineate. John Miller was born in the town of Armenia, County of Dutchess, N. Y., on the tenth day of November, 1774. His advantages for early education were very limited, he having attended the district school about one year and enjoyed the privilege of attending a classical school in Connecticut about the same length of time, his boyhood being spent in laboring on the farm. He commended the study of his profession with Dr. Miller, an uncle of his, in Dutchess County, in the year 1793. At the expiration of a little more than a year he went to Washington County, N. Y., and entered the office of Dr. Moshier, of Easton, in that county. While residing with Dr Moshier, young Miller received a severe injury by being thrown from a horse. From this injury he was unable to pursue his professional studies for more than two years. During this period he returned to his home in Dutchess County. After several months residence at home he was induced by the advice of Dr. Baird, of New York, to seek an appointment in the then small Navy of the United States. For this purpose, though much against the wishes of his family, he went to New York, where he was presented by Dr. Baird and others, with letters of recommendation to Dr. Benjamin Rush, of Philadelphia whither he repaired, and presented Dr. Rush with his credentials. At that time Miller was in poor health, and being tall, more than six feet in height, and thin in body, Dr. Rush was somewhat amused that so ghostly looking a young man should think of going into the Navy, and said to him: "Young man, you look better fitted for a skeleton in my office than for a post in the Navy." After recovering from the fatigue of his journey, Dr. Rush went with him to visit the President of the United States, the venerable John Adams, residing in Philadelphia, then the seat of the general government, and through the influence of Dr. Rush obtained the

place he sought, and was directed to report himself to the surgeon of the United States brig *New York*, then soon to sail for Tripoli. At this interview with President Adams, Dr. Rush and young Miller were invited to dine with the President, and did so, where he met General Washington, Fisher Ames and several other distinguished characters of that day. Upon further acquaintance, Dr. Rush advised Miller to resign his post in the Navy and proffered him a position in his family and office as a private pupil. This offer he readily embraced, and remained for nearly two years, accompanying the doctor on his rides into the country, and attending the lectures of Dr. Rush and Dr. Shippen at the University of Pennsylvania. From Pennsylvania he returned to Washington County, N. Y., in 1798, and entered into co-partnership with Dr. Moshier, his former instructor, where he remained until 1801. He was licensed to practice medicine by the Vermont Medical Society in 1800. The law regulating the practice of medicine in New York was not enacted until 1806. On leaving Washington County, in 1801, he came into the then town of Fabius, Nonodaga County, now Truxton, Cortland County, N. Y., and established himself in the practice of his profession, where he almost unremittingly attended his duties for about twenty-five years, and occasionally some five years longer. From his early physical training on the farm, he was well prepared for the laborious duties of his profession in a new country. Few men possessed to an equal degree the capacity for physical endurance and unwearied perserverance. The country being new, the roads always poor, many times almost impassable, yet he performed an amount of labor almost incredible, frequently riding on horseback thirty, forty and more than fifty miles a day, at all times, by night or by day, through storms and sunshine, with an energy that no obstacle could prevent. Many are the anecdotes that are related of his adventures in the woods and by-paths of Truxton, frequently by torchlight, to attend upon some family who, perhaps were unable to render him any remuneration.

The poor as well as the rich were alike the recipients of his toils. As a practitioner, Dr. Miller possessed to an eminent degree the confidence of his employers. His strong mind and retentive memory enabled him to readily discriminate the phases of diseases and his promptitude and readiness in the administration of relief to the sufferer, at once secured the confidence of the sick. His strict attendance to those entrusted to his care, his kindness of heart led him to sympathize deeply in all their sufferings, these all convinced his employers that his whole energies were enlisted in their welfare. He loved his profession, and while attending to its duties, amidst all of his incessant labors, he found time to cultivate his mind by reading much of the current professional literature of the day, and his well-balanced mind and retentive memory enabled him to make the best use of what he read. He was elected an honorary member of the New York State Medical Society in 1808, and at the time of his death was the oldest living member of the Society by nine years. At the semi-centennial anniversary meeting of the Society in February, 1857, Dr. Miller was present by special invitation. He entered into the spirit of the meeting with all the ardency of his nature, and many of the members present, who for the first time there saw him, will long remember the "old man eloquent," and their pleasant and profitable acquaintance with their venerable fellow-member. He was the last of that band of physicians, who, in August, 1808, organized the Cortland County Medical Society, and its first vice-president and the oldest living member by ten years. Such was his character and standing in the profession and gentlemanly intercourse with all members of the society that all loved to meet him, and to confer honor and their kindest favors upon one so much esteemed and highly venerated.

Having spent the first years of his life in laboring on the farm, Dr. Miller while yet in the vigor of his days, left his profession and turned his attention to agriculture. Notwithstanding he had relinquished the practical duties of his profession, he still manifested an interest in its welfare, always greeting its members with warm cordiality and to the day of his death no one abhorred and detested the varied systems of quackery, with which our country abounds, more than he did. The intelligence and the energy with which Dr. Miller entered into all the affairs of State, as well as into his professional avocations, was such that he early became prominent in public life. His first public office was that of coroner, which appointment he received from Governor George Clinton, in 1802. He was appointed postmaster in the town of his residence in 1805 and retained the office for twenty years. He was appointed a justice of the peace in 1812 and discharged its duties until 1821. He was one of the judges of our county courts from 1817 to 1820. He was elected a member of the Assembly from this county in 1816, again re-elected in 1820 and again in 1846. This same year he represented the county in the Convention for revising the Constitution of the State. In 1826 and 1827 he represented the 22d district in the Congress of the United States. In all these positions of public trust he evinced the same energy and determined will and prompt action he had shown in his professional career. His readiness to sacrifice personal interest and ease to the public good and his experience in public life, with the honesty of purpose manifested in his intercourse with his associates, enabled him to exert a commanding influence over any deliberative body. These, with his usual energy, his eminent social vivacity, rendered him a welcome guest in all social gatherings. "He loved his friends, his profession and his country, and ardently labored for the improvement of each. He was free and frank in manner, generous and friendly in disposition, engaging in address, of active temperament and indeed possessed all the social qualities of a gentleman and the stirring energies of the man of business.

He was tall and erect in stature, and even in his last years still retained his firm step and erect position and never exhibited the decrepit old man in appearance, or in loss of intellect, but entered into conversation with all the energy and fire of his youthful days.

He left the impress of his character on all he said or touched. He was zealous in all he believed to be right, yet kind and gentlemanly to all who differed from him in views. He was no bigot. Always expressed his opinion of men and measures freely and fearlessly and was always ready to listen to those who believed differently. We have alluded to Dr. Miller's indominable energy and restless perseverance in anything he felt his duty to perform or which he was anxious to accomplish. What he had to do he did with all his might. No difficulties or opposition dismayed him, but seemed rather to infuse in him a more determined purpose to overcome all.

We cannot but relate one of the characteristic events of his life, his determined will to overcome seeming impossibilities, which he accomplished in securing to himself the lady who afterwards became the sharer of his fortunes, the intelligent, amiable, loving partner of his life.

Before coming into this (Cortland) County in 1801, he had formed an attachment to, and an engagement with, a young lady living in Rensselaer County, N. Y., whom he expected to become his partner and helpmeet in and through the journey of life. After his settlement here they held a constant correspondence, and while the doctor was laboring with all his energies to prepare for his chosen one a home, she remained behind making preparations for a residence in the wilds of the West. Matters went smoothly on with them for some months, each frequently receiving assurances of faithfulness and mutual attachment. After some time letters were not as frequently received by either party as formerly, and at last ceased entirely. The doctor wrote often, but received no reply to his anxious enquiries for the cause of this total silence on the part of her he so ardently loved. Just so with the lady, she, too, had written time and again, seeking to know the cause of his seeming coolness, this abandonment of him to whom she had plighted her first love. Each had come to the conclusion that the other was false to the sacred engagement promise.

Matters remained thus for some time without either hearing anything from the other. At last the doctor received a letter from a friend of his living in Troy (the place of the young lady's residence) informing him that the young lady in question was to be married to some one there, on such an evening, but a few days from that date. The friend, knowing something of the previous engagement of the doctor to the lady, learned she had been induced to marry the person of her second engagement from the belief that the doctor had cast her off—had forfeited his plighted honor, she not having heard anything from him in reply to her letters for many months. The friend at once suspected something wrong. He knew John Miller would never be guilty of so base an act as to leave one to whom he was betrothed in such a manner. That if it were possible for him to fulfil his engagement, or if he desired to cancel the obligation, Miller would at once frankly and honestly inform the young lady. That he was far too honorable, too noble to do so base an act. Believing this, he wrote the doctor of the intended wedding to take place on the day designated. At that early day our country mails were "like angel visits—few and far between," consequently Miller did not receive his friend's letter until less than twenty-four hours before the time appointed for the wedding. This was in the latter part of the month of March, when the snow was melting away by the rays of the warm sun of spring, the roads were in bad condition, riding exceedingly bad and in some places dangerous, and the doctor one hundred and thirty miles from Troy. Stages or railroads were at that time out of the question. What should he do? Give up his heart's desire, his long-wished-for and earnestly sought companion; her, on whom his most ardent love had centered, and remain during all his future life under the imputation of forfeiting his plighted faith and acting in a dishonorable manner with a noble, worthy lady, or should he make one effort to retrieve all? His mind was soon made up. He mounted his faithful horse, "Gershom," one he had often tried in cases of urgent necessity; one, too, in all respects possessed of the physical endurance—the determined energy never to be outdone—equal even to his master. "Gershom" was headed for Troy, a distance of one hundred and thirty miles, to be passed in less than twenty-four hours, notwithstanding all the snow, mud or dangers by the way. Faithfully and nobly did "Gershom" perform his task.

Near the close of the day, when the doctor had arrived near the west bank of the Hudson River, he discovered the ferry-boat just leaving the shore to pass over to Troy. It was almost dark, every moment of time was precious, fearing he should be too late for a successful termination of his hopes, his hard day's labor and all might be lost, he raised his voice to its utmost pitch, swinging his hat; "Gershom" at once responded, made his last charge and arrived on the bank of the river in time to pass. This proved to be the last time the boat went over that night.

At an early hour in the evening "Gershom" stood at the door of the residence of the young lady, just as the guests were assembled to witness the marriage ceremony. The doctor, covered with mud and wet, ridingstick in hand, walked up the steps of the mansion and knocked at the door. The father of the young lady answered the call, and who should he see standing there but John Miller, who, without ceremony, makes the enquiry, "Is Phoebe at home?" "Yes," was the reply. "Can I see her?" asks the doctor. The father replies, "I will inform her you are here—walk in." The doctor went into the hall and remained standing with his hat in hand. In a few minutes Phoebe made her appearance, an interview was solicited by the doctor, explanations followed, and a perfect reconciliation was the result. Their letters had been intercepted on both sides by the man who had almost obtained possession of the prize by his rascality, but who that night went home wifeless.

They were married in 1805, and a happy union it proved to be. Mrs. Miller was a lady of rare accomplishments, of ardent piety and in all respects a fit companion for her worthy husband. They had eight children—five sons and three daughters. Mrs. Miller died much lamented in 1834, aged 59 years. Of the family only one of the sons and two daughters survive. All arriving to mature age, and most of them falling a victim to that destroyer of our race—consumption.

In the temperance cause Dr. Miller took an early and active part. During his days of pupilage he once saw a beautiful child sacrificed in consequence of the intoxication of the physician called to its relief in an hour of suffering. This made a deep and lasting impression on his mind, and led him at the commencement of his labors as practicing physician firmly to resolve to abstain entirely from all intoxicating drinks as a beverage. In this determination he persevered to the end of his life. In his prescriptions for the indisposed he avoided in all practical instances ordering alcoholic or any other intoxicating article. No one can ever charge Dr. Miller with being the means of their becoming lovers of strong drink. He was long an officer in the New York State Temperance Society, and frequently attended its meetings at Albany, and by his wise counsels and sound judgment obtained a commanding influence in that body.

At an early age the doctor gave to the Presbyterian Church and Society of Truxton two valuable lots of land in the center of the village, as sites for a church and parsonage, also one other lot as a site for a public schoolhouse; and in the expenses incurred in erecting these public buildings, the doctor was a liberal contributor. It was entirely through his influence and liberality that the church edifice was finished in a neat and tasteful manner. His seat in the church was always occupied by himself or his family.

In the support of the varied objects of benevolence of the age and in the institution of the gospel in his own vicinity, Dr. Miller was a firm friend and a contributor. The church and society of the town of his residence are greatly indebted to him not only for his liberal aid in erecting their house of worship, but for the yearly support of its ministry.

For the last two years the doctor's health had been declining, and he has been out but little, yet he always most cordially received visits from his friends and entered with all his usual vivacity into conversation, and where any subject was introduced in which he felt deeply interested, he would arouse to his accustomed vigor of mind and pour forth the feelings of his heart with great rapidity and eloquence, his thoughts frequently outrunning his utterance which sometimes led him to hesitate, but all who heard him were at once reminded of his youthful energy. He retained his wonted faculties almost to the last hour of his long life, was perfectly sensible to the steady and sure approach of death; yet with calmness and life-long carefulness, made every preparation for the end. Having made every necessary and equitable disposition of his property, he gave explicit directions to the undertaker about his coffin and burial, that all should be done in a plain, unostentatious manner, avoiding all needless expense. Thus he actively and usefully lived, thus he calmly and quietly died, on the 30th day of March, 1862, in the 88th year of his age, leaving behind him abundant evidence of his preparation for, and acceptance through, the grace of our Lord and Saviour, into the rest prepared for the just.

His funeral was attended by a large concourse of his neighbors and friends from distant parts of the country. Notwithstanding his request that he should be buried quietly, his long and useful life had secured too many friends that desired to manifest their love for his character, their veneration for his age, and their sympathy for his family, to permit him to be interred without mingling their tears with his friends. An impressive funeral sermon was delivered by Rev. Caleb Clark, who for more than forty years had been the confidential friend and the spiritual adviser of himself and family.

His funeral was also attended by a large number of the members of the Cortland County Medical Society, who to the last manifested their love and veneration to their aged fellow-member.

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Editorials.

THE MILK SUPPLY OF NEW YORK.

THE report of the special milk commission apointed by Mayor McClellan shows that these gentlemen have pretty thoroughly studied the milk problem in New York. This report gives one an idea of the immensity of the milk industry and of the task which confronts the Health Department in its efforts to supervise the sanitary side of the milk traffic. The Commission recommends increasing the inspection of the source of supply by adding a hundred inspectors to this work. The function of these inspectors should be something more than mere inspection: they should supervise, and instruct, and encourage the dairyman in his efforts to produce good milk.

The Commission also recommends the addition of twenty-five inspectors in the city, five more bacteriologists, and five additional chemists. It is recommended that a system be adopted whereby milk shall be so labelled and checked that when it appears on the market its source may at once be known. The Commission sees no harm in selling skimmed milk (the terrible bugaboo of municipalities), provided it is sold as skimmed milk. It is recommended that milk stations for the distribution of pasteurized and modified milk for the poor be established to as great an extent as possible, and that the poor be educated in the care of milk in the home. Pasteurization is dealt with upon a rational basis.

This Commission has performed a valuable service. Its recommendations, if generally applied, will be a long step in the direction of making the municipal milk supply approach the present day possibilities.

It is very evident that the question of pure milk for our large cities is something more than a municipal problem. If every city were to take the action which New York has proposed, sending inspectors into the states from which its milk comes, there would soon be an overlapping of milk inspection. Still, under the present conditions, this is necessary. When we have a National Department of Health, there will be a uniform adjudication of these matters.

OPSONINS AND THE OPSONIC PHENOMENON.

THE medical world is eager for further knowledge of opsonins and their relation to disease. This is one of the most important branches of scientific study now undergoing development, and we are thankful for every bit of new information added. It bears directly upon the most hopeful field in therapeutics. The subject of opsonins and the opsonic phenomena were discussed very fully before the Association of American Physicians at its last meeting. It is agreed that the blood serum is necessary for phagocytosis, in the case of most bacteria, and, in the absence of opsonins, phagocytosis is ineffectual. The virulent bacteria resist phagocytosis except in the presence of an immune serum. It is understood that diminution of the opsonic power of the blood precedes infection and is necessary for the occurrence of infection. It is shown that a fatal dose of such a micro-organism as the *staphylococcus aureus,* injected into the peritoneal sac of an animal, produces an exudation of serum which is found to have lost its power to opsonize the *staphylococcus aureus* and other bacteria. This phenomenon is not due to antagonistic action of the fluid itself, for if it is mixed with blood serum the opsonic power of the serum is augmented. The fluid exuded in a sterile irritation of the peritoneum has the power of opsonizing *staphylococcus aureus,* but if the fluid becomes purulent, it loses its phagocytic power.

There seems to be a growing belief that the opsonins are specific and that the opsonic index has a diagnostic and prognostic significance. In pneumonia the opsonic index is below the normal before the crisis, and below the normal after it, remaining low after the crisis in fatal cases. In most of the acute diseases which have been studied, the index is low in the beginning of the attack and an increase of opsonic power takes place as the patient overcomes the disease. The streptococcus opsonic index is low in normal adults, showing that most persons are susceptible to this infection. If there is a relapse in an acute disease the index falls.

Unfortunately, as far as these studies have gone, it seems that the opsonic index is not a satisfactory guide for the administration of bacterial vaccines. Other difficulties encountered in applying the determination of the opsonic index are the counting of the bacteria, the inconstancy of stock cultures, and the difficulty of securing a pure culture of the infecting organism. The New York Board of Health laboratory reports that, as it is impossible to get the opsonic index on the day of treatment, the clinical symptoms are the best guide to determine the application of treatment by bacterial vaccines. The cases receiving the most benefit from this treatment are cases of furunculosis and staphylococcus abscesses.

These studies make for accuracy in the understanding of phagocytosis, prognosis and immunity; and it is in this line of work that the treatment of diseases by the use of immunizing bodies is to be developed. At the present time it is one of the most important and fruitful branches of medical research and study.

THE VACCINATION TREATMENT OF GENERAL PARALYSIS OF THE INSANE.

THERAPEUTIC vaccines, guided by the determination of opsonins, have been tried with a measure of success in most of the infective diseases. It seems remarkable that vaccination should be introduced in the treatment of the lesions of insanity, but this has come to pass, and with a considerable degree of advantage, as is described by O'Brien in a communication to the American Medico-Psychological Association.* He was lead to believe that general paralysis was a bacterial infection due to the *bacillus paralyticus*. This belief was further corroborated by the inoculation of animals with material obtained from general paralytics and producing a train of symptoms and a pathological picture similar to that seen in general paralysis. Evidence of the etiological relationship was further obtained by determining the presence of positive agglutination in a series of twelve cases, and its absence or a negative reaction in the other insanities and likewise in normal blood serum. O'Brien determined from a study of the fluctuations of the opsonic index that the disease was a systemic infection, in distinction from a local infection. Each exacerbation of the patient's condition corresponds to a large outpouring of bacteria into the blood stream, with a diminution of the resisting power of the individual, followed again and again by a failure of the system to overcome these invasions, until death ensues.

Governed by the principles laid down by Wright, properly dosed sterilized cultures of the causative organism were employed in these cases. Without exception there followed the same train of events in each case: on the inoculation of the vaccine there supervened a period of intoxication which was characterized by a decline in the antibacterial power of the blood, called the "negative phase." This negative phase usually terminates about the third day following the inoculation. Following this comes the "positive phase," characterized by an increase in the bactericidal power of the blood and a general improvement in the condition of the patient, together with a slight rise of temperature and a marked leucocytosis. This phase of improvement lasts from seven to ten days, and on the event of its decline, as judged by the opsonic power of the blood, reinoculation is indicated. O'Brien found that his cases were ready for inoculation at about the twelfth to the fourteenth day. No better idea of the picture of these cases can be given than by quoting one of the case reports:

Male, aged 29. Recognized onset of disease three years ago. At the time inoculations were first commenced, patient was mute, confused, resistive, untidy, bed-ridden, markedly ataxic, unable to walk, refused food, it being necessary to tube him twice daily; following the second inoculation he grew brighter, became talkative, manifested an interest in his surroundings, asked concerning home life, friends, relatives, began to eat, untidiness disappeared, and his improvement both mentally and physically has continued, gaining 29 pounds in weight, and at present is in a well-defined remission, enjoys the privilege of walking about grounds alone and is arranging his plans for the future.

*Jour. Amer. Med. Assoc., June 29, 1907.

Some of these cases reported show most striking results. All of the patients in the beginning of the treatment were apparently at the worst during the "negative phase," being depressed, irritable, and with but little display of energy, while within a few hours of the establishment of a "positive phase" the picture was reversed, the patients appearing bright, active, congenial and obedient. This improvement corresponded with an increase in the opsonic power of the blood.

Work in this line is so striking that comment is difficult. One of the reasons why it is striking is because it is so reasonable and its rationale is so clear. Contrasted with the old therapeutics which consisted in the empirical introduction into the system of poisonous drugs with the hope that they would either mask the symptoms or inhibit the disease, it must be hailed as one of the greatest blessings produced by the scientific method.

THE BACTERICIDAL POWER OF CERTAIN MUCH USED ANTISEPTICS.

A large amount of testing of the bactericidal power of chemicals has been done, and certain substances have been accorded a positive value which clinical experience has endorsed. The profession has been rather prone in the case of certain other antiseptics to accept the reports of the promoters, who were commercially interested, as to their value. The same defects of judgment have been responsible for errors in estimating the value of well advertised external remedies as apply also to the much vaunted internal medicines. The profession often lost sight of the fact that bacteria are living cells, often spore-bearing and of a very high degree of vitality, lying beside the living animal cells of the human body, and that any chemical which came in contact with the former must also come in contact with the latter, and that to destroy bacteria by the application of chemicals meant also the destruction of the tissues in which they resided. There is no chemical which has a selective affinity for bacteria. The recognition of these facts marked the decline of the antiseptic method and the advent of the aseptic method in surgery. It was also discovered that certain so-called antiseptics were not antiseptics, but that bacteria would thrive in the very substances themselves, their virtue in the tissues depending upon their power to excite leucocytosis. This was found to be the case in certain insoluble powders employed against the tubercle bacillus; they acted simply as mechanical irritants to the tissues, increasing the inflammatory reaction, and served a purpose similar to the ptomaines of the bacteria or Bier's passive congestion. They increased the leucocytosis.

The value of many of these antiseptics is still undetermined; we should be warned, however, to distinguish between the tests of the impartial investigator and the reports of tests of the commercially interested. The British Medical Association started right by appointing a committee, the Therapeutic Committee, which made tests of the silver salts with a view to determining their efficiency in gonorrheal ophthalmia, and the work of our own Council on Pharmacy and Chemistry we are familiar with. Of the silver salts impartially tested by the British committee, it is shown that the two most potent salts are the fluoride and the nitrate of silver. We have been surprised to learn that the committee found that some of the much used preparations were very feeble in bactericidal power. They reported "collargol" and "argyrol" as practically without bactericidal action, and say that, "as argyrol and collargol are not bactericidal, it is evident that the amount of silver which a compound may contain is no criterion of its bactericidal power."*

In view of the great claims made by manufacturers, Verhoeff and Ellis, have made careful studies of some of the widely advertised antiseptics and found the claims of many of the exploiters of these preparations unsubstantiated.† They found that the addition of serum to a solution of sodium aurate, "protargol" or "argyrol" immediately destroyed the bactericidal power of the antiseptic. The number of such preparations was so large that they abandoned the idea of testing all of them, particularly as the formulas of many were the same. Using in their tests the *staphylococcus pyogenes aureus,* which they found was killed in one minute by a 1.1000 solution of mercuric chlorid or by a 2 per cent. solution of phenol, they found as follows: The vitality of the organism was not destroyed after an exposure of over four hours to "Alkalol," 100 per cent.; "Abbott's Vaginal Antiseptic," 2.5 per cent.; "Borol," 50 per cent.; "Glycothymoline,"

*British Med. Jour., Aug. 18, 1906.

†Jour. Med. Assoc., June 29, 1907.

100 per cent.; or zinc sulphocarbolate, 1 per cent. These so-called antiseptics, the authors say, could have little if any greater therapeutic value than simple salt solution. Certainly for the purposes for which they are recommended by their exploiters they could never have an opportunity of acting for over four hours in an undiluted condition. "Alphozone" and "Acetozone," which are recommended as internal remedies against typhoid fever, failed to kill typhoid bacilli after an exposure of twenty-four hours. The same obtained with zinc sulphocarbolate in 1 per cent. solution. "Listerine," "Acetezone," "Alphozone," "Germicidal Disks" (mercuric iodid), "Nargol," "Sublimine," and "Mercurol" —none of these, in the strongest strength recommended, when mixed with an equal volume of hydrocile fluid, were effective even after two hours exposure to the organisms.

Still more light is needed upon the subject of antiseptics, but when we receive it we must be prepared to learn that the virtue in many of our antiseptic solutions has resided as much in the water as in the chemical which it contained.

A MEDICAL CAREER AND THE INTELLECTUAL LIFE.

Dr. Casey A. Wood took this topic as the subject of his presidential address before the American Academy of Medicine at its last meeting. He said that the most conspicuous want of the medical practitioner is a useful and pleasure-giving recreation. What that particular form of occupation should be might well vary with the individual, but that it should be instructive—perhaps unconsciously instructive—seemed self-evident. Sir John Herschel in his eloquent estimate of the advantages of literary pursuits said that in books were found solace, refinement and recreation. The physician, however, it was felt, must have a feeling of unrest when not engaged, even during his recreation, in work likely to add to the sum total of human knowledge. To meet this condition the pursuit of some branch of the natural sciences as the desirable recreation of the practitioner of medicine was advocated by Dr. Wood, and a plea made for the adoption of what might be called the "outdoor" sciences as the most useful and most valuable of all the recreations, because of the close relation between the natural sciences and the study and practice of medicine.

Observations

ON DOCTORS' SONS.

Doctor's sons pretty generally make good doctors; that is, if they decide to study medicine and be doctors at all, they succeed. When you hear a physician say that the practice of medicine is a dog's life, and that if he had it to do over again he would never study medicine, that patients are ungrateful and give him little thanks or pay, you may be pretty sure that his son will not study medicine; and if perchance he should, he is terribly handicapped by a lot of bad medical traditions. The unsuccessful doctor does not let his son study medicine. The doctor's son who does study medicine is quite invariably the son of the man who was successful enough to find joy in his work, and who could wish his son nothing better than to enter into the calling which had meant so much to him. And the boy saw in his father's life something that excited his admiration to emulate and covet. As a matter of fact and observation the son of the really successful doctor commonly does study medicine; and I can name a number of such men who attained to even greater success than their fathers.

However, the decision as to whether a man is successful or not does not rest with you or me —the decision is with him—he is the only one who knows.

* * *

That the doctor's son takes his cue from his father, and that the father should be careful of what he teaches his son, even inadvertently, is illustrated by a homely example. The one man in this country, who is devoting himself assiduously to calumniating and misrepresenting medicine, is the son of a doctor—a well-meaning man, still engaged in mildly practising his profession. This good old doctor is a frequent contributor and a professed admirer of one of the most disreputable medical periodicals charged up to the account of American medical literature—let us be accurate and say *the* most disreputable. That means that the son gets an impression of medicine from the literature which he finds on his father's library table. I presume that the son judges that this so-called medical journal represents the medical profession because it says it does and because it contains the pictures of many men of good and high standing who intersperse its advertising pages with the products of their agile pens, innocently and little knowing of the damage they are doing.

* * *

A certain publican was once asked by a philistine how far back he could trace his ancestors. He replied that he did not have time to see how far back he could trace them because he was too busy tracing the doings of his descendants.

What useful lesson may we learn from these observations? Simply this: Keep an eye on the boys.

Items

NEW WATER SUPPLY FOR NEW YORK.—The work has begun on a new reservoir and aqueduct to supply water from the Catskills to New York, bringing it a distance of 82 miles. This is an undertaking of great magnitude and is intended to forestall the needs of the city for many years to come. The work of construction will require ten years.

PROVISION FOR DRUNKARDS.—The annual report for 1906 of Bellevue and Allied Hospitals shows that the State abounds in charitable enterprises for almost every class of unfortunates, but as yet provides no institution for those who have become the slaves of alcohol. Such institutions if they could be established, might convert a certain proportion into useful citizens again. It is suggested that habitual drunkards should be committed by proper judicial authority to State or municipal institutions in which they might be restrained and treated scientifically. The cost of maintaining such institutions would be considerable, but their need will not be questioned.

THE NORMAL AMOUNT OF TYPHOID FEVER.—Wainwright, in the *N. Y. Med. Jour.*, says: Physicians and sanitarians must recover from their habit of speaking of a certain amount of typhoid as "normal." Typhoid is a filth disease. It comes because we are imbibing more or less directly the fæces of a sick man. The only "normal" amount for a civilized community is none at all.

IN MEMORY OF DR. MARY PUTNAM JACOBI.—A memorial tablet was unveiled at the Woman's Medical College of Pennsylvania in memory of Dr. Mary Putnam Jacobi, on May 23d. The tablet is inscribed:

In memoriam. Mary Putnam Jacobi, class of 1864. Woman's Medical College of Pennsylvania, president of the Alumnæ Association 1888-1891 and 1894-1895. Ecole de medecine, Paris, class of 1871; professor of materia medica and therapeutics, Woman's Medical College of the New York Infirmary; professor of the diseases of children, New York Post-graduate Medical College and Hospital; fellow of the New York Academy of Medicine; a distinguished contributor to medical literature, and one of the most eminent women of her time in the medical profession.

TO POPULARIZE GREEK NOMENCLATURE.—The Medical Society of Athens has appointed a committee to assist in the formulation of a system of classical Greek medical nomenclature and to collect the classical Greek definitions which may be proposed as substitutes for irregular terms newly introduced into medical literature, and in use both in Greece and in foreign lands. Prof. S. Manginas is chairman, and Dr. Achilles Rose, New York, is a member of the committee.

TO CHECK THE PRESCRIBING OF LIQUOR.—The Jefferson County Medical Society, in Alabama, has placed itself on record as being opposed to the indiscriminate prescribing of liquor by physicians, and suggests, to limit such illicit prescriptions, that every prescription be recorded in a book open to inspection by the county health officer, the record to show the name of the prescriber, date, amount and kind of liquor.

TUBERCULOSIS IN RHODE ISLAND.—Manufacturers in Rhode Island are carrying on an organized campaign against the spread of tuberculosis among their employes. For nearly a year mill owners and executive officials, aided by physicians, have given special attention to the ravages of this disease, which claims hundreds of victims from among the employes of textile factories. It has been shown that in this state of 430,000 inhabitants there were 1,031 deaths from tuberculosis in 1905, or more than twice the total number of deaths from eleven other preventable and communicable diseases combined. To check the disease the Society for the Prevention and Relief of Tuberculosis has been formed, one of the chief objects of which is to secure legislation directed towards the suppression of this disease.

MEDICAL ORGANIZATION.—On this subject Dr. John A. Wyeth said before the Arkansas Medical Society, according to the *Journal of the American Medical Association:*

With all that we have accomplished in the first six years of this movement there remains much to be done. We must win those members of our profession who are as yet "without the walls," or at least the best of them; we must teach them and the public by precept and example that our material advancement is secondary to our obligation to mankind. There are at this date in the United States probably 30,000 illegal practitioners of medicine so deficient in equipment, professionally and morally, that they are a menace to the welfare of the community. There are medical colleges not yet up to the standard of our requirements. There is scarcely a community within our border that does not in some way violate all laws of health. The real value of organization is in the influence we can bring directly to bear on the body politic, and through this medium secure legislation which will solve these serious problems. This we can only do by intelligent cooperation and by the sacrifice of much of our material interests to the public good.

THE HOUSING PROBLEM was discussed at the last meeting of the American Academy of Medicine. Dr. Woods Hutchinson thought it is not one solely of the great cities or of the slums. The modern hotel and the Pullman car offered illustrations of glaring lack of facilities for ventilation. Another point he said is in reference to the dread held by many of night air, which he regarded as absolutely nothing but a survival of that dread of the powers of darkness and of the prince of the power of the air who might swoop on them and carry off their souls to perdition if the wind blew on them at night. Regarding the building of model tenement-houses, he believed such could be erected to give the owners a fair return if only the greed of the landlord could be moderated in some way.

Medical Society of the State of New York

THE NEW MEDICAL LAW.*

ON May 13, 1907, the Governor signed the bill creating a new medical law for the State of New York.

There is much uncertainty in the minds of some members of the medical profession and its friends as to the requirements of this new measure, and there has been much adverse criticism concerning it. Even some of our medical journals have refrained from commenting on it since its passage, although nearly all of them spoke in commendation before then. In looking over the provisions of the law one must be struck with many of its features. Indeed, it might almost be said to be revolutionary in some points, embodying as it does what was thought to be impossible to incorporate in a medical law.

Possibly some of the law will have to be interpreted by the courts before its exact meaning can be finally decided, although to the writer there seems to be nothing in the law which cannot be easily understood. The points which seem to us to especially commend it are:

First.—The definition of the practice of medicine.

Second.—The method of appointing the State Board of Medical Examiners.

Third.—The payment of examination fees and expenses.

Fourth.—The scope of the examinations.

Fifth.—The investigation of licenses.

Sixth.—The revocation of licenses and annulment of registration.

Seventh.—Penalties.

The Definition.—In the law which this new law repeals the definition of the practice of medicine was not incorporated, and because of this omission the claim was made that to practice medicine it was necessary to administer medicines or drugs. The famous case of Smith vs. Lane, in which Judge Daniels of the Supreme Court ruled that, unless drugs were administered, it could not be maintained that one practiced medicine, seemed to uphold this claim, and lawyers hesitated to advise action against violators of the principle of the law, unless medicines were given. The recent decision in the action brought through the Medical Society of the County of New York against one Allcutt did away with this contention, and made the definition as given in the new law less important than it might otherwise have been. The definition is, however, very plain and comprehensive. It is even more comprehensive than is the Court's ruling in the Allcutt case; and, besides settling the question beyond dispute in this state, will serve as a precedent for other states in securing similar enactments.

The Appointment of the State Board of Medical Examiners.—Under the old law this state recognized three medical societies and "schools" of practice—the Regular, the Homeopathic and the Eclectic. Each society or school had its board of medical examiners, and candidates for the right to practice had the privilege of appearing before either of these boards.

The first objection to this arrangement was that it opened the way for the creation of other boards, representing other "schools" of practice, for if the state recognized three, there was no logical reason why it should not recognize others.

The second objection was that while the Regents appointed the boards of examiners they were compelled to appoint from lists prepared by these three societies. These societies are voluntary bodies, not responsible in any way to the state, yet possessed of the power to dictate to the state in the formation of state medical examining boards.

Under the new law the state, through its Board of Regents, appoints a single board of nine members, which is not supposed to represent, in any way, any society or school of practice. Under the law the first examining board appointed by the Regents consists of four regulars, two homeopaths, two eclectics and one osteopath, but this recognition of existing classes was simply a courtesy, and not demanded by the law. The Regents could have appointed nine physicians of one school if they chose, for the only qualification examiners must possess to be eligible is that of being legal practitioners of not less than five years' standing prior to appointment.

The Payment of Fees.—Under the old law no definite salaries were paid to the examiners. The fees for examinations were paid to the Regents, and out of the fund thus created all legitimate expenses were paid, and the balance divided among the examiners.

Under the new law all fees will be paid into the state treasury, and the legislature will annually appropriate to the Education Department funds sufficient to defray all expenses.

The Scope of the Examinations.—Under the old law examinations were held by the boards representing the systems of practice recognized by the law, the questions being identical for all three excepting in materia medica and therapeutics.

Under the new law materia medica and therapeutics, including practice, will be eliminated, and the questions, which shall be the same for all candidates, will be in anatomy, physiology, hygiene, sanitation, chemistry, surgery, obstetrics, gynecology, pathology, including bacteriology, and diagnosis. Candidates must be graduates from colleges main-

*Chap. 344, Laws of 1907. See below: An Act to Regulate the Practice of Medicine.

taining standards satisfactory to the Regents. The medical schools will pass on the qualifications of the graduates as to materia medica and therapeutics.

The Investigation of Licenses. — There are people in this state to-day practicing medicine on the licenses of physicians who have died. Indeed, we have knowledge that the licenses of deceased physicians have been advertised for sale in the daily papers. The new law provides that the Regents may at any time inquire into the identity of any person claiming to be a licensed physician. Under the old law there was no authority for such an investigation. This will greatly help to discover fraud in medical companies and in the practice of combinations of quacks.

The Revocation of Licenses and the Annulment of Registration.—Under the old law it was an undecided question whether the Regents had any authority to revoke licenses, and, although such action had been taken, it was done with the thought that the courts might rule such an action to be illegal. Under the new law it is definitely stated that the Regents may revoke a license and annul the registration of a physician guilty of immoral conduct, drunkenness, and other offenses named in the law.

Penalties under the new law may be enforced which will be commensurate with the crime, which was not the case under the old law. Faithless doctors may now be disbarred just as faithless lawyers have been for many years. Fines and imprisonment are now permitted for the first offense. The county societies are given a wide scope in the enforcement of laws affecting the practice of medicine, criminal practices, etc.

The incorporation of medical companies is greatly interfered with, if not absolutely prevented, by the new law; corrupt physicians will have great difficulty in hiding behind corporate names, and unlicensed practitioners will find it impossible to hide behind the name of licensed practitioners. The changes in the penalty section of the law are far-reaching and of very great importance. The objections to the bill are not of a character to interfere with the good purposes of the law, and some which have been dwelt upon as serious defects are really not objectionable features at all.

Subdivision 6 of section 7 provides that osteopaths, after three years of study, may, until the end of the year 1910, take the state examination, and if they pass it successfully, receive a license to practice. They must pass the same examination that all physicians will have to pass, and they will receive a license permitting them to practice osteopathy, whereas all candidates who pass the examination after four years of study will receive the full license to practice medicine.

After 1910 the applicant for the right to practice under this act must produce evidence that he has studied not less than four years, including four satisfactory courses of not less than seven months each in a college maintaining at the same time a standard satisfactory to the Regents. Doubt has been expressed as to the exact meaning of this part of the law, but to us it seems plain enough. The law is, according to its title, an act to regulate the practice of medicine, and the practice, as defined, includes, without separate recognition, all methods of treating human disease, pain, injury, deformity or physical defect. When the section which we have been considering says "after 1910 the applicant for a license to practice under this act," it means the applicant for a license to practice medicine, and it cannot mean anything else. When the same section declared the applicant must have had four satisfactory courses in a college maintaining a standard satisfactory to the Regents, it must mean as the same is defined in subdivision 6 of section 1 of the law, which says that a medical school is a college registered by the Regents as maintaining a proper medical standard.

Section 10 says that after a satisfactory examination the Regents shall issue a license to practice according to the qualifications of the candidate. After 1910 these qualifications must be that the applicant has satisfactorily completed the prescribed course in a college maintaining a satisfactory medical standard, and these qualifications, together with the satisfactory state examination, entitle the applicant to a license to practice medicine.

So as we read the law, it seems to us that after 1910 the only license issued will be the license to practice medicine, and the only college recognized will be the medical college. Whether the licentiate practices homeopathy, osteopathy, or some other peculiar method, will not be considered in his license. He is licensed to practice any and all methods, and if he restricts himself to one, it is a matter with which the state has no concern.

Section 14, containing the exemptions, has been severely criticised, but much of this section is a repetition of the old law. The objectionable features are the exemptions of "any person or manufacturer who mechanically fits or sells lenses, artificial eyes, limbs or other apparatus or appliances, or is engaged in the mechanical examination of eyes for the purpose of constructing or adjusting spectacles, eyeglasses or lenses," "or the practice of the religious tenets of any church," "or any person who shall be actively engaged in the practice of osteopathy in the state of New York on the date of the passage of this act," who is a graduate of a college of osteopathy within the United States which at the time of his or her graduation required a course of study of two years or longer, including the subjects of

anatomy, physiology, pathology, hygiene, chemistry, obstetrics, diagnosis and the theory and practice of osteopathy, etc.

There were none of the exemptions in the bill as it was originally introduced in the legislature. These amendments were made during the passage of the measure, the legislators, in their wisdom, deciding that such amendments were necessary. Doubtless the Committee on Legislation of our Society, if it had been able to dictate, would have had the law enacted without any of the amendments, but the legislature's official action and the Governor's signature are the powers which enact laws, and the responsibility rests with them.

The exemption of opticians emphasizes the fact that something must be done. The ten years of active effort on the part of opticians was bound to finally meet with some result. Possibly the medical profession will now take this matter up and aid in securing the passage of some enactment which will give opticians whatever privileges may seem compatible with the proper protection of the community.

The exemption of religious bodies has been greatly misunderstood. The claim that this is a concession to Christian Science (so-called) is far from the truth. Their status is just what it was before the passage of this law. Religious freedom is provided for in the Constitution, and the medical law does not change or modify the situation, as it has always existed in this state. They do not pretend to treat disease; indeed, they emphatically deny their belief that disease exists, and their effort is to create this same disbelief in the minds of those who are sick. There are many instances of attempts to remove disease, defects, deformities and abnormal physical conditions at the various shrines and gymnasia of religious organizations in this state which would come within the scope of this law if these exemptions were not made in the Constitution. That they are repeated in the medical law is merely a declaration of the Constitution on the point. Whether it is proper to make them is not a subject to discuss at this time; certainly no medical law as far-reaching in its effects as this law could be enacted unless these exemptions were made.

The osteopathic exemption was another necessity. There was a feeling in the minds of many members of the legislature that something must be done for the osteopaths. Either a single examining board which would protect those already in practice must be created, or a law creating a separate osteopathic examining board should be passed. Osteopaths had been encouraged to come to this state because of the lack of a specific definition of the practice of medicine in the old law. Under the decision in the Allcutt case they could now be successfully prosecuted; but they had been practicing so long without being molested that the legislators were not inclined to enact a law which did not in some way recognize them. They receive recognition as osteopaths, and that is all, except that as time goes on, unless the law is amended, they will eventually cease to exist as a separate body.

It has often been said that all law is the result of compromise, and certain it is that this law is no exception. That it has been criticised is only what was expected, but thus far the criticisms have been those borne of prejudice, and by people who have had imperfect knowledge of the facts.

We believe that the state of New York is to be congratulated on its new medical law, and that time will demonstrate that it is just and equitable, and above all, a proper protection to the public.

LAWS OF NEW YORK, PASSED IN 1907, OF INTEREST TO THE GENERAL PROFESSION.

CHAP. 276.—AN ACT IN RELATION TO THE MEDICAL SOCIETY OF THE STATE OF NEW YORK.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. The Medical Society of the State of New York, reconstituted and continued by the consolidation of the Medical Society of the State of New York and the New York State Medical Association, in accordance with the terms of Chapter one of the laws of nineteen hundred four, shall have power from time to time to determine what county medical societies are in affiliation with it, and to prescribe the terms and conditions under which any county medical society shall be or shall continue to be so affiliated, and shall have power to suspend and discipline affiliated county medical societies.

Sec. 2. Section three of Chapter ninety-four of the revised laws of eighteen hundred thirteen, entitled "An act to incorporate medical societies, for the purpose of regulating the practice of physic and surgery in this State," passed April tenth, eighteen hundred thirteen, is hereby amended to read as follows:

Sc. 3. And be it further enacted that the medical society already incorporated, by the style and name of Medical Society of the State of New York, shall continue to be a body politic and corporate, in fact and in name, and by that name shall be in law capable of suing and being sued, pleading and being impleaded, answering and being answered unto, defending and being defended, in all courts and places, and in all matters and things whatsoever, and shall and may have and use a common seal, and may change and alter the same at their pleasure.

Sec. 3. The following acts and parts of acts are hereby repealed: Section five, six, seven, eight, and nineteen, of Chapter ninety-four of the revised laws of eighteen hundred thirteen, entitled "An act to incorporate medical societies, for the purpose of regulating the practice of physic and surgery in this State," passed April ten, eighteen hundred thirteen. Section three of Chapter five hundred thirty-two of the laws of eighteen hundred thirty-six, entitled "An act to amend Title seventh, Chapter fourteen, of the first part of the revised statutes and for other purposes," passed May twenty-six, eighteen hundred thirty-six. Section five of Chapter two hundred seventy-four of the laws of eighteen hundred fifty-one, entitled "An act to incorporate the New York Academy of Medicine," passed June twenty-third, eighteen hundred fifty-one. Chapter three hundred eight of the laws of eighteen hundred fifty-three, entitled "An act to amend an act entitled 'An act to incorporate the New York Academy of Medicine, passed June twenty-third, eighteen hundred fifty-one,'" passed

June fourth, eighteen hundred fifty-three. Chapter three hundred seventeen of the laws of eighteen hundred fifty-three, entitled "An act to amend an act, entitled 'An act to incorporate medical societies for the purpose of regulating the practice of physic and surgery in this State, passed April tenth, eighteen hundred thirteen,'" passed May thirteenth, eighteen hundred seventy-eight. Sections one and two of Chapter two hundred fifty-one of the laws of eighteen hundred seventy-eight, entitled "An act to regulate the election of permanent members of the Medical Society of the State of New York," passed May thirteenth, eighteen hundred seventy-eight. Section one of Chapter three hundred seventy-nine of the laws of eighteen hundred eighty-five, entitled "An act regarding membership in the Medical Society of the State of New York," passed May twenty-ninth, eighteen hundred eighty-five.

Sec. 4. This act shall take effect immediately.

CHAP. 344.—AN ACT TO REGULATE THE PRACTICE OF MEDICINE, AND TO REPEAL ARTICLE EIGHT OF CHAPTER SIX HUNDRED AND SIXTY-ONE OF THE LAWS OF EIGHTEEN HUNDRED AND NINETY-THREE AND ACTS AMENDATORY THEREOF.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. Definitions as used in this act:

1. The education department means the education department of the State of New York, as provided for by Chapter forty of the laws of nineteen hundred and four.

2. University means university of the State of New York.

3. Regents means board of regents of the university of the State of New York.

4. Board means the board of medical examiners of the State of New York.

5. Medical examiner means a member of the board of medical examiners of the State of New York.

6. Medical school means any medical school, college or department of a university, registered by the regents as maintaining a proper medical standard and as legally incorporated.

7. The practice of medicine is defined as follows: A person practices medicine within the meaning of this act, except as hereinafter stated, who holds himself out as being able to diagnose, treat, operate, or prescribe for any human disease, pain, injury, deformity or physical condition, and who shall either offer or undertake, by any means or method, to diagnose, treat, operate, or prescribe for any human disease, pain, injury, deformity, or physical condition.

8. Physician means a practitioner of medicine.

Sec. 2. *Qualifications.*—No person shall practice medicine, unless registered and legally authorized prior to September first, eighteen hundred and ninety-one, or unless licensed by the regents and registered under Article eight of Chapter six hundred and sixty-one of the laws of eighteen hundred and ninety-three and acts amendatory thereto, or unless licensed by the regents and registered as required by this act; nor shall any person practice under this act who has ever been convicted of a felony by any court, or whose authority to practice is suspended or revoked by the regents on recommendation of the State board. The conviction of a felony shall include the conviction of any offense which if committed within the State of New York would constitute a felony under the laws thereof.

Sec. 3. *The State board of medical examiners.*—There shall be a State board of medical examiners of nine members who shall be appointed by the regents and who shall hold office for three years from August first of the year in which appointed. In constituting the first board, however, to be appointed under this act, the regents shall designate three members to serve for one year from August first, nineteen hundred and seven; three members to serve two years from August first, nineteen hundred and seven; and three members to serve for the full term of three years from August first, nineteen hundred and seven. Thereafter the regents shall annually appoint three members to fill the vacancies caused by expiration of term of office, and may at any time fill vacancies on the board caused by death, resignation, or removal from office. No person shall be appointed a member of the board of medical examiners who is not eligible to receive a license to practice from the regents in acordance with the provisions of this act or of Chapter six hundred and sixty-one of the laws of eighteen hundred and ninety-three and acts amendatory thereof and who has not been in practice in this State for at least five years prior to date of appointment. The regents may remove any member of the board of examiners for misconduct, incapacity or neglect of duty. The regents shall appoint a secretary to the board of examiners, who shall not be a member of the board, and who shall hold office during the pleasure of the regents and who shall receive an annual compensation of four thousand dollars, payable from the fees received under this act. The secretary shall be a duly licensed physician.

Sec. 4. *Certificate of appointment; oath; powers.*—Every medical examiner shall receive a certificate of appointment from the regents and before beginning his term of office shall file with the secretary of State the constitutional oath of office. The board, or any committee thereof, may employ counsel, shall have the power to compel the attendance of witnesses, and may take testimony and proofs concerning all matters within its jurisdiction. The board may, subject to the regents' approval make all by-laws and rules not inconsistent with law needed in performing its duty; but no by-law or rule by which more than a majority vote is required for any specified action by the board shall be amended, suspended or repealed by a smaller vote than that required for action thereunder.

Sec. 5. *Expenses.*—The fees derived from the operation of this act shal be paid into the State treasury, and the legislature shall annually appropriate therefrom for the education department an amount sufficient to pay all proper expenses incurred pursuant to this act.

Sec. 6. *Officers; meetings; quorum; committees.*—The board shall annually elect from its members a president and a vice-president for the academic year, and shall hold one or more meetings each year pursuant to call of the regents. At any meeting a majority shall constitute a quorum; but questions prepared by the board may be grouped and edited, or answer papers of candidates may be examined and marked by committees duly authoriized by the board and approved by the regents.

Sec. 7. *Admission to examination.*—The regents shall admit to examination any candidate who pays a fee of twenty-five dollars and submits evidence, verified by oath, and satisfactory to the regents, that he

1. Is more than twenty-one years of age.

2. Is of good moral character.

3. Had prior to beginning the second year of medical study the general education required preliminary to receiving the degree of bachelor or doctor of medicine in this State.

4. Has studied medicine not less than four school years, including four satisfactory courses of at least seven months each, in four different calendar years in a medical school registered as maintaining at the time a standard satisfactory to the regents. New York medical schools and New York medical students shall not be discriminated against by the registration of any medical school out of the State whose minimum graduation standard is less than that fixed by statutes for New York medical schools. The regents may, in their discretion, accept as the equivalent for any part of the third and fourth requirement, evidence of five or more years' reputable practice, provided that such substitution be specified in the license, and, as the equivalent of the first year of the fourth requirement, evidence of graduation from a registered college course, provided that such college course shall have included not less than the minimum requirements prescribed by the regents for such admission to advanced standing. The regents may also in their discretion admit conditionally to the examination in anatomy, physiology, hygiene, sanitation, and chemistry, applicants nineteen years of age certi-

fied as having studied medicine not less than two years, including two satisfactory courses of at least seven months each, in two different calendar years, in a medical school registered as maintaining at the time a satisfactory standard, provided that such applicants meet the second and third requirements.

5. Has either received the degree of bachelor or doctor of medicine from some registered medical school, or a diploma or license conferring full right to practice medicine in some foreign country unless admitted conditionally to the examinations as specified above, in which case all qualifications, including the full period of study, the medical degree and the final examinations in surgery, obstetrics, gynecology, pathology, including bacteriology, and diagnosis must be met. The degree of bachelor or doctor of medicine shall not be conferred in this State before the candidate has filed with the institution conferring it the certificate of the regents that before beginning the first annual medical course counted toward the degree, unless matriculated conditionally as hereinafter specified, he had either graduated from a registered college or satisfactorily completed a full course in a registered academy or high school; or had a preliminary education considered and accepted by the regents as fully equivalent; or held a regents' medical student certificate; or passed regents' examinations securing sixty academic counts, or their full equivalent, before beginning the first annual medical course counted toward the degree, unless admitted conditionally as hereinafter specified. A medical school may matriculate conditionally a student deficient in not more than one year's academic work or fifteen counts of the preliminary education requirement, provided the name and deficiency of each student so matriculated be filed at the regents' office within three months after matriculation, and that the deficiency be made up before the student begins the second annual medical course counted toward the degree.

6. Where the application be for a license to practice osteopathy, the applicant shall produce evidence that he has studied osteopathy not less than three years, in cluding three satisfactory courses of not less than nine months each in three different calledar years in a college of osteopathy maintaining at the time a standard satisfactory to the regents. After nineteen hundred and ten the applicant for a license to practice under this act shall produce evidence that he has studied not less than four years, including four satisfactory courses of not less than seven months each in four different calendar years in a college maintaining at the time a standard satisfactory to the regents.

Sec. 8. *Questions.*—The board shall submit to the regents, as required, lists of suitable questions for thorough examination in anatomy, physiology, hygiene, sanitation, chemistry, surgery, obstetrics, gynecology, pathology, including bacteriology, and diagnosis. From these lists the regents shall prepare question papers for all these subjects, which at any examination shall be the same for all candidates, except that the examination may be divided as provided in section seven.

Sec. 9. *Examinations and reports.*—Examinations for licenses shall be given in at least four convenient places in this State and at least four times annually in accordance with the regents' rules, and shall be exclusively in writing and in English. Each examination shall be conducted by a regents' examiner who shall not be one of the medical examiners. At the close of each examination the regents' examiner in charge shall deliver the questions and answer papers to the board or its duly authorized committee, who, without unnecessary delay, shall examine and mark the answers and transmit to the regents an official report, signed by its president and secretary, stating the standing of each candidate in each branch, his general average and whether the board recommends that a license be granted. Such a report shall include the questions and answers and shall be filed in the public records of the university. If a candidate fails on first examination, he may, after not less than six months' further study, have a second examination without fee. If the failure is from illness or other cause satisfactory to the regents they may waive the required six months' study.

Sec. 10. *Licenses.*—On receiving from the State board an official report that an applicant has successfully passed the examinations and is recommended for license, the regents shall issue to him a license to practice according to the qualifications of the applicant. Every license shall be issued by the university under seal and shall be signed by each acting medical examiner and by the officer of the university who approved the credential which admitted the candidate to examination, and shall state that the licensee has given satisfactory evidence of fitness as to age, character, preliminary and medical education and all other matters required by law, and that after full examination he has been found properly qualified to practice. Applicants examined and licensed by other State examining boards registered by the regents as maintaining standards not lower than those provided by this article and applicants who matriculated in a New York State medical school before June fifth, eighteen hundred and ninety, and who received the degree of doctor of medicine from a registered medical school before August first, eighteen hundred and ninety-five, may, without further examination, on payment of twenty-five dollars to the regents and on submitting such evidence as they may require, receive from them an indorsement of their licenses or diplomas conferring all rights and privileges of a regents' license issued after examination. The commissioner of education may in his discretion on the approval of the board of regents indorse a license or diploma of a physician from another State, provided the applicant has met all the preliminary and professional qualifications required for earning a license on examination in this State, has been in reputable practice for a period of ten years, and has reached a position of conceded eminence and authority in his profession. If any person, whose registration is not legal because of some error, misunderstanding or unintentional omission, shall submit satisfactory proof that he had all requirements prescribed by law at the time of his imperfect registration and was entitled to be legally registered, he may on unanimous recommendation of the State board of medical examiners receive from the regents under seal a certificate of the facts which may be registered by any county clerk, and shall make valid the previous imperfect registration. Before any license is issued it shall be numbered and recorded in a book kept in the regents' office and its number shall be noted in the license and a photograph of the licensee filed with the records. This record shall be open to public inspection, and in all legal proceedings shall have the same weight as evidence that is given to a record of conveyance of land.

Sec. 11. *Registry; revocation of license; annulment of registry.*—Every license to practice medicine shall, before the licensee begins practice thereunder, be registered in a book kept in the clerk's office of the county where such practice is to be carried on, with name, residence, place and date of birth, and source, number and date of his license to practice. Before registering, each licensee shall file, to be kept in a bound volume in the county clerk's office, an affidavit of the above facts, and also that he is the person named in such license, and had, before receiving the same, complied with all requirements as to attendance, terms and amount of study and examinations required by law and the rules of the university as preliminary to the conferment thereof; that no money was paid for such license, except the regular fees paid by all applicants therefor; that no fraud, misrepresentation or mistake in any material regard was employed by any one or occurred in order that such license should be conferred. Every license, or if lost a copy thereof legally certified so as to be admissible as evidence, or a duly attested transcript of the record of its conferment, shall, before registering, be exhibited to the county clerk, who, only in case it was issued or indorsed as a license under seal by the regents, shall indorse or stamp on it the date and his name preceded by the words: "Regis-

tered as authority to practice medicine in the clerk's office of.....county." The clerk shall thereupon give to every physician so registered a transcript of the entries in the register with a certificate, under seal that he has filed the prescribed affidavit. The licensee shall pay to the county clerk a total fee of one dollar for registration, affidavit and certificate. The regents shall have power at any and all times to inquire into the identity of any person claiming to be a licensed or registered physician and after due service of notice in writing, require him to make reasonable proof, satisfactory to them, that he is the person licensed to practice medicine under the license by virtue of which he claims the privilege of this act. When the regents find that a person claiming to be a physician, licensed under this act, is not in fact the person to whom the license was issued, they shall reduce their findings to writing and file them in the office of the clerk of the county in which said person resides or practices medicine. Said certificate shall be prima facie evidence that the person mentioned therein is falsely impersonating a practitioner or a former practitioner of a like or different name. The regents may revoke the license of a practitioner of medicine, or annul his registration, or do both, in any of the following cases:

(a) A practitioner of medicine who is guilty of any fraud or deceit in his practice, or who is guilty of a crime or misdemeanor, or who is guilty of any fraud or deceit by which he was admitted to practice; or

(b) Is an habitual drunkard or habitually addicted to the use of morphine, opium, cocaine, or other drugs having a similar effect; or

(c) Who undertakes or engages in any manner, or by any ways or means whatsoever, to procure or perform any criminal abortion as the same is defined by section two hundred and ninety-four of the penal code; or

(d) Who offers or undertakes by any manner or means to violate any of the provisions of section three hundred and eighteen of the penal code.

(e) Proceedings for revocation of a license or the annulment of registration shall be begun by filing a written charge or charges against the accused. These charges may be preferred by any person or corporation, or the regents may on their own motion direct the executive officer of the board of regents to prefer said charges. Said charges shall be filed with the executive officer of the board of regents, and a copy thereof filed with the secretary of the board of medical examiners. The board of medical examiners, when charges are preferred, shall designate three of their number as a committee to hear and determine said charges. A time and place for the hearing of said charges shall be fixed by said committee as soon as convenient, and a copy of the charges, together with a notice of the time and place when they will be heard and determined, shall be served upon the accused or his counsel, at least ten days before the date actually fixed for said hearing. Where personal service or service upon counsel cannot be effected, and such fact is certified on oath by any person duly authorized to make legal service, the regents shall cause to be published for at least seven times, for at least twenty days prior to the hearing, in two daily papers in the county in which the physician was last known to practice, a notice to the effect that at a definite time and place a hearing will be had for the purpose of hearing charges against the physician upon an application to revoke his license. At said hearing the accused shall have the right to cross-examine the witnesses against him and to produce witnesses in his defense, and to appear personally or by counsel. The said committee shall make a written report of its findings and recommendations, to be signed by all its members, and the same shall be forthwith transmitted to the executive officer of the board of regents. If the said committee shall unanimously find that said charges, or any of them, are sustained, and shall unanimously recommend that the license of the accused be revoked or his registration be annulled, the regents may thereupon in their discretion, revoke said license or annul said registration or do both. If the regents shall annul such registration, they shall forthwith transmit to the clerk of the county or counties in which said accused is registered as a physician, a certificate under their seal certifying that such registration has been annulled, and said clerk shall, upon receipt of said certificate, file the same and forthwith mark said registration "Annulled." Any person who shall practice medicine after his registration has been marked "Annulled" shalll be deemed to have practiced medicine without registration. Where the license of any person has been revoked, or his resignation has been annulled as herein provided, the regents may, after the expiration of one year, entertain an application for a new license, in like manner as original applications for licenses are entertained; and upon such new applications they may, in their discretion, exempt the applicant from the necessity of undergoing any examination.

Sec. 12. *Registry in another county.*—A practicing physician having registered a lawful authority to practice medicine in one county, and removing such practice or part thereof to another county, or regularly engaging in practice or opening an office in another county, shall show or send by registered mail to the clerk of sluch other county his certificate of registration. If such certificate clearly shows that the original registration was of an authority issued under seal by the regents, or if the certificate itself is endorsed by the regents as entitled to registration, the clerk shall thereupon register the applicant in the latter county, on receipt of a fee of twenty-five cents, and shall stamp or endorse on such certificate, the date and his name preceded by the words, "Registered also in..... ..... county," and return the certificate to the applicant.

Sec. 13. *Certificate presumptive evidence; unauthorized registration and license prohibitive.*—Every unrevoked certificate and endorsement of registry, made as provided in this article, shall be presumptive evidence in all courts and places, that the person named therein is legally registered. Hereafter no person shall register any authority to practice medicine unless it has been issued or endorsed as a license by the regents. No such registration shall be valid unless the authority registered constituted, at the time of registration, a license under the laws of the state then in force. No diploma or license conferred on a person not actually in attendance at the lectures, instruction and examinations of the school conferring the same, or not possessed at the time of its conferment of the requirements then demanded of medical students in this state as a condition of their being licensed so to practice, and no registration not in accordance with this article shall be lawful authority to practice medicine, nor shall the degree of doctor of medicine be conferred causa honoris or ad eundem nor if previously conferred shall it be a qualification for such practice.

Sec. 14. *Construction of this article.*—This article shall not be construed to affect commissioned medical officers serving in the United States army, navy, or marine hospital service, while so commissioned; or any one while actually serving without salary or professional fees on the resident medical staff of any legally incorporated hospital; or any legally registered dentist exclusively engaged in practicing dentistry; or any person or manufacturer who mechanically fits or sells lenses, artificial eyes, limbs, or other apparatus or appliances, or is engaged in the mechanical examination of eyes, for the purpose of constructing or adjusting spectacles, eye glasses and lenses; or any lawfully qualified physician in other states or countries meeting legally registered physicians in this state in consultation; or any physician residing on a border of a neighboring state and duly licensed under the laws thereof to practice medicine therein, whose practice extends into this state, and who does not open an office or appoint a place to meet patients or receive calls within this state; or any physician duly registered in one county called to attend isolated cases in another county,

but not residing or habitually practicing therein; or the furnishing of medical assistance in case of emergency; or the domestic administration of family remedies; or the practice of chiropody; or the practice of the religious tenets of any church. This article shall be construed to repeal all acts or parts of acts authorizing conferment of any degree in medicine causa honoris or ad eunden or otherwise than on students duly graduated after satisfactory completion of a preliminary medical course not less than that required by this article as a condition of license. It is further provided that any person who shall be actively engaged in the practice of osteopathy in the state of New York on the date of the passage of this act, and who shall present to the board of regents satisfactory evidence that he is a graduate in good standing of a regularly conducted school or college of osteopathy within the United States which at the time of his or her graduation required a course of study of two years or longer, including the subjects of anatomy, physiology, pathology, hygiene, chemistry, obstetrics, diagnosis and the theory and practice of osteopathy, with actual attendance of not less than twenty months, which facts shall be shown by his or her diploma and affidavit, shall upon application and payment of ten dollars be granted, without examination, a license to practice osteopathy, provided application for such license be made within six months after the passage of this act. A license to practice osteopathy shall not permit the holder thereof to administer drugs or perform surgery with the use of instruments. Licenses to practice osteopathy shall be registered in accordance with the provisions of this act, and the word osteopath be included in such registration; and such license shall entitle the holder thereof to the use of the degree D.O., or doctor of osteopathy.

Sec. 15. *Penalties and their collection.*—Any person who, not being then lawfully authorized to practice medicine within this state and so registered according to law, shall practice medicine within this state without lawful registration or in violation of any provision of this article; and any person who shall buy, sell, or fraudently obtain any medical diploma, license, record, or registration, or who shall aid or abet such buying, selling, or fraudulently obtaining, or who shall practice medicine under cover of any medical diploma, license, record or registration illegally obtained, or signed, or issued unlawfully or under fraudulent representations, or mistake of fact in a material regard, or who, after conviction of a felony, shall attempt to practice medicine, or shall so practice, and any person who shall in connection with his name use any designation tending to imply or designate him as a practitioner of medicine within the meaning of this act without having registered in accordance therewith, or any person who shall practice medicine or advertise to practice medicine under a name other than his own, or any person not a registered physician who shall advertise to practice medicine, shall be guilty of a misdemeanor. Any person who shall practice medicine under a false or assumed name, or who shall falsely personate another practitioner or former practitioner of a like or different name, shall be guilty of a felony. When any prosecution under this act, or under sections three hundred and eighteen, two hundred and ninety-four, two hundred and ninety-five, two hundred and ninety-seven, four hundred and five-b of the penal code, and any amendments thereto, is made on the complaint of any incorporated medical society of the state, or any county medical society entitled to representation in a state society, any fines collected shall be paid to the society making the complaint, and any excess of the amount of fines so paid over the expense incurred by the said society in enforcing the medical laws of this state, shall be paid at the end of the year to the county treasurer.

Sec. 16. Article eight of chapter six hundred and sixty-one of the laws of eighteen hundred and ninety-three, chapter three hundred and ninety-eight of the laws of eighteen hundred and ninety-five, chapter six hundred and thirty-six of the laws of eighteen hundred and ninety-five, chapter one hundred and eleven of the laws of eighteen hundred and ninety-six, chapter six hundred and forty-six of the laws of nineteen hundred and one, and chapter two hundred and forty-three of the laws of nineteen hundred and two are hereby repealed.

Sec. 17. This act shall take effect immediately.

CHAP. 424—AN ACT TO AMEND THE PENAL CODE, IN RELATION TO THE SALE OF CERTAIN DRUGS.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. The penal code is hereby amended by inserting therein a new section to be section four hundred and five-a thereof and to read as follows:

Sec. 405-a. It shall be unlawful for any person to sell, furnish or dispose of alkaloid cocaine or its salts, or alpha or beta eucaine or their salts or any admixture of cocaine or eucaine, except upon the written prescription of a duly registered physician, which prescription shall be retained by the person who dispenses the same, shall be filled but once and of which no copy shall be taken by any person; except, however, that such alkaloid cocaine or its salts, and alpha or beta eucaine or their salts may lawfully be sold at wholesale upon the written order of a licensed pharmacist or licensed druggist, duly registered practicing physician, licensed veterinarian or licensed dentist, provided that the wholesale dealer shall affix or cause to be affixed to the bottle, box, vessel or package containing the article sold, and upon the outside wrapper of the package as originally put up, a label distinctly displaying the name and quantity of cocaine or its salts, alpha or beta eucaine or their salts, sold, and the word "poison" with the name and place of business of the seller, all printed in red ink; and provided also that the wholesale dealer shall before delivering any of the articles make or cause to be made in a book kept for the purpose an entry of the sale thereof stating the date of sale, the quantity, name and form in which sold, the name and address of the purchaser, and the name of the person by whom the entry is made; and the said book shall be always open for inspection by the proper authorities and shall be preserved for at least five years after the date of the last entry made therein. Any person who violates any of the provisions of this section shall be guilty of a felony punishable by imprisonment of not more than one year or a fine of not more than one thousand dollars, or both.

Sec. 2. This act shall take effect September first, nineteen hundred and seven.

THE OPTOMETRY BILL VETOED BY THE GOVERNOR.

Memorandum filed with Senate Bill No. 2356 (Senate Reprint No. 1492) entitled "An act to amend the public health law by defining optometry and regulating the practice thereof."—Not approved.

It is the intent of this bill that the board of examiners in optometry, to be appointed by the Board of Regents, shall be selected from those nominated by the Optical Society. It is also provided that the prescribed course of professional study in schools of optometry shall be had in such schools as maintain a standard satisfactory to the board of examiners. These provisions remove from the jurisdiction of the Board of Regents matters which it is important should be placed in their control. If the practice of optometry is to have the recognition and regulation contemplated by this bill the appointment of examiners should not be limited to those nominated by a particular society, and the determination of the standards of professional schools should be unequivocally left to the proper State authority. This is the policy established by the law enacted this year regulating the practice of medicine, and in my judgment it is unwise in legislation along similar lines to adopt a different principle.

(Signed) CHARLES E. HUGHES.

Medical Society of the State of New York.

SCIENTIFIC SESSION: DISCUSSIONS.

ANNUAL MEETING, JANUARY 29 AND 30, 1907.

ROUTINE EXAMINATION OF THE URINE FOR INDICAN.

DR. JOSEPH DAY OLIN, of Watertown, read a paper with the above title, for which see page 313.

Discussion.

DR. HEINRICH STERN, of New York, said that the question of potassium sulpho-indigotate, commonly known as indican, is, as far as it pertains to clinical medicine, grossly overrated and exaggerated. The same holds good with numerous other substances which are from time to time detected in the urine. Of course a good deal is made of indican, especially by the neurologist, but in reality he does not know very much about it. As to its causation, we have heard this morning, Dr. Stern continued, that it arises from putrefaction. Now, putrefaction means the disintegration of protoid material. As a matter of fact, however, little, or no indican at all, is found in the urine of carniverous animals. It is, on the other hand, a constant and important constituent of the urine of herbiverous animals, especially the horse. In experimenting with indican, Dr. Stern continued, we have to accept the horse's urine, because it contained sufficient amounts for experimental purposes. The little potassium sulpho-indigotate on the market, he understands, is prepared from the urine of the horse. Dr. Stern maintains that this so-called indican is more the result of process of hyper-fermentation than of those of putrefaction. Of course, indican may be used as a clinical index, but certainly only to a very limited degree. It indicates an intestinal hyperfermentation—nothing else. All other diagnostic value of the substance is hypothetical—the least to say. Its presence demonstrates to us a more or less abnormal condition of the intestinal tract—that's all. To fasten conditions of high vascular tension, angiosclerosis cardiac hypertrophy and nervous diseases upon the presence of indican, the least to say, should be considered with a great deal of reserve. We are always only too apt to ascribe a pathological condition to a clouded substance which was delivered in the urine a short time ago, or almost, or about which we read a lengthy article yesterday.

Furthermore, in all my investigations and experiments, I have never found it in the blood of the animal which excreted it by the urine. It stands to reason it must have passed through the circulation before it has entered the composition of the urine, the amount, however, in which it exists at any one time in the blood, is too small for clinical demonstration.

DR. DE LANCEY ROCHESTER, of Buffalo, said he arose to speak on the subject Dr. Stern brought up, and that he agreed with him in the main in regard to what he said about indoxyl sulphate, but he wished to make one disputation. Indican was unquestionably an indication of fermentation in the intestinal tract in a large number of cases, but the mere fact that it was not present in the blood did not mean much. The presence of indoxyl sulphate in the urine showed an existing condition of disturbed physiology of the individual and, therefore, this showed the importance of a routine examination for this substance in the urine. Dr. Rochester had been making these examinations for the past ten years and found the results of great value in guiding him in the treatment of his cases. He had found it present in cases of cardiac insufficiency, in pronounced asthma and in a large number of cases where there were evidences of failure of function of the bowel to properly get rid of the material it should get rid of.

DR. T. F. WOODWORTH, of Kinderhook, said that finding indican in the urine was a sign of fermentative changes in the intestine as well as of changes in the circulation of the blood, and it always produced high arterial tension. Putrefactive changes in the intestines were the fundamental cause of the appearance of indican in the urine; there was possibly a suboxidation change causing arteriosclerosis, a dilated and hypertrophied heart, and finally permanent heart and kidney degenerations. When there was indican in the urine one always found an excess of uric acid. An easy test for the latter, *i. e.*, uric acid, was to take a long test tube one-half an inch in diameter and introduce the urine to be tested. The upper part should be boiled; then eleven drops of a 4 per cent. acetic acid solution should be added; then this should be reboiled and allowed to stand six or eight hours. Then one would find uric acid, and at the same time always find it in the presence of indican. The indican was a direct index as to the condition of putrefaction changes occurring in the intestine.

DR. A. JACOBI, of New York, said it was a very difficult matter to pick out any particular point from the paper just heard which he considered to be very valuable. There was only one point, though, that was of common interest that he wished to speak of. Indican was frequently found in all of us. Those with a tendency to constipation had it in large quantities sometimes, or at intervals. Those who ate a great deal and too fast were very apt to have indican because they did not digest the food, and so putrefactive changes occurred in the small intestines. All of us ate too much, and most of us probably 50 per cent. more than we should. He was probably one of them. He believed that Chittenden had done good service in his investigations and teachings. But he believed that all felt that they should not do much work with Prof. Chittenden's allowance of food. A person who was idle could do with it. But when one worked, he wanted more. There was a great temptation to eat too much; therefore, people suffered from constipation, and then indican appeared in the urine. An excess of a proteid diet would always give it. Many ate too much meat and also drank too much milk. Dr. Jacobi said he knew whereof he spoke because he had to deal a great deal with milk, particularly good and fat milk. Little or no indican was noticed when one partook of country milk, but in New York City some of the milk was of the best quality, and was good, clean and fat milk. The result of its ingestion was that indican appeared in the urine. Dr. Jacobi could tell this by his own feelings. When on much milk he would feel uncommonly ugly and showed temper when treating his patients. He then would find indican in the urine. When he took less milk, he would be cured of his attack. Our temperaments and occasionally our tempers depended upon the amount of putrefaction and gases in the intestine. Dr. Jacobi warned them against the so-called liquid peptonoids which, if they really had their alleged high proteid percentage, might do harm. They owed their success, however, to the presence of so much alcohol. He did not know that was why so many people suffering from exhaustion felt so good when taking liquid peptonoids or not. Probably it was the alcohol contained in them. But an alcoholic beverage may be provided at less expense. Liquid peptonoids did most good only to the man who sold them. From what he said of fat milk, one should conclude that the effect of giving undiluted good fat milk as food for children suffering from summer diarrhœa would be detrimental. The addition of water would not change the relative percentage of fat and proteids in the milk that the child took. Dr. Jacobi said that he knew that when he gave babies or children undiluted good fat milk, costing from 10 to 15 cents a quart, that they would develop indican in the urine as the result of a disturbed digestion. Therefore, he had always advised against diluting milk with water alone; the best admixture, and at the same time disinfectant, was a cereal, such as barley, oatmeal, rice, etc. The urine of a child fed on good fat cow's milk undiluted would contain indican; sometimes constipation would alternate with diarrhœa.

THE SURGERY OF FOREIGN BODIES IN THE RESPIRATORY TRACT.

Dr. Willis G. Macdonald, of Albany, read a paper with the above title, for which see page 317.

Discussion.

Dr. A. Vander Veer, of Albany, said that he had always been impressed with the importance of learning as quickly as possible the nature of the foreign body. Dr. Macdonald has covered the subject very thoroughly. When a mother told him that the little child had inhaled a bean or a corn he always felt that he should act and act promptly. Whatever was to be done from a surgical standpoint was to be done as soon as possible. He had had a number of cases in which in doing a low tracheotomy nature had aided most decidedly by spasm and coughing. But not so with hard substances which were immovable, like the cap of a lead pencil, a piece of bone or a cork. A cork inhaled was the most serious. A cap or a small nail held by a person putting down a carpet, and inhaled, might enter the extreme end of the bronchus and remain there without doing harm. But not so with the shell of a seed of barley or rye. In the majority of these cases abscesses will form. When a pumpkin seed was inhaled, abscess formation would result, or it might be coughed up. If it entered the large bronchus, an empyema and an operation might be required to remove it. He wished to lay particular stress upon the importance of acquiring a knowledge of the nature of the material inhaled. Hard substances, as bone, and immovable substances, caused much anxiety. When they became conversant with the X-rays they now could locate the foreign bodies, but one should be exceedingly careful in doing X-ray work in locating foreign substances as many mistakes have happened. In a number of instances he had been able to remove pieces of bone and oyster shells by a low tracheotomy and removing the foreign body with a delicate but long form of forceps. He said he had seen the instruments Dr. Macdonald presented in use and he was surprised at the tolerance the patients showed in using the long instruments. The cases in which these instruments could be used were few. He believed that many foreign bodies would yet be removed from the respiratory tract surgically.

Dr. Samuel B. Ward, of Albany, did not think that, as a general rule, much difficulty was encountered in locating foreign bodies that had been inhaled, so far as his experience went. Dr. Macdonald had referred to difficulty in diagnosis in some cases and this was the case referred to. In July, years ago, at an Adirondack hotel, he was consulted in the morning by a United States army officer who was in great trouble, had tears streaming down his long face, and evidently was very much worried. He had a telegram saying that his wife was seriously ill, at death's door, and he wanted to know if it was safe for him to go away for ten days, saying that he had consumption. Dr. Ward told him to go under these serious conditions, and he started at once to catch the train. Two weeks after this he reported that not only was his wife better but that "he had coughed up his consumption." He took from his pocket the wish-bone of a quail saying that "that was all there was left of his consumption." He had been in Florida in March where he had eaten quail. He choked, fell on the floor, etc., and consulted a specialist who told him there was nothing in his air passages. One month later, because he kept on coughing, he consulted a surgeon in the United States Army, who discovered pulmonary consolidation. Dr. Loomis diagnosed tuberculosis of the lung, basing it on the same consolidation. This piece of bone had remained there from March until July when it was coughed up. This then entirely relieved him of his consumption.

Dr. A. Jacobi, of New York, said that he wished to speak of a single case, a case which concerned the surgeon, the specialist and the doctor. His friend, Dr. Francis Huber, had sent him a case six weeks ago with the following history: The child had been ill for quite a while with pneumonia, and aspiration of a foreign body was suspected. The X-ray could not find it. Dr. Jacobi found a very extensive lobar pneumonia of the right upper lobe. The dullness was very marked; there was bronchial respiration; the dullness extended over the right upper lobe. He also made use of the X-ray with negative results. Later he asked that the child be sent to see him again. The child had developed an abscess. At the same time there were sent three X-ray pictures. There was a black body in the picture about two and a half inches long and it was shaped like a nail, and appeared to protrude into the right bronchus. In view of this, operation had been performed and a nail removed, a rusty nail, two and a third inches long. These were the cases that would gladden the heart of any practitioner when terminated successfully.

ANNUAL MEETINGS OF THE DISTRICT BRANCHES, 1907.

1st District, October 28, in New York City.
2d District, September 28, in Brooklyn, New York.
3d District, October 22, in Albany.
4th District, September 18, at Saranac Lake.
5th District, October 3, in Syracuse.
6th District September 24, in Ithaca.
7th District, November 13, in Rochester.
8th District, September 25 and 26, in Buffalo.

The scientific program for the Fourth District Branch is now being arranged. Those desirous of contributing papers will please notify the president, Dr. D. C. Moriarta, Saratoga Springs, N. Y.

The Sixth District Branch of the Medical Society of the State of New York, will hold its annual meeting in Ithaca, on September 24, 1907. It is intended to have a morning, afternoon and possibly an evening session. The meeting promises to be of great interest, many papers having already been promised, and will be held in the Cornell University Medical College Building, through the courtesy of Dr. Abram T. Keer and the trustees of the University. Those in the district wishing to read papers will kindly notify the Secretary, Dr. H. W. Fudge, 375 South Main Street, Elmira, at an early date.

The use of substances enhancing the phagocytic reaction in the protection of tissues, which are subjected to operation, is but the first step forward in the hygiene of the tissues. This subject will have to be extended to other cases where our living organs are threatened by microbes, and where it is necessary to protect the former against the latter. With regard to this question, we may rejoice that the foundation stone of the hygiene of the tissues, *i. e.,* the thesis that the phagocytes are our arms of defence against the infective germs, has at last been generally accepted.—*Metchnikoff.*

The prejudice that boiled water tastes bad and is unwholesome is very widely spread. This idea is most assuredly false; if water is boiled in a perfectly clean vessel it has no disagreeable taste whatever. An Italian scientist has carried out the following experiment he filled several glasses with boiled water and an equal number with unboiled water of the same origin. Persons asked to taste the water were unable to distinguish the two lots from one another, so slight is the difference between raw and boiled water. I have myself found that boiled water is in every respect most satisfactory, and have drunk no other water for about ten years.—*Metchnikoff.*

Progress of Medicine.

PRACTICE OF MEDICINE.

EDITED BY

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THE DIAGNOSIS AND TREATMENT OF DUODENAL ULCER.

Duodenal ulcer, says Moynihan, has been considered an extremely rare disease, very difficult of diagnosis. In an article in the *Practitioner* for June he shows in a quite convincing manner that duodenal ulcer is common and that its diagnosis in a great majority of cases is fairly easy. He says, moreover, that the surgical treatment is the safest and indeed often the only reasonably safe treatment that can be adopted.

Duodenal ulcer, properly called "peptic ulcer," may be present in any part of the duodenum, but is usually found immediately beyond the pylorus. In forty per cent. of the author's cases it has been found asociated with gastric ulcer, and in these cases it is not improbable that the gastric ulceration is the primary condition, the duodenal ulcer being secondary and being caused by the digestion of the duodenal mucosa by the hyperacid gastric juice. In this connection it is a very striking fact that the part of the bowel affected by the process of ulceration is that with which the food is immediately brought into contact as it leaves the stomach. Duodenal ulcer is found at all periods of life, from the newborn to the very aged. The average age in the author's series is 38 years. Men are more frequently affected than women in about the ratio of 2 to 1. A history of hasty and perhaps heavy meals at irregular intervals is not infrequent.

The symptoms of duodenal ulcer are in the majority of cases sufficient to enable a diagnosis to be made without physical examination of the patient. After food is taken the patient is free from pain, and it is his best time of the day. But from 1½ to 4 hours after a meal a sense of uneasiness develops, he has a burning and gnawing sensation, and there is a bitter taste in the mouth with perhaps eructations of food or gas. The pain which gradually increases may be relieved, often considerably, by belching or pressure. Patients discover for themselves that taking food relieves the pain, so they carry around with them biscuits or something of the sort which they use as the uneasiness develops. The appetite is generally good, and in fact often better than normal if stenosis has not developed. If there is such a history of pain as the above, says the author, one may be confident that the patient has duodenal ulcer without stenosis.

The symptoms may gradually improve and even disappear, only to reassert themselves after a longer or shorter interval. What such a period of latency means is not known, for if the patient be operated upon during this period the ulcer is still there. It may be that though the scar is there the mucous surface heals over temporarily, only to break down again. In the "attack" the patient generally, but not always, loses weight. Some of the patients are sleek and stout, and from experience one would never suspect such a condition. Constipation is a frequent symptom.

The author's description of the pain he says, reminds one at once of that which is described as "hyperchlorhydria," or "acid dyspepsia." Moynihan says that he has no hesitation in saying that the "acid dyspepsias" which are supposed to be "functional" are in truth generally cases of ulcer in the duodenum. Vomiting is an infrequent symptom of duodenal ulceration, and comes on as a constant symptom only when there is stenosis. As to abdominal tenderness, an examination of the surface of the abdomen will generally reveal a tender area a little above and slightly to the right of the umbilicus. The most serious of the symptoms is hemorrhage, which may be manifest as hæmatemesis or melæna. Sometimes it is the only symptom. Hemorrhage from a duodenal ulcer is a far more serious matter than is bleeding from a gastric ulcer, for though it is not necessarily more profuse it is certainly more apt to continue and to recur, and it is even less under control. The amount of hemorrhage is often impossible to estimate. Perforation of a duodenal ulcer may occur at any stage in the course of the disease, early or late, but it is quite certain that it never occurs without previous symptoms of the ulceration having been present.

The only serious difficulty in differential diagnosis is encountered in those cases of cholelithiasis, few in number but not to be ignored, in which there may be hyperacidity and the "hunger pain" above mentioned, in this case caused by disturbance of the inflamed gall bladder by food passing out of the stomach. The tenderness elicited by pressure on the lower margin of the liver during deep inspiration at the moment when the gall bladder impinges on the fingers is quite different, however, from that quite definitely localized tenderness found in uncomplicated cases of duodenal ulceration.

Moynihan asserts that medical treatment, however carefully carried out, has proved of less value in duodenal ulcer than in gastric ulcer. He refers to his methods of performing posterior gastro-enterostomy, with which he combines infolding of the ulcer, by a double layer of sutures. A strict dietary, with the administration of an alkaline bismuth mixture, is advised for the three months after the patient returns home, if there is any indication of persisting acidity.

VAQUEZ'S DISEASE.

In a discussion of chronic polycythemia and cyanosis, with enlarged spleen of obscure origin (Vaquez's disease), Anders calls attention to the fact that this condition must not be confused with the polycythemia due to a deficiency in the plasma of the blood from such causes as acute diarrhœa, dysentery, and cholera; with the abnormal increase of erythrocytes in congenital heart disease, valvular affections, adhesive pericarditis, obesity, a paralyzed extremity, or in high altitude; or with the hyperglobulism of ether anesthesia and of phosphorus poisoning. Certain observers believe at present that stagnation of the blood, due to a variety of factors, is the sole cause of this symptom-complex. Other beliefs are that it is a compensatory process, an attempt to make up the deficiency in oxygen-carrying capacity of the individual cells by an increase in the number of cells; that it is an over-production of red cells caused by a primary condition in the bone marrow; that it is due to a higher osmotic tension of the blood; and that tuberculosis of the spleen is a constant pathological finding, therefore the diminished function of this organ causes an increased activity of the bone marrow. The author's obserbvations lead him to this conclusion.

The most characteristic blood-finding is polycythemia. The count may be only slightly above normal, though in the majority of cases the red cells number over 8,000,000. In most cases leucocytosis is present, although a few have been reported in which a leucopenia was found. The hemoglobin per cent. rarely falls below 100, and has been found as high as 200 per cent. Vaquez was the first to suggest that primary tuberculosis of the spleen was the cause of the syndrome, but cases have been found where neither the spleen nor any other organs showed tuberculous lesions. At present the balance of testimony is clearly in favor of the view that the extraordinary blood-making power is probably secondary or physiological, and quite analogous to what is sometimes seen after excessive hemorrhage.

The nervous phenomena observed in chronic polycythemia and cyanosis, with enlarged spleen, are similar to those of venous obstruction, and indeed it seems that they may be reasonably attributed to it. These symptoms are insomnia, headache, vertigo, restlessness, weariness, and with these is another symptom common to both conditions, dyspnœa on muscular exertion. It is argued that if stagnation alone were the cause, the syndrome would probably show greater prevalence than it has done. It is probable that there is a form of primary polycythemia of unknown etiology and of rare occurrence, but that most of the cases reported and classed as instances of this condition have a different pathological etiology, though clinically simulating the primary variety.—*American Journal of Medical Sciences,* June, 1907.

SURGERY.

EDITED BY

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THE DIAGNOSIS OF APPENDICITIS.

Blumberg at the session of the Berlin Medical Society held June 19, 1907, in discussing the diagnostic points of appendicitis referred to a paper which he had written recently and which had just appeared in the *Muenchener Medizinische Wochenschrift.* The point he makes is that when appendicitis is unaccompanied by peritonitis pressure over the McBurney point elicits great tenderness. With beginning peritonitis the pain is not so great upon pressure but becomes more intense as pressure is withdrawn. This point has now been corroborated by other observers and is important in suggesting the necessity of immediate operation.—*Berliner Klinische Wochenschrift,* No. 26, 1907.

SURGICAL TREATMENT OF GASTRIC ULCER.

Hildebrandt discusses the surgical therapy of ulcer of the stomach. He refers to the statements made by Leube at the German Surgical Congress in 1897 who claimed as a result of his observation of 424 cases that three-quarters were permanently cured by a single period of medical treatment covering four or five weeks; that in only four per cent. of all the cases was there complete failure of recovery. Of these one and one-half per cent. remained uncured and two and one-half per cent. died. Further investigation does not warrant accepting these statistics. In the Charitè there has been an immediate fatality in five per cent. and of those dismissed from treatment a subsequent mortality of eight per cent.; a total death rate of thirteen per cent.

Moullin collecting the statistics of the London hospitals reported a direct mortality of eighteen per cent. in five hundred cases while of those dismissed from treatment about one-half had recurrence of the trouble.

On the other hand Kroenlein is quoted to the effect that as the result of surgical procedure in eighty-five per cent. was there positive and permanent benefit observed which continued for years thereafter. In not more than three per cent. did cancer develop subsequently.

Robson is quoted as having had ninety per cent. of permanent cures.

The author holds that the rule which should govern us in advising surgical operation is the same as was laid down by Mikulicz as long ago as

1897, namely that when continuous or repeated courses of medical treatment fail to yield permanent cures or improvement only for short periods and the patient continues to suffer from pronounced gastric symptoms as pain, vomiting and dyspepsia, and is so incapacitated as not to be able to pursue his vocation or enjoy the pleasures of life, operation should be instituted.

Regarding the particular operation to be advised the author says that excision of the ulcers is not always possible, either bacause of their multiplicity or their inaccessibility; he therefore much prefers the operation of gastro-enterostomy.

As to the manner in which gastro-enterostomy cures ulcer of the stomach the author says it is not because of the direct communication established with the intestines. The motility of the organ he asserts is not materially disturbed by the operation and food remains quite as long in the stomach as it did prior to operation. It is maintained, however, that after the operation there is a periodic discharge of the alkaline intestinal digestive juices into the stomach and thus a neutralization of the hyper-acidity.

As to the complications he says, speaking of acute hemorrhage, that although attempts had been made to secure the responsible vessels, only rarely has the hemorrhage been successfully controlled in this way. Frequently the source of hemorrhage is concealed and may be at the cardiac orifice or again the broken down condition at the base of the ulcer is such that neither ligature nor suture is available. Cauterization is likewise not to be advised, as when the slough is cast off further hemorrhage is apt to occur.

In cases with recurring hemorrhage there is better prospect of its control by ligation, provided the location of the ulcer is accessible. In cases of perforation no one longer questions the need of immediate operative procedure. As a rule the perforation is in the anterior wall of the stomach, so that it is accessible.

He discusses further the occasional need of operation for adhesions resulting from gastric ulcer and the brilliant results attending the releasing of these adhesions. In stenosis of the pylorus he urges that all of the plastic operations be discarded and that gastro-enterostomy be substituted.—*Berliner Klinische Wochenschrift,* No. 25, 1907.

The general attitude of our profession to-day may be characterized as one of scientific skepticism. It receives nothing on authority, no matter how ancient or honored. It places above everything else the ability to see things as they are, and to draw accurate conclusions from these observed facts. It desires to submit to a fresh examination, by the methods of modern science, every theory or practice, and endeavors to make the new view correspond with the latest knowledge. It seeks to establish on a scientific basis every fact in etiology, every principle in diagnosis, every method of treatment. —L. E. HOLT, *Jour. A. M. A.,* xlviii, No. 10.

THERAPEUTICS.

EDITED BY

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EXPERIMENTAL BASIS OF IRON THERAPY.

In *Medizinische Klinik* (May 26, 1907) R. Laspeyres, of Bonn, reviews the excellent work that has been done in studying the behavior of iron in the animal body. Beginning with the results in plants, by first withholding iron from the nourishment, with the production of pale foliage, and the subsequent addition of iron with recovery of its normal green color, he notes that similar good results in chlorosis, through the use of inorganic salts of iron, are attested by numberless practitioners. In chlorosis, however, there is not simply a deficiency of iron in the food, as in the plant experiments; for with most chlorotic girls the food is as rich in iron as usual, nevertheless the administration of inorganic iron is followed by prompt increase in color of the blood and recovery.

Kobert having shown that iron injected subcutaneously or intravenously caused acute poisoning, Bunge was led in 1884 to the opinion that medicinal inorganic iron is not absorbed from the digestive canal, but that its action is protective to the food iron, in that by uniting with hydrogen sulphid in the intestine it saves the food iron from similar combination and leaves it free for absorption. The latter view has been dispelled by the fact that hydrogen sulphid generally does not occur in the small intestine, but is first formed in the large bowel.

It is noted that the amount of iron differs much in the common foods; green vegetables, meat and yolk of eggs contain much, while milk and rice are much poorer. The striking discrepancy between the needs of the growing young animal and the deficient amount of iron in the milk was shown by Bunge to be compensated by the fact that mammals (dogs, cats and rabbits) receive at birth a large amount of iron in their organism, which, being gradually used during lactation, reaches its minimum with the close of that period. The interesting investigations by Krasnogorsky in the Czerny Kinderklinik seem to show that, in respect to human milk, the small amount of iron is compensated for by its easy assimilability, 80 per cent. being absorbed and 75 per cent. retained. Goat's milk is inferior in this respect. The iron compounds of spinach and yolk of egg do not differ much from each other in their absorption and retention, but are considerably below human milk in this regard.

It is impracticable to estimate how much iron is absorbed, by comparing the amount taken with that found in the urine and feces, as the latter may contain unabsorbed iron, while the urine

contains only traces of the metal in organic combination not responding to the ordinary tests.

It was shown by Gottlieb in 1891 that iron-sodium oxytartrate injected subcutaneously, in dogs upon a diet poor in iron, was mostly eliminated with the feces, deposition of iron having occurred in the liver with gradual elimination during nearly three weeks after injection. The small intestine contained much less than the large, which indicates that the latter is the chief organ of elimination for iron, which the observations of Fritz Voit upon a dog with isolated small intestine also confirm. Regarding further the question of absorption of iron given by the stomach, the evidence is given of Honigmann's observations on a patient with a fistula in the lower part of the ileum, in whom, of 0.4166 gm. of iron contained in 20 cc. of a solution of ferrum citricum oxyd., 81.33 per cent. had disappeared down to the point of fistula.

During the past ten years further study has been aided by microchemical tests of iron in the tissues, by means of ammonium sulphid or potassium ferrocyanid with hydrochloric acid. These reagents detect inorganic iron compounds and the salt-like combinations of iron with albumin. Hemoglobin and hematin generally do not respond, while hematogen and ferratin do so only after prolonged action; so that a failure of the reaction does not permit the conclusion that all forms of iron are absent.

Employing this method Hochhaus and Quincke, experimenting with mice, ascertained the presence of iron in the epithelium of the duodenum up to two days after administration. The reaction failed in the small intestine, but was constantly present in the upper part of the large, and here almost exclusively in the submucosa. The latter finding obtains also in normal mice, but less marked than when iron is given. They concluded that a soluble iron albuminate penetrates the epithelial cells of the duodenum exclusively and is here at once precipitated, to extend later into the deeper tissues and to the mesenteric glands. The findings in the large intestine they interpret as elimination, since seldom present in the epithelium, and especially as continued feeding with iron increases the reaction, as also after subcutaneous administration the amount of iron in the large intestine increases.

The conclusion that iron is absorbed from the duodenum exclusively may be questioned, since Macallum, by giving large amounts, and Cloetta, by employing an iron-nuclein compound, in which the iron seems to be more firmly combined and more resistant to the solvent influence of the duodenum, found the iron reaction to occur also in the epithelium of the small intestine, while Tartakowski showed it also in the epithelium of the stomach. Abderhalden extended the experiments of Hochhaus and Quincke, by comparing animals fed with a diet poor in iron with others in which iron preparations were added to the same diet, and with animals upon a normal diet. He found the iron test negative in the animals upon the diet poor in iron, while it showed positive as soon as either organic or inorganic iron preparations were added, as also in those normally fed. He obtained the iron reaction in the duodenum, in the solitary glands and in Peyer's patches of the small intestine, the cecum, the colon, the mesenteric glands, slightly in the kidneys, markedly in the liver, spleen and bone marrow. Accordingly, the absorption of inorganic forms of iron must be admitted; and it is of interest to note that the iron of the normal diet takes the same route of absorption, is deposited in the same organs, is eliminated at the same place, and is recognizable by the same test, as are the inorganic forms. Both are deposited, as loosely-combined iron, chiefly in spleen and liver, and are changed as needed into the firm combinations of blood iron or tissue iron.

The above results fail to solve the question of the nature of chlorosis or the action of iron in that condition, which does not depend upon lack of iron in the diet. The most commonly accepted theory of von Noorden, that chlorosis is caused by a functional weakness of the blood-forming organs, probably due to failure of some internal secretion that normally stimulates them, gives basis for his explanation of the action of medicinal iron, which he believes to exercise a strong stimulation upon the blood-forming cells of the bone marrow, thereby inciting new formation of hemoglobin and also red blood cells. Abderhalden raises the question whether the nature of chlorosis does not consist in the cells having lost, in part, their capability of spliting iron off from its complex organic combinations in the food, or of bringing it into proper form for forming hematin. This would permit the conclusion that medicinal forms provide the system with iron in a form more readily absorbed and more easily utilized in hemoglobin formation. For the present our view of the disease must rest upon theory; but with the experimental facts remains the fact of success in the iron therapy of chlorosis. And the author believes that we have no occasion to depart from the teaching of Niemeyer in favor of the use of inorganic iron salts. He deprecates the many commercial preparations and welcomes the increasing favor shown toward the use of reduced iron, and the carbonate as given in the time-honored Blaud's pill.

To say this man drinks only ale, that man drinks only wine, while a third drinks spirits, is merely to say, when the apology is unclothed, that all drink the same danger. The true place of alcohol is clear—it is an agreeable temporary shroud. The savage, with the mansions of his soul unfurnished, buries his restless energy under its shadow. The civilized man, overburdened with mental labor, or with engrossing care, seeks the same shade; but it is shade, after all, in which, in exact proportion as he seeks it, the seeker retires from perfect natural life.—*Race Culture; or, Race Suicide? Robert Reid Rentoul, M.D.*

Correspondence.

THE RATIONALIZATION OF THERAPEUTICS.

EDITOR NEW YORK STATE JOURNAL OF MEDICINE:

The letter of Dr. W. Parker Worster in the May issue of your valued journal deserves passing mention.

His statement that the prescribing of drugs among the more intelligent and thoughtful physicians is becoming less and less, as compared with past practices, is doubtless correct, but when he proceeds to draw the inference that drugs are rarely of use except as placebos, he overshoots the mark and ignores a most dependable therapy, and admits that his knowledge of drug action is not great. It is a far cry to assert that the only rational and reliable means of curing disease are contained in the mechanics of therapeutics, to the exclusion of active rational remedial agents.

Thoughtful physicians admit that there is too much drugging and too little reliance placed on other important factors, as sanitation, hygiene, right eating, right breathing, and right thinking. The indiscriminate use of *poor* drugs is deplorable, but the loss of faith in therapeutic remedies which follows as a logical result from the use of variable uncertain agents is much more deplorable.

Pharmacology and therapeutics are neglected studies and becoming more so, for with *authority* denouncing the use of drugs, there is a laxity of effort, a want of belief, a dearth of enthusiasm in the teaching of this most important branch of medical science. The best doctor is the one who best knows the utility and worth of drugs, and who determines their value, not by inferential deductions, and theoretical reasoning, but *at the bedside.* For in the final estimate of any remedy, that it does relieve abnormal conditions and permits return to normal, is the point of interest both to the progressive physician and to his patient.

Exact results are only possible by the use of exact remedies. To pin our faith on unreliable agents spells disappointment, but pessimism is fatal. Rather should this disappointment lead us to study the cause of our failure, and placing the blame on our inexact remedies, search for better and more dependable drugs; finding which, our disbelief in the value of drugs receives a solar plexus blow, and enthusiasm and faith are again aroused.

Rationalization of therapeutics is needed and near at hand, but is not of the kind that Dr. Worster and others of his class would have us believe. Rational, exact and dependable therapy is possible, for in the active principles we have exact remedies. A little study devoted to the therapeutic range of action of these remedies will prove an eye-opener, and things will appear in their true perspective.

R. J. SMITH, M.D.

Schenectady, N. Y.

THE CHILD CRYING IN ITS MOTHER'S WOMB.

EDITOR NEW YORK STATE JOURNAL OF MEDICINE:

I have read, with great interest, the correspondence relating to the crying of babies in utero. In my practice I have observed two such cases, but did not report them, as I believed that they were not very rare.

Both of my cases were primiparea. both had markedly contracted pelves, and both were delivered with great difficulty. One by version, the other by high forceps. The position of each fœtus was O. D. P.

In each case, the baby began to cry soon after the hand or instrument had entered the womb, and continued to do so, intermittently, for several moments.

The version baby was born dead, because I was unable to extract it before it died of asphyxia. The forceps baby was born in a condition of livid asphyxia, but revived under treatment.

I am confident that the explanation of this phenomenon lies in the fact that, in placing the patient in the forceps position, the pelvis is raised too high, thus creating a negative pressure in the abdomen. This is relieved by the drawing of air into the uterus, when the hand or instrument separates the vaginal wall, thus destroying the valve-like action of the soft parts. From the observation of my cases it seems that a bubble of air, reaching the nose or mouth of a child in utero, has the power to stimulate the first respiration.

I believe, in delivering patients having malformed pelves, where the head cannot mould and prevent the ingress of air, one should be very, very careful not to raise the hips or allow the body to sink below them. This last condition is not always easy to prevent, when we are obliged to utilize the patient's own bed for an operating table.

WARREN B. STONE.

Schenectady, N. Y.

New Books.

A TREATISE ON THE PRACTICE OF MEDICINE. For Practioners and Students. By ARTHUR R. EDWARDS, M.D., Professor of the Principles and Practice of Medicine and Clinical Medicine in the Northwestern University Medical School, Chicago. 1,328 pages, with 101 engravings and 19 plates. Lea Brothers & Co., Philadelphia and New York, 1907.

The author of this work has for years occupied one of the most important medical teaching positions in the country. Teaching is excellent training for the teacher himself. It enforces two essential points, perspective and clearness. The successful teacher must know how to present a picture to the mind with due emphasis on what is important, and with every item in its relative position and coloring, all being in clear and definite language. He must know his subject and speak with authority. Possessing these qualifications he will write a well-balanced book and save time and energy for teacher, student and practitioner alike. Dr. Edward has accomplished this in his book. It is well rounded, covering theory as leading up to and explaining facts, and never forgetting that the aim of medicine is application. Hence the practitioner will find guidance in understanding his cases and unusually full advice in their treatment, including abundant prescriptions accepted as best at the present day.

DIET IN HEALTH AND DISEASE. By JULIUS FRIEDENWALD, M.D., Clinical Professor of Diseases of the Stomach in the College of Physicians and Surgeons, Baltimore; and JOHN RUHRAH, M.D., Clinical Professor of Diseases of Children in the College of Physicians and Surgeons, Baltimore. *Second Revised Edition.* Octavo of 728 pages. Philadelphia and London. W. Saunders Company, 1906.

This excellent book is dedicated to William Osler and is prepared to meet the needs of the general practitioner and the student. It is eminently practical, giving in concise form an account of the different kinds of their composition and uses. It sets forth the principles of diet in health and disease. It contains many valuable diet lists and recipes which should be of much value to the physician and the nurse.

The work takes up systematically the chemistry and physiology of digestion, the different classes of foods, beverages and stimulants, and the various factors in their bearing on diet. Infant feeding receives full attention. The chapters on diet for special conditions and special methods of feeding are of much practical value. The larger part of the work is given up to diet in discases. Special cures, such as the milk cure, the whey cure, the yolk cure, etc., are considered.

The chapter on the dietetic management of surgical cases, means for rendering the contents of the stomach and intestine amicrobic, previous to operation upon the viscera, are discussed. The chapters on army and navy rations and dietaries in public institutions are full and instructive.

A valuable feature of the work is description of the various cuts of meats and their composition. An analysis of American food materials, compiled from the latest bulletins of the Department of Agriculture, is given.

A list of books on diet completes the valuable features of the work. It is practical and should be a great help in the study of a subject which as yet deserves much more attention than has been accorded it.

Abdominal Operations. By B. G. A. Moynihan, M.S. (London), F. R. C. S., Senior Assistant Surgeon at Leeds General Infirmary, England. *Second Revised Edition Greatly Enlarged.* Octavo of 815 pages, with 305 original illustrations. Philadelphia and London: W. B. Saunders Company, 1906.

This has already become a standard work, and has met with much approval both in America and in England. The eminence of the author and his immense practical experience insured this from the beginning.

It is interesting to note that the author contradicts the old notion that the stomach and intestine cannot be freed of bacteria. He presents Cushing's experiments to show how easily the stomach and intestinal mucosa may be made bacteria free. The importance of these observations as bearing upon gastro-intestinal surgery is evident. The cleansing of the mouth he regards as of much importance in this work.

The descriptions of the operations are clear and concise, and the illustrations show precisely what is desired. The work of Mall and Monks in intestinal localization is drawn upon for the elucidation of this subject. The more important of the methods of intestinal suture are given.

The chapter on typhoid perforation quotes largely from the work of Haste and Ashhurst upon this subject and pays these authors the compliment to say that any surgeon interested in this subject will find in this paper all the information at present available. Mikulicz is given the credit of first operating for this condition on April 7, 1884.

The part of the book, devoted to the surgery of the pancreas and spleen presents these subjects in an admirable manner. The whole work is of such a character as to make it a most valuable contribution to contemporary surgical literature, and a necessary part of the surgeon's library.

A Non-Surgical Treatise on the Diseases of the Prostrate Gland and Adnexa. By George Whitfield Overall, A. B., M. D., of Chicago. Rowe Publishing Co. 1906.

This book describes treatment based upon medication, electrolysis, cataphoresis, massage and cauterization. The author is an enthusiastic advocate of electricity in this line of work and sets forth what can be done with this therapeutic agent in a style which commands attention.

Second Report of the Welcome Research Laboratories on the Gordon Memorial College, Khartoum. Andrew Balfour, M. D., B. Sc., F. R. C. P., D. P. H. cantab., Director. Department of Education, Sudan Government, Khartoum. 1906.

This report represents the work done by this admirable institution in the Sudan, which has a large amount of important original work to its credit. The field offers a great diversity of scientific lines of study. Heat, wind and dust, the report says, are the great adversaries to work in that country.

The report comprises investigations carried on in reference to mosquitoes, which is of a high grade of scientific research. There are also studies of other biting insects, of human and animal pests, of vegetable pests, and many other lines of research of especial importance in tropical medicine.

The work is illustrated with some beautiful colored plates, and is a credit to the scientific zeal of the compilers.

A Treatise on Orthopedic Surgery. By Royal Whitman, M. D., of New York. Third edition. Lea Brothers & Co., Philadelphia. 1907.

This work has been well received from the beginning, and it has been an invaluable aid to the practitioner as a guide in this special branch of surgery. In the first place it is complete, and deals adequately with the subject. It considers not only the local effects of deforming disease, but also their general effects upon the entire organism and their ultimate consequences.

The modern tendency of orthopedic surgery has been in the direction of preventing deformity. Prohylaxis has entered more into the work, and treatment has thereby been made more simple. This work presents the subject in such a way that the general practitioner, who first discovers orthopedic diseases, may be enabled to recognize the earlier stages, and thus check the disease at a time when it is most amenable to treatment. The work is eminently practical and well deserving of the high position in the estimation of the profession to which it has attained.

It takes up first tuberculous diseases of the spine, and gives what may properly be called a treatise upon this important subject. The chapter on non-tuberculous affections of the spine stands in a valuable differential diagnostic relation to the preceding chapter. This subject is made very clear and is well illustrated.

It is impossible to analyze all of the chapters of this work. It is up to date and one of the best works on this subject. The physician who has it as his guide will be in a position to recognize and advise treatment in a class of diseases in which it is imperative that early treatment be instituted.

Hints on the Management of the Common Infections. By R. W. Marsden, M. D., M. R. C. P., D. P. H., Manchester. E. B. Treat & Company, New York. 1907.

The general practitioner must often search the literature to find the precise detail of treatment which he wishes for an infectious case. This book gives the important details in the management of the diseases due to micro-organisms, commonly known as the infections of intoxications. It deals first with general measures, such as methods of applying cold water to the skin, the care of the bed, ventilation, cleanliness, warmth, feeding, drugs and stimulants. It deprecates the excessive employment of drugs as so commonly practiced.

The specific infections are then taken up and dealt with separately. That means practically all of the infective diseases. Many practical suggestions are offered. In no book with which we are familiar is feeding by tube through the nose so well described. This is a very helpful work and well deserving of recognition.

Midwifery for Nurses. By Robert Jardine, M. D., M. R. C. S., F. F. P. & S., F. R. S., Glasgow. Third edition. Henry Kimpton. 1906. W. T. Keener & Co., Chicago.

This is a valuable little book. It tells just the things a nurse should know. It is well adapted for use as a training school text-book. It treats of the anatomy and physiology of normal parturition and also of the pathology of parurition. The difficulties which a nurse is apt to encounter are clearly set forth.

The author states that he has had a very extensive experience with both the antiseptic and asceptic methods in midfwifery, and he expresses himself as having no hesitancy in stating that the latter gives the better results. In this book he lays down strict rules for its observance. The book is to be recommended because it stands for making the nurse as well posted as possible upon the things which will improve her efficiency, but does not teach her to be an obstetrician.

Essentials of Medical Electricity. By Reginald Morton, M. D., C. M., D. P. H. London. Henry Kimpton. 1905. W. T. Keener & Co.

This little book is intended to set forth the essentials of electricity as employed in therapeutics. This it does briefly and inteligently. Sufficient illustrations are used to elucidate the text. It is really a very good little book.

County Societies.

MEDICAL SOCIETY OF THE COUNTY OF CATTARAUGUS.

BUSINESS MEETING HELD AT ROCK CITY, N. Y., JULY 10, 1907.

The following were elected to membership: Drs. Thos. E. Spaulding, of Salamanca; Jas. W. Shaul, of Olean, and Herman W. Johnson, of Gowanda.

The following amendment to the By-Laws was proposed: Resolved, That Section 1, Chap. X, of the By-Laws be amended to read: Each member shall pay annually the sum of two dollars, which shall be due on the first day of January. At the same time he shall pay the amount of the per capita assessment fixed by the House of Delegates for the current year.

This society, together with the Allegany County Society and the Society of McKean County, Pa., constitute the Tri-County Medical Society, which held its meeting July 9 and 10, 1907, at Rock City, N. Y. A very interesting program was provided.

MEDICAL SOCIETY OF THE COUNTY OF FRANKLIN.

SEMI-ANNUAL MEETING HELD AT SARANAC LAKE ON JUNE 12, 1907.

Members present: Drs. H. M. Kingham, President; G. M. Abbott, Secretary-Treasurer; E. S. McClellan, C. C. Trembley, W. F. Wicker, J. C. Russell, E. R. Baldwin, D. C. Twichell, A. H. Allen, and L. Brown, of Saranac Lake, and A. E. Moody, of Dickinson Center.

Non-members: Drs. Monroe, Miller and Price, of Saranac Lake, and F. W. Noble, of Bloomingdale.

Drs. Herbert W. Stoughton, of Chateaugay, and Alfred G. Wilding, of Malone, were elected to membership.

The President reported that the provisional agreement in regard to life insurance examination fees had been circulated throughout the county, according to instructions given the Secretary at the last annual meeting, and that forty-two out of fifty-seven physicians practicing in the county had signed it. The Secretary was instructed to communicate directly with the remaining fifteen, and if possible get their signatures, so that the society can take final action at its next meeting.

The following candidates were nominated for the next year: President, P. F. Dolphin, of Malone; Vice-President, A. E. Moody, of Dickinson Center; Secretary-Treasurer, G. M. Abbott, of Saranac Lake; Censor, C. C. Trembley, of Saranac Lake; Delegate to State Society, W. A. Wardner, of St. Regis Falls; Delegate to Fourth District Branch, J. D. Harrigan, of Chateaugay.

Scientific Session.

"Treatment of Typhoid Fever," by Dr. C. F. Wicker. Discussed by Drs. Trembley and Kingham.

"Lupus Vulgaris," by Dr. D. C. Twichell. Discussed by Drs. Trembley, Baldwin and Kingham.

"Preventive Medicine," by Dr. J. C. Russell.

Dr. E. S. McClellan, Health Officer of Saranac Lake, gave his method of house disinfection.

Dr. Kingham reported two interesting cases of fetid bronchitis. Discussion by Dr. Allen.

MEDICAL SOCIETY OF THE COUNTY OF GENESEE.

BATAVIA, July 9, 1907.

The Medical Society of the County of Genesee, on May 9, 1907, held a public meeting in the Court House at Batavia, N. Y., for the purpose of arousing public interest in matters concerning the public health of the community.

Program.

Dr. Ernest Wende, of Buffalo, paper: "Municipal Sanitation."

Mr. Charles Hoopes, C.E., of Batavia, address: "Problems of Sewerage."

Dr. Whitcombe, President of the Society, spoke on the sanitary needs of Batavia.

The meeting was well attended, and other similar meetings will be held in the future.

The regular quarterly meeting of the society was held in Batavia, July 3d. The question of a county pathologist was discussed, and a committee appointed to arrange a meeting of the town and village boards of health of the county to take action towards securing a county laboratory and pathologist. The secretary was instructed to communicate with the secretaries of all the county societies in the state, requesting their co-operation in securing legislation in regard to the garnishee law and state prosecution of illegal practice of medicine.

Scientific Program.

Paper, "Treatment of Disease in the Aged," by Dr. Chas. G. Stockton, of Buffalo.

Talk on organization, by Dr. DeLancey Rochester, of Buffalo.

Paper, "Prevention of Infectious Diseases," by Dr. W. A. Macpherson, of Le Roy.

A committee was appointed to investigate advertisements in the NEW YORK STATE JOURNAL OF MEDICINE, and to call the attention of the business manager to any which might be found objectionable.

ONEIDA COUNTY MEDICAL SOCIETY.

QUARTERLY MEETING, TUESDAY, JULY 9, 1907, AT UTICA, N. Y.

Papers: Dr. J. H. Glass, ————; Dr. W. J. Schuyler, "Oxaluria."

Reports of Cases: Drs. J. D. Jones, J. E. Gage, T. H. Farrell, F. H. Peck and G. M. Fisher.

Deaths.

CHARLES S. ARNOLD, M.D., died at his home, Mount Vision, N. Y., April 23, 1907.

HENRY H. CLAPSADDLE, M.D., died at his home in Toddsville, Otsego Co., June 29; aged 65 years.

RICHARD HENRY DERBY, M.D., surgeon to the New York Eye and Ear Infirmary, Consulting Ophthalmologist to several New York hospitals, and a specialist in diseases of the eye, died in Litchfield, Conn., July 4; aged 63 years.

CHARLES DOUGLAS, M.D., of Black River, N. Y., a veteran of the Civil War, died in Ithaca, N. Y., June 25; aged 65 years.

ALFRED WILLIAM FORD, M.D., for more than twenty years surgeon to the Police Department of Brooklyn, and one time major to the Sixty-ninth Infantry, New York, N. Y., died sudenly July 2, from cerebral hemorrhage at his home in Brooklyn; aged 54 years.

THOMAS HILL, M.D., hospital steward in the United States Army for many years, died at his home in Brooklyn June 19; aged 62 years.

CHARLES MUNGER, M.D., a prominent practitioner of Oneida County, N. Y., died at his home in Knoxboro, June 10, from cerebral hemorrhage; aged 66 years.

WILLIAM H. NELSON, M.D., for half a century a practitioner of Taberg, N. Y., died recently in that town; aged 77 years.

JOHN MONSELL PEACOCKE, M.D., of Brooklyn, New York, died in that city July 3; aged 59 years.

DANIEL P. VAN COURT, M.D., of Mohawk, N. Y., a veteran of the Civil War, health officer of Herkimer County, died June 15; aged 69 years.

FRANKLIN J. VOSE, M.D., died at his home in Brooklyn, June 28; aged 56 years.

NEW YORK STATE JOURNAL OF MEDICINE

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Original Articles

ACUTE SUPPURATIVE INFLAMMATION OF THE THORACIC DUCT.*

A NEW DISEASE. REPORT OF A CASE.

By HENRY P. DE FOREST, Ph.B. M.S., M.D.,

Adjunct Professor of Obstetrics, New York Post-Graduate Medical College,

NEW YORK.

EARLY in life the difference between an invention and a discovery is usually emphasized, but to the physician this distinction is rarely of practical value. The huge marble building in Washington that is filled to repletion with models of all kinds contains but few articles that have been designed for the exclusive use of the sick, and when the long and endless list of inventors is read through the names of medical men are conspicuous by their absence. Jenner and von Behring are brilliant exceptions to this rule, but they differ widely from each other in methods and in character. The man who first made vaccination possible did so at his own expense, and at the expense, moreover, of much personal adverse criticism; the later man, who, through good fortune of allotment of field of research, first succeeded in separating diphtheria anti-toxin and in rendering it of almost equal value with vaccine, lost no time in patenting his invention, and in making it necessary that he should be paid a royalty for each dose of anti-toxin given in Germany at the present time. He is rich as a result, and will continue to grow richer, but the name of Jenner will be revered when the name of Behring will be forgotten, or if remembered at all, will be recalled as that of the man who "sold his birthright for a mess of pottage."

Discoverers fare but little better. Columbus, at the time he lived, might reasonably claim priority in the discovery of the New World, but we now hear of Danes and Vikings and Indians, and even of Japanese, who had made the trip before him. For any one, especially a medical man, to claim priority of discovery of a condition that has doubtless existed before, is to take direct issue with the statement made some years ago by that eminent authority upon mothers and babies, King Solomon, to the effect that "there is nothing new under the sun." The present writer makes no claim to priority in anything, therefore, for he is quite convinced that if he did it would soon be shown him that, in the year 1826, at a stated meeting of the Siberian Society for Medical Culture, Herr Geheimrath Professor Sneezeovitch called attention to a similar case, and showed the patient after recovery.

The writer does state, however, that he has made a faithful attempt to find a report of a similar case in medical literature, or to hear of a similar case from any one of his immediate circle of medical friends. In this attempt he has been entirely unsuccessful. The course of the disease, when the lesion was unknown, was a most unusual one, and led to many doubts and errors in diagnosis. When the exact location and character of the lesion was discovered the relation of cause and effect was clearly manifest. Similar conditions have doubtless existed many times before, just as appendicitis has always occurred from time to time in the human race ever since our remote ancestors gave up the active use of the appendix as a necessary part of the machinery of digestion. Like the disease of the appendix, inflammation of the thoracic duct has remained unrecognized, and the illness has been regarded respectively as one of toxicosis, of malaria, of typhoid fever or of general septicemia, according to the phase of the disease which was most manifest at the time of death.

The history of the patient whose illness was the means of attracting the attention of the writer to this new comer in the list of abdominal diseases is as follows:

History of Case.—Mr. A. B., thirty-seven years of age, had never been especially robust, but still had never had any serious illness. His habits were excellent; he did not use alcohol or tobacco in any form. He was five feet, ten inches, in height, and weighed one hundred and seventy pounds. Bilious temperament. Complexion dark and inclined to be sallow. At times he was troubled slightly with constipation. For some years he lived in Kansas City, and for the past two years has lived in Chicago. His occupation was that of manager of vocal and concert tours throughout the Western States, and this compelled him to travel extensively through the South and West, ex-

*Read before the Medical Society of the State of New York, January 30, 1907.

posed to great variey of changes in food and water, and to possible infections of different kinds. Just before he left Chicago for New York he had returned from an extended trip through Texas and was physically tired out. So badly did he feel that only the importance of the business trip impelled him to come to New York, instead of remaining home for a few days' recuperation as he preferred to do.

He reached New York on the 14th of June and the next evening had an elaborate "shore dinner" with his friends. Oysters on the half shell, clam chowder, soft-shelled crabs, devilled crabs, broiled lobster and fish were among the articles on the menu, and he partook of a hearty meal. All the following day he felt more or less nauseated, and when I was first called to see him on the evening of the 16th of June he presented the typical symptoms of that form of indigestion, combined with high fever and extreme prostration that we are accustomed to characterize as ptomaine poisoning from shell fish, or in a more general way, as "Toxicosis."

There was no abdominal tenderness, but he had headache, anorexia, marked constipation, and occasional

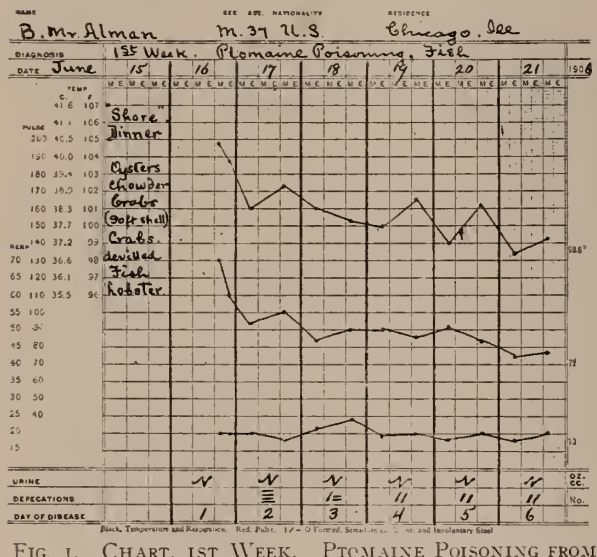

FIG. 1. CHART, 1ST WEEK. PTOMAINE POISONING FROM FISH.

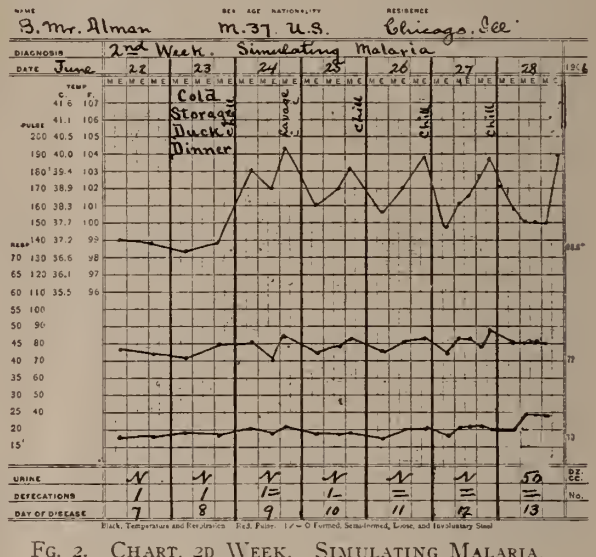

FIG. 2. CHART, 2D WEEK. SIMULATING MALARIA.

attacks of nausea and vomiting. Castor-oil and glycerine in equal parts were given to act as a cathartic; a high saline enema of soap suds was given to clear the lower bowel, and the patient was put to bed. The following day,. for convenience sake, as he was quite alone in the hotel, a competent nurse was placed in charge of the case. Small divided doses of calomel were given for two days to aid in the work of getting rid of the fermenting food and ptomaines in the intestinal canal. A simple milk diet was given. By the third day of this attack his bowels had moved freely, his nausea had practically subsided, though he still had anorexia, and the temperature, which had been nearly 105 at the outset of the attack, had subsided to 100 degrees. His pulse was irregular and intermittent, and a pronounced murmur existed with the first sound of the heart, evidently caused by an insufficiency of the mitral valve. There were no apparent circulatory disturbances, however, and he stated that his heart had been examined a number of times. A former medical adviser had told him that aconite helped his heart better than the stimulants of digitalis and strychnia. This, in fact, proved to be the case now, and after two days of the use minim doses of aconite every hour or two the heart became quite regular, its action much less violent and the pulse soft. He continued to improve, and on the sixth day his pulse and temperature were normal, and he had in great measure regained his appetite.

On the 23d of June, eight days after the first visit, he had apparently quite recovered; the nurse was discharged and the patient was able to be up and dressed and attend to some business engagements. This appeared to be the end of the attack, quite similar in character to so many that occur after some imprudence in the matter of diet, especially where shell fish are eaten (Fig. 1).

On June 23d, two days after he had begun his usual routine of life, he was again invited to dine with friends, this time at a hotel in the city. He was feeling about as well as ever and had a hearty dinner, chiefly of "roast Long Island duck." Within an hour or two he began to have distress in his stomach and intestines, returned home, went to bed and sent for me again. This time he definitely attributed his nausea, feeling of intestinal distension, and general abdominal discomfort to the duck that he had eaten, which attracted his attention by some peculiarity of taste that was quite noticeable to him. About eleven o'clock that evening he had a slight chill, followed by fever and sweating. His temperature reached 103.2. Castor-oil was again given, but not retained, because of nausea. After an hour ten grains of calomel were given, and in the morning a bottle of citrate of magnesia. A moderate movement of the bowels resulted, of offensive odor and very dark in color.

The day after the chill he felt fairly well, his temperature was normal in the afternoon. His diet was restricted to boiled milk and malted milk. His stomach was well washed out that evening.

On the 25th of the month, the second day after the chill, his fever again began to rise, and all the other symptoms returned—nausea, aversion to food, moderate abdominal distension with gas, and several foul-smelling movements. At the same hour this evening, 11 o'clock, he had another chill, of greater severity than the first, lasting for about five minutes. By this time it seemed to be evident that he had in addition to his indigestion a malarial attack, probably the result of infection acquired in Texas a week or two before. Upon this theory he was given quinine in three grain doses at two hour intervals during the day, and at 9 o'clock nine grains were given in the hopes of aborting the chill. So far as the quinine was concerned, it appeared to have no effect, did not cause the slightest cinchonism, and the chill occurred on the 26th as before.

June 28th. The nurse had been recalled and this day,

in the belief that some undigested portions of food remained in the bowels, the colon was freely washed out with large high hot saline enemata. Only a small amount of fecal matter came away. He had eaten but little for three days and there appeared to be little left in the bowel. This day his temperature did not go above 101 degrees and there was no chill. (Fig. 2).

June 29. There was a slight chill at 2:00 a. m., and at eleven o'clock that night there was a severe chill lasting for seven minutes and followed by a temperature of 104.4. He took thirty grains of quinine during the day with no effect whatever that could be seen. Quinine from another source, in capsules instead of tablets, was then given in the belief that the quinine was either undissolved or that it had lost its virtue. The nausea persisted and milk could not be taken without causing vomiting. High saline enema to supply fluids; 32 oz. of urine passed, 1.028, no sugar and no albumen, heavy sediment of urates and uric acid.

On the 30th of the month his condition remained much the same. Quinine was continued (42 grains) and though he perspired freely all day there was no chill in the evening and he had a moderate amount of cinchonism. The blood was examined for plasmodia but none were found. There was no leucocytosis (red cells, 4,860,000; white cells, 9,000) and no changes of moment

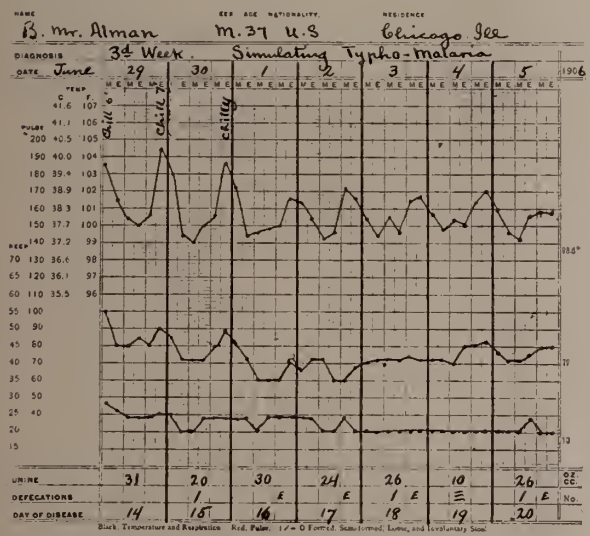

FIG. 3. CHART, 3D WEEK. SIMULATING TYPHOID MALARIA.

were found in the blood films. The nausea persisted and during the day he was able to retain only the whites of two eggs and four ounces of peptonized milk. His general condition continued good.

July 1st the temperature remained below 100 degrees and the pulse below 72. There was no chill. He still retained but little food. Iodized peptonoids, bouillon, and albumen water were all tried with no effect. A medical friend who saw the case with me at this time expressed the belief that there had been an attack of malaria and that the use of quinine had practically ended the attack.

July 2nd the temperature ranged from 99 in the morning to 102.2 in the afternoon. Turning on either side caused nausea. An egg-lemonade was retained and about an ounce of liquid peptonoids.

On the following day, the 3rd of July, at his own request, he was given a tumbler of hot salt water which he retained. Enemata were continued but the urine was becoming scanty and high colored (18 ounces). That night he vomited considerable mucus stained with bile.

July 4th he was given a grain of calomel in divided doses and had two large dark colored partially formed movements. Vomiting persisted and nutrient enemata of liquid peptonoids and peptonized milk were begun and were well retained. Food by the mouth was discontinued, as no one of the great variety of liquid foods could be tolerated. Pulse was somewhat intermittent and strychnia in small doses (1-50) was regularly begun. Temperature range from 99 to 101.2.

The week ending July 5th seemed to indicate malaria, possibly combined with typhoid.

Another consultant was called on the 6th and gave as his opinion that the case was one of typhoid, although no rose spots existed and the bowels showed nothing characteristic of typhoid. A specimen of blood was taken for the Widal test. (Fig. 3.)

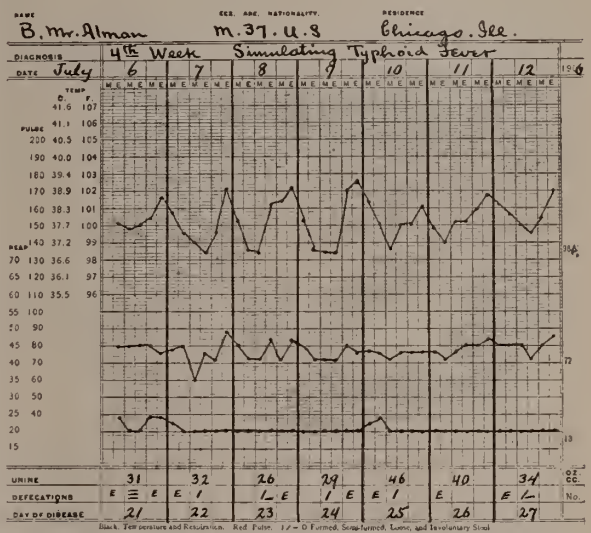

FIG. 4. CHART, 4TH WEEK. SIMULATING TYPHOID FEVER.

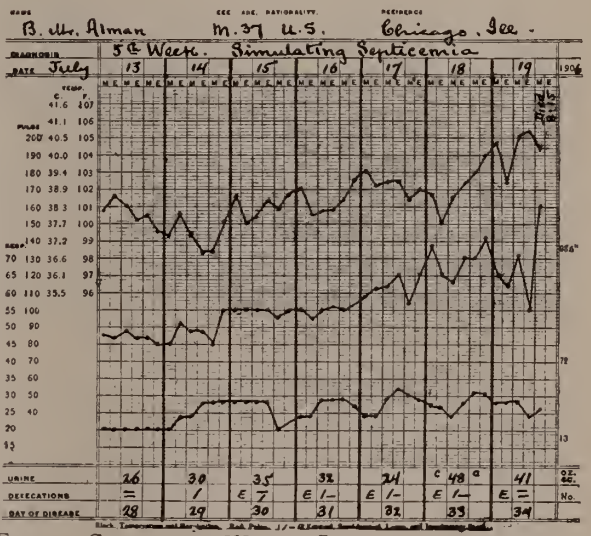

FIG. 5. CHART, 5TH WEEK. SIMULATING SEPTICEMIA.

From this time until the 12th of the month the symptoms all closely resembled typhoid fever and it was treated as such although the report from the laboratory of the Health Department and also from the Department of Bacteriology at Cornell University at Ithaca both reported the Widal test as negative. There was slight abdominal distension, no rose spots, the bowels moved daily but always needed an enema. Fluid was supplied by a daily high enema of saline in the early morning and food was given in the form of nutrient enemata every four hours. These were well retained and appeared to be well absorbed. Every day or two the pa-

tient complained of being chilly occasionally but there was no definite rigor. Vomiting persisted in spite of the use of bismuth, of oxalate of cerium, of salol and of cocaine, in various doses, combined and separately. Guaiaquin was also tried with no appreciable effect. Alcohol and ice sponge baths were given once or twice a day as required for the comfort of the patient. There was considerable progressive loss of strength but he remained mentally entirely clear. There was no subsultus. Severe attacks of vomiting occasionally showed small particles of bright red blood. There was no localized tenderness and throughout the entire course of the disease the respiration rarely varied from 20 per minute. The lungs were repeatedly examined but respiration continued clear and free from râles of any kind. Perspiration was habitually profuse and sleep was obtained with difficulty; trional, sulphonal, chloral and veronal were all tried with little effect (Fig. 4.)

On the morning of the 12th he felt much better, and suddenly said he thought he could retain some food and asked for a glass of milk.

On the evening of the 12th, after ten days of symptoms closely simulating typhoid in many particulars symptoms of surgical shock. Within a few hours his tongue changed from a grayish white to a red, edged surface with a dirty brown streaked median line. After the application of heat and hypodermic medication of whiskey and strychnine he rallied and his temperature rose to 102 degrees. Typhoidal perforation was suspected.

Vomiting of greenish fluid occurred from time to time. Muscular twitching of hands and of the eyes began, and digitalone was used alternately with strychnine, and with the occasional use of nitro-glycerine. The eyes remained partially open, and the eye balls showed at times a converging and at times a diverging strabismus. The reaction of the pupils to light was not affected. A mild muttering delirum developed occasionally but he always roused when spoken to and could answer questions clearly. The abdomen was only moderately distended at any time and the use of ice-coil made little difference. He appeared to forget to urinate but would do so when told to; catheterization was only necessary for one day. A heavy sediment, one-quarter in volume appeared in the urine and this was found to be composed chiefly of flocculent blood clots. The super

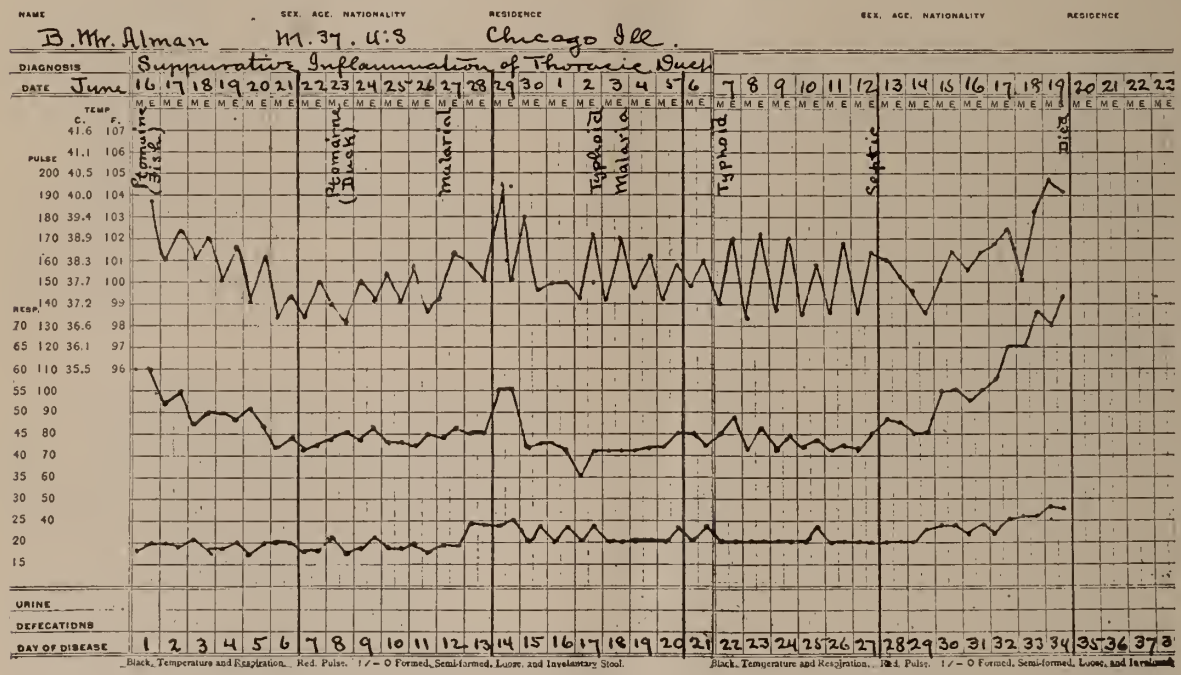

FIG. 6. CHART, SHOWING DAILY HIGH AND LOW VARIATIONS.

there was a marked and sudden change in the character of the symptoms. The urinewhich had been highly colored and rather scanty became noeiceably *red* and the microscape showed *red blood cells* and *crystals of hematin.* This continued increased in intensity and during the last few days of his life the urine appeared to be almost pure blood and contained small clots and shreds of fibrin.

The temperature, too, instead of the relatively regular course such as is seen in the third week of typhoid became irregular and subject to sudden changes. Chilliness occurred from time to time. On both the 13th and 14th the temperature fell in the morning to 98.6 The other symptoms were at once ameliorated, he asked stomach. This improvement was a temporary one, for food and was able to retain considerablt by the however, and thereafter all symptoms became progressively worse.

On the afternoon of the 14th his temperature fell suddenly to 98.2 degrees At this same time his pulse became much more rapid and feeble. He was covered with a profuse cold perspiration and presented the natent urine was blood red. The pulse became more and more rapid, and more and more feeble, though the intermission ceased. The temperature gradually rose to a higher and higher point, finally reaching 105.4 degrees. Consciousness was lost, then came a profound stupor and a few hours later the patient died. Death occurred on the 19th of July, thirty-four days after the primary attack and twenty-four days after the second attack when the duck was eaten at his dinner.

The diagnosis was still uncertain, though the last week showed evidence of septicemia from some undetermined cause (Fig. 5). The course of temperature, with the daily high and low record, is shown in Fig. 6.

With the permission of his friends, an examination was made to determine, if possible, the cause of death. It was confidently expected to be due either to typhoid fever, with some complication, such as an abscess, or to

some form of pernicious malaria sometimes seen in the Southern States. The result of this examination was as follows:

AUTOPSY.

The body shows a considerable degree of emaciation as it was to be expected in view of the fact that food had practically been refused for nearly a month. There was a slight icterus, and pronounced lividity of all extremities. No edema, and no scars or marks of violence.

The *head* is not examined, except superficially.

The *Thorax*. The *lungs* show a moderate degree of hypostatic congestion in the dependent portions of both sides. They are otherwise both normal and show no evidences of pleurisy, pneumonia or tuberculosis.

The *heart* is somewhat enlarged. All the valves save the mitral are normal. There is a moderate degree of insufficiency of the mitral valve caused by a small vegetation upon both leaflets of the valve, fibrous in character, and evidently of long standing. (These doubtless gave rise to the murmer heard at the apex with the first sound of the heart).

As the examination of the intestines for evidences of typhoid fever was the primary reason for the autopsy further examination of the thoracic structures was not made until later.

The *Abdomen*. The *liver* is normal in size and presents no abnormalities.

The *spleen* is of normal size, of firm consistence, and shows neither the enlargement found in severe cases of malaria nor the swelling, congestion and softness so often found in cases of typhoid.

The *bladder* is partially distended with urine, deeply stained with blood. There is no lesion of the bladder wall. Both the urethra and the ureters are normal. There is no stricture and no evidences of veneral diseases.

The *kidneys* are both greatly swollen, and upon incision of the capsule the cut edges separate about half an inch and cannot be brought together again. The cortex is intensely congested in both kidneys and presents the typical appearance of an acute hemorrhagic and exudative nephritis similar to that found in cases of acute poisoning with Paris Green or other mineral poisons. The pelvis of the kidney on each side is distended and filled with urine and soft clotted blood. There are no calculi found in any locality.

The *stomach* is of small size and empty. The mucous membrane is pale and shows no eroisms or ulcers.

The *small-intestines* are practically empty. They were carefully examined from end to end. At no place is there any pathologic change in the Peyer's patches, and neither swelling nor ulceration. They differ in no way to the naked eye from an entirely normal intestine save that there is little present in the way of partially digested food.

The *ileo-cecal valve* is normal and the *large intestine* shows no lesions save a moderate condition of congestion in the rectum and lower portion of the sigmoid flexure.

So far as gross pathologic changes are concerned there is nothing to indicate the slightest evidence of either malaria or of typhoid fever, and the examination would terminate at this point did not the presence of a long mass of the shape and size of a bologna sausage, lying immediately upon the spinal column, attract attention. The mesenteric glands also are markedly increased in size and evidently the seat of inflammatory changes the more pronounced, the nearer they are situated to the mass just mentioned.

The abdominal viscera are carefully removed and a further examination made. Upon incision transversely at the level of the crura of the diaphragm a single abscess cavity is opened extending along the spinal column and nearly 2 cm. in diameter. The index finger enters it without difficulty. Further examination shows that this mass extends cephalad into the thorax and caudad as far as the 4th lumbar vertebra. Upon careful dissection it is found to be the thoracic duct which is the seat of an acute suppurative inflammation with the production of a considerable volume of pus of a markedly bluish color and of an especially offensive odor. The receptaculum chyli is markedly distended with pus and the entire duct, when traced upward through the thorax to its place of union with the left jugular and subclavian vein in the neck is also enormously distended with pus and of a peculiar sacculated appearance, doubtless due to the numerous valves along its course. No collateral branches can be made out as the duct itself forms the central core of a mass of inflammatory tissue involving the adjacent structures for a distance of from two to four centimeters on all sides save the vertebral, and giving rise to the sausage-like mass which first attracted attention. (Plate I).

At the cephalic extremity the distension is not so great as in the region of the receptaculum chyli, but here too the suppurative process has extended and with a little pressure pus can be made to slowly trickle through the terminal valve, and thus enter directly into the general circulation through the medium of the left innominate vein and the superior vena cava.

Cause of death. Acute suppurative inflammation of the thoracic duct, with discharge of abscess into the jugular vein.

Portions of the spleen, the kidneys and the liver were sent to Veranus A. Moore, Professor of Bacteriology at Cornell University, for examination and report, and also blood slides and specimens for the determination of the bacteria present in the blood and abscess cavity.

His report is as follows:

"I am sending you sections of the tissues—kidney, liver and spleen. There are numerous lesions. You will find interesting replacements of liver cells with connective tissue in the liver. It is my opinion the lesions that you found in connection with the thoracic duct were the important ones as the cause of death. Malaria and typhoid are excluded without a doubt."

CHANGES IN THE SECTIONS.

The liver shows beginning diffuse hypertrophic cirrhosis. There is some fatty degeneration in the central zone of many globules. The cytoplasm takes a general stain very deeply and the nuclei are usually indistinct. The cells appear to be somewhat swollen.

The kidney shows the epithelial cells of the convoluted tubules to be very much swollen and the nuclei indistinct. The epithelial cells of the glomeruli are less affected. The epithelium of the tubules in the medullary portion has generally sloughed from the walls. This is more marked in the collecting tubules than in those in the loop of Henle. The intertubular tissue is somewhat infiltrated. The nuclei are generally indistinct. Both liver and kidney suggest considerable post mortem change, especially the sloughing in the collecting tubes.

The spleen contains an unusual amount of pigment, otherwise it appears to be normal."

Such then is the history of this sad and unusual case. In the experience of the writer, and of his immediate circle of personal friends, it is quite unique. A systematic effort to look over the history and literature of the thoracic duct has been productive of almost equally barren results. The writer has, therefore, determined to present herewith a summary of such material concerning the duct and its various lesions and diseases as a fairly comprehensive study of the matter has enabled him to secure. The results, as will be seen, are very meagre. Indeed, if all that is written in the standard text books or books of reference, exclusive of evident duplication of reference to the same source of information, were to be compiled, it would barely cover

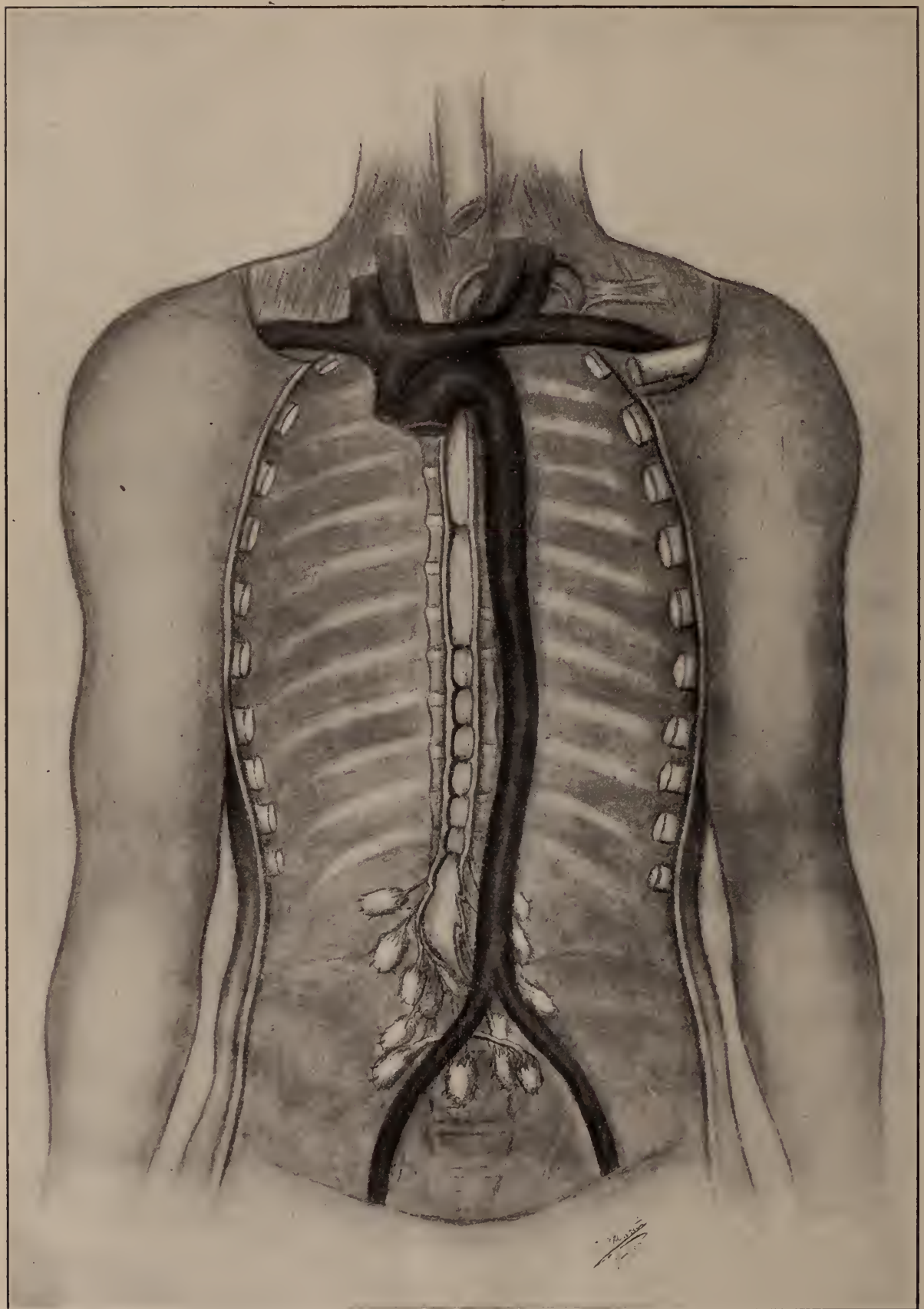

PLATE I. SUPPURATIVE INFLAMMATION OF THORACIC DUCT SHOWING RELATIONS AND SACCULATED FORM OF THE PROGRESSIVE ABSCESS WITHIN THE DUCT.

a single page of text. In most instances no mention at all is made of any disease of the duct itself, or, at the most, a few lines refer to the possibility of secondary infection, or involvement.

As a basis for this study there is reproduced a plate showing the thoracic duct in its normal relations.

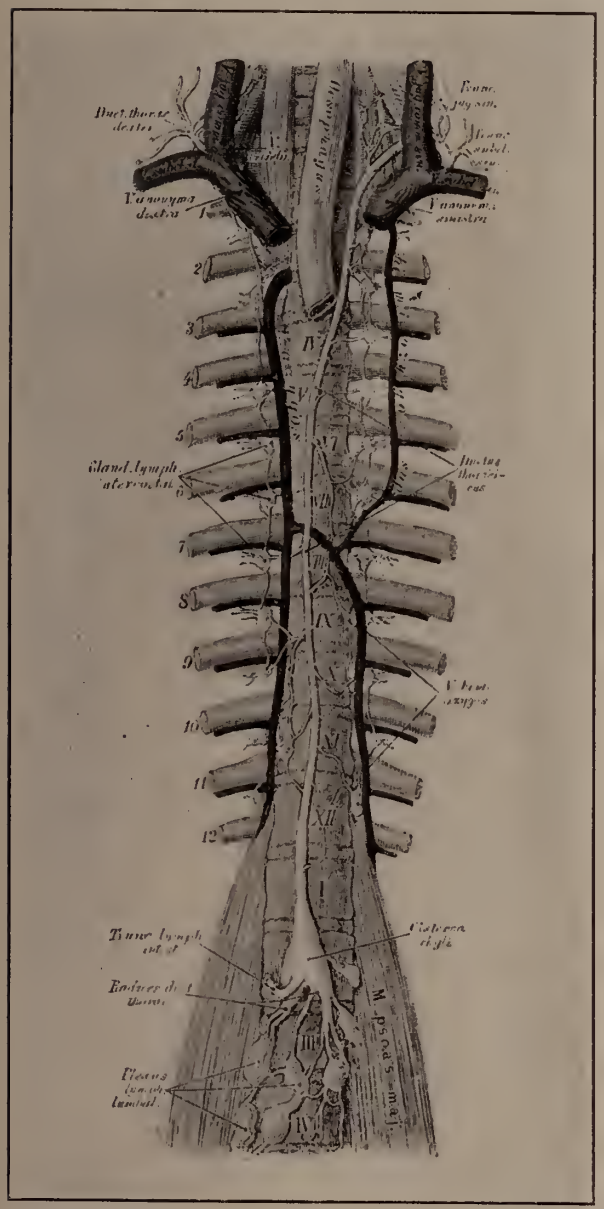

PLATE II. THE THORACIC DUCT AND ITS NORMAL RELATIONS (HEITZMANN).

Plate II (from Heitzmann's "Anatomischer Atlas).

The description of the thoracic duct, as given in one of the standard books on anatomy (Gray, 639, 11th ed.), is as follows:

"The thoracic duct conveys the great mass of the lymph and chyle into the blood. It is the common trunk of all the lymphatic vessels of the body, excepting those of the right side of the head, neck, and thorax, and right upper extremity, the right lung, the right side of the heart, and the convex surface of the liver. It varies in length from fifteen to eighteen inches in the adult and extends from the second lumbar vertebra to the root of the neck. It commences in the abdomen by a triangular dilatation, the *receptaculum chyli*, (*reservoir* or *cistern of Pecquet*) which is situated upon the front of the body of the second lumbar vertebra, to the right side and behind the aorta, by the side of the right crus of the diaphragm. It ascends into the thorax through the aortic opening in the diaphragm, lying to the right of the aorta, and is placed in the posterior mediastinum, in front of the vertebral column, lying between the *aorta* and the *vena azygos major*. Opposite the fourth dorsal vertebra it inclines toward the left side and ascends behind the arch of the aorta, on the left of the esophagus, behind the first portion of the left subclavian artery to the upper orifice of the thorax. Opposite the upper border of the seventh cervical vertebra it curves downwards above the subclavian artery and in front of the *scalenus anticus* muscle so as to form an arch and terminates in the angle of junction of the left internal jugular and subclavian veins.

"The thoracic duct at its commencement is about equal in size to the diameter of a goose quill, diminishes considerably in its calibre in the middle of the thorax and is again dilated just before its termination. It is generally flexuous in its course, and is constricted at intervals so as to present a varicose appearance. The thoracic duct not infrequently divides in the middle of its course into two branches of unequal size which soon reunite, or into several branches, which form a plexiform interlacement. It occasionally bifurcates at its upper part into two branches, of which the one on the left side terminates in the usual manner, while that on the right opens into the right subclavian vein in connection with the right lymphatic duct. The thoracic duct has numerous valves throughout its whole course, but they are more numerous in the upper than in the lower part; at its termination it is provided with a pair of valves, the free borders of which are turned toward the vein so as to prevent the passage of venous blood into the duct.

"The thoracic duct at its commencement receives four or five large trunks from the abdominal lymphatic glands and also the trunk of the lacteal vessels. Within the thorax it is joined by the lymphatic vessels from the left half of the wall of the thoracic cavity, the lymphatics from the sternal and intercostal glands, those from the left lung, left side of the heart, trachea, and esophagus; and just before its termination it receives the lymphatics of the left side of the head and neck, and left upper extremity.

"The thoracic duct is composed of three coats, which differ in some respects from those of the lymphatic vessels. The *internal coat* consists of a layer of endothelium, consisting of a single layer of flattened lanceolate cells with serrated borders: of a sub-endothelial layer similar to that found in the arteries; and an elastic fibrous coat, the fibres of which run in a longitudinal direction. The *middle coat* consists of a longitudinal layer of white connective tissue with elastic fibres, external to which are several laminae of muscular tissue, the fibres of which are, for the most part, disposed transversely, but some are oblique or longitudinal and intermixed with elastic fibres. The *external coat* is composed of areolar tissue, with elastic fibres and isolated fasciculi of muscular fibres."

The books devoted to pathology in general, surprisingly enough, contain more than volumes devoted to surgery or to practice. Neither Wesener, von Jaksch, nor the more modern and extensive work of Glentworth R. Butler, mention the thoracic duct in their volumes upon Clinical Diagnosis. Stengel ("Text-book of Pathology"), in a brief paragraph refers to the fact that inflammation of the thoracic duct

is possible, secondary to previous inflammations in the abdominal or pelvic organs. Ziegler ("Pathologische Anatomie") states in a casual manner that a form of endothelial tumors, arising in the mesenteric glands, may give rise to the closure of the thoracic duct. The possibility of a primary inflammatory process, arising in the duct itself, is not mentioned. Delafield and Prudden ("Pathological Anatomy and Histology") make no mention of the duct or of its diseases. Wood ("Textbook on Therapeutics") makes no mention of the condition. Osler ("Practice of Medicine") devotes but two lines to the thoracic duct, under the general subject of acute tuberculosis, and calls attention to the fact that the rupture of a tuberculous gland into the thoracic duct may give rise to a general systemic acute miliary tuberculosis. Pepper ("Practice of Medicine") gives a similar reference to the work of Ponfick in a case of acute miliary tuberculosis. None of the books on surgery consulted speak of conditions other than those due to injuries.

That traumatism of the thoracic duct is by no means of uncommon occurrence is shown from the following extract from Gould and Pyle ("Anomalies and Curiosities of Medicine"):

"The thoracic duct although so much protected by its anatomical position, under exceptional circumstances, has been ruptured or wounded. Kirschner has collected seventeen cases of this nature, two of which were due to contusions of the chest, one each to a puncture, a cut, and a shot wound, and three to erosions from suppurations. In the remaining cases the account fails to assign a definite cause. Chylochorax, or chylous ascites is generally a result of this injury. Krabbel mentions a patient who was run over by an empty coal car and who died on the fifth day from suppuration, due to an effusion into the right pleural cavity. On post-mortem examination it was found that the effusion was chyle, the thoracic duct being torn just opposite the ninth dorsal vertebra which had been transversely fractured. In one of Kirchner's cases a girl of nine had been violently pushed against the window sill, striking the front of her chest in front of the third rib. She suffered from pleural effusion, which upon aspiration proved to be chyle. She ultiamtely recovered her health. In 1891, Eyer reported a case of rupture of the thoracic duct, followed by death on the 38th day. The young man had been caught between a railway car and an engine and no bones were broken.

"Manley reports a case of rupture of the thoracic duct in a man of 35 who was struck by the pole of a brewery wagon; he was knocked down on his back, the wheel passing squarely over his abdomen. There was subsequent bulging low down in the right iliac fossa, caused by the presence of a fluid which chemic and microscopic examination proved was chyle. From five to eight ounces of this fluid was discharged each day, until the tenth day, when the bulging was opened and drained. On the fifteenth day the wound was healed and the man left the hospital quite restored to health.

"Keen has reported four cases of accidental injury to the thoracic duct near its termination at the base of the left side of the neck; the wounding was in the course of removal of deep seated growth in this region. Three of the cases recovered, having sustained no injury from the injury to the thoracic duct. One died, but the fatal influence was not especially cnonected with the wound of the duct. The same author in his excellent book upon the Complications of Typhoid Fever makes no mention of the duct."

ETIOLOGY.

However scanty the medical literature relating to the anatomy and diseases of the thoracic duct may be, the relation of cause and effect in this particular disease is clearly shown. Toxicosis as a result of eating certain forms of sea-food in which putrifactive changes have commenced before cooking is generally recognized, and cases of poisoning from this variety of ptomaines are so common as to arouse but little professional interest. To this cause may be ascribed the first period of the disease following an unusually hearty meal of many varieties of oysters, clams, lobster, crabs and fish. The wonder is that such attacks in themselves are not as a rule more fatal, but in this case the cause was quickly removed, and at the end of a few days convalescence had been established.

If the patient had waited a longer time before partaking of food containing other forms of toxins he would probably have been able to withstand the second and more severe attack. Unfortunately, he had his second hearty meal of poisonous material when his intestinal tract had not recovered from the effects of the toxicosis caused by the fish. The mucous membrane was still swollen, inflamed and perhaps abraded in places, and with the ingestion of the "Long Island duck," possibly coming from Texas, that had been kept in cold storage, undrawn, for an indefinite period of time, not only did the poisonous ptomaines gain entrance to the lacteals, but the bacteria themselves were able to migrate through the weakened walls of the villi, gain entrance into the small chyle channels, and thence infect directly the thoracic duct itself.

The role thus played by cold-storage poultry in the causation of disease, and in this case of death, is one of vital importance, and one which, because of the comparatively recent methods of cold storage, has not yet been generally appreciated by the medical profession. Thanks to the painstaking investigations of laboratory workers in recent years, and in our own State particularly to the work of Cavana, the true dangers have been fully exposed. Poultry is bought and sold by weight, and generally commands a price from twelve cents a pound upwards. Poultry raisers, as a rule, precede the slaughtering of their marketable stock by liberal cereal feeding, which accounts for the full crops generally found when the fowls are prepared for cooking. The manifest object of this feeding is to increase the weight of the stock, and the corn or other grain at two cents a pound thus fed before slaughtering, proves a six hundred per cent. investment to the raiser of the stock.

After slaughter, the poultry carcasses are denuded of their feathers and shipped to the wholesale dealers without further dressing. The head and feet, as well as the full crop of partially digested grain, and the intestinal tract, with its store of filthy and poisonous excrementitious matter, all combine to make valuable weight, and are therefore kept intact. Most of the modern wholesalers are proprietors of cold storage plants, and their stocks are the sources of supply for a great majority of the retail marketmen of our cities. Even with the cold storage at a distance, the poultry are still shipped undrawn in unprotected crates to the warehouse, may be several days upon the road, and are subjected to external as well as internal infection.

The poultry grown in the State of New York is sufficient to supply about twenty per cent. of that consumed by the State's population; therefore, the necessity arises for replenishing the wholesale stocks from the less densely populated States of the West and South. Investigation has shown that poultry in storage in this State is collected from all parts of the country, even as far distant as the State of Texas. Once within the walls of the storage warehouse, its ultimate destiny is uncertain. It may remain on hand for weeks, months, or even years. Indeed, one manager presented a Committee of the New York State Assembly, charged with the investigation of these facts, with an undrawn capon which he claimed had been in storage for four years. It was in turn taken home by the clerk of the committee and cooked, but he could not eat it.

Imagine the probabilities connected with the Thanksgiving turkey and spring chicken (which are quoted upon the menu of our high class hotels and restaurants every day in the year), their previous storing in a cold but unfrozen state for months, or even years; their craws stuffed with food and various substances collected in the active life as a scavenger that is led by all ducks and hens upon a farm; their digestive tract filled with excrementitious matter in a state of solubility; with continuous absorption and dissemination of these poisonous products taking place throughout the body through the numerous channels of conveyance; and the final and crowning act of the wholesaler of allowing the partially mummified body to soak in a vat of fresh water for some hours before sale to overcome the shrinkage and cause the carcase to look plump. Finally, to give a touch of realism to the affair, the bill of the bird is often dipped in a little fresh blood, and the body wiped dry with solutions of boric and salicylic acids to freshen it up a bit and to deodorize it. These facts have all been fully substantiated, and it is little wonder that experiments have shown that ten minims of the expressed juices, injected hypodermically, will act like any other venom cause death in short periods of time.

Numerous cases of death from poultry intoxication have been reported, and the list is fast increasing as the attention of the profession is called to the true cause. Had autopsies been performed, it is probable that other cases would have shown an actual bacterial invasion of the lacteals, and even of the thoracic duct, as in the case now being considered.

Numerous experiments have been made under careful supervision, with a view of determining the varieties of bacteria thus distributed. The bacillus coli communis is found in practically every instance. The staphylococcus pyogenes, the bacillus proteus, and the streptococcus in varying proportions. In the present instance, by reason of the distinctly blue color of the pus, and the indescribably offensive odor, it is probable that the bacillus pyocyaneus was the predominant organism.

MORBID ANATOMY.

When the post-mortem findings, already described, are considered, certain predominant changes present themselves in this case. Considered in the order of their occurrence, the pathologic changes are as follows:

Following the ingestion of fish or shell fish which had undergone partial decomposition, the ptomaines which resulted from these changes, acting upon the mucous membrane of the small intestine, gave rise to a certain number of inflammatory changes, the result of this irritation. The ptomaines themselves were absorbed through the walls of the intestine, obtained entrance into the channels of the chyle, into the thoracic duct, and so into the general system. At the conclusion of the seventh day from the onset of the illness, this series of pathologic changes may be considered to have terminated.

Cold storage poultry was then eaten, forming, indeed, the principal article in a hearty meal. In this case, not only did the ptomaine products of decomposition gain entrance to the lymphatics through the intestinal walls, but the bacteria themselves doubtless found avenues of entrance through the inflamed, swollen and possibly exfoliated mucous membranes of the intestines; were able to penetrate the intestinal walls, enter the chyle channels, and reach the mesenteric glands. The changes produced in the first instance of a pure ptomaine poisoning were microscopic in character, but with the ingress of active bacteria and their lodgment in the mesenteric glands, these glands immediately began to show gross pathologic changes. They became greatly enlarged, and finally, at the time of death, were found to be as large as a lima bean, and in some instances even 3 centimetres in length, 2 in breadth and 1 in thickness.

The thoracic duct itself was the next organ

of the body to show the effect of bacterial invasion. By reason of the numerous valves along the course, this thoracic duct, though normally a single tube, is in reality composed of a series of separate cells, varying somewhat in length, and each connected with the following one in the series by a valve obstructing in its normal condition too rapid a flow of the chyle, and in the inflamed condition which soon arose, by thickening and swelling, became a more or less complete barrier to the progress of the suppurative process. The result of this anatomical structure of the thoracic duct was the forming of a series of small abscesses, giving to the duct, as a whole, the appearance of a necklace of beads, each segment of which was from one to two centimetres in diameter, and of a length corresponding to the varying lengths of the valves within the duct. Ultimately this series of circumscribed abscesses within the duct reached the termination of the thoracic duct in the re-entrant angle of the left jugular vein and left sub-clavian vein, and there, overcoming the last barrier, discharged purulent material directly into the systemic circulation.

As a result of this acute inflammatory process, all organs and tissue lying in immediate contact with the duct throughout its course were involved in an exudative and plastic inflammation, binding together the tissues about the central core until the bologna-shaped mass, discovered at the time of autopsy, was developed.

The spleen showed no material growth or pathologic changes. The minute changes observed in microscopic sections have been described by Professor Moore in a foregoing paragraph. This lack of swelling, and of increase in the size of the spleen, and the fact that the spleen pulp retained essentially its normal consistence, serve to distinguish the condition found in this disease from the changes so commonly presented in typhoid fever, in acute or chronic malaria, and in certain varieties of diseases of the blood itself.

The Liver.—The changes which were observed at the time of autopsy in the liver did not attract attention by any change in the gross appearance of that organ. The minute structure of the organ did, however, undergo marked changes, as described by Prof. Moore.

The Kidneys showed, on both sides, the characteristic condition of acute hemorrhagic nephritis so commonly found in cases of poisoning by such substances as arsenic, lead or other acute toxic agents. Such hemorrhagic nephritis is occasionally found in cases of typhoid fever, but not in the experience of the writer, of so pronounced or acute a type as was clinically observed in the case we are considering.

The other organs of the body, with the exception of the chronic endocarditis which had doubtless existed for years, showed no gross pathologic lesions.

The Blood was examined a number of times. The changes noted therein showed nothing abnormal save a progressive and well-marked leucocytosis. Numerically, the number of white cells was steadily increased until shortly before death, when nearly 200,000 per cubic millimetre were observable. Coincident with this increase of the white cells, there was a moderate decrease of red cells, as would be expected from the inability of the patient to retain or digest food. The hemoglobin was diminished in the same relative proportion as were the red cells. A few poikilocytes were observed, but the blood-making power was evidently held in abeyance. A differential count was made, but showed no abnormal relative changes.

The Urine was scanty during the disease, as was to be expected from the relatively small amount of fluids which the patient was able to retain. The specific gravity varied from 1020 to 1035. In the later stages of the disease, with the advent of blood in the urine, a moderate amount of albumen and a few casts were observed. The most pronounced change in the urine was that due to the presence of enormous quantities of fresh blood with flakes of fibrin, and from time to time, as the urine became changed, numerous crystals of hematin were present. The result was that urine allowed to stand after it had been voided showed a bloody sediment of from one-fourth to one-half of the entire volume of the urine.

Nervous System.—It is probable, considering the motor disturbances of the eye muscles, and of the fibrillary tremors which developed later in the disease, that microscopic changes developed in various portions of the *nervous system.* These, however, were not demonstrable at the autopsy.

With this chain of lesions in various parts of the body, and with the constant direct discharge into the systemic circulation of pus and its contained bacteria, there is no doubt that minute foci of suppuration had started in various portions of the body, and had the life of the patient been longer prolonged, multiple pyemic abscesses would have developed in the liven, in the spleen, and in other locations so commonly observed in fatal cases of pyemia.

SYMPTOMATOLOGY.

The symptoms which developed in the course of the disease depended, as usual, upon the pathologic changes just described. They group themselves into *five distinct classes,* corresponding very accurately with the *five weeks of the disease,* and simulated in each case well recognized forms of disease.

The symptoms of the *first week,* following the ingestion of shell fish and of fish at the

shore dinner, differed in no material way from those observed in many similar cases of fish toxicosis with which the profession has been familiar for many years. An initial chill, rise of temperature, nausea, vomiting and diarrhea appeared early in the attack, were quickly controlled and subsided after a free catharsis had been secured.

At the beginning of the *second week,* with the dinner at which the cold storage duck had been the principal article of diet, a marked change in the character of the symptoms presented itself. There were present at this time, not only those symptoms due to ptomaine poisoning, but superadded to these, symptoms caused by direct bacterial invasion, first of the lymphatic glands and later of the thoracic duct. The result was the occurrence at definite intervals, of well-marked and severe chills, probably corresponding in time to the slow filling of one segment of the thoracic duct with pus, and then, as the pressure increased, of its sudden discharge into the adjacent cell, and thus into the systemic circulation. These chills occurred at such regular intervals, and were of a character so similar to those observed in certain forms of malaria in which a double infection has occurred, that the diagnosis of malaria appeared inevitable, and was only set aside when repeated examinations of the blood failed to reveal plasmodia.

With the beginning of the *third week* of the disease, the chills persisted, but with lengthened intervals, probably because the segments of the thoracic duct within the thorax, where the disease had now extended, were considerably longer than the segments within the abdominal cavity proper. At the same time, the temperature changed progressively from the regular accentuated temperature curve of malaria, to the same regular type of curve observed in typhoid fever, and this in turn favored the diagnosis of that form of infection occasionally seen, in which a malarial infection of some type is co-existent with true typhoidal infection.

With the beginning of the *fourth week,* the symptoms closely simulated in all important particulars those observed in the third week of typhoid fever. No eruption was present at any time; rose spots were not observed. Tympanites was slight, but the meneal hebetude, the low morning temperature, and the regular rise of the temperature curve during the day, until it reached its maximum in the late evening, and the subsultus tendinum strongly suggested typhoid fever. It is worthy of note that the same enlargement of the lymphatic mesenteric glands existed in this case as in cases of typhoid fever. The same inflammatory changes in the post-peritoneal region also existed, and it may, therefore, be considered possible that these changes are responsible for the symptoms observed at this period of typhoid rather than the changes in the Peyers patches. Repeated examinations of the blood, however, failed to disclose the characteristic Widal reaction, as they had failed to disclose the presence of the plasmodium malariæ. The character of the stools, moreover, at no time suggested typhoid fever, and in spite of the numerous enemas that were given for various purposes, the bowels remained unirritated and undistended by gas.

With the beginning of the *fifth week,* there was a distinct and sudden change in the character of the symptoms. The temperature curve, which had been regular, suddenly showed wide variations at different hours of the day. The pulse, too, which during the disease had rarely risen to 90, became progressively more and more rapid, rising to 100, 110, 130, and finally to 150 beats per minute. Respiration became somewhat accelerated, but never more than thirty per minute. All of the symptoms heretofore noted increased markedly in severity, and with a sudden onset. The condition of almost complete collapse, which occurred within a few minutes, followed by a period of comparative ease, strongly suggested perforation of the bowels; and the resultant symptoms, evidently due to septicemia from some cause or another, were thought to be those due to the peritonitis following the perforation of the bowels, until this was negatived by the non-appearance of abdominal distension or other symptoms of peritonitis. When the morbid anatomy is reconsidered, it is evident that this collapse and condition of surgical shock dated from the final breaking of the abscess in the last segment of the thoracic duct through the firm and resistant valve at its venous termination, and the sudden discharge of an enormous amount of combined toxines and bacteria directly into the general circulation.

PHYSICAL SIGNS.

These have been dwelt upon at length in the clinical history of the case, and in the description of the morbid anatomy. There is no need for further repetition.

COURSE OF THE DISEASE.

Although in this case the course of the disease extended over a period of five weeks, the disease proper, which finally caused the fatal termination, must be held to originate with the combined ptomaine and bacterial invasion occurring after the ingestion of the cold storage poultry. The length of time, therefore, which elapsed between the onset and the termination of this case, is really about four weeks. With certain invalids of greater powers of resistance to this invasion, it is possible that a still longer period would elapse before pyemic changes following septicemia would terminate in death. The stages into

which the disease divides itself are four in number, and correspond closely with the pathologic changes already described.

DIAGNOSIS.

That this disease has existed in other persons and upon former occasions, there can be no reasonable doubt, but like appendicitis, its diagnosis has been obscured by the fact that at certain stages of the disease it has corresponded almost exactly to ptomaine poisoning, to malaria, to typho-malaria, to typhoid fever and to septicemia. Death, when it occurs in severe cases of these diseases, is not unusual, and is rarely followed by an autopsy. The result has been that in the past errors in diagnosis have doubtless frequently been made. The element of certainty brought to our aid by recent refinements in the technique of the examination of the blood for the malarial organisms, and for the bacillus typhosus, will now add much to the certainty of diagnosis in these two diseases, and, by exclusion, will tend to render more certain the diagnosis of suppuration of the thoracic duct, especially when a direct cause has occurred, as was the case in the present instance.

With the exclusion of typhoid and of malaria by reason of accurate blood examinations, and with the presence in the blood of a progressively increasing leucocytosis, it may be advisable to use deep abdominal palpation as a solution of the problem. If this be done, the presence of the long cylindrical and firm mass lying in the median line in the front of the vertebral column may tend to call attention to the possible presence of disease of the thoracic duct, and indeed to verify its diagnosis.

The character of the temperature curve, as a whole (Fig. 7), with the relatively normal character of the record of both pulse and respiration in the early stages of the disease, and the simulation by the temperature curve of those observed in ptomaine poisoning, in malaria, in typhoid fever, and in septicemia should progressively increase the probabilities in favor of disease of the thoracic duct. A symptom which was of almost daily occurrence during the life of the patient, may also be of practical value in diagnosis. This was the occurrence of nausea when the patient was turned from one side to the other for any cause. When lying quietly upon the back, nausea was of infrequent occurrence. This may possibly be explained by the fact that the weight of the inflamed mass was about the thoracic duct, by moving from side to side, irritated the filaments of the sympathetic nervous system to a degree sufficient to cause nausea following these movements.

TREATMENT.

During the long illness of the patient, the treatment was directed to the symptoms as they arose.

First, to the elimination of toxic products in the intestine, and later to the alleviation of intestinal irritation by means of fluid and easily digested foods. There is every reason to believe that this treatment, as is the case with typhoid fever, will in a large number of instances be successful; but with the actual development within the duct of distinct foci of suppuration, the disease, like that of appendicitis, leaves the domain of internal medicine and becomes surgical in character. Drainage of the duct can doubtless be assayed with every hope of success, as has been done in empyema of the gall bladder, and in localized abscess of the appendix when perforation has taken place.

The difficulties in the way of gaining access to the thoracic duct are greater than in those of peritonitis or diseases of the gall bladder or of appendicitis, but are not insurmountable. The operation must perforce be done through a median abdominal incision, as access to the duct from the flank or along the vertebral column is difficult, and in practice, impossible.

With the invasion of that portion of the thoracic duct lying within the thoracic cavity, surgical skill at the present time is unable to cope. The fact that the duct lies within the thorax behind the heart and lungs and great vessels communicating with these organs, and its immediate proximity to such structures of vital importance as the aorta and the pneumogastric nerve, renders operative procedure within the thoracic cavity unjustifiable.

That surgical interference may not be a hopeless procedure in cases in which the entire length of the thoracic duct is involved, may well be exemplified by the following case contributed by my confrères, Dr. L. W. Pearson, of Brooklyn. The details of this case in which the thoracic duct was wounded at or near its termination in the jugular vein are as follows:

WOUND OF THORACIC DUCT IN THE NECK. DRAINAGE. CURED.

In 1905 I was requested by Dr. Welton to see with him a patient, Mrs. E. K., living in Brooklyn. She was 45 years of age. Her family history was negative. She had enlarged cervical glands which had existed for about a year. They existed only upon the left side and the mass extended nearly to the level of the clavicle.

In January some physician had made an incision into one of these glands which had broken down and was beginning to suppurate. It did not heal, and further operative treatment was necessary.

With the asistance of Drs. Welton and Sheehey, an operation was performed April 8, 1905; six enlarged glands were removed and the old suppurating gland and fistulous tract behind it were also dissected away. The dissection extended to about an inch above the clavicle. Hemostasis was effected and the wound was closed without drainage. The patient recovered quickly from the anesthetic and did well. On the fourth day she had about one degree of temperature. On the 12th of April the dressings were removed. There was no suppuration,

but the tissues near the suture line seemed melting away.

On April 14th there was a bulging of the parts along the line of the incision and adjacent thereto. A probe was inserted at the lower point of the incision and a thick, curdy material began to ooze forth from the depths of the wound. As the wound was laid wider open about a pint of thick, cheesy material was evacuated. The wound was irrigated and cleaned and then it was found that from the lower part of the wound chyle welled up. This was renewed as fast as is was removed, and for the next five days large quantities of chyle escaped more or less continuously and saturated the dressings. The dressings were frequently changed. Notwithstanding this loss of the products of digestion there was no especial sense of hunger experienced, but the patient felt that she was growing somewhat weaker. The temperature varied from 100 degrees to 100.5 degrees, and the tissues melted away. At no time was pus present.

On the 19th day of April it was decided to operate, expose the wound in the thoracic duct, or its branch, and repair it. When the dressings were removed for inspection the flow of chyle seemed greatly lessened and further interference was deferred for the time being. The wound was tightly packed with iodoform gauze in the hope of its closing. On the 20th of the month *the* flow of chyle was very slight. On the following day there was no chyle. The wound itself rapidly closed in from this time and convalescence was uneventful.

From the history of this case, which is given in detail, it will be seen that the duct was wounded and an orifice of considerable extent must have been made in the wall of the tube. For some days considerable quantities of chyle escaped, and yet the patient complained of little or no hunger, and there was but moderate emaciation as a result.

We may conclude, therefore, that in cases in which a definite diagnosis has been made, if necessary even by the use of abdominal section to confirm this diagnosis, the operation upon the duct at its venous extremity in the neck could be performed with ease so far as the operation itself was concerned, and that the closure of the wound after drainage is not a surgical impossibility.

150 West 47th Street.

SOME PRACTICAL SUGGESTIONS ESSENTIAL TO THE RADICAL CURE OF HERNIAE.*

By IRVING S. HAYNES, M.D.,
NEW YORK.

A HERNIA is a source of constant irritation; at times a very painful condition; and always a menace to life.

Its retention by a truss is uncertain and its cure after the fourth year by this means practically impossible.

The individual who wears a truss endures many discomforts, often positive suffering, and his life may be forfeited when far from aid by the failure of his truss and the accidental strangulation of the intestine.

*Read before the Medical Society of the Borough of the Bronx, November 14, 1906.

The radical cure then of any hernia is not only a desideratum, but it is also often imperative.

I do not intend to rehearse the various methods all which from time to time have appeared for the cure of herniæ—they are legion—but to emphasize some, perhaps well known, but, nevertheless, important factors which my study of anatomy and practice in surgery have shown to have a strong basis and are absolutely essential to success.

I shall not discuss the causes producing herniæ, the many variations under which they appear, the symptoms, nor the diagnoses of these conditions, but will briefly consider some particular features necessary to the repair of the weakened abdominal walls which is demanded by the presence of some one of the common varieties of rupture, viz.: inguinal, femoral, umbilical and post-operative herniæ.

The essential features of any operation to my mind depend for their value entirely, not upon the fancy of the operator, but upon the one great principle that determines success or failure. The fundamental principle in the cure of herniæ *is the restoration or reconstruction of the parts according to nature's plan.* Any operation which does not reform the region after Nature's model will prove inefficient, but, if her architecture is closely imitated, success follows in the majority of cases.

INGUINAL HERNIA.

In the treatment of this variety of rupture the imagination of many operators has had full play, and many and wonderful are the methods proposed and even put in practice. In most of them Nature has been apparently forgotten and the normal construction ignored.

In this region, more than in any other, *is it necessary to reconstruct the parts after the normal plan.* I might give you an outline of the relations existing in the normal person, but will forgo this and trust to your remembrance of the construction of this region.

I shall suppose that the operation has been carried out to the stage where the hernial sac has been emptied of its contents and you are ready to begin closure of the wound.

Many plans have been suggested for the disposition of the sac, but there is only one worthy of use. The plan of quilting the sac, forming a pad, and by this plugging the internal ring is illogical and inefficient.

Either this excess of tissue will be absorbed, or it will remain. If it is absorbed, no good has been accomplished by its retention, and if it remains, it will act as a wedge to reopen the ring and favor the recurrence of the hernia.

Side-tracking the sac upward, or sideways, accomplishes nothing, and this portion of the serous membrane may be the starting point for a cyst.

There is only one rational way to deal with the sac—freely loosen its neck, firmly draw it down,

ligate it as high up as possible, and cut away the part below the ligature. This will accomplish all the benefit to be derived from this factor, inasmuch as you have obliterated the funnel leading into the sac.

Next deal with the cord: proper treatment of the cord is essential to success, as a large varicose cord will negative your treatment of the muscles. Remove all the excess of venous, connective and muscular tissue as advised by Halstead, leave only the vas with its immediate vessels, thus changing a large vascular mass into a thin, firm, cord. The excess of tissue is removed from well inside the abdomen to beyond the site of the external ring.

Now we come to the plan of suturing the muscles; this I call the *normal plan*, and it is best exemplified in the Bassini operation.

In the normal state there are two inguinal rings and yet no hernia. Why? Because these rings or openings for the passage of the cord are not opposite each other but removed for a distance of an inch and one-half or more, and each is reinforced by a strong aponeurotic layer. In a hernia we find both rings opposite each other. The conclusion is obvious; we must separate the rings. The external one is fixed by its proximity to the pubes: therefore we can only change the position of the internal. This is easily accomplished in this wise. Divide the fibres of the internal oblique and transversalis muscles outward along Poupart's ligament until over the middle of the same. Form the internal ring here by drawing the cord outward and fixing it there by a suture, through the divided muscles and Poupart's ligament, just internal to the cord. The size of the internal ring depends upon the placement of this suture. If too large a gap is left about the cord, the hernia may return; if too small, the cord may be constricted. However, as we are dealing with muscular tissue that will yield to some extent, it is safe to close the muscles quite snugly about the cord.

Before finishing the coaptation of the internal oblique and transversalis muscles and Poupart's ligament, be sure that you have thoroughly exposed the margins of these muscles, the conjoined tendon and the ligament, especially near the pubic bone. Bits of cremaster, shreds of connective tissue left here may get between the sutured structures and a weak union result. Use No. 3, 40 day chromic gut for adults, and No. 1 or 2 for children. The sutures are placed one-half inch apart, and introduced through muscles and ligament after the manner of Lembert sutures of the intestines; thus rolling together broad surfaces for union. Mattrass sutures can also be used.

Place the cord along the sutured line and over it close the external oblique by continuous or interrupted chromic gut sutures.

Do not bring the cord out through the external oblique opposite the internal ring. This is illogical, as the rings are thus placed opposite to each other and a return of the hernia invited. Besides there are valid objections to having the cord in such a superficial position in a region so frequently exposed to traumatism.

One point about suturing the external oblique. Often you will see a gap between the fibres of the aponeurosis extending outward often as far as the iliac spine. If such a break exists, strip up the superficial structures and close it by your sutures. At the pubes you must form the external ring as small as possible, remembering, however, that here you are suturing inelastic fascia, and too tight a ring means obstruction to the circulation of the testicle. Suture the skin without drainage after absolute hemostasis.

An operation of this kind means in the great majority of cases a permanent cure. I have used this method in an infant four (4) weeks old, and in a man eighty (80) years of age, and at all ages between. By the way, the baby recovered and remained cured; the old man died of pneumonia two weeks after the operation. The wound, however, had healed by primary union.

FEMORAL HERNIA.

Operations for the cure of femoral hernia have kept pace in complexity and variety with those suggested for inguinal hernia.

But I fully agree with Ochsner and Coley that the complicated methods have nothing to recommend them; in fact they are followed by a greater percentage of recurrences than after the simpler operation. Suppose again that the femoral sac has been exposed, opened and its contents dealt with. Dispose of it in exactly the same way as advocated for the sac in inguinal hernia, and for exactly the same reasons. Close the femoral opening by a purse string or interrupted sutures that firmly unite the end of Poupart's ligament to the pectineal fascia immediately over the pubic bone, and from Gimbernat's ligament outward to the femoral vein.

This method is curative; in fact it is more effective than any of the numerous plans offered for raising fascial and even bone flaps, transplanting the insertion of Poupart's ligament, etc. It really seems as if many surgeons had devised some particular scheme without any regard for the anatomical construction of this region in order that they might tag the operation with their own name, and thus erect a monument to themselves.

UMBILICAL HERNIA.

Umbilical hernia of whatever variety and however long standing possess this feature in common: they are easiest treated by full exposure of the neck of the hernia in its entire circumference before opening into the sac. The sac should be opened preferably near the base, or ring, rather than over its most prominent part. After dealing with the contents of the sac, which is often most trying you will face many difficul-

ties in the next step, namely, closure of the orifice. The peritoneum separates not at all, or with great difficulty, from the fibrous ring. Do not waste time here, but incise the linea alba upward and downward until you strike the line of cleavage, when you can peel the peritoneum up to the hernial orifice; close the peritoneum and the hernial orifice by separate lines of sutures, the latter with No. 3 or 4, 40 day chromic gut. If the peritoneum does not separate readily even with an enlarged incision, proceed to open the sheaths of the recti muscles. Form one flap with adherent peritoneum behind and the other flap out of the anterior layer of the sheaths in front, and suture the two layers independently. Before closing the external flap, bring the two recti muscles together with a few interrupted stitches.

This procedure of forming and suturing three layers separately, that is the posterior sheaths of the recti and peritoneum as one layer, the recti muscles as the second, and the external sheaths as the third layer, is also useful in closing the gap so often found when the recti muscles have become widely separated from each other through stretching and thinning of the linea alba. I used this scheme with perfect success in such a case where the incision extended from the ensiform appendix to the pubes. The width of the linea alba at the point of greatest separation of the recti muscles was about four inches.

POST-OPERATIVE HERNIA.

You might truthfully say that the cure of this undesirable condition is in the primary treatment of the original wound by careful layer suturing. I grant it. But at times, for one reason or another, this is impossible, and herniæ do follow abdominal operations, and we are called upon to repair such defects. All these cases are difficult, some more so than others, depending upon conditions I shall not discuss now.

One essential feature of the operation for the cure of this form of rupture decides the ease with which it can be done, and often the permanency of the result. You must aim to remove all cicatricial tissue, expose the various layers, and accurately suture each layer separately. This sounds easy and it may be made comparatively so, if this precaution is observed, viz., enter upon the operation at a distance from the old scar and the rupture, in normal healthy tissue, whether skin, muscle, aponeurosis, fascia or peritoneum; expose the region freely and separate each layer up to the cicatricial ring forming the margins of the opening, but do not include any of this scar tissue with the several layers; scar tissue does not offer firm ground for suturing; it will yield and spoil the result. Having formed the various layers, open the peritoneum close to the sac; usually omentum, or intestine, or both, are adherent to it. Omentum can be ligated, intestine has to be dealt with so as not to leave a raw surface. I have found it possible to twist back the margins of the piece of adherent sac, suture them, and thus present a serous surface covering the intestine.

Close the various layers, by plain gut for the peritoneum, chromic Nos. 2, 3 or 4, 40 day gut for the muscles, and suture the skin, or close the wound, by sterilized adhesive plaster.

The points I have omitted in the brief survey of hernia I hope you will bring up in the discussion. As I stated in the beginning, I have attempted to emphasize some of the factors that to my mind are most important in determining our success in the operative treatment in this most interesting class of cases.

THE CLINICAL FEATURES AND OPERATIVE TREATMENT OF THYROID LESIONS.*

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THE advances in the surgery of the thyroid gland in recent years has afforded new opportunitities for the study of the various diseases of this organ. It is noteworthy, however, that no uniformity exists in the classification of these lesions. We should not be satisfied with designating all the enlargements of the thyriod gland as "goitre," for this term surely conveys no pathological meaning and is thus inadequate from a clinical standpoint. In a pathological study of a large series of cases recently undertaken an effort was made to classify the various diseases upon a purely morphological basis. We thus find that we have three main groups: the hypertrophies, the tumors and the inflammations. Let us consider each group separately.

THE HYPERTROPHIES.

Of this group we recognize two distinct forms (1st) the simple or colloid hypertrophy, and (2d) the exopthalmic hypertrophy. The point of similarity between the two is that each represents a diffuse process, an enlargement which involves the entire organ. This diffuse hypertrophy may or may not be symmetrical. The entire organ may be uniformly enlarged, or, as is frequently the case, one lobe or the isthmus may be especially prominent. In other words, the process in either form of hypertrophy is a diffuse, but not always a uniform one. In the simple hypertrophy, as is well known, the enlargement of the gland is produced by an excessive production of colloid, so that the colloid containing vesicles are many times their normal size. The epithelial cells take but a passive part in the hypertrophy, their compressed and atrophied appearance being due to the increased amount of colloid material. This produces the large type of gland.

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In the expothalmic variety we have a true glandular hypertrophy, that is, an increase in the number and size of the epithelial cells as well as the formation of new alveoli. This type does not produce as great an enlargement. Clinically the hypertrophies are readily differentiated. In the simple form there are present, as a rule, no symptoms except those produced locally by the enlarged organ, that is, dyspnœa, dysphagia and vertigo. In the exophthalmic variety unassociated with other thyroid conditions we have the well-known symptom complex—enlargement of the gland with exophthalmus, tachycardia and tremor. In the true exophthalmic hypertrophy I believe these symptoms are almost invariably present, their severity depending usually upon the amount and duration of the hypertrophy. Later, if the condition is untreated, there occur irreparable changes in the nervous and cardio-vascular systems.

Recent studies have shown that we must recognize certain irregular forms of Graves' disease in which the condition of exophthalmic hypertrophy is associated with or becomes engrafted upon various other types of thyroid affections, e. g., cysts, adenomata, carcinomata and the simple form of hypertrophy. Here the clinical picture differs materially from that of the true form and is extremely variable. It is characterized usually by a longer duration, being, as I have stated, often preceded by some other type of lesion which produces a greater increase in the size of the organ. The enlargement may or may not be symmetrical. The symptoms are of lesser severity and not typical of true exophthalmic hypertrophy. Usually there is present the nervousness, tachycardia and tremor of varying degree, while the exophthalmus may be wanting. The exophthalmus may, however, be the most prominent symptom.

In regard to the other occular manifestations, von Graefe's, Mobius' and Stellwag's, I believe they possess only scientific interest, and rarely if ever prove valuable aids in diagnosis.

The age of onset should also be considered: The simple form of hypertrophy in a large proportion of cases appears before twenty, rarely after twenty-five. In the exophthalmic variety an onset before twenty is extremely rare; the majority of cases appear between the ages of twenty and thirty. The duration of the disease is an important factor in diagnosis. In the simple hypertrophy the condition may continue for twenty or thirty years; in the exophthalmic variety the affection may be fatal within two years. Where the two conditions are associated, or where the exophthalmic hypertrophy appears secondary to other thyroid affections, greater variation in the duration occurs.

To better illustrate the clinical picture presented by these hypertrophies, I may be permitted to report briefly a case representing each type which occurred recently in my practice:

Case I. Male, aged 18; for seven years has had enlargement of the neck with, at times, dyspnœa and some prominence of the eyes. For the past three or four months dsypnœa has been more marked and attacks of vertigo frequent. Boy is unable to do hard work or indulge in violent exercise.

Physical Examination. A symmetrical enlargement of the entire neck anteriorally and laterally, but slightly greater on the right side, is visible. The enlargement extends outward and backward on either side and is felt deep under the sterno-cleido-mastoid muscle.

Clinical Diagnosis. Simple colloid hypertrophy. On account of the gradually increasing size of the gland, with severe pressure symptoms, an operation was deemed advisable.

Operation June 15, 1905. Partial thyroidectomy under 1 to 1000 cocain anesthesia. Transverse incision. The thyroid gland, with the exception of a portion of the upper part of the left lobe about 4x4 c.m. in extent, was removed. On account of the extreme size of the gland and its deep location its removal was attended with more than ordinary difficulty. The attachment to the trachea was very firm and the thinness of the tracheal wall and its narrowed lumen made necessary a most careful dissection. The recurrent nerves were not exposed or injured. The patient stood the operation well, and, aside from a tracheitis and bronchitis, made an uneventful recovery.

The subsequent history in this case is of more than ordinary interest, *first,* as demonstrating the small amount of thyroid tissue necessary to manitain the normal gland functions, and, *second,* in regard to a remote complication, the immediate cause of which I am unable to determine. This patient was relieved of the dyspnœa and other pressure symptoms by the operation, and the extensive removal of gland tissue did not result in any symptoms of athyroidism. He remained well till March, 1906, when symptoms of increasing tracheal or laryngeal stenosis appeared. The condition became so alarming that tracheotomy was performed.

For the history of the case at this time I am indebted to Dr. Lewis W. Rose, of Rochester, who kindly sent me the following notes:

T. S.; aged 19; admitted to Rochester City Hospital March 31, 1906. Dyspnœa present for one week.

Physical Examination. Breathing difficult; marked syanosis of face and extremities; there is a transverse scar across the neck, the result of a thyroidectomy; laryngeal examination showed the vocal cords to be in apposition, due to a paralysis of the abductors of the larynx.

Operation. Tracheotomy below the position of the thyroid isthmus. A tracheotomy tube was inserted. Patient was discharged from the hospital and I have been unable to obtain any subsequent record of the case.

It is difficult to conceive of a laryngeal paralysis developing a year and nine months after operation, being due to involvement of the recurrent laryngeal nerves from scar-tissue formation. Possibly a stenosis, due to a further collapse of the tracheal wall, might have occurred, but this would not explain the vocal cord paralysis which was present. Had further study of the case been possible, a cause entirely remote from the thyroid operation might have been determined to account for the condition.

Case II. Female, aged 36; mother of eight children. General health good previous to onset of present illness. Three and one-half years ago, following the birth of last child, she noticed a slight enlargement of the neck. This was soon followed by a prominence of the eyes, tachycardia and nervousness. The patient has always attempted to perform her duties as housewife, but has often found it necessary to remain in bed or have hospital treatment for a few days. Six months ago severe circulatory disturbances became evident. Breathing now difficult when patient is in the recumbent posture.

I first saw her in May, 1906, when the following notes were made:

The patient is well developed and well nourished; skin moist; slight œdema of feet and ankles. Pulse at wrist 112; very irregular and difficult to count. Visible cardiac impulse 160 per minute.

Eyes. Marked exophthalmus, eyes equally prominent. Von Graefe's sign not present; Möbius' sign slightly marked. Palpebral fissures wide.

Nervous and Muscular Systems. Fine rapid tremor of hands and fingers. Muscles flabby. Deep and superficial reflexes seem to be lost.

Thyroid Gland. Pulsation felt in gland synchronous with heart beat. Superficial veins of neck and face large, tortuous and engorged. There is an enlargement of the thyroid gland which is symmetrical, extending on either side underneath the sterno-mastoid muscle, producing a decided fullness of anterior part of neck. The enlargement measures approximately 13x5 c.m. Circumference of neck 36 c.m.

Chest. Impulse of apex beat seen with maximum intensity in the 5th interspace 25 c.m., without nipple line, also a wave-like impulse in the 3d and 4th interspaces close to the sternal margin. Impulse visible over entire left chest. The area of cardia dullness extends from 3d interspace to 6th rib in mammillary line, laterally over an area 6½ c.m. from nipple inward to sternum.

Auscultation. There is heard over apex of heart a blowing systolic murmur, transmitted outward and heard with distinctness in axillary line. Over entire cardiac area murmurs are heard, but on account of the rapidity and irregularity of the heart action their source cannot be definitely determined.

On account of the serious nature of this case, after consultation with Dr. Laird, by whom the case was referred, it was decided at least, as a preliminary treatment, to use the cytotoxic serum of Rogers and Beebe. From the 16th to the 27th of May, inclusive, seven injections were given at intervals of 24 or 48 hours. The patient during this time having absolute rest in bed, very little local or general reaction was noticed from the injections. There was no appreciable decrease in the size of the hypertrophied gland. Pulse remained about the same rate and character. The patient frequently complained of severe pain in the region of the heart.

White Blood Count. Before beginning the injections the white corpuscles numbered 4,000 with 65 per cent. polynuclears. After seven serum injections, two and one-half weeks later, they numbered 2,300 with about 50 per cent. polynuclears. The patient during this time has apparently lost considerable weight. She now left the hospital against our advice, but, becoming rapidly worse, and developing severe œdema and ascites, was compelled to enter again in June, after remaining out one month. Examination at this time revealed marked cyanosis and œdema of face and extremities. The thyroid gland shows no reduction in size. Exophthalmus marked.

Blood Examination. Red Cells, 3,060,000; white cells, 1,800.

Differential count of 314 white cells, polynuclears, 56.5 per cent; large mononuclears, 4.5 per cent.; small mononuclears, 38 per cent.; eosinophiles 1 per cent. Red cells in stained specimen appeared somewhat pale.

Blood pressure in right arm, from 105 to 110 m.m. of mercury. During the next two months the patient was given the most careful medical treatment, but with slight, if any, improvement in her condition. On three occasions during this period it became necessary for the relief of respiratory difficulty to remove the ascitic fluid, each time obtaining from five to seven quarts.

Although surgery offered little hope in this case, an operation was advised as a last resort and performed on September 6th.

Anesthetic. Schleich's solution 1-1000 cocain. Morphia gr. 1-3. Transverse incision. The left lobe and isthmus of the gland was removed. The wound was closed with interrupted silk and free drainage established. The operative shock was comparatively slight. The blood-pressure was reduced from 105 to 90 m.m. of Hg. during the operation.

Post-operative Notes. Fifth day since operation. The first dressing was done 48 hours after the operation and the gutta-percha drainage renewed. There has been a profuse discharge of serum from the wound since the operation; for the first 48 hours blood tinged, but now of a clear amber color. For twelve hours after the operation the patient's condition was very critical. There was a gradual increase in the pulse rate with increasing œdema of face and extremities. From this time on, however, there has been a rapid improvement in all the symptoms. The pulse is now from 100 to 110, of better quality, but still intermittent. Exophthalmus has perceptibly lessened. All œdema has disappeared. The ascites which was present before the operation has markedly diminished. Aside from the failure of the wound to heal by primary union, due to the excessive discharge of serum, the patient made a satisfactory convalescence and left the hospital after four weeks with a remarkable improvement in her condition. She is now, January, 1907, four and one-half months since operation, so greatly improved in health that she is able to assist in the care of her house. All of the symptoms of Graves' disease have been improved or relieved. The severe circulatory disturbances have disappeared. The serious structural changes that had taken place in the heart muscle are, of course, beyond repair, but now, with the removal of the exciting cause, we may expect a certain improvement also in the heart condition.

THE TUMORS.

These comprise the asymmetrical enlargements of the gland and include the benign tumors, the cysts, the adenomata, and the malignant tumors, carcinomata and sarcomata.

The cysts and the adenomata are the most frequent lesions met with in the thyroid gland, and their differentiation clinically is often difficult. Recent investigation has shown that the majority of cysts bear a close relationship to the adenomata, being most likely produced by a degeneration of the latter, the hemorrhage playing but a passive rôle. True hemorrhagic cysts are rare in my experience, and result from direct trauma or violent muscular exertion, which causes rupture of a blood vessel within the gland. Only one such instance was met with in a large series of specimens recently examined. The cysts may then properly be said, I believe, to represent morphologically but a terminal phase in the life history of the adenomata. When once degeneration has taken place in an adenoma, hemorrhage occurs, and large cystic cavities are thus produced. In cases of long standing, cysts of extreme size are often encountered and they are easily diagnosticated. The adenomata usually present as small, hard, freely movable tumors, either within the tissue of the gland, without and connected with its capsule or at some distance from the gland. They usually occur single, but occasionally multiple tumors of one lobe are encountered. They frequently appear in the isthmus and are present as tumors in the median line. Their average diameter is from 4 to 6 c.m. The symptoms produced are purely mechanical. Through pressure upon the trachea or esophagus, they may give rise to dyspnœa or dysphagia. In some instances extreme nervousness of the patient may be ascribed to such pressure. The age of onset

seems to correspond to that of adenomata of other glands occurring during youth or early adult life when glandular activities are at their height. From the fact that these tumors produce no subjective symptoms and that their growth is as a rule slow, it is often many years before the patient seeks surgical relief. No important etiologic factors (other than the age) can be ascribed. They arise in glands that are otherwise apparently normal. The subjective symptoms are less pronounced and less severe than with the cysts, this being due most probably to the fact that adenomata do not attain to the size of the cysts.

Illustrative. Case III. Female; aged 28; single; nurse. A year and four months ago first noticed a small tumor in the median line of the neck in the position of the thyroid isthmus. This has gradually increased in size until it now measures 5x6 c.m. It is firm in consistency, closely attached to the trachea and moves with deglutition. No lobulations can be made out. It is slightly tender on pressure, but there are no other subjective symptoms. Operation was sought mainly for the relief of the disfigurement.

Clinical Diagnosis. Adenoma of the thyroid gland.

Operation. November 23, 1906. Cocain; transverse incision. Excision of tumor of the isthmus. The lateral lobes of the gland appeared normal. The patient bore the operation well. Recovery was rapid, the wound healing per-primam. The resulting scar is very slight.

Note. On examination of this tumor, after removal, there was found beginning cystic degeneration at the center of the adenoma. On account of the firm fibrous capsule and its tenseness, due to the accumulated fluid, no fluctuation could be made out, thus demonstrating the difficulty in differentiating these two conditions clinically.

Illustrative. Case IV. Female; aged 22; single. Two years ago there first appeared in the median line of neck a tumor which was about the size of a hen's egg. Increase in size has been very slow until four weeks ago, since which time, together with a severe cough, the tumor has rapidly increased in size. This enlargement has been accompanied with pain and dyspnœa. Hoarseness of voice marked at times during the past year. General health good.

Physical Examination. No eye symptoms. Pulse 110. There presents in the position of the left lobe of the thyroid gland a large, tense but fluctuating tumor 7x8 c.m. in size. It is situated deep in the neck and is firmly attached to the surrounding structures.

Clinical Diagnosis. Cyst of the thyroid gland with recent hemorrhage.

Operation. May 17, 1906. Anesthesia, Schleich's solution, 1-1000 cocain. Morphia gr. ½, during and fifteen minutes previous to operation in 1-6 grain doses. Transverse collar incision.

Skin was infiltrated transversely across neck with a 1 per cent. cocain solution, the injection being made in such a manner as to produce a blanching of the superimposed epidermis. The skin over the tumor was at once incised, and the incision continued dividing transversely the fibres of the platysma myoides muscle. Schleich's solution 1-1000 cocain was then used throughout the remainder of the operation. The sterno-hyoid and sterno-thyroid muscles were freely infiltrated and divided, exposing the anterior surface of the cyst capsule. A needle of a large syringe was then thrust into the cavity of the cyst and several syringefuls of the cyst contents aspirated. The cyst was then more thoroughly opened and its entire contents evacuated. Careful dissection was then continued, vessels clamped and cut as they were encountered, and thus the cyst was removed without difficulty, practically without hemorrhage, and without serious discomfort to the patient. The left superior thyroid artery was ligated with silk and divided. The wound was washed with saline solution and the divided muscle ends carefully approximated and sutured with fine silk. A small gutta-percha drain was placed in the inner angle of wound, passing over to the median line underneath the sutured muscles. The skin was closed with interrupted silk sutures. During the deep dissection, in freeing the adherent cyst wall from the trachea, a certain amount of traction upon the tumor mass was necessary. This produced a rather severe "choking" sensation, which is the rule at this stage of the operation, and which I have been told by many patients was the most trying and uncomfortable feature of the operation. The patient made a rapid recovery and left the hospital on the fifth day following the operation

I report this case somewhat in detail for it represents materially the procedure carried out in the removal of all thyroid tumors and in partial thyroidectomy.

Of the malignant tumors of the thyroid, carcinoma is the most common, and while rarely met with, it is a possibility which must be reckoned with in diagnosis. Clinically two varieties are recognized. The one in which the new growth appears in an otherwise normal gland rarely producing a large tumor, but in which obstructive symptoms are manifest early and are out of proportion to the size of the growth; the other in which the carcinoma appears secondary to a simple hypertrophy or other benign lesion. These carcinomatous degenerations are more frequently met with in districts where simple hypertrophy is endemic. Here the important feature is a sudden increase in the size of the hypertrophied organ with a rapid development or exaggeration of subjective symptoms.

Of the last group, the inflammatory lesions, we need to consider in this connection only one form. The acute infections are easily recognized and dealt with. As illustrated by a case which recently came under my observation, tuberculosis of the thyroid may in all respects simulate clinically an adenoma, and it is thus a possibility which must be taken into account. It was shown that a tuberculous nodule may be present in the tissue of the thyroid gland for several years without producing symptoms other than tumor. Whether such a lesion is ever primary in the gland is doubtful, notwithstanding the fact that clinical evidence may point to its being such. Most probably it is secondary to a tuberculous lesion in some other part of the body.

It is not the purpose of this paper to discuss all of the surgical measures that have been employed in the treatment of thyroid affections and especially that of exophthalmic hypertrophy. I shall confine my remarks rather to a discussion of some of the features of the operative technic of partial thyroidectomy and of excision of thyroid tumors. A word, however, may be said in justification of the surgical treatment of Graves' disease. In all other thyroid lesions the benign tumors, the cysts, the simple hypertrophies and carcinomata, as the symptoms produced are mainly of a mechanical nature, surgery obviously offers the only means of relief.

Our modern conception of the pathology of exophthalmic hypertrophy is that there is produced in the gland either an excessive or perverted secretion or both. All measures directed toward the relief of the condition aim in one way or another to effect a diminution in such secretion. Theoretically the most effective means of bringing about such a diminution would seem to be the removal of a portion of the gland, and practical experience it seems has conclusively demonstrated the superiority of this treatment over the many other methods that have been adopted from time to time. The danger attending such removal has been the most potent argument against its use, but I believe with opportunities for operation in the earlier stages and attention to certain details, surgery will assume first place as a therapeutic measure instead of a last resort in the treatment of this serious illness.

THE ANESTHETIC.

The employment of general anesthesia has without doubt contributed largely to the high primary mortality in operations for exophthalmic hypertrophy, and it has in this manner been responsible for the disrepute into which the surgical treatment of this affection has so often fallen. While the same danger does not attach itself to the employment of a general anesthetic in the less serious thyroid lesions, still fatalities have occurred, especially in those cases of large tumors or in simple hypertrophy where the trachea lumen is narrowed and its wall weakened by the pressure of growth. A post-operative complication always to be feared is the inflammations of the respiratory tract which is undoubtedly more frequent after general anesthesia. With the employment of cocaine, operation in the early stages of Graves' disease should not expose the life of the patient to any danger, and this applies with greater force to the more simple lesions. In serious cases and especially those of long standing the operation should be preceded by days and perhaps weeks of judicious medical treatment, with absolute mental and bodily rest. When organic changes in the heart muscle exist with serious circulatory disturbances the case is of much more serious import, but even in these cases life can often be saved and the patient remain comfortable for a long time. We would do well in some instances to carry out the plan of Professor Kocher, who often begins with the ligature of one superior thyroid artery, performs the second operation ten days or two weeks later when the patient shows improvement, and undertakes excision of one side only when after some weeks more the symptoms of the disease show a decided diminution. In this way operative treatment may be made successful, even in severe cases, if we avoid the danger of general anesthesia.

Of the various drugs that are used for local anesthesia, I believe none possess any advantages over cocaine. This drug I have always found satisfactory. With the exception of a small amount of a 1 or 2 per cent. solution for the skin injection I have always employed the Schleich's solution in the strength of 1-1000 cocaine. Of this weak solution as large an amount as desired may be used without fear of any harm resulting.

It is always well to precede the operation by a moderate dose of morphia hypodermically, and to repeat as necessary at intervals during the operation. In seven cases recently operated upon I have found this method satisfactory, and in no instance has it been necessary to resort to a general anesthetic. The actual pain occasioned is very slight. It is true that the operation under local anesthesia consumes more time, but this cannot be used as an argument against its employment if we can thereby render an otherwise serious operation a procedure attended with little or no danger.

In the choice of the incision two factors should be considered. An incision which allows ready access to the tumor or enlarged organ is necessary. Of equal importance, especially in the case of women, is that the resulting scar should be slight and in a position easily hidden from view. The transverse or collar incision seems to best meet these requirements. By division of the muscles overlying the gland it allows a free exposure, and in certain cases of extremely large tumors with a low attachment where division of some of the fibres of one or both sternomastoid muscles is necessary, this can readily be done. The skin incision in all cases should be closed with fine interrupted silk and removed on the fourth or fifth day.

REMARKS UPON TYPHOID FEVER WITH REPORT OF CASES.

WILLIAM STIMPSON HUBBARD, M.D.,
BROOKLYN-NEW YORK.

IT is about one hundred years since typhoid fever was first clearly differentiated and recognized as a pathologic entity, and about a quarter of a century since the etiologic factor, the Eberth-Gafky bacillus, was generally acknowledged as the true cause of the fever.

During the same quarter of the century the bacterial causes of many other diseases have been discovered, and in a few instances the knowledge of their causes has led to scientific and highly remedial treatment of the diseases in question.

It is about eleven decades since the awful dread of another disease was removed by the clear and faithful deductions of Jenner from his observations upon the immunity of certain persons to small-pox. As yet no knowledge is had regarding the etiology of this plague, but the treatment, preventive in character, is as effective when consistently and constantly operative as the treatment of any dis-

ease with which we are familiar, even those diseases of whose true causes we are well aware. In the United States about thirty-five of every one hundred thousand individuals die every year from typhoid fever, and in general it may be said that the ratio of the number of deaths to the number of those attacked with this disease has but slightly diminished in the past twenty-five years, which amounts to saying that we are as yet in the possession of no facts which render us competent to cure cases of typhoid fever. The knowledge which we have of the cause enables us to prevent the spread of the fever, but not to inhibit the activity of germ life in any case.

The death rate given in the records of hospitals in this and other countries varies somewhat from fifteen to as low as five per cent.; in general about ten per cent. may be taken as a fairly accurate average rate of all cases treated in hospitals and in private practice, or about the same as the death rate in cases of small-pox previously vaccinated.

Of course no one would compare these two diseases as to the frequency of their occurrence. We all know that typhoid fever is at present much more prevalent. Nor would a popular vote upon the subject call forth a very pronounced expression of the dread of this disease. But the fact still remains that by far too large a proportion of people are yearly sick with a debilitating disease which is fatal in more than nine per cent. of the cases attacked, and which in its usual course deprives the individual and the community of the fruits of his activity for a period of not less than one and often more than four months. Economically this is an expensive disease at best.

Were small-pox as prevalent now as it was a hundred years ago, when it was written that every other person in London had had or had at the time this disease, then we should promptly see the good effect of teaching over again the preventive value of vaccination. Could the community be awakened to the needlessness of typhoid fever, to its perfect control and ultimate extermination, the death rate might be promptly reduced as it was in Munich by von Pettenkoffer to less than one-half of one per cent. To calmly await the onset of typhoid in spring and fall, with no other feeling than that we know of no curative treatment, and that after all ninety per cent. of the sick will recover, is a cowardly admission of failure.

We have been practically at a stand still in so far as any satisfactory curative treatment of this disease is concerned for one hundred years—I quote from the Memoirs of Dr. Nathan Smith to the effect that the treatment of typhus (so-called at that time) is milk and water internally and a modicum of water externally. The rôle of antiseptics has not proven satisfactory, and as with small-pox, the treatment which has proven most efficacious, which, if persisted in, will undoubtedly exterminate the plague—*prevention* by means of vaccination, so with typhoid fever, the only satisfactory treatment is *prevention* and ultimate extermination. It has been abundantly proven that this can be accomplished by hygienic methods and care in the preparation of food and drink taken into the body to see that they are free from the germs which induce this disease.

The various modes of treatment fail to reduce the death rate very materially, and this is to be expected, while if that procedure which is both rational and proven by experience to be effective is persisted in, the fountain head of the trouble will be attacked and the stream of poison stopped. There will be no cases of typhoid fever if the germs of the disease fail to enter the body. Every effort, therefore, should be made to bring about this result, and wise legislation enacted in this and every community to protect and make pure the supply of water and milk and other food substances which are consumed by the people. Any disease whose origin is acknowledged to be seated in the filth of a community should be stamped out by that community at once upon its recognition. Why waste time in the discussion of this or that treatment when the only treatment lies in prevention?

The City of New York is at present seeking water from mountain springs, where sources of pollution can be carefully guarded against, and from which an abundance of safe water can be furnished to rich and poor alike, which is a matter of equal importance to both classes. The more perfectly methods of this kind are carried out in preventing this disease, the fewer will be the cases and the less virulent the type of the fever in any epidemic.

During the summer of 1905 I had the opportunity to observe a series of forty odd cases admitted to St. John's Hospital. The cases were in general of moderate severity; the death rate was about six per cent; the cases which proved fatal were a young girl who had been afflicted with rheumatism for months before, an old alcoholic, and a vigorous laborer, in whom high temperature was persistent from the very first. Hemorrhages occurred in but three of the cases, and relapses in three.

One interesting case presented an unusual complication at the end of the third week. A girl of twelve, a delicate German, developed a right side pleurisy, which was followed by empyæma; a quart of pus was removed from an incision and the cavity irrigated through a return flow catheter with sterile water. At subsequent dressings the patient had five attacks of pulmonary œdema, which were relieved with the greatest difficulty. After ninety days the patient was discharged in a

state of convalescence, and has entirely recovered. The bacillus typhosus was discovered in the blood, the urine and in the seropurulent material from the chest.

Another case recovered after three relapses and two profound hemorrhages with marked collapse. Another case died in the fourth week of pyrexia temp. 107.

The diet in these cases was milk and water throughout the course of the fever and fluids during the first twelve days of normal temperature. No drug treatment was employed in these cases save for pronounced indications.

THE REFRACTING OPTICIAN AS AN UNLICENSED PRACTITIONER OF MEDICINE.*

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WHEN the New York State Optical Society was conducting its campaign for the passage of a law providing for the recognition of the refracting opticians as members of a learned profession with boards of examiners, State license, etc., much was made in some of their circulars addressed to members of the medical profession of the alleged fact that the refracting opticians had no desire or intention to trespass upon the domain of medicine, but only to correct errors of refraction by means of glasses.

Passing by, for the time being, the evident absurdity of the claim that the fitting of lenses for the relief of the various ills arising from errors of refraction and muscle balance is not practicing medicine, and accepting, for the sake of argument, the still more absurd proposition that the practice of medicine consists solely in the administration or application of drugs, let us see how some of these gentlemen are keeping from trespassing upon the domain of the drug giver or prescriber.

A short time ago I was passing the store of one of these so-called "Refracting Opticians" when my eye was attracted by a flaring sign in the window " * * * * * THE GREAT EYE REMEDY!" Closer inspection showed, in smaller type, a list of the virtues of this marvelous remedy and a statement that it could be obtained from "Professor * * *," the "Great Eyesight Specialist," etc. Not long afterward I received from a large wholesale optical house a circular setting forth the virtues and prices of the various products of the " * * * Eye Remedy Co." In spite of the statement that " * * * * *, 2 drops, cures All Eye diseases," the proprietors list a salve which "Restores lost Eyelashes, Cures Cysts, Styes and Ulcers on the Lids"; another salve which "Clears up opacities of the Cornea and Ulcers and Running Sores on the edges of the Lids," another remedy "for old and chronic cases of Sore Eyes." A powder which "Clears up Opacities of the Cornea"; "A Systemic Tonic for Eye Cases"; and another "Internal Treatment for Cataract, Anemia of the Retina, Congestion of the Retina, Weakness of the Ocular Muscles" and a large number of other distressing troubles, some of which are not looked upon as curable by the oculists. The circular expressly states the "OPTICIANS find a friend in * * * * in preparing an inflamed eye for a correction of an error of refraction, etc."

I find on inquiry that these secret nostrums are freely used, sold and prescribed by some, at least, of these "Refracting Opticians" to their customers "their patients," they call them.

If the prescription and administration of these secret drugs by those "Refracting Opticians" does not constitute "practicing medicine or attempting to practice medicine within the meaning of the New York State Law Regulating the practice of Medicine and requiring all persons to pass an examination before the State Board of Medical Examiners and obtain a license from the Regents of the University of the State before attempting to practice, then what does?

The absurdity of the claims made for these nostrums is made evident in the very circulars of their exploiters. Why if No. A "Cures All Eye Diseases" is there need for Nos. E F and G and the rest of the list? On the other hand, if No. A does not "Cure ALL Eye Diseases," then the advertisement is a fake and a falsehood in that respect and, by the old rule of *"Falsus in uno, falsus in omnibus,"* is a fake and a falsehood throughout. If they do no positive harm they must, in some cases at least, do negative harm by lulling their dupes into a false sense of security and inducing them to postpone application to some competent physician till too late.

Every physician who makes a specialty of diseases of the human eye is constantly reminded of the interdependence of ocular and general conditions, finds the knowledge and skill he acquired in the general practice of medicine tested to the utmost in dealing with the cases which come to him as a specialist, and is saddened by the number of cases which come to him too late. One single case out of many in illustration:

Not long ago a lady came to my office complaining that for a little more than a year she had been suffering with "awful headaches" and defective vision. She had been "fitted" with glasses by several "opticians" and, notwithstanding the expensive efforts of Professor A, Optical Doctor B, and Refractionist C, all whose consultations were free, but whose glasses were costly, her headaches were increasing, and her vision diminishing, so that at last she had been driven to the extreme step of consulting an oculist and paying his fee. A glance through the ophthalmascope showed well-marked albumenuric retinitis in each eye, a test tube, a spirit lamp and a drop of nitric acid confirmed the diagnosis which

*Read before the Chautauqua County Medical Society at Jamestown, N. Y., December 12, 1906.

was further confirmed by the clinical history of the case, extracted from the patient by careful questioning. I at once referred the case to a general practitioner of wide repute, who confirmed my diagnosis of Bright's disease advanced beyond any reasonable hope of relief. This patient was emmetropic and not old enough to be presbyopic and yet she had been "fitted" with plus sphericals, and minus sphericals, with minus cylinders and plus cylinders, all of the weakest strength made; she did not need *any* lenses and the disease which was dimming her vision and shortening her life went on unrecognized till it was everlastingly too late.

I recommend the subject to the careful consideration of this Society, and more especially to its Board of Censors, for such action or recommendation as may seem best fitted to meet the conditions.

That the profession needs awakening upon this subject is evident from the fact that reputable physicians, some members of this society among others, not only advise their patients to have glasses "fitted" by these "refracting opticians," but even permit members of their own families to purchase glasses from them or even from the traveling opticians, the spectacle peddlers, who go about from house to house hawking their wares on the strength of a "diploma" from some "Optical College," or even without that highly ornamental piece of wall decoration. Till the medical profession is awakened to a realization of the fact that diseases of the eye, whether refractive, accommodative, muscular, or inflammatory can be properly diagnosed and treated only by properly educated physicians, well versed not only in optics but in anatomy and physiology and therapeutics, and with a wide knowledge of the whole field of medical science as a foundation for their special knowledge of ophthalmology, it is useless to expect the general public to discriminate and seek the advice of the oculist instead of the optician who, with a naieve appreciation of the real value of his services, "makes no charge for consultation and examination." Gentlemen, it is up to you.

HISTORY OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK.

By JAMES J. WALSH, M.D., Ph.D.,

NEW YORK.

(Continued.)

CESSATION OF RELATIONS WITH THE AMERICAN MEDICAL ASSOCIATION.

During the quarter of a century after the celebration of the semi-centennial of the organization of the State Medical Society, it continued to be as it had been before the leading State Medical Society of the country. Its efforts to maintain the dignity of the profession and to uplift medical education and medical practice were uniformly successful, and were accepted as models by other State organizations for their work along similar lines. The relations of this society with the rest of the medical profession throughout the country were always extremely cordial. Almost needless to say New York had come to occupy from the very beginning the most prominent place in the councils of the American Medical Association. This was only what might have been expected. The National Association owed its origin to the efforts of members of the New York State Medical Society, and it was the initiative and unflagging zeal of New Yorkers that had overcome the original difficulties of bringing physicians of such varying interests all over the country together, and then of maintaining and confirming the cordial relations which gradually arose. Unfortunately this ideal state of affairs was not destined to endure and the story of long years of estrangement between mother and daughter association must me told.

For several years in the later seventies some dissatisfaction had been expressed at the meetings af the Medical Society of the State of New York with the code of ethics which was then supposed to rule the conduct of members of the regular medical professiion. The discussions culminated at the annual meeting in 1881 in the appointment of a committee who drew up a new code of ethics to be substituted for the one then in force. Their recommendation was adopted by the State Society in February, 1882, but met with considerable opposition from many of the County Societies.

In June, 1882, the American Medical Association at its annual meeting held in St. Paul, refused to receive the credentials of the delegates from the Medical Society of the State of New York or to admit them to its proceedings because of the adoption of the revised code of medical ethics by the State Society. The old code had been accepted for over thirty years and had come to be considered as one of the fundamental laws of the American Medical Association.

This was the beginning of a rupture in the formal relations between the American Medical Association and the New York State Society which was destined to last for nearly a quarter of a century.

The adoption of the new code and the failure of all attempts to secure the readoption of the old or the modification of the new in such a way as to forbid consultation with irregulars or those practicing on a sectarian basis, finally led to so much dissatisfaction that the formation of a new organization was suggested by those who wished to maintain affiliation with the American Medical Association and who preferred the old to the new code. It was realized that with the present constitution of the State Medical Society and its membership, it would be practically impossible to obtain any legislation of such a nature as would bring about a reunion with the National body.

A good deal of care was exercised in finding out just what were the sentiments of the members of the medical profession in New York State, with regard to the question of the national code, the new code and the abrogation of all codes.

A personal canvas by letter was made of all the members of the profession in this State, with a result that justified the idea that a majority of New York State physicians was unwilling to be separated from the National Association of Physicians because of the code question. The determination of this matter seemed to point directly toward the advisability of the foundation of another medical organization within the State. In order to show how strong the opposition seemed to be, we give the detailed result of the ballot secured by those who were resolved to form a new association if they fonud themselves to be representative of the State Medical profession and if they felt it were impossible to look for an amelioration of existing conditions within the State Society itself.

NOTE.—See Transactions of The New York State Medical Association, Vol. I. In this same number will be found a copy of the old code. The new code and arguments for its adoption, too lengthy to print here, can be found in the Transactions of the Medical Society of the State of New York.

The result of the canvass of the opinions of all the physicians of the State was as follows: For the National Code, 2,547; for the New Code, 1,040; for No Code, 239; Unclassified, 34; total, 3,860. It was apparent from these figures that there was a majority of the New York State Profession for the National Code over the whole number of committed and uncommitted, moreover, there was a majority of more than two-thirds for the National Code over the New Code and a nearly two-thirds majority for the National Code over the "New Code," "No Code," and "Unclassified" combined. As the result of this canvass it was resolved to form a new organization. The New York State Medical Association was accordingly organized in February, 1884, and held its first annual meeting in the fall of the same year.

REUNION OF THE TWO STATE ORGANIZATIONS

The rival State medical organizations continued to exist side by side in New York for about twenty years. During the last few years of the nineteenth century the sentiment began to make itself felt very generally throughout the medical profession of New York State that the maintenance of two State medical organizations was without any proper reason in the nature of things. A new generation of physicians had come into practice since the events which had brought about the disunion, and among them especially opinions in favor of the reunion of the two State organizations began to be expressed freely and frequently. A rather anomalous condition, though interestingly hopeful for affairs, developed in New York City, which was a sign of the feeling on the part of many members of the profession, that, the reasons for disunion were not near so important or so profound as had seemed, or at least, that, in the natural development of things, many of the older reasons for separation from the national body had lost their weight. Many New York City physicians belonged to both their county medical society and their county medical association.

This state of affairs could scarcely be allowed to continue for long. If the members of the medical profession could belong to both organizations, then the differences between them were surely not essential, and the reasons for separation had evidently lost their weight. It was in the New York county organizations, therefore, that the movement for reuinon took form and gradually gained the strength necessary to bring about the fusion of the two State organizations. Owing to legal difficulties, mainly dependent upon the indefinite character of certain of the early by-laws of the medical organizations, the actual accomplishment of reunion was delayed longer than had been expected. It was completed, however, in time for the celebration in a compact body by the medical profession of New York State, of the Centenniary of the foundation of the New York State Medical Society in 1906.

The story of the movement that brought about this consummation eminently to be wishedd will be told by some future historian. The events are too near us yet to have assumed the prospective that they will have in history.

(To be continued.)

It is well known that persons who indulge too freely in alcohol show far less resistance to infectious diseases, especially to croupous pneumonia, than abstemious individuals. The vaccinations against hydroprobia carried out on persons bitten by mad animals are almost always successful; but those cases in which the treatment does not stop the outbreak of the disease are most frequently observed in individuals addicted to alcoholism. In pursuance of this observation, Delearde, of the Pasteur Institute in Lille, has undertaken a series of experiments, which have proved to him that the absorption of alcohol is without a dobut a grave obstacle to the immunization against hydrophobia. At the same time he found that rabbits to which he administered alcohol in the course of immunization against anthrax died of this disease, whilst the control animals, which were given no alcohol, could be vaccinated without any difficulty. Abbot has confirmed these experiments by proving that animals, if subjected to the influence of alcohol, became more sensitive to the harmful effects of several microbes, such as streptococci, staphylococci, and bacterium coli. Later on Laitinen carried out a great number of experiments from the same point of view and with similar results. Our interest centres mainly in his experiments on the vaccination against anthrax. To a number of rabbits alcohol was administered for several days in succession; they were then injected subcutaneously with a small dose of the first vaccine of anthrax. Six animals thus treated died after a more or less prolonged illness; all of these contained anthrax bacilli in their blood and organs. Of four control rabbits, which received the same dose of the same vaccine, but to which no alcohol had been administered, only one died, whilst the other three enjoyed perfect health. Several other experiments furnished similar results.—*"The New Hygiene," Metchnikoff.*

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Editorials.

SOME OBSERVATIONS CONCERNING THE MUNICIPAL HARBORING OF TYPHOID.

SOME day typhoid fever will be as obsolete in civilized communities as cholera or small-pox. We possess all of the information that is necessary to make it so now. It is no longer a great and elusive mystery. The average third year medical student knows enough about typhoid fever to be able to stamp it out in any municipality if he might have absolute power. Of course, he would have to interfere with the profits of a number of our leading citizens. This is one reason why typhoid is prevalent. At present it is a simple matter of barter for human lives. It costs money to convince an influential citizen that the excrement of his tenants should not flow into a municipal water supply; and it is on the border of the impossibilities to convince a corporation, for corporations, unlike individuals, it is understood, have no souls.

If a municipality should grant to its health commissioner all of the authority necessary to this end, he could cut down the typhoid death rate to a minimum, but beyond a certain point he could not go without the aid of the State. He could provide water from the best source and eliminate most of the avenues of contamination; and he could prohibit the admission of infected foods within his jurisdiction. But if a railroad corporation wished to build a road across one of his water supply tributary streams his municipal authority would cut but a poor figure in attempting to stop it.

In Pennsylvania particularly, and in New York State, too, railroads cross the streams from which towns take their drinking water, and every coach on every train of cars crossing these streams has a toilet which is used by typhoid convalescents. We have already referred to the positive knowledge which we possess concerning the railroads as distributors of typhoid, but not enough attention is paid to this important factor. The streams and brooks which supply the ill-fated City of Scranton with drinking water are crossed and recrossed by the railroad which daily carries hundreds of people from Philadelphia, the asylum of typhoid; and still the investigating authorities declared that they could not specify the source of the Scranton epidemic.

Then there are a certain number of cases of typhoid which acquire their infection within the jurisdiction of some other municipality, so *no local health authority can stamp out typhoid unless all do,* or unless the Federal Government lends a hand. Moreover, we are learning that this disease is very commonly transmitted from person to person: nurses are particularly prone to contract the disease, and the dangers inherent in the "typhoid carrier" we are familiar with.

At a certain point the State must come to the aid of the municipality if typhoid is to be eradicated. And finally, federal supervision is as essential for the control of the disease in a nation as municipal supervision is for the control of the disease in a city. There is so much and such rapid transportation of people and of foods, and such an intermingling of the same, that typhoid fever cannot be eradicated by each city or state acting separately and independently without federal supervision: it is as though each ward in a great city were to attempt to solve its own typhoid problem without municipal control.

Every case of typhoid fever is an evidence of the benighted state of the civilization in which it occurs, and of the inefficiency of the government.

THE RELATION OF INSECTS TO THE DISSEMINATION OF DISEASE.

WHILE the chief carrier of the diseases with which medicine is concerned is man still we are constantly adding to our knowledge of other animals as the vehicles of infection. Attention has been called to the dangers of domestic animals, with their uncleanly habits and their disposition to roam about, carrying disease from one household to another or bringing infective material from the ground or in food into human contact. This is undoubtedly a common agency of infection.

Bergey, of Philadelphia [*New York Med. Jour.*, June 15, 1907], has completed the indictment against insects as carriers of disease. He divides the manner of convection into five classes: Insects may carry disease simply as mechanical agents by the infection sticking to their bodies. Another means is by feeding upon the infective material and passing it with their excreta. They may take the infective material from the blood of one animal and carry it on the proboscis to another. Some of the sucking insects may cause the infective matter to undergo some modification in their own bodies before it is transmissible to another individual. Finally, suctorial insects may serve as disseminators of disease when the female transmits the infective agent to her offspring, which in turn convey the organisms to healthy individuals. The insects which commonly are concerned in these functions are flies, fleas, roaches, mosquitoes, lice, bedbugs, and ticks.

The diseases which are known to be carried by insects are typhoid fever, dysentery, cholera, plague, tuberculosis, anthrax, sleeping sickness, relapsing fever, filariasis, malaria, yellow fever, Texas cattle fever, and Rocky Mountain spotted fever. Many of us have seen flies on typhoidal excrement and we have also seen flies in the near vicinity, on the food on the table. While we may not have been able to identify the same fly as having been in both places, the possibility of it has been shown in laboratory tests. In the typhoid epidemic in Chicago, in 1902, the disease broke out in a section of the city not provided with sewers. The means of transmission of the disease could not be discovered, until, after excluding all possible avenues of infection, the flies caught in the houses, privies and yards of the locality were examined, and typhoid bacilli were found on these insects.

Ranvier, Hofmann and others have demonstrated tubercle bacilli in the intestinal evacuations of flies, which were found about tuberculous patients, whose expectorations were not properly disposed of. The dissemination of plague by flies and fleas has long been known. Rat fleas have been taken from plague infected rats and found to have the plague organisms in their intestines eight days after being captured. These fleas convey the plague to healthy rats by biting them. The flea does not suffer any illness itself but merely carries the infective agent.

Sleeping sickness, which has caused 600,000 deaths in central Africa during the past ten years, seems to be conveyed only by the bite of the tsetse fly. Karlinski found that the spirillum of relapsing fever remains alive in the intestinal tract of bedbugs for more than twenty days. The relation of mosquitoes to malaria was recognized by Roman writers long before the Christian era.

It is interesting to observe that in many of the diseases in which scientific investigation has shown a positive relation between certain insects and these diseases, the discovery was preceded for a long time by a general but unconfirmed surmise that such a relation existed. There is no belief or superstition but has some foundation for its existence, and many of our most important discoveries have been made by following up crude surmises.

RESULTS OF OPERATION FOR CANCER OF THE BREAST.

THE treatment of cancer of the breast has been brought to a position of much hopefulness and satisfaction, notwithstanding the many discouragements through which it has passed. Surgeons are agreed as to the therapy, and all wise physicians co-operate with them. The results now secured in this, once nearly hopeless disease, stand as one of the great triumphs of modern medicine. The fatalities are among those who have deferred too long, but even for these surgery attempts something. In the discussion upon this subject before the American Surgical Association at its last meeting, it was shown that the duration of the disease exerts much influence on prognosis, that extensive operations with wide removal of skin gave the greatest freedom from local recurrence, and that incomplete operations in early cases yield better results than extensive operations in cases which are well advanced.

That operation is worth while in even desperate cases is shown by the fact that recurrence has been postponed as long as twenty-one years after operation. In the cases in which no return has been observed, the operation was performed almost without exception within six months from the incipiency of the disease, thus showing the great importance of early operation; and the more radical the operation within reasonable limits, the better the prognosis. In some cases in which the outlook was most unfavorable, as manifested by extensive ulceration, hemorrhage, widespread axillary involvement, entirely satisfactory end results have been secured.

It was shown that twenty per cent. of patients passing the triennium of safety still had recurrence in the scar or died of metastases. After five years recurrence is uncommon. The improved results secured in the treatment of this disease have not been so much the triumph of antiseptic surgery, as has been the case in so many diseases, but rather in the greater extent and completeness of the operation as now practiced. Surgeons now report eighty per cent. of cases operated upon remaining cured beyond the three-year limit. The technic of the treatment of this disease has reached a high state of perfection; further hope in reducing the mortality depends upon the education of the general practitioner and of the public to the necessity of early operation, and the elimination of those delusive practices which can be called by no more genteel name than the criminal puttering with cancer of the breast.

EYESTRAIN IN SCHOOL CHILDREN.

JUST what was the condition of the eyes of school children before systematic examinations were made by medical inspectors is not known, but most probably the headaches and the backwardness in certain pupils were due to defects of vision, such as were recognized and remedied by the Chinese before we had begun to think about them. We are certainly making up for lost time in the attention which is now being shown this subject. In New York, the examinations of a large number of school children shows that 29.5 per cent. have defective vision. In Philadelphia, the percentage was found to be 28. So that this gives us a pretty accurate idea of the amount of abnormality in the eyes of school children. Cornell,* examining children in the latter city, found 32 per cent. to have defective vision. These figures refer to defects of vision which can be remedied with glasses. The physical disturbances which arise from these defects are many. The child with defective vision not only may suffer from headache and the psychic depression incident to inability to keep up with his classes, but he may become stoop shouldered and addicted to the indoors from inability to participate in the outdoor games.

Cornell calls attention to the responsibility for these conditions, and places it upon the medical profession, the teachers, and the parents. The former has not sufficiently sounded the alarm and insisted upon correction of eye defects. The teachers do not know about them. He says there is a certain amount of humor in the contemplation of a teacher, drilling into her class the baneful effects of alcohol on the "lining of the stomach" and its production of "hob nail liver," while she is unconscious of the squinting of the heavy-eyed, round-shouldered child before her. Parents are often culpable in their indifference. Sometimes they say, "Kindly leave this matter to me, it is none of your business;" or, after repeated advise to have the child provided with proper glasses, they announce that a breakfast of toast and oatmeal is the best remedy for the headache. From 22 to 34 per cent. have the necessary remedy applied to correct the visual defect.

The effects of defective vision upon the general health has been studied and written upon by Gould to a degree never before attempted, and it is to him as much as to any single man that this crusade is due. The relation of poor vision to poor scholarship is shown by Cornell. He grouped the children whom he examined into three classes, and always found the highest percentage of good scholarship with the lowest percentage of poor vision, and in the classes with the lowest percentage of scholarship there was always the highest percentage visual defects.

This subject is now receiving much attention at the hands of boards of health, boards of education, pedagogs and parents, but even yet not as much as its importance merits.

* *N. Y. Med. Jour.*, June 1, 1907.

Observations.

ON FACTS AND THEORIES.

Beware of theories. My professor of chemistry and physics had a theory that the cost of producing illumination by electricity would make it utterly impracticable for general use; and, moreover, no electric light would be big enough to read by, anyway. He used to show an electric light to the class to prove it. If his experience with electricity had been well founded, it would have prompted him to say, even before the electric light was spoken of, "Some day this force can be used for purposes of illumination remote from the seat of power." I have no doubt that this excellent man will read these lines by the electric light in his library; and I trust that he may recall with happiness the many theories which he has fostered and which have survived the wearing tests of time and experience.

Beware of theories. When the steam engine was invented, a learned Englishman wrote a book in which he set forth his theory that it would be impossible to propel a vessel across the ocean by steam power. The writing was lucid, the reasoning was correct, but the premises were wrong; and the first volume of this excellent work that came to America was brought over in a steamboat, thereby demonstrating that one fact may carry away a volume of theories.

"Experience teaches," it is said; but it teaches two things: it teaches that which is right, and it teaches that which is wrong. If the experience is based upon correct principles, it will elevate and help: but if it is based on error, and erroneously interpreted, it only serves to drag down. Suppose that a man practices upon a theory to which he is committed dogmatically—he has made up his mind that it is right—if his assumption is an error, his experience may do him more harm than good, for he twists phenomena to fit his preconceived ideas.

The man who learns, who is capable of learning, holds his theory-engendering and theory-harboring faculty always in abeyance: he keeps it in a state of relaxation and openness. He permits the ever-flowing stream of facts to percolate through it and wash out any theory that cannot withstand the current. Upon the ability to do this hangs the proposition that experience teaches and helps. Pity the man who does not allow experience to teach him.

Happy is he whose theories are well founded on demonstrated facts and so well tried that he is inspired by the truth of his convictions. The hopeful persistence of Servetus and Harvey and Semmelweis and McDowell, in establishing truths in the face of obstacles, is an inspiration to every man who believes that he possesses the right idea.

"The earth shall yet surrender to him and the fates shall do his will, who marches on, though the promised land prove to be but a mirage, and the day of deliverance be cancelled. The gods shall yet anoint him and the morning stars shall sing."

Items.

Fraudulent Societies.—Physicians who covet the glamour of titles are warned against the many schemes for turning their vanity into cash. Many have fallen victims of a clever bunco game which is always operated from a foreign country. A number of American physicians have recently received notices of their election to honorary membership in the *Accademia fisico-chemica Italiana,* of Palermo, Italy. These notices were accompanied by a complimentary reference to the man's scientific achievements and the request that he would send his photograph and a copy of some of his works for the library of the academy. A copy of the by-laws was also sent from which it was seen that persons elected to honorary membership were expected to pay $5 for the clerical expenses of the certificate of membership, etc., and an additional sum for the engraving of the medal sent to each honorary member. Inquiry in Italy reveals that "the so-called academy is not an institution founded for scientific purposes, but consists of more or less obscure elements who under this title devote themselves to personal and material aims." The Berlin professor whose name figures on the prospectus of the "academy" declares that he knows nothing at all of such an institution and that the use of his name is unwarranted. A number of physicians forward the money, etc., asked for by this pseudo-academy in this ingenious money-making scheme. Foreign societies with high-sounding names, bestowing honors and decorations upon the credulous, are springing up in many parts of the globe to meet the great demand for titles. The scheme originated in England a few years ago, but already we have heard suggested the organization of such a business in New York to purvey to the South American demand. This project evidently took its rise from the enterprise, exposed some years ago, which bestowed the degree of D.D. at from five to thirty dollars per D.D. upon a large number of the clergy not already possessed of this ornament.

The physician may be well satisfied with the honor of doing his work faithfully and well. No decoration can be pinned on his breast in which he can take so great pride as in the consciousness within his own heart of work well

done. In our zeal to become fellows, let us not forget that,

"Worth makes the man, and want of it the fellow;
The rest is all but leather and prunello."

DIABETIC FOODS RICH IN CARBOHYDRATES.—The Connecticut Agricultural Experiment station has made an examination of the composition of the so-called diabetic foods and found them pretty generally rich in carbohydrates. It would seem that a large amount of fraud is being practiced in the sale of these products as their manufacturers claim that they are free from the very ingredients which in some cases make up their main bulk. If it is desirable that the diabetic should avoid starch, dextrin and sugar then he should avoid many of the diabetic foods. Attempts to wash away the starch from wheat or other cereals so as to produce a so-called gluten flour are usually only partially successful, and it would appear from the examinations that even the attempt is not made in preparing some of the advertised products of this character. Some of the preparations examined showed carbohydrates in the proportion of 75 per cent., a large majority rising as high as 40 per cent.

These examinations were made by A. L. Winton. Of the breads, biscuits, rusks, etc., examined, those showing the lowest carbohydrate content were the No. 1 proto puffs of the Health Food Company of New York, with 9.86 per cent.; the potato gluten biscuit of the Battle Creek (Mich.) Sanitarium Food Company, with 9.84 per cent., and the same firm's pure gluten biscuits, with 9.07 per cent. Casoid flour was found entirely free from carbohydrates, but Casoid biscuits contain 8.07 per cent. The author states that Casoid biscuits "are among the least objectionable of the bread substitutes examined."

The report quotes from the circulars of Farwell & Rhines and of the Jireh Diabetic Food Company, two firms which manufacture food for diabetics, which contain considerable starch and no marked increase in protein. This flour thus prepared possesses no advantage for diabetics over ordinary wheat flour. Manufacturers justify the presence of starch in their products by appealing to medical authority for the truth of their assertion that some starch is necessary for diabetics. These statements are misleading in consequence of the fact that they fail to state that this applies only to a limited class of diabetics. They also try to make it appear that the starch has been changed so as to make it less objectionable. The author's examination does not indicate that the change, if any, is of a kind that renders the materials less objectionable for diabetic use. In his opinion the statements are contrary to the best medical experience, since they urge the use of the very food elements which have been shown, without question, to aggravate the disease most seriously.

THE CRIMINAL ABORTIONIST AND THE PRESS.—Through the efforts of the Medical Society of the County of New York the advertisements of criminal abortionists have been excluded from practically all of the New York daily papers. Other medical societies in the larger cities have become active in the same line of endeavor with more or less success. Philadelphia and Baltimore have met with a fair measure of success; Boston has failed utterly in its battle against this disgrace. The Chicago Medical Society has appointed a Committee on Criminal Abortion which reports that its work had been principally in the direction of securing the removal of advertisements of abortionists from the daily press. In this the committee has been remarkably successful, having brought about a condition which never obtained before; it has succeeded in the removal of all criminal medical advertising from the Chicago newspapers. Three of the leading newspapers consented to this line of action after a presentation of the facts by the committee. The others complied only after being notified by the postal authorities that they must comply or have their papers excluded from the mail, the committee having furnished the government with proof that the advertisers were willing to perform abortions. This committee also rendered valuable service in the prosecution of criminal operators with the result that at least two have been sent to Joliet, others have left the city, some are being prosecuted, and the others and the newspapers are being watched. The work of this committee shows what can be accomplished by fearless, honest men, who are working for the good of a community in which 50,000 criminal abortions are done every year.

THE REVISION OF MEDICAL NOMENCLATURE is one of the important needs of the times. It is particularly important that there should be a uniformity in the naming of diseases. To this end Dr. A. T. Bristow of New York presented a resolution to the House of Delegates of the American Medical Association at its last meeting providing for the appointment of a committee of five on nomenclature and classification of disease, to co-operate with representatives from other bodies interested, in order to send a suitable delegation to the Paris Commission in 1909, which would revise the international classification of causes of death. The resolution was adopted, and it is earnestly to be hoped that this work will progress expeditiously. It is unfortunate that in looking up a single lesion of the breast we find it described as "cancer of the breast," "carcinoma mammæ," "carcinoma of the breast," "mammary cancer," "scirrhus of the breast," etc., all differently indexed and classified. It is to be regretted that so much time has already been lost and that the literature of medicine is confused with inadequate names.

Medical Society of the State of New York.

SCIENTIFIC SESSION: DISCUSSION.

ANNUAL MEETING, JANUARY 30, 1907.

ACUTE SUPPURATIVE INFLAMMATION OF THE THORACIC DUCT.

Dr. H. P. de Forest, of New York, read a paper with the above title, for which see page 349.

Discussion.

Dr. De Lancey Rochester, of Buffalo, called attention to what he believed to be the fact that Dr. de Forest did not report any blood cultures made, or in fact any blood examinations for the possible presence of the malarial organism. The blood count was made only once.

Dr. de Forest replied that it was made five times.

Dr. Rochester said that he had reported at the American Medical Association meeting last June a case of colon bacillus septicæmia which ran the same course clinically as the one presented, so far as the ordinary symptoms were concerned, with the exception that there was no leucocytosis at any time. He hoped Dr. de Forest would tell if the fluid removed from the receptaculum chyle had been bacteriologically examined and whether the microscope showed it to be pus or decomposed chyle. The similarity of the charts was so great that he spoke of colon bacillus septicæmia as a possibility. This disturbance of the digestive tract was of such a pronounced character that he believed there was absorbed from it not only the toxines but the organisms themselves. Studies of the blood by culture in obscure infection fevers he thought would help a great deal in making a diagnosis.

Dr. de Forest said that the criticism offered by Dr. Rochester would be a very just one in view of what he had read; but, as a matter of fact, while a number of blood tests had been made by himself, and others, with no Widal reaction and no plasmodia, finally the pus was examined by smears and demonstrated to be pus without a shadow of a doubt. Some of the pus was taken for the purpose of studying by means of cultures, but unfortunately the tubes were broken in the mail and the expected studies in Ithaca could not be made. The leucocytosis was present and increased until the number of whites reached nearly 100,000. This would have been expected because of the discharge of pus into the general circulation. The study of the smears did not show any bacteria present that could be demonstrated, but it did show an increasing leucocytosis.

THE CLINICAL FEATURES AND OPERATIVE TREATMENT OF THYROID LESIONS.

Dr. George E. Beilby, of Albany, read a paper with the above title, for which see page 363.

Discussion.

Dr. Joseph C. Bloodgood, of Baltimore, said that there was need of bringing before the minds of the profession certain facts, and one was that results of the treatment of exophthalmis goitre depended more upon the early stage of the disease than upon any particular method of treatment. If one wished to get permanent results in exophthalmic goitre by the removal of one-half or two-thirds of the gland, it must be done in the early stage of the disease. A few years ago after operation the patients improved so rapidly that they thought the results would be beautiful; but after a few months it was found that they remained stationary. In some cases that were operated upon late, not only did improvement stop, but recurrences were met with. Therefore, the general profession should see that these cases were brought to operation in the early stages.

In regard to aberrant tumors in the neck, he said that frequently these tumors were cut down upon, were removed and, upon careful examination, were found to be made up of thyroid tissue, and surprise followed the development of myxodema. In 8 per cent. of such cases myxodema had developed. Whenever one cut down upon a doubtful tumor in the neck, he should examine it first before removing it, or one ran the danger of myxodema developing.

In regard to malignant tumors of the thyroid, no cure had followed removal of the circinoma of the thyroid when the thyroid had assumed the picture of malignant disease. This was an important practical point in the treatment of all lesions of the thyroid outside of the simple exophthalmic goitre. When the mass was a small one and encapsulated in the thyroid gland, the chief reason for the removal of this was because it might be a cancer in the early stages, when the chances were about five in one hundred. That was the only way to cure carcinoma of the thyroid, *i. e.,* to remove every small tumor of the thyroid.

ANNUAL MEETINGS OF THE DISTRICT BRANCHES, 1907.

1st District, October 28, in New York City.
2d District, September 28, in Brooklyn, New York.
3d District, October 22, in Albany.
4th District, September 18, at Saranac Lake.
5th District, October 3, in Syracuse.
6th District, September 24, in Ithaca.
7th District, November 13, in Rochester.
8th District, September 25 and 26, in Buffalo.

First District Branch.

Preliminary Scientific Program of the First Annual Meeting of the First District Branch of the Medical Society of the State of New York.

New York Academy of Medicine, 17 W. 43rd Street, New York City, October 28, 1907.

"Difficulties in Procuring Pure Milk," H. J. Shelley, M.D., Middletown.

"The Problem of Regulation of a Rural Milk Supply," S. W. S. Toms, M.D., Nyack.

"The Milk Conditions," S. E. Getty, M.D., Yonkers.

"Diseases that Lurk in Water," F. J. Mann, M.D., Poughkeepsie, and H. D. Pease, M.D., Buffalo.

"The Indications and Counter Indications in the Use of the Uterine Curette," Ralph Waldo, M.D., New York.

On the same evening, at 8 P. M., the Medical Society of the County of New York will consider the problem of "Dust in Its Relation to Disease." The topic will be introduced by Harlow Brooks, M.D., of New York City, who will read of "Dust in Its Relation to Disease and Occupation."

Walter Bensel, M.D., New York City, Street Cleaning Commissioner, will read a paper on "Prevention and Disposal of Dust."

Mr. Hoffmann, Statistician of the Prudential Life Insurance Company, will consider "The Influence of Dust on Occupation."

Any other member of the constituent societies who desires to contribute a paper, or share in the discussion, will kindly communicate immediately either with Dr. C. E. Nammack, President, 42 East 29th Street, New York City; or Dr. C. E. Denison, Secretary, 68 West 71st Street, New York City.

Third District Branch.

The scientific program for the Third District Branch is now being arranged. Those desirous of contributing papers will please notify the Secretary, Dr. H. L. K. Shaw, 198 Washington Ave., Albany, N. Y.

FOURTH DISTRICT BRANCH.

The First Annual Meeting of the Fourth District York will be held at Saranac Lake, New York, September 18, 1907.

Scientific Session, 10 A. M.

Address of President, D. C. Moriarta, M.D., Saratoga Springs.

1. "Feigned Diseases of the Skin," F. C. Curtis, M.D., Albany.
2. "Infant Feeding," F. J. Resseguie, M.D., Saratoga Springs.
3. "Chronic Ulcer of the Stomach and Duodenum," G. C. Madill, M.D., Ogdensburg.
4. "Acites as a Symptom of Myxœdema," Charles Stover, M.D., Amsterdam.
5. "Pyonephrosis, with report of case," A. W. Fairbank, M. D., Chazy.
6. "Uterine Displacements," C. D. Silver, M.D., Plattsburg.
7. "Report of Case of Hypospadias," G. F. Comstock, M.D., Saratoga Springs.

Afternoon, 2.30.

1. "The Early Clinical Diagnosis of Tuberculosis," Lawrason Brown, M.D., Saranac Lake.
2. "The Hygienic and Dietetic Treatment of Tuberculosis," Hugh M. Kinghorn, M.D., Saranac Lake.
3. "Theories of Tuberculin," Edward R. Baldwin, M. D., Saranac Lake.
4. "Tuberculin and its Clinical Application," E. L. Trudeau, M.D., Saranac Lake.
5. "The Treatment of Tuberculosis of the Bones," W. R. Townsend, M.D., New York City.
6. "The Results of Prophylactic Measures in Tuberculosis at Saranac Lake," E. S. McClellan, M.D., Saranac Lake.
7. "Medical Delusions," C. B. Warner, M.D., Port Henry.

FIFTH DISTRICT BRANCH.

Scientific Program of the First Annual Meeting of the Fifth District Branch of the Medical Society of the State of New York.

Syracuse, N. Y., October 3, 1907.

Address of President, Nathan Jacobson, M.D.

Sumposium on Hematuria:

"Clinical Features of Hematuria not of Renal Origin," W. M. Gibson, M.D., Utica, N. Y.

"Clinical Histories of Renal Hematuria—Its Recognition and Frequency," H. L. Elsner, M.D., Syracuse, N. Y.

"Microscopic and Bacteriologic Study as Aids in the Diagnosis of the Sources of Blood in the Urine," William Smith Nelson, M.D., Utica, N. Y.

"The Rational Treatment of Hematuria," J. L. Heffron, M.D., Syracuse, N. Y.

1. "Cases Illustrating the Benefit of Conservative Operations in Osteo-myelitis of the Bones of the Feet," J. D. Jones, M.D., Utica, N. Y.
2. "Cystic and Common-duct Stones," G. D. Gregor, M.D., Watertown, N. Y.
3. "Diagnosis of Gall-stones," I. H. Levy, M.D., Syracuse, N. Y.
4. "Statistics of Malignant Disease in Central New York," J. G. Kilbourn, M.D., Utica, N. Y.
5. "Trypsin Treatment of Inoperable Cancer," W. E. Ford, M.D., Utica, N. Y.
6. "Cæsarean Section; Indications for Operation; Technique and Results of Five Recent Cases," W. B. Reid, M.D., Rome, N. Y.
7. "Vaginal vs. Suprapubic Drainage," F. R. Calkins, Watertown, N. Y.
8. "Tubercular Salpingitis," J. O. Stranahan, Rome, N. Y.
9. "Erysipelas," Frank E. Fox, M.D., Fulton, N. Y.
10. "Tetanus Following Surgical Operations," F. H. Flaherty, M.D., Syracuse, N. Y.
11. "X-Ray as an Aid in Diagnosis," C. E. Coon, M.D., Syracuse, N. Y.
12. "Warnings from the Digestive Tract of the Infant and How They May be Met," Conway A. Frost, M.D., Utica, N. Y.
13. "Cholera Infantum; Etiology, Symptoms and Treatment," Henry A. Hoyt, M.D., Watertown, N. Y.
14. "The Relations of the Family Physician to Incipient Insanity," W. D. Garlock, M.D., Little Falls, N. Y.
15. "How May the Public be Protected from the Reproduction of Defectives," Charles Bernstein, M.D., Rome, N. Y.
16. "The Recognition of the Psycho-neuroses," A. C. Douglas, M.D., Ilion, N. Y.

Papers have been promised by Drs. B. W. Loomis and Henry C. Baum, both of Syracuse.

SIXTH DISTRICT BRANCH.

Scientific Program of the First Annual Meeting of the Sixth District Branch of the Medical Society of the State of New York, Ithaca, N. Y., Tuesday, September 24, 1907, 10.00 A. M.

1. "Ametropia, Its Immediate and Remote Consequences," Horace E. Smith, M.D., Norwich, N. Y.
2. "Adiposis Dolorosis," John M. Quirk, M.D., Montour Falls, N. Y.
3. "On the Making of a Physician," S. A. Mereness, M.D., Milford, N. Y.
4. "Diagnosis and Surgical Treatment of Duodenal Ulcers," M. M. Lucid, Cortland, N. Y.
5. "A Plea for Proper Instruction in Physiology and Hygiene in the Public Schools," Geo. O. Mills, M.D., Oneida, N. Y.
6. "Photo Therapy," John C. Fisher, M.D., Elmira, N. Y.
7. Title not given, Geo. O. Williams, Green, N. Y.
8. "The Use of Harrington's Solution in Surgery," H. D. Sill, M.D., Cooperstown, N. Y.

2 P. M.

9. "Anomalies and Unusual Cases of Skin Diseases, Illustrated by the Stereopticon," Grover W. Wende, M.D., Buffalo, N. Y.
10. "Forms of Insanity," Charles G. Wagner, M.D., Binghamton, N. Y.
11. "Uterine Fibroid Tumors and their Treatment," F. D. Reese, M.D., Elmira, N. Y.
12. "Effect of Humidity upon Choroform Anæsthesia," Arthur W. Booth, M.D., Elmira, N. Y.
13. "Fraternity," John M. Farrington, M.D., Binghamton, N. Y.
14. "Advice to Young Physicians," Chas. H. Perry, M.D., Oneida, N. Y.
15. Title not given, C. D. Ver Nooy, M.D., Cortland, N. Y.
16. Title not given, Hadley T. Cannon, M.D., Binghamton, N. Y.

This is the first meeting of the physicians in this district. All who can possibly do so are urged to be present. A most interesting program is assured.

Railroad Connections.

Ithaca may be reached by the main line of the Lehigh Valley, by the Auburn Division of the Lehigh Valley, Elmira and Cortland Branch, and by the Lackawanna Road, Ithaca Division from Owego.

For the convenience of members, the times of the principal trains arriving in Ithaca are indicated below:

Trains arrive in Ithaca (East Ithaca), E. C. & N. Branch, from Cortland, Cazenovia, Canastota, etc., 9.46 A. M. and 6.35 P. M. From Elmira, Horseheads, Van Etten, etc., 5.29 P. M. and 8.49 P. M.

Auburn Division from Auburn, connecting with the E. C. & N. at Freeville.

Lehigh Valley, main line from Geneva, Interlaken, Traumansburg, 7.45 A. M., 9.59 A. M., 12.20 A. M., and 8.35 P. M. From Sayre, East Waverly, Elmira, Van Etten, etc., 7.45 A. M. and 8.05 P. M.

D. L. & W. from Binghamton, Owego, etc., 7.00 A. M., 11.45 A. M., and 5.25 P. M.

Street cars run to all trains arriving and leaving Ithaca and to and from the Campus every ten minutes. The street cars pass in front of and at the side of the Medical College.

Registration and Bureau of Information.

The meetings will be held in the Cornell University Medical College on the Campus. The office of registration and bureau of information will be located in the main hall of the Medical Building. Members are urged to come at once to headquarters upon arriving in Ithaca. The office of registration and bureau of information will be open until 10.00 P. M., September 23d, and all day September 24th. Those attending the meetings should register as soon as possible and leave their railroad certificates with the local secretary. Telephone and telegraph messages and letters should be sent to the Medical Building, Stimson Hall.

Hotels and Accommodations.

The new Ithaca Hotel, situated on State and South Aurora Streets. Rates, $1.25, European plan; $2.50 a day up, American plan.

The Clinton House, situated on Cayuga and West Seneca Streets, Rates, $2.00 a day, American plan.

As the meeting is held during the opening of the University the hotels will be very crowded, so those who plan to arrive in Ithaca the day before the meeting and stay over the day after should engage their accommodations beforehand. The Secretary of the local committee will arrange for any who wish to apply through him.

Noon Luncheon.

On account of the distance of the hotels and restaurants from the Campus, the Trustees of the University will furnish the noon luncheon for the members of the Society, so that a large amount of time need not be lost in the middle of the day. In order that the University authorities may have an idea of how many to provide for, it is requested that as far as possible those who expect to attend the meeting should notify the local Secretary, Dr. Abram T. Kerr, Cornell University Medical College, Ithaca, N. Y.

Points of Interest.

The meeting is held on the Cornell University Campus, a map of which will be sent to each member. Points of especial interest to physicians are: The Medical College, Laboratories of Histology and Embryology, Physiology and Pharmacology, and Anatomy, the New York State Veterinary College, especially the laboratories of Pathology and Bacteriology, and the Museum, Department of Vertebrate Zoölogy and Neurology, especially Dr. Wilder's collection of brains, and the New York State College of Agriculture.

Cornell University Library will be open from 9 to 5.

EIGHTH DISTRICT BRANCH.

Scientific Program of the First Annual Meeting of the Eighth District Branch of the Medical Society of the State of New York.

The meeting will be held in Buffalo Wednesday and Thursday, September 25 and 26, 1907. All sessions will be held in the Historical Society Building in Delaware Park.

On Wednesday evening a subscription dinner will be given at one of the clubs.

More detailed information concerning the meeting will be sent to each member by mail.

The following program has been arranged:

September 25th. Forenoon Session.

Meeting of the House of Delegates of the Eighth District Branch.

September 25th. Afternoon Session.

1. President's Address, De Lancey Rochester, M.D., Erie Co.
2. "Varieties of Ocular Headaches," Lucien Howe, M.D., Erie Co.
3. "Multiple Neuritis," F. E. Bliss, M.D., Wyoming Co.
4. "The Medical Profession and the Trained Nurse," J. C. Young, M.D., Alleghany Co.
5. "Pericarditis," I. W. Livermore, M.D., Cattaraugus Co.
6. "Some Conditions Simulating Early Typhoid," Howard A. Maynard, M.D., Orleans Co.

Sept. 26th. Forenoon Session.

7. "The Milk Supply of Cities," W. C. Callanan, M.D., Erie Co.
8. "Medical Organization from the Standpoint of the Common Doctor," Dr. Messinger, Genesee Co.
9. "The Early Diagnosis of Insanity," A. W. Hurd, M.D., Erie Co.
10. "Tendon Transplantation," R. O. Meisenbach, M.D., Erie Co.
11. Exhibition of Cases and Pathological Specimens.
    a. "Intestinal Obstruction and Enterolith," W. H. Loughead, M.D., Allegany Co.
    b. "An Obscure Stomach Case," J. S. Wright, M.D., Wyoming Co.
    c. "Acute Yellow Atrophy of the Liver," Helene Kuhlman, M.D., Erie Co.
    d. "First Attack of Chlorosis at Age of 34," Helene Kuhlman, M.D., Erie Co.
    e. "Primary Tuberculosis of the Cervix," Helene Kuhlman, M.D., Erie Co.

September 26th. Afternoon Session.

12. "Complications in Operations on Cases of Gunshot Wounds Especially Involving the Pleural and Abdominal Cavities, but with a Report of Several Cases of Recovery," Vertner Kenerson, M.D., Erie Co.
13. "Neurasthenia," J. D. Bonnar, M.D., Erie Co.
14. "A Case of Appendicitis in which the Diphtheria Bacillus was Found," W. D. Johnson, M.D., Genesee Co.
15. "The Rational Treatment of Acne," F. C. Curtis, M.D., President of the Medical Society of the State of New York.
16. "Some Comments on the Causes and Treatment of Lateral Curvature of the Spine," Prescott Le Breton, M.D., Erie Co.

"Treatment of General Peritonitis with Report of a Case," H. C. Rooth, M.D., Erie Co.

17. "Anæmia," A. T. Lytle, M.D., Erie Co.
18. "The General Principles of Abdominal Surgery from a Medical Standpoint," A. L. Benedict, Erie Co.

If a man is found in the streets of Chicago, Boston or almost any city in this country suffering from apoplexy, carbolic acid poisoning or "rat" poisoning, he is tenderly lifted into an ambulance and hurried to some hospital where he can be properly treated. If, on the other hand, a man is found unconscious from alcohol poisoning, the police pound him on the soles of his feet, endeavoring to wake him up, pitch him into a patrol wagon and throw him in a cell at the police station, from which he is afterward brought before a magistrate and fined for committing a crime. This might, and does, occur daily, not only with mild inebriates, but with dipsomaniacs. Whatever their inherited tendencies, whatever their original weakness of will, whatever their inborn deficiency of moral control, whatever their natural susceptibility to alcohol, contumely and reproach, pains and penalties have been the only means which have been generally employed in the treatment of inebriates.—Butler: *Jour. A. M. A.*, Feb. 23, 1907.

Progress of Medicine.

PRACTICE OF MEDICINE.

EDITED BY

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DIABETES.

A contribution to medical literature of sufficient importance to demand comprehensive review is the symposium on diabetes which occupies the entire July number of *The Practitioner*.

"Diabetes Mellitus from the Physiological Standpoint" is discussed by W. D. Halliburton, of London. He says that glycosuria is a mere outward and visible sign of deep-seated changes in the body. The urine is merely the channel by means of which the excess of sugar is eliminated. The problem is to unravel the metabolic disorder by which the increase is brought about. The organ which is mainly concerned in carbohydrate metabolism is the liver, and it is to the glycogenic function of this organ that attention is first turned. Although the liver produces the greatest amount of glycogen upon a diet of starch or sugar, a certain quantity is also produced upon a purely proteid diet, in which latter case it must be formed by a protoplasmic activity within the liver cells. As to the destination of the liver glycogen the prevalent opinion among physiologists is that although the organ is no doubt able to convert a part of it into fat, most of the glycogen leaves the liver as sugar (dextrose). Starches and sugar administered by the alimentary canal are converted into glucose, which leads in turn to glycogen formation in the liver. Passing from the normal to the abnormal, it cannot be doubted that a common cause of diabetes is an upset of this glycogenic function. This may be due to an increased formation of sugar from glycogen, or to a diminished formation of glycogen from the sugar of the portal blood. In the many cases of diabetes where the sugar may be removed by abstention from carbohydrate food the latter appears the more correct explanation. There are, however, rarer cases in which the diet makes but little difference, and in these the sugar must arise from the metabolism of the proteid constituents of the protoplasm. Such considerations give point to the view of those who argue that diabetes is not a single disease.

This view is substantiated by the fact that diabetes may be produced in animals by many and diverse experimental methods, and these forms of experimental diabetes differ from one another in some important points. The principal of these methods are (1) diabetic puncture, or injury to the "diabetic centre" in the grey matter of the floor of the fourth ventricle; (2) extirpation of the pancreas; (3) administration of phloridzin; and (4) administration of adrenalin.

In puncture diabetes and in alimentary glycosuria there is no fundamental disturbance of the power of the organism to burn sugar; there is simply a diminution or overstraining of the sugar-holding capacity of certain organs. In pancreatic diabetes we are still in the dark as to the exact processes and conditions, but it may be that the active principle of the pancreatic internal secretion stimulates the glycolytic action of the tissue cells. In phloridzin diabetes the sugar is believed to be formed by the kidney from some substance in the blood, which is unknown but probably proteid in nature. The diabetes resulting from administration or adrenalin is a condition in which glycæmia accompanies the glycosuria, and is regarded as essentially nervous, the poison so acting on the sympathetic as to prevent carbohydrate storage, or so as to lead to depletion of any carbohydrate store already present.

When the sugar arises not only from the glycogen, but from protein, the fact is generally indicated by an increase of the nitrogen in the urine. When all the carbohydrates in the body have been got rid of the ratio of dextrose to nitrogen in such cases has been found to be a constant one, viz., 3.65:1. If the same ratio occurs in man on a diet containing no carbohydrate or any approach to it, practitioners may be quite certain they are dealing with a very serious case in which complete withdrawal of carbohydrate food will produce no benefit, and where a rapidly fatal issue may be foretold with certainty.

"The Pancreas and Diabetes Mellitus" is discussed by John Rose Bradford, of London. He says that diabetes is really a complex group, and only one form it can be correlated with pancreatic disease. Experiment shows that for glycosuria to be produced it is essential that the entire pancreas should be removed. Amongst the lesions of the pancreas most commonly associated with diabetes, atrophy and fibroid overgrowth stand out as most common. It is rare to find diabetes associated with malignant disease of the pancreas, fatty degeneration, cystic disease, calculi, or even such acute lesions as hæmorrhagic or suppurative pancreatitis. Most of the pancreatic lesions unaccompanied with diabetes are lesions that involve and destroy only a portion of the gland, whereas atrophy and fibrosis are more general in their distribution through the organ. Two forms of fibrosis are recognized, the interlobular, which is more common, and is not nec-

essarily associated with diabetes, and the interacinar or intralobular, which is peculiarly associated with diabetes. Whether or no diabetes can be attributed to destruction of the islets of Langerhans in these latter cases is perhaps doubtful, but experimental results certainly associate the glycosuria with the loss of an internal pancreatic secretion, and the results of Opie seem to show that in diabetes the islets of Langerhans have undergone degenerative changes, whereas they escape in chronic pancreatitis which is unaccompanied with glycosuria. Pancreatic diabetes is a severe form of the disease, and is characterized by rapid wasting, great thirst, and a high degree of glycosuria.

"Diet in Diabetes" is discussed by Marcel Labbé, Paris.

The observations of this author concerning nutrition in diabetes have led him to divide the cases into two main classes, viz. (1) Diabetes without loss of nutrition, which are by far the most frequent, and (2) Diabetes with loss of nutrition, the rarer condition, and of much more serious character.

In cases without loss of nutrition the nitrogenous balance is maintained, and the physiological disorder only concerns the intra-organic metabolism of the carbohydrates of the food which are not assimilated as under normal conditions. However, the patients possess a relative tolerance to carbohydrates, glycosuria being only produced when the intake is beyond a certain limit. By means of diet in these cases we can at will cause the appearance or disappearance of sugar in the urine, and of the other symptoms of diabetes. The danger in these cases is a hyperglucosic diet leading to the condition known as "hyperglycistia." The object of treatment is the expulsion of the retained sugar, by means of hypoglucosic diet. Finally, when placed upon an isoglucosic diet, that is to say, one equal to his tolerance, the patient is able to live indefinitely without showing either glycosuria or other symptoms or complications usually met with in diabetes.

In the cases with loss of nutrition the nitrogenous balance is upset, the tissues are destroyed, the patient undergoes waste of nitrogen, and loses flesh. He is unable to tolerate the smallest amount of carbohydrate, but even when the carbohydrates are absolutely excluded from the diet the glycosuria continues. This glycosuria is of a complex origin, being derived both from the food and from the tissues, and comes from carbohydrates, albumins and fats. In such a case the danger threatening a patient is threefold, arising from hyperglycistia, from the loss of nitrogen nutrition, and from the acidæmia. Hyperglycistia calls for reduction of carbohydrates, nitrogenous denutrition requires abundant intake of albuminoid matters; but acidæmia is produced by excessive meat diet, and on that account must be fought by vegetarian diet. Of the evils the least must be chosen; excessive use of albumins must be avoided and the patient must not be deprived of carbohydrates; the diet must be plentiful and mixed.

A dietary can only be properly drawn up for a patient after a thorough examination, allowing us to determine his assimilative capacity and to classify him in one or the other of the categories established. The treatment of diabetes without loss of nutrition consists in the first place of cure of the hyperglycemia by a very gradual reduction of the carbohydrates until the glycosuria disappears. Then follows the diet in which just enough carbohydrates are given so that the glycosuria does not reappear. A patient will often live in comfort for a long time upon such a diet.

In diabetes with loss of nutrition the diet must be mixed; it will be composed of albumins in order to ward off loss of nutrition, of fats to supply calories, and of carbohydrates to keep the system alkaline; plentiful so as to prevent wasting, and satisfying to the polyphagia present in this class of cases. The diet which has a powerful and positively curative effect upon diabetes without loss of nutrition is most frequently of no effect in diabetes with loss of nutrition.

"Acetonuria" is discussed by W. Langdon Brown, of London. He says it has long been known that acetone appears in the urine and breath of a diabetic patient who is progressing unfavorably. However, it has since been found in other conditions, and the question arises what significance is to be attached to a symptom appearing under conditions apparently so diverse.

So far as we know the immediate precursor of acetone is a fatty acid. What then is the source of the fatty acid? The sudden and complete withdrawal of carbohydrates from the diet of a diabetic patient is known to be dangerous, and is followed by presence of these acids in the urine. It is, therefore, clear that these bodies do not come from carbohydrates. It is certain that proteid cannot be the main source, for excretion of acetone and the fatty acids is not accompanied by a proportionate increase in the excretion of nitrogen and sulphur. There remains the fat, and as acetone is derived from the decomposition of a fatty acid this would involve only a simple change. Starvation and defective oxidation both produce acetonuria. Of all the tissues the fat loses most in starvation, the more noble organs being fed at the expense of the less essential ones. To effect this the fat must be broken down, in the course of which the fatty acids are set free, causing acetonuria.

If the increased metabolism of fat is great enough to cause acid intoxication the condition becomes much more serious. The liver is unable to convert ammonia salts into urea. The diminished alkalinity of the blood renders it incapable

of taking up as much carbon dioxide. The carbon dioxide is therefore retained in the tissues, and internal asphyxiation results.

The indications for the treatment of acetonuria are: (1) to prevent the further formation of these bodies so far as possible, which is to be accomplished by diminishing the fat in the food and by administering carbohydrates, and (2) to break the vicious circle in autolysis, and combat the acid intoxication by neutralizing the acids already formed.

SURGERY.

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ACQUIRED DIVERTICULITIS OF THE LARGE INTESTINE.

William Mayo, writing in conjunction with Louis B. Wilson and H. L. Griffin, describes two classes of diverticula of that part of large intestine between the splenic flexure and rectum. (1) True diverticula, consisting of all layers of intestinal wall; caused by traction from without the gut, by tumor or adhesions. (2) False diverticula, hernial protusions of the mucosa through the circular muscularis, where the muscularis fibres are deficient. Of the false variety he cites nine cases from which he draws the following conclusions.

The existence of a congenital weakness of the circular muscularis, together with constipation, the hardened masses of fæces leaving fecaliths in the little depressions, or weak spots, producing diverticula. These diverticula becoming inflamed, diverticulitis exists. A leakage of toxins and bacteria into the subserosa next produce peri-diverticulitis. The further through the muscularis the diverticula penetrate, the greater the peri-diverticulitis. The mass resulting from such a condition consists of swollen glands, and inflammatory exudate. This exudate, extending around the base of the diverticulum projects into the lumen of the gut; in one case so obstructing the canal as to hardly permit the passage of a glass rod one c.m. in diameter. Most diverticula contain small enteroliths in their sacculated extremities. There was also found a marked thinning of circular muscularis, even where no diverticula had developed. In some cases, as a result of the peri-diverticulitis, an intraperitoneal abscess form, which is by incision evacuated externally; or spontaneously evacuates itself, usually into a neighboring viscus. Others causing acute or chronic obstruction, require operation; while a third class, with mild symptoms, tend to recover spontaneously. From the writer's experience, the condition occurs mostly in males over forty-five years of age, in robust health, having a tendency to obesity. The symptoms closely resemble those of appendicitis, in the suddenness of onset, pain, tenderness and tumefaction, *but located* upon the *left side* in the middle or lower quadrant.

Constipation with left-sided pain, law in abdomen, coming in spells, is suggestive of diverticulitis.

More intense general abdominal pain, later becoming localized to left iliac fossa, is strongly suggestive.

Sudden appearance of a mass, in left lower quadrant, following such an attack of pain, makes the diagnosis most probable. The gross appearance of the mass resembling carcinoma, a microscopic examination is often necessary to clear up the diagnosis. Clinically, the more acute course, sudden appearance of tumor, and absence of blood mixed with stools, but poorly distinguish it from carcinoma.

Treatment, where abscess formation exists, is incision and drainage. Where obstruction is present, an artificial anus is necessary, followed in a few weeks by resection. If tumor is found and symptoms do not subside, primary resection is advised, thus preventing abscess and fistula.

Mild cases recover under proper catharsis. In all cases resected 4 to 8 in. of gut were removed and all recovered. In two cases seen after spontaneous evacuation, fistulous communications existed between sigmoid and bladder.—*Surgery, Obstetrics and Gynecology*, July, 1907.

TREATMENT OF POSTERIOR CAPSULE OF GLAND IN THYREOIDECTOMY.

C. H. Mayo, in an article based on 375 Thyreoidectomies, gives valuable data concerning the Parathyroid bodies. These he describes as small pinkish or yellow fat in color, flattened ovoid bodies, ranging in size from minute structures to 1½ c.m. in length. He locates these bodies behind or inclosed in the intimate capsule of the thyroid gland. Usually four in number, the two upper being close to esophagus and superior thyroid artery by the side of the larynx, the lower two close to or just below the inferior thyroid artery. Removal of or injury to these bodies producing a most unfortunate tetany, he emphasizes the necessity of preserving them intact. Secondary hemorrhage, he claims, comes most frequently from the superior thyroid artery, and results from including in ligature about vessel some muscle tissue. In operating he uses Kocher's collar incision, platysma being laid back with skin. Muscles are severed between forceps.

In encapsulated tumors he incises gland and

enucleates growth, controlling hemorrhage by lifting upward capsule and gland, then obliterates cavity with running locking suture of catgut and closes without drainage.

In diffuse adenomata, gland is elevated, all vessels entering or leaving gland are clamped, cut and ligated. Fingers then raise entire lobe, and capsule is incised along the side of the gland, capsule being pushed back into wound as gland is lifted or rolled towards median line. He scrupulously avoids all small bodies of gland-like appearance, especially on posterior surface, and leaves the entire posterior capsule intact. By thus enucleating gland without disturbing posterior capsule, he avoids the danger of interfering with the many important structures directly behind it.

In 375 cases only one developed tetany, and that very slightly. In none did myxedema occur, except where it previously existed, nor was it increased where some myxedema antedated operation. In five cases hoarseness was increased, though previously manifest from the effects of pressure.—*Surgery, Obstetrics and Gynecology,* July, 1907.

REMOVAL OF THE PANCREAS.

Desjardins, describing his method of removing pancreas, advises the preliminary use of calcium chloride, as a means of diminishing hemorrhage. He employs Murphy's buttons for his intestinal anastimoses, and Boari's ureter buttons for duct implantation.

With patient in hyperextension upon table, he makes a median incision, the same as usually employed in gastroenterostomy. This he augments by a second incision, beginning at the upper end of median incision, running obliquely upward and to the right, perpendicular to costal margin and ending a little above and to the left of the gall bladder. Moreover, from the lower end of median incision, another is made obliquely downward and to the left. This Z incision gives good exposure and free access to pancreas and biliary ducts. The omentum is folded over to the right, the peritoneum covering the duodenum incised, and the duodenum is dissected up with fingers, until head of pancreas is not only exposed, but can be grasped and lifted almost out of the incision.

The pyloric and gastroduodenal arteries are ligated and the right extremity of the great omentum is freed from its attachment to pylorus and is also ligated. Next pylorectomy between clamps. The duodenum being raised, the exposed common duct is severed between clamps, low down if duct is dilated, close to gall bladder if duct be small. The duodenum is now freed throughout its entire length, and is severed, again between clamps, this time at its junction with jejunum.

The head of pancreas adherent to duodenum is now removed by clamping the body of the pancreas and excising close to clamp; then ligating and freeing mesentery, and finally ligating pancreatico-duodenal and several branches of splenic artery.

The pylorus having been closed by a double row of sutures, a terminal anastamosis is made between the jejunum and the posterior surface of the lower border of the stomach, near the pylorus. Two Boari buttons are introduced into the jejunum before this anastamosis is made. The biliary duct is joined to the jejunum by incising the latter over one of the Boari buttons, the small half of which is drawn out of intestine, introduced into end of the duct and retained by a ligature. The pancreas having been ligated by means of interlocking sutures, excepting where the duct of Wirsung lies, this last is isolated for several cm.s, and is connected to jejunum by means of second Boari button, just as common duct was only in the opposite side of gut.

Desjardins has devised another method suitable to those cases in which the above is not applicable because of small size of ducts. Technique the same as above up to the gastro-jejunostomy. Before this step a portion of the jejunum about 30 cm. in length is resected between clamps. This excised portion is excluded from the intestinal circulation and is employed as follows:

A terminal gastro-jejunostomy having been affected, the excluded branch of jejunum is placed horizontally, and one end of it is sutured to an incision in gall bladder, while into the other end is sutured the body of the pancreas with its severed ducts. Finally a small Murphy's button is used to anastamose this horizontal excluded gut by its posterior surface with the anterior surface of the jejunum itself as it comes down from its implantation in the stomach. Thus he has the excluded portion of the jejunum conducting the bile from the gall bladder and the pancreatic juice from the head of the pancreas into the jejunum, while anastamosing with the stomach remains in the gastro-intestinal circulation.—*Revue de Chirurgie,* June, 1907.

TETANUS AND CATGUT.

Kuhn and Rässler have cited numerous cases in which tetanus was undoubtedly due to catgut infection. The authors believe that the most modern methods of sterilization do not insure absolute asepsis of the catgut. For in the twisted gut the germs are enclosed in from 10 to 20 layers intestinal wall, so that no disinfectant can reach them. These germs become free when the gut is absorbed within the body.

As has been done recently for the obtaining of kangaroo tendon, so the authors urge greater care in the selection of the intestines to be used. The animal should not only be sound, but the intestine itself should be carefully examined and disinfected before twisting. —*Centrabl. f. Chirurgie,* No. 22, 1907.

THERAPEUTICS.

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THE TREATMENT OF SYPHILIS IN THE LIGHT OF RECENT INVESTIGATIONS.

The *Deutsche Med. Wochenschrift* of July 4th records a presentation of this subject by Prof. E. Lesser of Berlin. Referring to the establishment of the transferability of syphilis to animals and the discovery of the spirochete pallida as the great points in the recent progress, the author states that important results already follow, though insufficient time has elapsed for certain conclusions. Taking up the question of the bearing of these discoveries upon therapeutics, reference is made to the earlier attempts at limiting the progress of the disease by excision of the primary lesion and by subcutaneous injections of mercurial solutions. The uncertainty of diagnosis in many cases prevented a positive knowledge as to results; but now the recognition of the spirochete permits an early positive diagnosis and after excision of the primary lesion general treatment would also be indicated.

The question of when to begin treatment is discussed, with a review of the common objections of the past to treatment in the primary stage because of the uncertainty of diagnosis, and with the position taken that we can now positively diagnose primary syphilis by the presence of the spirochete. It has been assumed, from clinical experience, that treatment is more successful when postponed until the appearance of the secondary eruption, which indicates saturation of the body with the virus, it being held that the action of mercury is most favorable at the time of saturation. In the author's judgment, the question points in two directions; first, can the earliest possible treatment destroy the virus in its first locality and thereby protect the body from general infection; and, second, if this object is not attained, can early treatment influence the disease more favorably than treatment begun later, through early destruction of a large part of the virus? Mentioning Neisser as one of the most zealous defenders of early treatment, and noting later results reported by Thalmann, the author considers it impossible as yet to decide the question of preventing general infection by early treatment. As to the second point of the question, reference is made to the supposition that mercury is most effective just at the time of saturation of the system by the syphilitic virus, which is taken to be the time of appearance of the secondary eruption. The latter assumption rests upon an error, as shown by Hoffman, who successfully inoculated apes with blood of a patient infected six weeks before, thereby proving that the virus may be in the blood that early. And upon closer consideration this is what would be expected, as the secondary lesions are metastatic, the virus being carried in the blood to the various tissues where, at points, the spirochete increase in number and the tissue reaction caused thereby appears as the symptom of the disease. It is probably that, as the primary lesion is preceded by a three weeks' period of incubation during which the spirochetes increase to the point of inducing an evident local reaction, so also with the metastatic lesions a similar incubation occurs, causing a reaction in the form of papules, etc. It is therefore probable that general infection usually precedes the appearance of secondary eruption by a period of perhaps three weeks. According to the above supposition regarding the action of mercury, this should be the most favorable time to begin its use. Only further observations can teach us to what extent the supposition may prove correct.

The matter of prolonged intermittent treatment, which has the assent of most syphilographers, is next discussed. The assumption of Lang in 1871, that relapses are due to germs which, carried throughout the body during the active stage of eruption, after a variable period of inactivity here or there increase under favorable conditions and cause a reaction, has the support of the author's clinical experience. The direct relation of even late relapses to the infection is now shown by the presence of the spirochete. Upon these grounds the correctness and, indeed, the need of prolonged intermittent treatment are considered proven. Experience teaches that the primary relief of symptoms is only an apparent cure, that sooner or later relapses occur; in other words, that during the first treatment only part of the virus is destroyed, part remaining alive though for the time inactive. The problem of a rational syphilis therapy is to destroy all of the germs. The question naturally arises whether mercury, thus far held to be the most active remedy in syphilis, produces its effect through destruction of the syphilitic germ. Thalman has concluded that mercury indeed kills the spirochete and traces the oft-observed reaction following the first application of mercury, the so-called Herxheimer reaction, to the liberation of an increased amount of endotoxine due to the destruction of many of the germs. While researches upon this point have been few, there can be no doubt that mercury, by direct or indirect action, is a poison to the syphilitic germs. But their destruction is not always complete, as shown by the relapses that occur after energetic treatment. The wish that another efficient remedy against syphilis may be found is as old as the history of syphilis in Europe, but it has not been satisfied. Even iodine, so important an aid, cannot be held to be more than a substitute for mercury. Apart from its only partially satisfactory action, the undesirable effects of mercury

justify the wish expressed, and the discovery of the cause of syphilis has led to renewed research in this direction. Referring to *Uhlenhuth's* efforts with atoxyl (Anilidmetarsenite. It contains 37.69 per cent. arsenic.—Gould) in syphilis, to which he was led by its successful use against other pathogenic spirilla, the author gives his own experience with atoxyl in patients having syphilis. His first two cases, with usual dosage, gm. .20 (3 grains) maximum, gave negative results. With similar dosage Lassar, in a large series of cases, likewise obtained negative results. But after Salmon published his favorable results with larger doses, the author, and also Lassar, pursued their study further and achieved similar success with the larger dosage.

The author reports 28 cases of syphilis thus treated with atoxyl, comprising 3 cases of primary, 19 of secondary, one of tertiary and 5 of galloping syphilis. Some were in their first manifestations and some in relapse. 16 had not been treated with mercury. The atoxyl injections were usually intramuscular and of a 10 per cent. solution. The dose varied from gm. .40 to .60, never exceeding a total quantity *of* gm. 6.20. The injections were usually given every second day and toward the end of the treatment every third day. The success, in respect of the disappearance of symptoms, was in all cases unmistakable, often well marked and in several cases occurring very quickly. An iritis with synechia, occurring in one case, was relieved after three injections, but previously six inunctions had been employed. The prompt healing of the ulcerations in the malignant cases was very striking; also a callous glossitis (usually so obstinate to treatment) in the tertiary case improved very rapidly, while gummatous nasal infiltration in the same case showed much slower decline. Also a myelitis in one case, after the use of gm. 2.90 of atoxyl in six injections, showed a decided improvement. In this case previously four calomel injections (.35) and four inunctions had been employed, with improvement of symptoms to a certain point, but because of mercurial enteritis and albuminuria they could not be continued.

Regarding the permanency of results nothing can as yet be said; however, in the author's cases three patients showed recurrence of some symptoms shortly after treatment was stopped.

Of special importance is the consideration of toxic action in this treatment. Salmon first regarded it as harmless, both locally and generally, but in his second publication mentions occasional nausea, vomiting and colic, occurring about ten hours after the injection, but yielding readily with the use of an opiate. Of the 22 men in the author's series, 13 showed no unpleasant effects, 8 experienced gastrointestinal disturbance and one showed nephritis, which disappeared upon withholding the drug. One other also showed albuminuria after the second injection, which, however, disappeared after one day and did not return with further atoxyl treatment. In one case irritation of the urinary tract occurred, besides colic. On the other hand, it is noted that two patients, after mercurial enteritis, in one of whom albuminuria also had appeared, the atoxyl was well borne without any intestinal or kidney symptoms. Of the 6 female patients, gastrointestinal disturbance appeared in 3. As the influence of opium and morphine against these symptoms was slight, prophylactic treatment by morphine gm. .003 with sodium bicarb. gm. .30, two, four and six hours after every atoxyl injection, was employed in cases which had shown symptoms of irritation, with the result that disturbances of the intestinal canal became less frequent and much less severe. A case of blindness after atoxyl has been reported by Bornemann, but it is pointed out that a total of 27 gm. was given and that the drug was continued after symptoms of intoxication appeared. As an indication that the drug in nowise influences general nutrition unfavorably, the author states that two-thirds of the cases increased in weight, and in only three cases was there a slight loss in weight.

From the experiences thus far it appears that in atoxyl we have a remedy that, with variable time, removes the visible symptoms of syphilis and that may be regarded as a valuable addition to our therapy in patients that are particularly sensitive to the action of mercury.

OBSTETRICS.

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PUBIOTOMY.

According to Martin, thirty-nine pubiotomies performed in the University Frauen-Klinik of the Royal Charité have led to the establishment of the following indications: Pubiotomy may be performed in any case of slight disproportion between the fœtal head and the bony pelvis when the obstruction cannot be overcome by active labor pains after complete or nearly complete dilation of the cervix.

In cross or breech presentation the saw is first introduced, then version is done preparatory to immediate extraction. The pubic bone is divided only after the heart sounds have again been ausculated.

In head presentations spontaneous labor is awaited, or intervention practiced when urgent indication presents.

In most of the cases operated upon the fetus was expelled after 4 to 6 hours, in one case after 16 hours, and once resort was had to forceps after 24 hours.

The needle described by Bumm is employed in introducing the saw.

For the prevention of hematoma it is im-

portant to tampon the vagina firmly after delivery, and to apply a snug pelvic binder.

In the thirty-nine pubiotomies, injuries to the bladder occurred in three, and the urethra was injured in one. In two, the injuries were not caused by the needle, but from traction on the soft parts, incident to the sudden separation of the pelvis and extraction of the fetus. This accident may be prevented by binding the knees firmly together immediately after separation of the bones. This does not prevent the pelvic ring from expanding sufficiently to permit the escape of the head. Perforating vaginal tears are no doubt to be attributed to the forced delivery, since they are found in many cases delivered by other means. The author recommends awaiting spontaneous delivery after the section, if possible.

The later results have justified the operation; the women were able to return to the performance of their household duties. Subsequent births have not yet been observed. If healing occurs with the pelvis as wide apart as possible the prognosis in subsequent labors will be better.

The operation is recommended only when the physician possesses the required measure of manual expertness, and when proper aftercare of the case is assured. In all other cases it may prove wiser to sacrifice the life of the child than to incur the risk of crippling the mother.—*Monatsschr. f. Geb. u. Gyn.*, May, 1907.

HYPEREMESIS GRAVIDARUM.

Baisch states that in the past five years he has observed 20 cases of hyperemesis gravidarum in a total of 2,500 pregnant women at the University clinic in Tübingen.

Every effort was brought to bear to avoid induction of abortion, but intervention was found necessary in five of the 20 cases to check the rapidly progressing exhaustion.

The author thinks artificial abortion is indicated in cases of hyperemesis in which conservative treatment has proven of no avail, when the semi-weekly weight of the patient shows a progressive loss, since then a slight continued decrease may place the patient in a precarious condition.

If after exhausting all conservative measures artificial abortion becomes imperative the operation should be performed as quickly as possible and in such manner as to impose the least possible tax on the woman's vitality.

In Döderlein's clinic the uterus is emptied at one sitting, dilation by means of a sound and a thick laminaria tent having been effected the evening before. With the aid of Winter's ovum forceps the contents are quickly removed with little hemorrhage. The vital resources of the patient are not greatly taxed by the operation, and as a rule narcosis is not necessary.—*Berl. klin. Woch.*, v. 44, 1907.

ARTIFICIAL ABORTION IN PUERPERAL PSYCHOSES.

In discussion of a paper by Chrobak, Fellner says that among 20,000 deliveries in Schauta's clinic he found two cases of puerperal psychosis and three which might be mistaken as psychoses of pregnancy.

In the first of the latter cases the patient suffered from attacks of vertigo and unconsciousness. In the middle of pregnancy the paroxysms became more frequent, and a melancholic condition set in, which, however, improved toward the end of the pregnancy. During the puerperium the condition again grew worse. The patient was referred to an asylum for the insane, from which she was dismissed cured 8 months later.

The second patient had suffered from a phychosis since the third month of pregnancy and had been sent to an insane asylum after delivery. No improvement occurred. Inquiry showed that this case had presented symptoms of mental impairment for about six years prior to pregnancy. It is a question whether this could be considered a phychosis of pregnancy, since it occurred in an already degenerated individual.

In the third patient paranoia developed in the seventh week prior to delivery. She was referred to the asylum for the incurably insane.

The foregoing experience would give rise to the misleading impression that the prognosis in the psychoses of pregnancy is most unfavorable. Statistics, however, show that 80 per cent. recover their reason within 10 to 11 months. Distinction must be made between the true psychoses of pregnancy and an accidental concurrence of pregnancy and mental disturbance.

The literature shows that a premature termination of pregnancy was never successful in properly curing a true psychosis of pregnancy. Cases in which cure has resulted usually were of a material type; melancholia as such cannot be considered an indication for the termination of pregnancy. Only the danger of suicide and progressive exhaustion need be taken into consideration. In the former instance the patient should be committed to an asylum, the result of which will most likely be the saving of mother and child.

In the event of progressive exhaustion where the patient refuses nourishment it is different. Under certain circumstances the termination of pregnancy may then be indicated, not so much in the hope of effecting a cure as to relieve the parent organism of the task of providing for the child. The indication is strengthened by the fact that the life of the child is in great danger. We can advise a termination of pregnancy in this class of cases when the period of fœtal viability is so remote

as to preclude the possibility of the mother's surviving that period.

Schauta, in further discussion, declared that he had always failed to find an indication for the induction of artificial abortion in psychoses.

The mortality of chorea gravidarum is from 22 to 30 per cent., as compared with 6 per cent. in other cases of chorea. Still there are instances in which recovery occurs during pregnancy. Parturition exerts a most unfavorable influence on chorea gravidarum, and the interruption of pregnancy, therefore, should be practiced only in exceptional instances, and then only in the later months of pregnancy, after a course of bromides has failed. Eight to 15 grams of bromide should be given daily.

Tetany during pregnancy cannot be viewed as an indication for induction of artificial abortion. Epilepsy rarely occurs in pregnant women. It is not to be considered an indication for artificial abortion.—*Zentralbl. f. Gyn.*, June 31, 1907.

OTOLOGY.

EDITED BY

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EARLY OTOLOGY IN JAPAN.

Ino Kubo, Kakuoka (*Monatsch. f. Ohrenk.*, 40 Jahrg., 9 Heft.), presents some interesting information based upon seventeen medical manuscripts and books which appeared in Japan between 1000 and 1600 A.D. The article is divided into four chapters: 1. Anatomy and Physiology; 2. Etiology and Pathology; 3. Symptomatology and Classification; 4. Therapeutics and Prognosis. 1. The anatomical basis of ancient Japanese medicine is described by the writer as quite meagre; the ear is divided into the outer ear (auricle), the ear canal, and the "ear ground"—only later came the knowledge of a thin membrane in the "ear ground," to which was attached great importance in the function of hearing. 2. An intimate connection between the ear and the genito-urinary organs was accepted, and the conclusion reached that ear diseases result from those of the genito-urinary tract, which seems to be, in the light of our present knowledge, at least in part correct, Urlaubschitsch and others teaching that the sense of hearing is the first among the special senses to suffer from masturbation. Other causes mentioned are—taking cold, cerebral congestion, the remaining of dirty bath water in the ears, and habitual constipation. 3. The principal symptoms of ear disease is given as deafness; to this are added earache, tinnitus, fever, headache, sweating, dimness of vision, vertigo, polyp formation and discharge; distinction is made between clear (serous) and purulent secretion (between white, red and yellow pus); and the odor is carefully observed. It seems, however, that genuine middle-ear suppurations are grouped together with furunculosis of the canal, and with cerumen. Still, as early as the 13th century cerumen formation was declared to be physiological, so long as it caused no disturbance of hearing. The various kinds of tinnitus were carefully observed, and compared to the sound of running water, the noise of the locust, the striking of a bell. Five different disease pictures were represented, and given by the writer as fairly well paralleling five at present well characterized disease pictures. 4. The therapeutic methods and medicaments are as numerous as the statements concerning prognosis are lacking. The general therapy is divided by the author into four headings: *a.* General therapy; *b.* local therapy; *c.* treatment with moxa, *i. e.*, the use of small balls or cylinders of inflammable plant fibres which are applied to different portions of the ear and burned upon the skin, to bring the process from the deep-lying organs to the surface; *d.* the treatment of foreign bodies.

ACUTE AND CHRONIC SUPPURATION OF THE EAR AND NOSE, THE DIRECT CAUSE OF FACIAL ERYSIPELAS.

C. F. Welty, San Francisco (*Journ. A. M. A.*, Dec. 22, 1906), in a convincing article, partly statistical, concludes that we have sufficient evidence to assume that erysipelas of the face is due to a direct infection from a contaminated field of pure or mixed infections of streptococci; that in the majority of these cases the infection can be demonstrated, and those that are not demonstrated are probably present and are not found; that the epidemics of erysipelas are nothing more than a direct wound infection through surgeons or nurses; that the so-called idiopathic erysipelas is a misnomer. As to why we should not have erysipelas with every case of streptococcus infection he believes to be dependent on the character of the streptococci and the immunity of the patient. He also believes that the streptococci attain a more virulent form when one of the various cavities is infected.

MODIFICATION OF THE SIMPLE MASTOID OPERATION, WHICH SHORTENS CONVALESCENCE BY FACILITATING WOUND REPAIR.

Drs. E. M. Plummer and H. H. Germain, Boston (*Journ. A. M. A.*, Nov. 24, 1906), report ten cases, and describe the method of operation, as well as the benefit of a shortened convalescence, and the absence of remaining deformity. The duration of healing was seven days in the shortest and seventeen days in the longest. The technique is as follows: The usual cutaneous incision is made, the periosteum reflected, the antrum opened, all the mastoid cells, including the lip, removed. The next step, the distinctive feature of the operation, is the removal of the anterior boundary of the bony cavity formed by clearing out the mastoid cells, down to the level

of the facial ridge. The posterior bony canal wall is removed (according to the writer "without danger") with a Rangeur forceps, and smoothed with an electro-motor burr. The final step in the process consists in packing the posterior membrano-cartilaginous canal wall firmly backward into the osseous cavity, in close contact with its walls, where it is securely held in position by a tampon of iodoform gauze inserted into the auditory canal. This is an important step, since by this procedure we have a cavity, one-half of which is composed of soft tissues instead of a cavity in the mastoid whose walls are entirely of bone, as is the case in the classical operation. By this method the authors claim healing by first intention instead of by granulation. When the gauze packing has been completed, the mastoid incision is closed with sutures and the usual dressings are applied, the small gauze wick being allowed to remain in position until the soft parts are adherent to the bony walls. The first dressing is usually undertaken at the end of three or four days. As a rule but three or four dressings in all are required before the patient is discharged as cured.

OTOLOGY IN RELATION TO THE GENERAL PRACTITIONER.

Bacon, New York (*N. Y. Med. Journ.*, Dec. 22, 1906), believes that the medical graduate of the present day should be able to tell by inspection whether a lymphatic membrane is normal or diseased (especially whether acutely inflamed), and, if needs be, to incise it. He should frequently examine the membrane during the acute exanthemata and grippe, particularly in children, in whom, he says, an otherwise unexplained high temperature should always arouse suspicion of aural disease.

TREATMENT OF OTITIS EXTERNA CIRCUMSCRIPTA AND ALLIED AFFECTIONS.

S. Schoengut (*Deutsch. Med. Wochenschr.*, xxxii, No. 43), has found pressure useful in such conditions. After thorough cleansing of the canal, he uses a tampon of bichloride gauze. Where this plan has failed he has tried Bier's method of stasis hyperæmia with a constricting band around the neck, and is convinced of its usefulness when carefully applied in properly selected cases. In his experience it is of particular benefit in otitis externa circumscripta, the prompt relief from pain being one of its great advantages.

THE CLINICAL VALUE OF THE DIFFERENTIAL BLOOD COUNT IN OPERATIVE OTOLOGY.

At the December 20, 1906, meeting of the New York Academy of Medicine, reported in the *N. Y. Med. Record*, Jan. 12, 1907, there was a symposium on Blood Examination in Surgical Diseases, and under the above heading Dr. Jas. F. McKernon asks if a differential blood count helps in doubtful cases to make a more accurate diagnosis, his answer being in the affirmative, based on a differential count in 166 operative cases, 108 adults, and 58 children between 6 months and and 12 years old, taken as an aid in diagnosticating mastoid disease and the sequelæ resulting from it. Of the 108 adult cases, a positive diagnosis of mastoid involvment was made in 84 without recourse to the blood count, which was made only for confirmatory evidence. Of this number the lowest polymorphonuclear percentage was 73.2%, the highest 97.6%. In the remaining 24 cases many of the typical symptoms of the disease were absent, in 18 of them an operation being determined upon only after the blood count, which showed 73.2% for the lowest, and 86.4% for the highest polymorphonuclear percentages, and all containing pus in the mastoid. The remaining 6 cases were complicated with a sigmoid sinus phlebitis, and in the polynuclear percentage was high, ranging from 86.8% to 96.6%.

In 47 of the 58 cases in children a positive diagnosis was made prior to the differential count. In 8 of the 11 remaining atypical cases the differential count proved of value, the lowest polynuclear percentage being 72.2%, the highest 83.4%, and abundance of pus was found in the mastoids. In the 3 remaining cases, the lowest polynuclear percentage was 42.4%, the highest 56.8%, the natural deduction therefrom being an absence of pus, which was, however, found in abundance in all of them. The conclusion arrived at is that in the differential blood count we have an aid to diagnosis in the doubtful cases, a confirmation of the easily diagnosticated cases. It seems also to be shown by this series of cases that, when cellular bone structures, like the mastoid, are involved in a septic inflammation, without involvement of the adjacent blood currents, in the majority of cases the differential count shows a relatively lower polynuclear percentage than the same process in the soft tissues of the body, indicating probably a slower absorption of toxines from within a bony cavity. A point mentioned by Dr. Sondern, and corroborated by a study of the above cases, showed that when there was a pronounced leucocytosis and a pronounced polynuclear increase it was indicative of a severe infection with good systemic resistance, and that a pronounced polynuclear increase with little or no leucocytosis showed a severe grade of infection, with but little body resistance, and also that the increased polynuclear percentage, with stationary or decreasing leucocytosis, showed an increasing degree of infection, with a decreasing body resistance.

The fact is that perfectly healthy persons, especially such as have come in contact with typhoid fever patients, or with persons who have suffered from enteric at a more or less remote period, often harbour the bacillus typhosus in considerable numbers in their alimentary canal. Such persons have been termed "bacilli carriers" (Bacillentrager), and must be considered as important sources of infection for this disease.—*Metchnikoff.*

OPHTHALMOLOGY.

EDITED BY

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THE BACTERICIDAL VALUES OF SOME WIDELY ADVERTISED ANTISEPTICS USED IN OPHTHALMOLOGY.

In 1906, Verhoeff (*Journal A. M. A.*, May 12, 1906) called attention to the fact that the bactericidal values of sodium aurate, protargol and argyrol were lost if animal fluids were added to these preparations. In his experiments he used hydrocele fluid as a medium. Further investigation had been made along this line by G. S. Derby (*Am. Oph. Trans.*, 1906), who tried silver nitrate, collargol, albargin, ichthargan, argentamin, largin and argonin with similar findings. Recently Verhœff and Ellis have made more extended experiments with a large number of widely advertised antiseptics. Many others which are commonly used are not included in their report because they correspond so closely in "formulæ" to those tested.

They conducted their tests with the staphylococcus pyogenes aureus, because of its prevalence and easy recognition. The particular strain was rather weak, being killed by a one-minute's exposure to a 1:1000 solution of mercuric chloride or a 2 per cent. solution of carbolic acid.

The tests consisted essentially in adding a definite amount of infective material from a blood-serum culture to the antiseptic fluid, alone, and determining the length of exposure necessary to procure a negative culture; then by adding the same amount of infection to the antiseptic fluid mixed with an equal quantity of hydrocele fluid.

The following preparations acting alone in their respective strengths killed the staphylococcus pyogenes aureus in *one minute:* Liquor antisepticus, U. S. P. 100% sol., listerine 100% sol., lysol 1% sol., cresylone 1% sol., trikresol 9-10% sol., acetozone (1:1000), alphosone (1:1000), euthymol 100% sol.; in *one to five minutes:* germicidal disc (HgI, 1:100), picratol (1:2000); in *fifteen to thirty minutes:* nargol 1% sol., therapogen 3% sol., creolin 1% sol.: in *one to two hours:* sal hydrastin 1% sol., kreol 1% sol., sulphonaphthol 1% sol., sublamine 4-10% sol., mercurol 1% sol.

When the above "antiseptics" were mixed with an equal amount of hydrocele fluid they failed to destroy the vitality of the germ after an exposure of over two hours.

Furthermore, those remedies which are particularly recommended as intestinal antiseptics were tested by the typhoid bacillus, and it was found that when these were mixed with saturated albumin water the solutions gave positive cultures after twenty-four hours' exposure.

Reviewing the findings, it may be seen that no more effective antiseptic is found than the "liquor antiseptic" of the new pharmacopœia, also, that the first eight of the list can be used for disinfecting hands and instruments. The author's opinion is, however, that none of them possesses any advantage over ninety-five per cent. alcohol, which kills the staphylococcus pyogenes aureus in twenty seconds.

In conclusion, the authors do not believe that an antiseptic which is non-irritating can be effective in the presence of serum. In fact, it would seem that the non-irritating property of any given antiseptic is dependent on the inhibitory effect exerted on it by the tissue fluids.

The authors believe that "Notwithstanding the fact, however, that local antiseptics, if non-irritating, are ineffective within the tissues, it does not necessarily follow that they are altogether useless, for by destroying the bacteria on the surface of an infected area they prevent the constant reinfection of the tissues, and hence reduce the number of organisms against which the latter must contend." This fact is clearly shown by the action of antiseptics used locally in the case of catarrhal conjunctivitis, the course of which is undoubtedly shortened by the use of proper germicidal remedies.

OCULAR ARTERIO-SCLEROSIS.

Venneman (*Annales d'oculistique*, June, 1906) describes the following differences between senile and arterio-sclerotic eyes. The former are characterized by diminished tension (although their sclerotics are less supple than those of younger eyes), small pupils, and very shallow anterior chambers. The changes in them are due to diminished blood supply causing insufficient nourishment of their muscular, nervous, and glandular tissues, and thus giving rise to presbyopia, reduced vision, cataract, and degenerative changes in the choroid and vitreous. The active muscular tissue tends to be displaced by passive elastic tissue, while nervous and mucous tissues also tend to be respectively replaced by neuroglia and connective tissue. The walls of the blood-vessels are thickened not from inflammation and hypertrophy, but because the diminished blood allows them to expand towards the lumen, and by failing to provide sufficient nourishment, causes hyaline degeneration.

The arterio-sclerotic eye, like the senile eye, is ischæmic, but in it the diminished blood supply is due to pathological narrowing of the lumen of the vessels, a result of endarteritis obliterans, caused by chronic intoxication of the blood, associated with increased arterial tension, which, in turn, gives rise to compensatory hypertrophy of the arterial walls and dilatation of the capillaries, which may burst, causing retinal hemorrhages, while the degenerations pass the hyaline stage and become fatty.

In diffused arterio-sclerosis, if the eyes are affected at the same time as the kidneys, al-

buminuric retinitis results; if at the same time as the heart or brain, we find embolism or thrombosis of the central artery; and if at the same time as the liver, atrophic choroiditis.

Retinitis circinata is due to localized arteriosclerosis, but it is quite exceptional for the disease to attack vessels so small as the retinal ones. It may, however, give rise to sclerotic plaques in the trunk of the arteria centralis retinæ before its entry into the eye, and act as a cause predisposing to thrombosis of the vessel.

Thrombosis of the central vein occurs at all ages, from 23 upwards, as a result of diseased conditions of the blood of infective origin in eyes which are at times quite normal. Arteriosclerosis is a disease of the intima, and should be distinguished from atheroma, which implicates the media from arteritis and periarteritis in which the adventitia is also involved, and also from syphilitic and tuberculous arteritis.—Translated and abstracted by Coulter, *The Ophthalmoscope,* 1907.

THE EYE LESIONS IN MULTIPLE SCLEROSIS.

Fleischer (*Die Ophthalmologische Klinik,* vol. X, 1907) says that the most important affection of the optic nerve associated with multiple sclerosis is acute retro-bulbar neuritis. Formerly cases of this kind were frequently set down as rheumatic in character, but when their subsequent history was pursued and the symptomatology of multiple sclerosis became better known the relation between these two diseases was at length recognized. In 1904 Marcus Gunn gave at Oxford an analysis of 233 cases of primary retro-bulbar neuritis, and of these he found that 51, *i. e.,* 20 per cent., were due to multiple sclerosis. On the same occasion Uhthoff reported that out of 120 cases of this disease about 8 per cent. were due to the same cause. These results have led Fleischer to analyze the cases in the clinic in Tübingen: cases of retro-bulbar neuritis, acute optic neuritis (papillitis), more chronic optic enuritis, post neuritis and simple optic atrophy, choked disc, and hemianopsia where no definite etiological diagnosis had been made.

He found that of 24 cases of acute retro-bulbar neuritis, 6 were undoubtedly due to multiple sclerosis, while, taking into consideration certain facts gained about the subsequent history of the others, he was led to conclude that altogether no fewer than 16 were due to this disease. In 10 of these 16 cases the neuritis appeared at varying periods from shortly before up to ten years before other symptoms of multiple sclerosis, while in four they appeared simultaneously. The course of most of the cases followed the usual type, but in one the vision was reduced to counting fingers, and in another a ring scotoma was found; in 25 per cent. of the cases both eyes were affected. As to the age of these patients, 21 were between 17 and 34 years old.

Of 14 cases of acute papillitis where the onset and course resembled those of retro-ocular neuritis, Fleischer found three, certainly, and other two, probably, due to disseminated sclerosis; in other eight atypical cases no such association could be traced. He observed that slight blurring of the margins of the disc and a certain opaque appearance of its surface are very frequently present in cases of multiple sclerosis, and when this opaque appearance of the disc is taken as a sign of post-neuritic atrophy the frequency of this atrophy is very great, viz., in 23 out of 39 recent cases.

In none of the cases of simple atrophy, choked disc or hemianopsia which he examined has he found any relation to multiple sclerosis. —Translated and abstracted by Snowball, *Ophthalmic Review,* vol. 26, 1907.

PYOCTANIN IN OCULAR THERAPEUTICS.

Wickerkiewicz (*La Clinique Ophthalmologique,* March, 1907) declares that botanists have known for a long time that bacteria are killed as soon as their protoplasm has imbibed an anilin color. The researches of Stilling and Wortmann appear to demonstrate that of all the anilin colors the violets have the greatest power of preventing infection or of arresting its progress. A 1 per cent. solution of methylene blue stains the conjunctiva, sclerotic and even the iris, the intact cornea alone remaining uncolored. Besides methylene blue (pyoctaninum cœruluem), auranine (pyoctaninum aureum) also possesses bactericidal properties, but it has been less commonly employed. The troublesome discoloration of the fingers has no doubt militated against the popularity of these remedies, and attempts have been made to decolorize the pyoctanin, but experience has shown that it is precisely from its staining power that its efficacy results, and that its antiseptic value increases with the degree of that coloration. Stilling has shown that the bactericidal power of different anilin colors diminishes in going from the blue to the red end of the spectrum; this fact is probably to be associated with the diminution in therapeutic activity of the luminous rays themselves as we pass from the blue to the red.

In order that pyoctanin may exert its action it should remain some little time in contact with the infected tissues, and in order to increase its penetrating power in purulent processes Wickerkiewicz makes use of the well-known qualities of dionin in provoking intense lymphatic infiltration. The combined use of these two remedies has given him results much superior to those which he has seen after the employment of the other procedures recommended against suppurative processes of the eye.

The method of application is as follows: After washing the globe and the conjunctival sac with normal saline solution the head of the patient is

held well back, the lids are widely separated, and a freshly-prepared solution of pyoctanin, 1 to 500, is instilled drop by drop into the eye; with a little practice one can keep the anterior segment of the eye bathed in the solution for from one to three minutes without staining the fingers or the patient's cheeks; after having absorbed the superfluous fluid by means of cotton wool the cornea is examined to see if there are any lesions of the epithelium; such spots will be stained by the pyoctanin. Next, dionin is instilled into the eye, the strength of the solution employed being increased in the course of treatment on account of the well-known tolerance to its use; when strong solutions no longer provoke reaction powdered dionin is introduced.

In the case of ulcers of the cornea with hypopion the objective inflammatory symptoms are found to diminish rapidly, the instillations being made, if possible, twice daily; the ulcer soon begins to clear and cicatrise, the hypopion disappears and the pupil becomes large and regular. Pyoctanin in the above-mentioned strength does not cause pain or give rise to any disagreeable complications. With the help of the propulsive action of the dionin the coloration reaches the iris and Descemet's membrane, at least on those places in which the epithelium has undergone pathological alteration; this coloration has generally disappeared when the reaction caused by the dionin has subsided. When the dionin, even in powder, has caused to react the treatment ought to be interrupted, and, if the case requires it, recommenced at the end of from four to six days.

Since the employment of this treatment in corneal ulceration Wickerkiewicz has not had a case of complete destruction of the cornea or of panophthalmitis. Some of the cases have been gonorrheal in origin, and in such cases this treatment has proved superior to the use of protargol; he has also found pyoctanin and dionin most effective in deep-seated post-traumatic affections of the eye, even when of extreme gravity. Pyoctanin is also of great value in certain infected states of the globe and its annexes, especially in abscesses and empyemas. In the presence of empyema of the lacrimal sac, after irrigation with boric solution, he injects a solution of pyoctanin (from 1-5 to ½ per cent.), and then applies a compressing bandage; if there is a lacrimal fistula he first curettes it and then injects the pyoctanin through it. He finds that affections of the sac thus treated are cured in a relatively short time, and he has had good results in cases where extirpation of the sac had been decided on.—Translated and abstracted by Lithgow, *Ophthalmic Review*, vol. 26, 1907.

We seem, indeed, to forget that the Almighty has practically said to man and womankind: "I shall no longer create human beings. I appoint you to act as My deputy."—*Race Culture; or, Race Suicide? Robert Reid Rentoul, M.D.*

New Books

Christianity and Sex Problems. By Hugh Northcote, M.A. Philadelphia. F. A. Davis Company. 1906.

This is a very interesting book. It is a study not so much of sex problems as of certain superstitions in regard to sex problems. These particular superstitions, the author believes, solve the questions. They are founded upon ancient Jewish history and dogma and upon the alleged utterances of a Great Teacher whose doctrine was a repetition of Buddhism and the current moral precepts of Indo-China. The author refers the searcher for light in sexual problems to the literature of this dominant superstition. As a matter of fact, if one, seeking for light, goes to this source he will find confusion. It is the resort for comfort of the violator of every sexual natural law. The sinners against the virtue of women look to this teaching for their excuses, and find comfort in plenty. Not the wise man but the fool puts this so-called Law into the hands of his child and says, "Here is your guide in sexual matters." The author of this book does not do this altogether, but implies that this Law should be construed by the interpreter who denys himself sexual knowledge upon the ground that sexual joy is carnal sin.

Some day we shall hear less of this teaching; happily that day is to-morrow. In its place we shall have the natural truth. The holiness of natural cohabitation and birth shall be exalted. The love of man and woman shall be approved, and men shall not bow their heads with reverence to the unnatural teaching that "every one that hath forsaken wife or children for my name's sake shall inherit everlasting life."

This will be called a learned book. It possesses the merit that it confuses in a mesh of ecclesiastical verbiage the points which discredit the source of its inspiration, and yet spares from the confusion of rhetoric some of the important and reasonable ideas of the author. On the whole, it is a good book. The reasonable will find much that is instructive, and the superstitious will find much to comfort them.

Woman By Bernard S. Talmey, M.D., of New York. The Stanley Press, New York. 1906.

This is a treatise on the normal and pathological emotions of feminine love. Its creation was prompted by the author's discovery that the physiology of all the functions was presented fully in medical literature, except the physiology of the sexual emotions. Amitiveness has been ignored by scientific students and writers. Women suffering from disturbances of the sexual emotions could not find a physician who was learned in this branch of pathology, because it was neither taught nor written; it was merely guessed. Dr. Talmey has performed a distinct service to medical literature in making a study of this subject.

This book is devoted to every phase of sexual life and thought of woman. It is made up of short chapters, tersely written, and containing many references to the literature from which it has been gleaned. It is divided into parts dealing with the evolution of sex, the anatomy of the genitals, physiology, pathology, hygiene, psychology, and morality. We do not share in the criticism which has been made of this book, that it is objectionable, because it clearly discusses matters which are tabooed by the prudish. The modus operandi coeti is as important as many of the functions which are described by physiologists. This book is well written and has a distinct place in medical literature.

Race Culture, or Race Suicide? (A Plea for the Unborn). By Robert Reid Rentoul, M.D., M.R.C.S., L.R.C.P., London. The Walter Scott Publishing Co 1906

This is an important book It calls attention to some of the great defects of our civilization, which it is distinctly in the province of medicine to inveigh against. It deals with questions which bear upon national deterio-

ration. Among the subjects discussed are the begetting of a healthy race; degeneracy; the cost of deteriorants and degenerates to the State; the causes of degeneracy; the interbreeding of degenerates, epilitics and feeble-minded sanctioned by law, and the remedy.

The author shows the effects of our health-destroying system of intermarriage, and breeding of lunatics. He shows that our laws make it difficult for the healthy to marry, and that we practically compel the unfit to marry. He also shows that asylum patients are released as recovered, while they are still diseased and allowed to marry. The marriage of the unfit, the overwork of the young brain, the unsuitable employment of women and children, the abuse of alcohol, undesirable alien immigration, venereal diseases, are all discussed as causes of race degeneracy. The author shows how some countries have met these problems.

The remedy which he offers is the very simple sterilization of degenerates by ligation of the vas deferens. This work is really an enlarged edition of his "Proposed Sterilization of Certain Mental and Physical Degenerates," which was published in 1903. He decries the fact that his Nation votes large sums of money to discover the North Pole, to dig relics in Egypt and Palestine, to establish chairs for the study of music, for the study of war, in fact, for everything except the study of the begetting of a nation of the physically and mentally sound.

This book is full of thought and can be read with profit by every physician, sociologist and citizen.

THE NEW HYGIENE. By ELI METCHNIKOFF. W. T. Keener & Co., Chicago. 1906.

This little book consits of three lectures by one of the greatest modern scientists. They are: The Hygiene of the Tissues, The Hygiene of the Alimentary Canal, and Hygienic Measures Against Syphilis. They are fascinating reading upon the most advanced thought concerning the three subjects. The discussions are eminently practical and helpful to the physician in grasping the relation of bacteria and their products to disease. This little book should be widely read. If every medical man were familiar with it we should have an enlightened profession.

TUBERCULOSIS AS A DISEASE OF THE MASSES, AND HOW TO COMBAT IT. Prize Essay. By S. A. KNOPF, M.D., New York. Charities and the Commons.

This is the essay which was awarded the prize of four thousand marks by the "International Congress, for the Study of the Best Way to Combat Tuberculosis as a Disease of the Masses," which convened at Berlin in 1899. It has now been translated into some twenty-five languages and is doing an incalculable amount of good all over the world in instructing the people concerning tuberculosis. The German Government distributed a large edition and another is in preparation for this purpose.

This is the fourth edition which has been revised and brought up to date by the author. It is a pamphlet of a hundred pages, made up of thirty chapters, and deals with the whole subject of consumption scientifically, but in such a way as to be interesting and easily within the grasp of the layman. If the Government of the United States would place a copy of this publication in the hands of every inhabitant able to read, it would be an investment which would return a profit. Of all the literature which the Government is distributing to the people there is none which compares in importance and value with this. If we had a National Department of Health to make use of such publications as this, the Government might instruct the people concerning the ravages of tuberculosis as it now instructs them concerning the brown tailed moth or the boll weevel. We are more interested in the parasite which preys upon our loved ones and destroys the Government's citizens than we are in the parasite which preys upon the elm trees.

This pamphlet of Dr. Knopf's places an opportunity in the hands of every government which is honestly a government for the people.

HUMAN EMBRYOLOGY. By WALTER PORTER MANTON, M D., DETROIT. Third edition. F. A. Davis Company, Philadelphia, 1906.

This book is founded upon lectures delivered by the author as an introduction to the study of obstetrics and gynecology. It furnishes an outline of the principal facts in human embryology. It is arranged for use in the classroom, and is provided with blank pages for notes. The illustrations have been left surrounded with sufficient blank space so that the student may write in the descriptive names. Also for the benefit of those who wish to pursue the subject farther there are reference to larger works.

Starting with the anatomy of the male and female organs of generation, the confluence of the two germinal cells is described, and the development of the ovum and the embryo. The normal child at birth is described.

The practical study methods are given, so that, with this book as a guide, the student is in a position to pursue the study of embryology most satisfactory. A glossary at the end gives the terms employed in this department of science.

KIEPE'S MATERIA MEDICA AND THERAPEUTICS. By EDWARD J. KIEPE, Professor of Materia Medica in the Department of Pharmacy, and Adjunct-Professor of Materia Medica and Pharmacology in the Medical Department, University of Buffalo. In one 12mo volume of 265 pages. Lea Brothers & Co., Philadelphia and New York. 1906.

This is one of the *Medical Epitome Series*, which we are informed will consist of twenty-three volumes. It is easy for students and practitioners to post themselves to date for examinations or practical purposes, or attending post-graduate courses, by reading these authoritative little books. They are written by professors or teachers in colleges of high standing, and the subjects are treated in a manner as clear, thorough and interesting as the necessary limits of space will permit.

RETINOSCOPY (or Shadow Test). By JAMES THORINGTON, A. M., M. D. Fifth edition. Fifty-four illustrations. Philadelphia, P. Blakiston's Sons & Co. 1907.

This is a well gotten up little book, well illustrated and printed. Ten of the illustrations are in colors. Dr. Thorington has presented this subject clearly and in such a manner that it can be grasped by the general practioner as well as the specialist. The three reasons he prefers the term retinscope to skioskopy, are: (A) that it may not be confounded with the skiagraphy, (B) that it is the name by which the test is universally know, and (C) that it is the retina in its relative position to the dioptric media which we study.

Deaths.

SAMUEL BEYEA, M.D., of New Rochelle, N. Y., died suddenly on Sunday, August 18; aged 43 years.

LUCY HALL-BROWN, M.D., a member of the council of the National Red Cross Society, died at her home in Los Angeles, August 1, after a long illness. She was a member of the Kings County Medical Society.

CHARLES WILLIAM CUNNION, M.D., died at his home in Brooklyn, July 5; aged 34 years.

EDGAR ELTINGE, M.D., for many years a practitioner of Brooklyn, died at his home in Kingston, N. Y., July 28; aged 79 years.

HENRY L. FURBECK, M.D., of St. Johnsville, N.Y., died at the Albany Hospital, July 11; aged about 49 years.

EDWARD JOSEPH GALLAGHER, M.D., of New York City, was killed in an automobile accident, July 21; aged 51 years.

EDWIN F. KELLY, M.D., of Pulaski, N. Y., died at the home of his son-in-law, July 15; aged 63 years.

BENJAMIN GRINELL STRONG, M.D., for many years a practitioner ofLong Island and coroner's physician of the Borough of Queens, died at his old home in Reading, Mich., July 26; aged 46 years.

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Original Articles.

CHLOROMA, WITH SPECIAL REFERENCE TO THE OCULAR SYMPTOMS.*

By C. S. MERRILL, M.D., and A. J. BEDELL, M.D.,
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THE presentation of rare or unique occurrences are always interesting, especially if coupled with satisfactory data, elucidating symptoms which may be of value in the diagnosis of future cases. Commonplace happenings have come to be well recognized by reason of their possession of qualities of similarity. It is, however, by the comparison of similarities that differentiation becomes possible. In no other field has this discrimination been so universally useful as in our own profession of medicine.

Here is a disease, Chloroma, forty-four cases of which have been reported in literature, and ours is only the fourth diagnosed during life.

Our experience has been in the person of J. L., male, age 8 years, of foreign birth, who entered Albany Hospital, Dr. Merrill's service, December 3, 1906, in the following condition:

Patient extremely emaciated, skin distinctly yellowish, mucous membranes anemic.

The right eye was proptosed 11 m.m.—both lids somewhat discolored with bluish tinge but freely movable—palpebral veins enlarged—appearance of a growth in the upper part of the orbit due to slight œdema. The lower orbital ridge was definitely outlined, but a firm, freely movable tumor mass, 12 m.m. wide, extended from the outer to the inner canthus. This mass was free from skin conjunctiva and bone. Its posterior border not distinctly palpable. Bulbar and palpebral conjunctiva negative except for two 5 m.m. irregular, subjunctival hemorrhages near the limbus over the external rectus. Cornea clear; anterior chambers negative; iris normal; pupil 4 m.m. active; media clear. Marked optic neuritis with complete obliteration of the disc outlines; white exudates along the larger vessels, but in no other part of the retina; no retinal hemorrhages; vision equal; fingers six fet. Complete ophthalmoplegia externa.

The left eye, as the picture shows, was extremely prominent, extending 20 m.m. beyond the superior orbital ridge. Lids, dark-blue, but freely movable. The temporal, frontal, angular and supra-orbital veins were enormously distended and tortuous. Projecting beyond the superior orbital margin was a firm, freely movable growth not adherent to any surrounding structure. It seemed to extend deep into the orbit and was palpable from the supra-orbital foramen outward beyond the outer canthus. Closure of the lids impossible. Conjunctiva markedly chemotic with numerous ecchymoses. Cornea clear above but the lower half covered with yellowish masses of dried exudate. Anterior chamber and iris negative. Pupil 5.5 m.m. regular, but does not react to light or accommodation. Deep in the vitreous a yellowish grey reflex was obtained but no fundus details. No light perception. Complete ophthalmoplegia.

Patient could only be aroused with difficulty and was at such times very irritable. There was a continuous moco-purulent discharge from his nose. Mouth covered with foul smelling sordes; tongue heavily coated.

Temporal regions show no enlargements.

Right ear—The external canal moist and almost occluded with inspissated pus, on clearing the posterior superior wall was found bulging and moderately congested. The tympanic membrane showed a calcified area in the lower posterior quadrant, above which was a small perforation through which yellowish white muco-pus exuded.

Left ear showed the same condition without the bulging posterior wall. Both mastoids were distinctly tender with marked pain on pressure. No swelling or œdema.

The lymphatic glands of the neck were palpable with difficulty on the right side, but on the left they were visible as large peas.

Marked systolic thrills in the vessels of the neck. No abnormalities of the lungs.

Heart dulness begins at the third rib. Apex beat in the fifth intercostal space 4 m.m. inside nipple line. Right border extends to midsternal line. Loud systolic murmur over pulmonic area; second aortic sound accentuated. Apical sound clear and distinct. Pulse 120; tension good.

Moderate pressure on sternum causes patient to cry out with pain.

Liver dullness extends from sixth rib to free costal margin, but is not palpable.

Spleen dullness from 9th to 11th ribs not palpable.

Abdomen, negative except slight distension.

Inguinal glands about the size of small peas.

Umbilical costal and plantar reflexes normal. No knee jerks, ankle-clonis or Babinski.

Urine clear, amber, acid 1020; no sugar, but a trace of albumen without casts.

Blood examination showed 1.410,000 reds, 79,600 whites 30 per cent. hemoglobin.

Dr. A. T. Laird made the report of differential count (6,000 leucocytes):

Polynuclears	16.2	per cent.
Large mononuclears	5.3	" "
Large lymphocytes	15.3	" "
Transitionals	0.8	" "
Eosinophiles	0.7	" "
Small lymphocytes	33.	" "
Neutrophile myclocytes	28.2	" "
Eosinophile myclocytes	0.5	" "

Five nucleated red cells were noted, three were

*Read at New York State Medical Society Meeting, January 30, 1907.

normoblasts, two were larger than normoblasts and were classed as megaloblasts.

A number of degenerated leucocytes were seen but no record of them was made.

The patient was given chloroform and a 3 c.m. incision was made over the outer half of the superior orbital ridge. The entire orbit was found filled with a greenish mass of almost cartilaginous consistence, definite capsule in parts, no large blood vessels and not

FIG. 1. CHLOROMA—CASE OF MERRILL AND BEDELL.

palpably adherent to the periosteum. We could definitely outline the optic nerve, but could not distinguish any of the ocular muscles. Palpation to the apex of the orbit proved that the entire contents consisted of this pale green tumor. No pus or serum exuded, but the cavity was packed with iodoform gauze.

The tissue removed was sent to Dr. R. M. Pearce, of the Bender Laboratory, who reported as follows:

Organ or Tissue.—Tissue from left orbit. Material consists of three small pieces of tissue, the largest about 0.5 cm. in diam. These are irregular in shape; in part firm and of light greenish color and in part soft and pink in color. On section they show a uniform smooth surface, firm in the green portions and soft in the pink portions.

Histology.—The centres of the nodules are composed of closely arranged cells of the type of the larger lymphoid cell. These have a deeply but slightly irregularly staining nucleus and a small ring of eosin-staining protoplasm. As a rule they are round or slightly oval in shape, but occasionally are irregular, resembling, in a general way, the plasma cell. No multinucleated cells are seen. Towards the periphery are single fat spaces which have resisted the general infiltration. These spaces are more abundant at the extreme periphery, but the tissue between is extensively invaded by the new cells. Only here and there are small areas of uninvolved fat tissue seen. Here also are areas, apparently at point of periosteal attachment, with considerable fibrous tissue infiltrated with lymphoid cells and more or less hyaline in character. In the centre of the nodules there is but a faint reticulum of indefinite arrangement. Few blood vessels are seen; polymorphonuclear leucocytes are not present in appreciable numbers.

Histological Diagnosis—Chloroma.

After this somewhat rapid summary of the clinical features, we may return to more careful consideration of the subject.

Subsequent to the admission of the patient to the Hospital, we find that Dr. J. F. Rooney saw him November 26, 1906. He has been kind enough to give us his findings, which were as follows:

When seven months old the patient had gastro-enteritis. When two years old, the glands of the neck were swollen; in March, 1906, had diphtheria, from which he recovered completely, except for a persistent nasal discharge with evidences of frontal sinus involvement. At that time he had a muffled first sound and hæmic murmur.

His blood examination made at the time of the doctor's last visit showed:

Reds	1,596,000	
Whites	41,200	
Hemoglobin	30%	
Color Index	1.+	
Differential count of 400 Whites:		
Polymorphonuclears	37.9	per cent.
Large mononuclears	11.	" "
Small mononuclears	12.	" "
Eosinophiles	3.1	" "
Myclocytes neutrophilic	32.8	" "
Myclocytes eosinophilic	7.2	" "

5 nucleated reds, all normalblasts.
Poikilocytosis, many micro- and macro-cytes.
Many degenerated whites.

The temperature and pulse are shown on the chart.

The patient's condition grew progressively worse from date of admission. Emaciation was extreme. Proptosis of both eyes more marked. Tumor mass on the right side increased 2 m.m. in width and the eyelid became darkly congested; vessels tortuous and prominent. Vision almost totally lost, but owing to his mental state, unable to determine. Pupil 6 m.m., not reacting. No increase in the retinal changes.

FIG. 2. CHLOROMA—CASE OF MERRILL AND BEDELL.

The left eye began to show signs of keratitis e'lagophthalmos. The lower half of the cornea was infiltrated and the outer layers eroded. No fundus visible; no decrease in the chemosis; veins more enlarged—although gauze put in the orbital wound, at no time was it even moist.

The glands of his neck were greatly enlarged; on the left side being as large as pigeon eggs. Veins of the neck showed no signs of thrombosis.

On December 10th, at 11 A. M., we were called to find the child in a convulsion which started with general muscular tremor of the right side, followed by marked contraction with turning toward the left side. The left side was entirely paralyzed; respirations stertorous; patient unconscious. He rallied and from time to time seemed to comprehend things. He was removed from the hospital and died that day.

Autopsy was not permitted.

In examining the literature of reported cases, several features of this disease present; there are manifest certain signs which are of constant occurrence in almost all. A grouping of these characteristics is of the greatest importance in defining the affection.

Exophthalmos was the most common symptom. In some cases, as for example Rosenblath's, it was so extreme that both globes were literally on the cheeks.

Tumors involving the orbit ranged from small, smooth palpable masses not attached to adjacent tissue to firm growths replacing all orbital structure.

The temporal veins were usually found dilated.

The lids, in some cases, were œdematous, puffy, swollen, everted, infiltrated with large movable tumor masses or with smooth swelling, not adherent to the skin.

Loss or motility varied from the paralysis of a single muscle to total ophthalmoplegia.

The conjunctiva has been reported as being anemic, congested with venous dilatation, brown infiltration, green discoloration, invaded by a fleshy translucent growth with ramifying vessels, or bloody effusion with fatal hemorrhage.

Optic neuritis was present in at least ten cases, but often ocular histories are omitted, so that doubtless many others have been observed. If the patient has lived long enough, optic atrophy has followed. Other conditions have been pale nerves, exudation in nerve head and hemorrhage into the nerve tissue.

In all extreme grades, the cornea was opaque because of the proptosis. In some cases completely lost.

Numerous hemorrhages, from minute spots to large linear extravasations, have been noticed in the retina. The vessels have been described as pale, rosy or distended and tortuous; most often venous stasis is present.

The scelera has been pale, and in another case hemorrhages were found in the scleral tissue.

The vitreous was only examined once, and was then normal. Subcutaneous hemorrhages were seen in and about the eyelids; chemosis, photophobia, tenderness of the eyeballs and pain in the eyes have all been mentioned.

Enough has been brought forward to indicate the dire distress this disease may cause in our most highly specialized of special senses. The outcome has been invariably fatal.

We acknowledge our indebtedness to Drs. Reynolds, Harris and Harrig, of the Albany Hospital, for their interest in this case, and to Dr. J. H. Gutmann for his assistance.

As this condition is referred to in only one text-book on ophthalmology, a complete bibliography is appended.

BIBLIOGRAPHY.

Burns: "Observations on the Surgical Anatomy of the Head and Neck," by Allen Burns, Baltimore, 1823, p. 386.

Birk: *St. Petersburger Med. Woshenschr.*, 1833, p. 377, iii-viii.

Balfour: *Edinburg Med. and Surg. Journal*, 1835, p. 319, iii-xiii.

Durand-Iardel: *Jour. Hebd. des Prog. des Sci. Med.*, Paris, 1836, T., iii, p. 207.

Dittrich: *Prag. Vierteljahrschrift f. die prakt. Heil.*, 1846, Bd. ii-ii, p. 104.

King: *Monthly Jour. Med. Sci.*, Eden., Aug., 1853, "A Case of Chloroma."

Aran: *Arch Jen-de-Mèd.*, 1854-5, ser T., i-iv, p. 385.

Mackenzie: "A Practical Treatise on Diseases of the Eye," by Wm. MacKenzie, M.D., Philadelphia, 1855.

Hilliers: *Trans. Path. Sec. of London*, 1855, ii-vii, p. 337.

Dressler: *Arch. of Path. Anat.*, etc., 1866, Bd. xxxv, p. 605.

Huber: *Arch. de Heilkunde*, 1878, xlx, p. 129.

Behring and Wicherkilwisz: *Berlin Klin. Wochenschrift*, 1882, No. 33, p. 509.

Chiari: *Prag. Zeitschr. f. Heil*, 1883, Bd. i-iv, p. 177.

Waldstein: *Arch. f. Path. Anat.*, Bd. i-xci, p. 12.

Gade: *Nord. Med. Arkin.*, Bd. i-xvi, No. 19.

Gade: *Comptes Rendus*, i-xvi, No. 22, p. 20.

Van Ricklinghausen: *Allegemeine Path.*, 1883, p. 440.

Houng: *Arbeiten aus d. Path. Anat. Inst. zu Tübingen*, 1891, Bd. i-i, Heft. i-i, p.180.

Sauterau: *Thèse de Paris*, 1870.

Dock: "Chloroma and Its Relation to Leukæmia," *Amer. Jour. Med. Sci.*, 1893, July.

Pinkus: Nothnagels' Encycloped., *Prac. Med.*, Amer. Ed., Vol. lx., 1905.

Osterwald: *Arch. f. Ophthal.*, Bd. ii-xxii, p. 203.

Leber: *Arch. f. Ophthal.*, 24 Jahr., 1878, p. 195.

Türck: *Münch. Med. Wochenschr.*, 1902, No. 3, S. 126.

Heyden: "Das Chlorom," 1904, *Inaugeral Dissertation, Rostock.*

Bushke: *Berlin. Mediz. Geselschraft*, July 5, 1905.

Dock and Warthin: "A New Case of Chloroma with Leukæmia," *Trans. Assoc. Amer. Phys.*, 1904.

De Graag: "Lymphatiscke Leukämis und Chlorum." *Geneeskundige Bladen*, 1904, Reg. in *Ergete d. Path.*, Bd. x, S. 760.

Krokiewiez: "Ein Fall von Chloroma multiplex," *Wiener klintherap. Wochenschr.*, 1905, No. 3.

Gulland and Goodall: "The Pathology of Lymphatis Leuthæmia and Chloroma," *Journ. Path. and Bact.*, June, 1906.

Pfeiffer: "Ueber das Chlorom des Schädels, ein typisches Krankheitsbild," *Muench. Medizin. Wochenschr.*, Sept. 25, 1906, p. 1909.

Lang, Gustave: Monographie du Chloroma, *Archives générales de médicine*, November, 1893, and January, February, March, 1894.

Lang, Gustave: De quelques cas récents de chloroma ou cancer vert, *ibid.*, July, August, September, 1898.

Schmidt, Otto: Ueber einen Fall von Chlorom, *Inaug. Dissert.*, Göttingen, 1895.

Ayers, S. C.: A Case of Chloroma. *Journal of the American Medical Association*, 1896. vol. ii.

Alt, Adolf: Ayer's case, with additional microscopic examination and photograph, *Amer. Journal of Ophthalmology*, March, 1897.

Koerner, Prof. O.: Ein Fall von Chloroma beider Schlaefenbeine, etc., *Zeitschrift f. Ohrenheilkunde,*

1896, Bd. xxix, p. 92; also *Archives of Otology*, 1897, vol. xxvi, pp. 289-293.

Lubarsch, O. (Koerner's case): *Zeitschrift f. Ohrenheilkunde*, Bd. xxxii, S. 129, and *Archives of Otology*, 1898, vol. xxvii, pp. 450 to 458.

Paviot et Gallois: Essai sur la vraie nature du cancer vert, *Lyon médical*, 1896, vol. xxxiii, p. 488-490; also, *Province médicale*, 1896, vol. x, p. 570.

Paviot et Fayolle: Un nouveau cas de prétendu "cancer vert d'Aran," *Province médicale*, 1897, vol. xi. pp. 139-141.

Rosenblath, W.: Ueber Chlorom und Leukæmia, *Deutsches Archiv. f. klin. Med.*, 1902, Bd. lxxii, pp. 1-30.

Risel, W.: Zur Kentniss des Chloroms (Based on one of Rosenblath's cases), *ibid.*, pp. 31-66.

Bramwell, B.: Notes on a case of Chloroma and of Three cases of Lymphatic Leukima, *Scottish Medical and Surgical Journal*, 1902, vol. x, p. 219; also *The Lancet*, 1902, vol. i, p. 520; *British Medical Journal*; 1902, vol. ii, p. 453.

Dunlop, G. H. Melville: A Case of Chloroma, with Pathologic Report, and some notes Descriptive of the Disease, *British Medical Journal*, 1902, vol. i, p. 1072.

Sutherland, L. R.: A Case of Chloroma, *Scottish Med. and Surg. Journal*, 1902, vol. ii, p. 137.

Sternberg, Karl (demonstration): *Wiener klin. Wochenschrift*, 1902, p. 55; also Ueber lymphatische Leukamie, *Verhandl. der Deutsch. Path. Gesellschaft*, 6 Tagung, 1903, pp. 30-33.

Tuerk, W.: *Wiener klin. Wochenschrift*, 1902, pp. 55-56.

Harris, T., and Moore, F. C.: Manchester Pathological Society, *The Lancet*, 1902, vol. i, p. 525.

Guembel, Theo.: Ueber das Chlorom und seine Beziehung zue Leukæmie, *Virchow's Archiv.*, Bd. clxxi, pp. 504-523.

Weinberger, Maximillian: Gesellsch. f. inn. Med., February 26, 1903; *Wiener klin. Wochenschrift*, 1903, p. 461.

Trevithick, E.: A Case of Chloroma, etc., *The Lancet*, July 18, 1903; also a note, *ibid.*, p. 530.

Hichens, P. S.: Some Remarks on a Case of Chloroma, *British Medical Journal*, December 26, 1903.

Klein, S., and Steinhaus, J.: Ueber das Chlorom, *Centralblatt f. allg. Path. und Path. Anat.*, 1904, No, 2. Bd. xv.

Hitschmann, Eduard: Ein Fall von Chlorom mit ausgebreiteten gruenen Hautinfiltraten, *Wiener klin. Wochenschrift*, 1905, p. 1470.

Stevens, J. L.: A Case of Acute Leukemia with Numerous Subcutaneous Lymphomatous Nodules, Chloroma, *Glasgow Medical Journal*, 1903, Bd. ix, pp 1-12.

Beneke: Verhandlungen der Deutsch. Path. Gesellschaft, 1898. (Discussion in paper of Hansemann on Acute Leukemia.)

Dozda: Gesellsch. f. inn. Med., October 23, 1902; *Wiener klin. Wochenschrift*, 1902, p. 1236.

Arnold and Becker: *Graefe. Arch. f. Ophthal.*, 1872, Bd. xviii, Abth. 2 S. 56.

Delens: "Observations de tumerus lymphadeniques des deux orbits," *Arch. d'Ophthalmal*, 1886. B vi, S. 155.

Gayet: *Arch. d'Ophthal.*, 1886. B. vi, S. 15.

Bernheimer: HHeidelberger Ophthal. Gessel., 188, S. 199.

Treasher Collins: *Ophthal. Hosp. Reports*, 1891, vol. iii-xiii, T. Sec. 248.

Oxenfeld: *Graefe's Arch. f. Ophthal.*, Bd. i-xxxvi, 1891. Abth. 4, S. 103.

Dunn: *Ophthalmic Review*, 1894, No. 151, S. 167.

Baerma: *Graefe's Arch. f. Ophthal.*, 1894 Bd. xl, S. 219.

Sanches: *Thése de Paris*, 1895.

Panas: *Semaine Médicale*, 1895, No. 5, S. 37.

Kerschbaumer: *Graefe's Arch f. Ophthal.*, 1895, Bd. Ate. 3, S. 99.

Bock: *Wiener Medic. Wochen.*, 1898, No. 32. S. 1559.

Hochheim: *Grcefe's Arch f. Ophthal.*, 1902, Bd., Ate. 2.

FEMORAL HERNIA: A NEW OPERATION FOR THE RADICAL CURE.*

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IN examining the literature of femoral and inguinal hernia one fact becomes strikingly apparent. Recurrences are reported as very rare, after operation for either variety; but whereas the operative methods for the relief of the inguinal variety are relatively few, the operations for the cure of femoral hernia are legion. I have lately had occasion to look over this literature, and while my list is by no means complete, I have been able to find over seventy methods and modifications. Let me recall right here a well-known and sound empiricism in medicine, that when there are many remedies it is a sure indication that none is absolutely curative. This doctrine, while partly applicable to the methods for cure of femoral hernia, is not entirely so; it is in part due to the many and intricate anatomical structures in relation to femoral hernia, rendering this a broad field for the exercise of ingenuity on the part of surgeons. My reasons for offering a new method of operation is not, however, merely a question of exercise of ingenuity on my part, but is rather the outcome of a long-continued dissatisfaction with the present methods in vogue.

These methods either violate certain general and accepted principles in the cure of hernia, or if presumably based on sound principles, theoretically violate these principles in their execution.

These principles are the following: 1. Firm closure of the peritoneal investment of the hernia, at the point where it dilates into the general peritoneal cavity; by this I mean, that no opportunity shall be given for the formation of a peritoneal dimple, which could again form the starting point for a recurrence. 2. The placing of a firm and permanent barrier of tissue, just in front of the peritoneum.

Let us now see how these principles apply in the commonly performed operations for the radical cure of femoral hernia. It would carry me far beyond the limit of my time, were I to consider successively all the seventy odd or more methods which have been suggested, but as they are all more or less merely modifications of certain well-recognized methods, it will suffice if I take these methods in groups.

I. The method which merely ligates and extirpates the sac, and sutures the overlying skin (Socin). While it cannot be denied that even by this, the simplest of all methods, an occasional radical cure can be obtained, its inefficiency in general is so manifest that it hardly merits consideration.

*Read before the Medical Society of the State of New York, January 30, 1907.

II. The group of operations which are performed through an incision in the femoral region. This is the most important group, and has the greatest number of followers. The underlying principle is theoretically correct in these operations, inasmuch as their aim is to accomplish a high ligation of the peritoneum and a firm closure of the canal. Practically, however, the technical difficulties are such, that these principles cannot be attained. The saphenous opening is situated at too great a distance from the internal opening of the sac, to permit of a flush closure of the peritoneum, even when there are no adhesions, and when the sac is put upon the stretch to its outmost limits; the result will be, that in most instances a smaller or larger dimple remains, which may be the starting point of a subsequent recurrence. Secondly, it is difficult, if not impossible, to introduce the sutures for an effective closure of the canal. Some of these operations (von Frey, Billroth, Czerny, Schede, Bottini, Guarneri, etc.) recommend the suture of Poupart's ligament to the fascia covering the pectineus muscle. This method would be comparable to what we should accomplish in an operation for inguinal hernia, were we merely to ligate the sac and suture the pillars of the external ring. It is like inserting a cork in the opening made by the bursting of a high-pressure water main; there is no doubt that there would be temporary relief, but it would be only a makeshift after all.

Recognizing these objections, the advocates of the second method (Bassini, Berger, De Garmo, Coley, etc.) of operating through the saphenous opening, attempt to attain a firmer and more lasting closure of the femoral canal, by suturing Poupart's ligament to Cooper's ligament and the periosteum of the pubic bone. Theoretically this method would be ideal, but technically it fails to accomplish the purpose for which it was intended. I have performed this operation dozens of times, but never could satisfy myself that I had actually attained a permanent hold with my suture, either of Cooper's ligament or of the periosteum of the pubic bone. Cadaver operations and subsequent dissections have also amply proven to me the inefficacy of the method. In the first place, Cooper's ligament is very deeply placed; as a matter of fact, it is within the pelvis, and must be reached more or less blindly; in the second place, the obliquity between Poupart's ligament and Cooper's ligament is too great to permit of accurate adjustment.

This was excellently brought home to me by a case recently under my observation:

Miss E. McK. was operated upon by me for a right-sided femoral hernia December 29, 1904. In this operation I followed exactly the steps as described by De Garmo. Primary union resulted, and patient was discharged cured January 18, 1905. Subsequent examinations, on repeated occasions, showed a permanency of the cure.

In March, 1906, I was compelled to perform a laparotomy upon this patient, the indication being given by a stenosis of the sigmoid flexure. I availed myself of the opportunity to examine the operated femoral hernia from the abdominal side; and much to my surprise I could introduce my index finger to a depth of two inches, practically to the saphenous opening.

Here, therefore, was a case of a so-called "radical" cure for femoral hernia, which would have been pronounced as such by everybody after an external examination. The cure, however, was evidently only an apparent one, as there was again a sac of a depth of two inches, allowing ample opportunity for a recurrence or strangulation.

Fortunately such opportunities for examination are very rare, but I am confident that were these opportunities more frequent we would find an appreciable number of such recurrences after the other so-called methods of "radical cure."

III. It was recognized by many that the important part of the operation was the exact approximation of Poupart's ligament to the pubic bone, and many are the operations devised with this object in view. Roux nails Poupart's ligament to the pubic bone with a "U" shaped metal tack. I presume that in a certain number of cases such a tack would heal in; even did this occur, it is quite probable that eventually it would loosen from its bed, become extruded, and allow the release of Poupart's ligament from its new attachment. In addition there is the disadvantage of having a foreign body in the tissues, with its complications. Nicoll bores holes in the pubic bone, through which he sutures Poupart's ligament to the pubic bone; while Cavazzani employs the obturator foramen to accomplish the same purpose. It is questionable to me whether any of these operations will find many followers.

IV. Recognizing the difficulty of a proper approximation of Poupart's ligament to the pubic bone, partial or total divisions of Poupart's ligament have been devised (Fabricius, Delagniere). The very division of this important structure is a drawback to the operation, as it invites new avenues for the occurrence of herniæ.

V. The autoplastic (fascial, muscular, periosteal and osteal) operations (Salzer, Prokunin, de Garay, Mikulicz, Trendelenburg, Pollya, etc.) have no doubt a place in the radical cure of some rare forms of femoral hernia, and once in a great while recourse might be had to one or the other.

VI. The heteroplastic operations (Salzer, Witzel, etc.) have certain inherent disadvantages which must be reckoned with in every case, and should not be recommended unless help cannot otherwise be obtained.

VII. Finally, the group in which the incision is made above Poupart's ligament. To my mind this is the ideal method of approach, as it permits of manipulations at that portion of the hernial canal where most benefit can be derived. This group can again be divided into two subdivisions. Into the first group (Lotheisen, etc.) belong those operations which unite the internal oblique and transversalis muscles to Cooper's ligament. This is undoubtedly an excellent operation, but from anatomical dissections I have gained the impression that after its performance there is still an open space between the outer edge of the attached muscles and the point of entrance of the external iliac vein into the thigh, which might, perhaps, be the avenue for the formation of another hernia. Into the second subdivision (Ruggi, Edebohls, Cushing, etc.) belong those operations which permit of a high ligation of the hernial sac, and a firm closure of the internal femoral ring; in other words, they carry out both principles which I have laid down as fundamental. They have, however, the disadvantage that Poupart's ligament is dislocated so far backward that the integrity of the inguinal region is placed in jeopardy; in fact, there have been reported cures of the femoral hernia, but the subsequent formation of an inguinal hernia has marred the otherwise perfect result.

To overcome these objections, after satisfying myself upon the cadaver of its feasibility and firm closure, I have devised the following operation:

The operation proper can be divided into following steps:

1. For most cases a cutaneous incision, two to two and one-half inches in length, parallel with and about one inch above Poupart's ligament, will be perfectly satisfactory; in exceptional instances, to be explained later, a short vertical incision may be added at the internal end (Fig. 1).

2. Division of the aponeurosis of the external oblique in the direction of its fibres.

3. Retraction of the lower flap exposes Poupart's ligament, the posterior edge of which forms a convenient guide to the neck of the sac. Retraction of the upper flap exposes the conjoined tendon and the internal oblique and transversalis muscles. These two muscles, as well as the exposed round ligament (or spermatic cord) are retracted upward with a blunt hook, exposing the transversalis fascia; this is also incised and retracted, in order to expose the neck of the sac (Fig. 2).

4. The sac, just before it dips beneath Poupart's ligament, is now incised, and its contents are reduced in the usual manner. Whatever operative procedures are indicated in adherent or strangulated forms can be performed; the strangulating ring can be easily incised under the guidance of the eye, and abnormalities of the obturator artery may be readily avoided.

5. A dressing forceps is introduced through the internal femoral ring to the fundus of the sac, and if no adhesions are present (particularly if the hernia is of fairly recent origin), the sac can be entirely everted, and pulled through the ring, so that the hernia is converted into a direct inguinal hernia (Fig. 3). If this simple procedure is impossible, the sac

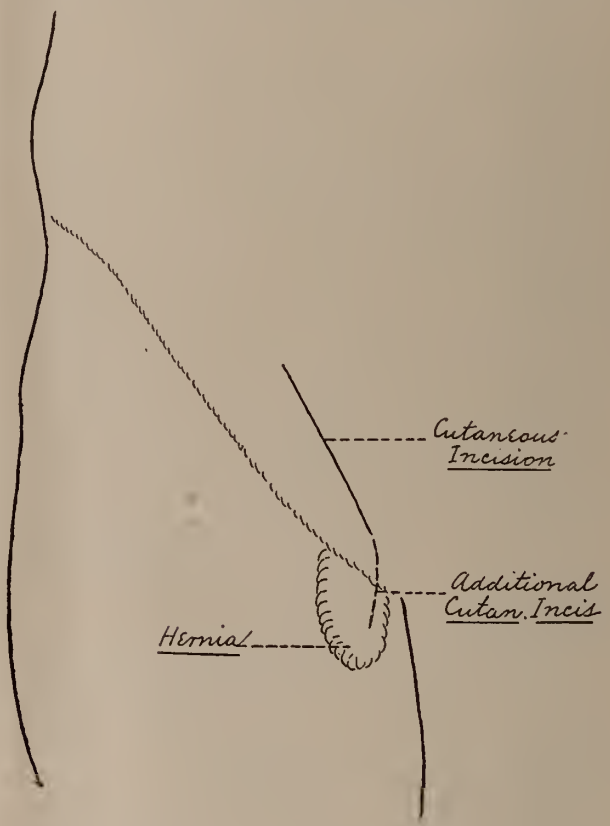

Fig. 1. Showing the ordinary cutaneous incision; dotted line indicates the occasionally necessary supplementary incision.

may be dissected out, either by retracting the lower skin flap, or through a short perpendicular incision, continuous with the original incision; or the sac may be cut off at the internal femoral ring, and the distal part can be obliterated by a small incision over the saphenous opening, with subsequent drainage. The neck of the sac is now obliterated flush with the peritoneum either by transfixion and ligature, or by suture.

6. Closure of the internal femoral ring. In order to expose the ring properly, the peritoneum is pushed bluntly upward with a broad flat retractor. When this is done the following anatomical structures are presented: Anteriorly Poupart's ligament, externally the external iliac vein and the deep epigastric vessels, internally Gimbernath's ligament, and posteriorly, but on a slightly upper level,

Cooper's ligament, and the pectineus muscle and fascia; while above is the retracted peritoneum, transversalis fascia, internal oblique and transversalis muscles, and aponeurosis of the external oblique. The internal femoral ring is thus perfectly exposed, and with the greatest ease and safety we may proceed to close it. With a strong, small, full-curved needle, armed with strong chromicized catgut, sutures are passed between Cooper's ligament and the periosteum of the pubic bone on the one hand, and Poupart's ligament on the other, over the site of the femoral ring (Fig. 4). When these sutures are tied, it will be seen that Poupart's ligament has been approxi-

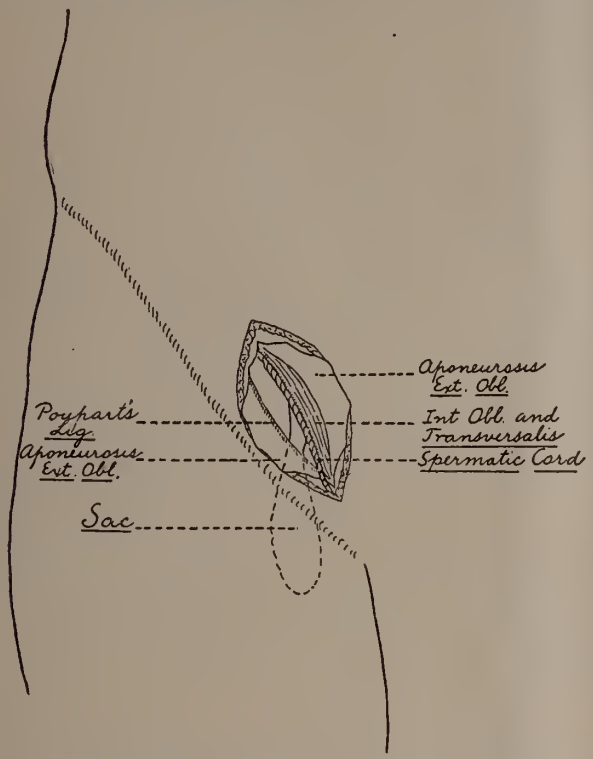

Fig. 2. Shows the parts after division and retraction of the aponeurosis of the external oblique.

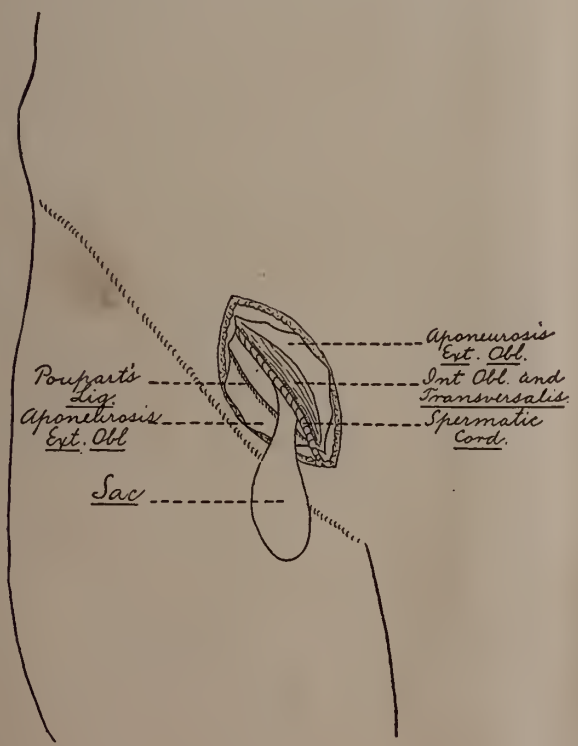

Fig. 3. Shows the hernia after it has been converted into a direct inguinal hernia.

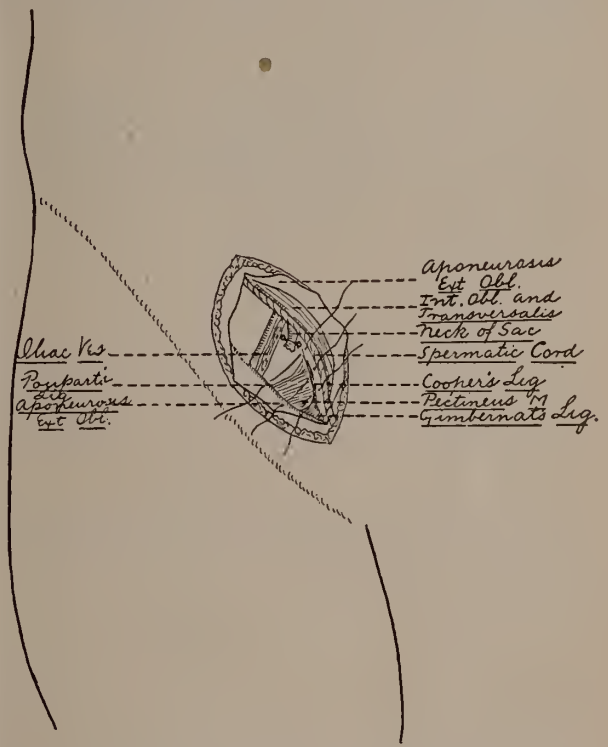

Fig. 4. Shows the parts after the neck of the sac had been ligated and the peritoneum retracted. All the deep structures are exposed and three sutures are passed to close the internal femoral ring.

mated to the pubic bone, thereby completely obliterating the internal femoral ring. In a majority of instances two or three sutures will suffice to entirely close the ring. The most external suture goes as near as possible to the external iliac vein, without constricting it; while the most internal suture includes also Gimbernath's ligament (Fig. 5).

7. Thus far the operation resembles in most particulars that of Ruggi; but as I have already stated, the displaced Poupart's ligament renders the patient predisposed to the occurrence of an inguinal hernia. In order to obviate this, the next series of sutures is passed in the following manner. The round ligament, or spermatic cord, having been replaced into its normal position, chromic gut sutures to the number of four or five are passed, including the internal oblique and transversalis on the one hand, and Poupart's ligament just anteriorly to the first series of sutures, on the other; care must be taken to leave just sufficient room at the inferior angle for the emer-

gence of the round ligament or spermatic cord. When these are tied, it will be seen that any possibility of a new formation of an inguinal hernia has been excluded (Fig. 6).

8 Suture of the aponeurosis of the external oblique, and of the skin.

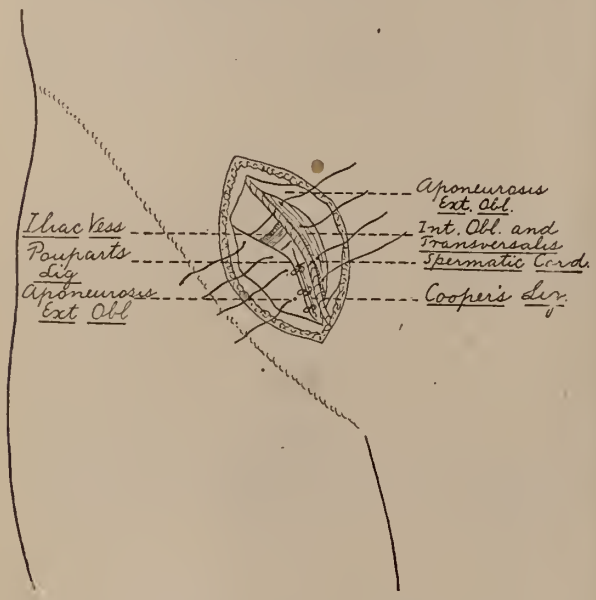

Fig. 5. The deep sutures closing the internal femoral ring have been tied; and four sutures have been passed to prevent the occurrence of an inguinal hernia.

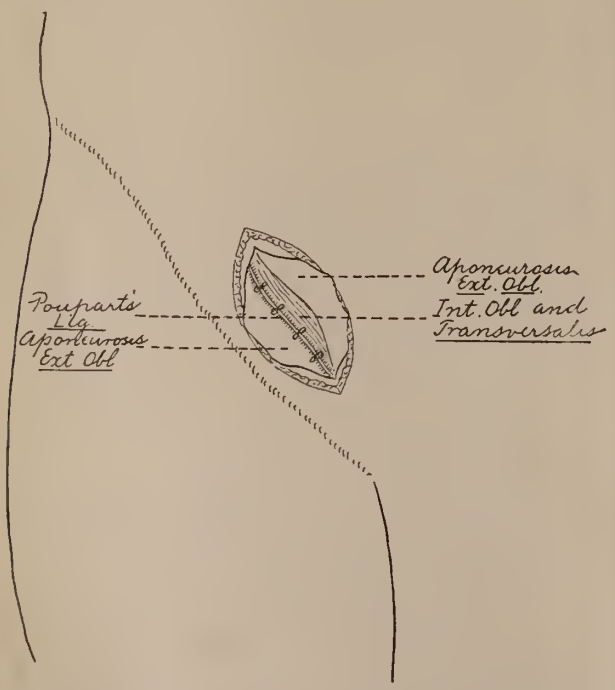

Fig. 6. Condition after the approximation of the internal oblique and transversalis to Poupart's ligament. To be followed by suturing the cut edges of the aponeurosis of the external oblique and of the skin.

Thus far I have operated upon seventeen cases by the method outlined above, one of which being bilateral; my statistics therefore embrace eighteen operations; two further cases were operated by Dr. A. G. Gerster, and one by Dr. Howard Lilienthal, with my assistance.* The first operation was performed in May, 1905; the last one in July, 1906. Two cases were strangulated, while one case was a recurrence after a Bassini operation, that had been done only three months before at another institution. The herniæ varied in size from that of a plum to an orange. I have examined all the patients within the last week or two, and in no instance has there been the slightest recurrence.

I am fully aware of the fact that no definite conclusions can be drawn from this relatively small number, particularly after so short a period of observation. Speaking candidly, I should not have published the operation at this time, for the reasons stated; but I do so at the urgency of various colleagues, who have witnessed the operation, and who have been struck by its feasibility. I regard this communication, therefore, merely as a preliminary report. Theoretically the operation I have described can be regarded as perfect, as it fulfills all the necessary requirements in regard to the cure of any form of hernia. In addition, it should appeal to every surgeon from the standpoint of simplicity and feasibility.

I do not know that I can lay claim to originality in this operation, because if analyzed, it will be seen that it is practically a combination of the Ruggi "femoral" and Bassini "inguinal" methods. In justice to myself, I can say that I have devised and thought out this method before I became aware of Ruggi's efforts. My attention was called to Ruggi's method long after I had done my first operation; at that time no copy of his original paper existed in New York, but since then I have received a copy from Prof. Ruggi himself, and, as I have said, some of the first steps are similar in both operations. Furthermore, it is not impossible that other surgeons, realizing the shortcomings of the more frequently practiced methods for the cure of femoral hernia, have performed an operation similar to that which I have described. As a matter of fact, long after I had done my first operation, my attention was called to a communication by Silver, describing an operation in some respects similar to the above. The advantages of the operation are so obvious, that it is surprising that it had not been thought of long ago. Even should it be shown that others have done the operation independently of me, this much may at least be granted in favor of this communication, that it calls attention to a better, safer and easier method for the radical cure of femoral hernia.

*Since writing the above, I have operated upon eight further cases, increasing thereby the number to twenty-nine.

THE TREATMENT OF DIFFUSE SEPTIC PERITONITIS FOLLOWING APPENDICITIS: A REPORT OF ONE HUNDRED AND FORTY-FIVE CASES TREATED BY THE ELEVATED HEAD AND TRUNK POSITION.*

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THIS paper is founded upon a study of one hundred and forty-five consecutive cases of diffuse septic peritonitis following appendicitis occurring in the period from October 17, 1899, to January 1, 1907. Of these cases, sixty-six were operated upon by Dr. George R. Fowler, and seventy-nine were operated upon by myself. The reasons which led us to employ the present method of treatment were set forth in our previous articles upon the subject.†

Seventy-nine cases were operated upon at the German Hospital, with twenty-six deaths (67 per cent. of recoveries); thirty-five cases at the Methodist Episcopal (Seney) Hospital, with fifteen deaths (57 per cent. of recoveries); twenty-eight cases at the Brooklyn Hospital, with eighteen deaths (35 per cent. of recoveries); three cases in private houses, with no deaths. Of the total number fifty-nine died (59 per cent. of recoveries).

In January, 1904, I reported one hundred consecutive cases of diffuse septic peritonitis following appendicitis, with but thirty-three deaths, and hoped to later show a still further decrease in the terrible mortality of this affection. Our hopes have not been realized, and a consideration of the time and cause of death in these cases will show why a marked improvement in the statistics is improbable.

Of the fifty-nine fatal cases, six died in the course of the operation, making a recovery percentage of those surviving the operation of about sixty-two per cent. (eighty-six recoveries in one hundred and thirty-nine patients).

Twenty-eight cases died during the first twenty-four hours. Of these two died in less than six hours, one of shock and one of septic endocarditis; ten died in twelve hours of combined shock and sepsis, in two of these cases there was a large amount of fecal matter in the peritoneal cavity; sixteen died in the second twelve-hour period of combined shock and sepsis, one of these being a child of four years. In none of these twenty-eight cases could more than a moderate elevation (seven inches) of the head of the bed be used. They were all profoundly septic, and nothing could have saved them. We do not refuse operation to these almost moribund patients, for occasionally miraculous recoveries occur. The percentage of those patients surviving the operation twenty-four hours is seventy-seven and one-half per cent. (one hundred and eleven cases with twenty-five deaths).

Of these twenty-five deaths ten died during the second day, eight of profound sepsis, one of meningitis, one of lobar pneumonia; during the third day, five cases died of profound sepsis, one of these a child of three years; on the fourth day, four cases died of profound sepsis, one a child of four years; on the fifth day, one died of septic pneumonia; on the sixth day, one of profound sepsis; on the eighth day, one of septic ulceration of the stomach and general sepsis; on the thirteenth day, one of meningitis and one of septic pneumonia and right-sided empyema; on the thirty-second day, one of septic endocarditis.

The operative technic employed in the treatment of these cases consisted of an incision not larger than absolutely necessary to deal quickly with the primary focus of infection. Limiting the size of incision prevents evisceration. The accessible infection in the neighborhood of the wound is sponged away with stick sponges wrung out of 1-3000 bichlorid of mercury solution. The primary focus of infection is isolated by laparotomy sponges wrung out of bichlorid solution. Both stick and laparotomy sponges are wrung out of bichlorid solution in order to increase their capillarity. The laparotomy sponges are used so that they may absorb quantities of infection while the primary focus is being removed. This saves time in the final cleansing. The appendix is removed, preference being given to the inversion of the stump and purse-string method of Dawbarn, unless the wall of the cecum is too much infiltrated to allow of suturing, in which case the stump of the appendix is ligated with chromic catgut. In either event the thermocautery is employed to disinfect the stump and sever the appendix. The immediate neighborhood is flushed with a solution of equal parts of peroxide of hydrogen and an aqueous solution of bicarbonate of soda used slightly warm. The foaming peroxide soda solution is washed away with saline solution at a temperature of 110° F. Each solution is contained in a separate irrigating jar having a large outlet and large rubber tube and glass nozzle to allow of rapid work. The area is dried and laparotomy sponges removed. Accessory collections of pus in the pelvis, under the liver and amid neighboring coils of intestines, are searched for, opened up and irrigated in a similar manner. In the first series of one hundred cases it was our habit at this stage to introduce the peroxide soda solution through a Chamberlain douche nozzle first into the pelvis, and then into other parts

*Read at the 101st Annual Meeting of the Medical Society of the State of New York, Albany, January 30, 1907.

†G. R. Fowler: *Medical Record*, January 16, 1900; *Medical Record*, April 14, 1900; *Medical News*, May 28, 1904.

of the abdominal cavity. In the last forty-five cases the peroxide soda solution has not been used above the umbilicus unless introduced into separate collections of infection. Finally the pelvis and abdomen is completely flushed out with saline, the Chamberlain douche nozzle being moved from place to place. The rapid escape of the solution is facilitated by introducing the fingers into the wound. At no time are the intestines allowed to escape. The flushing continues while the few necessary sutures are being introduced.

The average time taken in completing the operation as outlined has been twenty minutes. These cases should be kept under an anesthetic as short a time as possible, and all assistants and nurses should be trained in their various duties; the solutions, cautery, instruments and dressings should be ready to the hand.

As regards drainage, the cases have differed. Wherever there existed necrotic abscess cavities, whether single or multiple, these have all been drained by wicking or gauze drains brought out of the wound, in addition to whatever other form of pelvic drainage was employed. Wherever tube drainage was employed the interior of the tube was lightly packed with a narrow gauze strip to insure capillary drainage. In rubber tubes placed in a posterior colpotomy opening several gauze strips are led to each side of the pelvis. The dressing of tubes emerging on the abdominal surface is done independently of the wound by nicking a twelve inch square of rubber dam in the center, putting the rubber on the stretch and pressing the neck of the tube through the opening thus made. The upper end of the capillary strip is placed in the center of a yard of loosely rolled gauze. The edges of the rubber dam are caught up and tied so as to form a bag in which the gauze is enclosed. The wound is dressed with plain gauze held in place by adhesive plaster. The binder is split to allow the tube dressing to emerge. Thus pressure upon the tube is avoided and the tube can readily be aspirated and a fresh dressing applied.

We must omit from the consideration of drainage the six cases which succumbed in the course of the operation.

Of the remaining one hundred and thirty-nine, one hundred and one were drained each by a single glass tube, its lower end resting in the depth of the pelvis, its upper end emerging from the lower angle of the wound. Of these cases thirty-eight died; seventy-two and one-fourth per cent. of recoveries. Five cases were drained each by two glass tubes, one in each side of the pelvis and emerging on opposite sides of the abdomen; all of these cases died. Six cases were drained each by a single glass tube emerging through a median incision, the appendical wound being completely closed; three of these cases died.

One case was drained by a single glass tube emerging through the lower angle of the wound, but the operative technic differed from the others so drained in that no irrigation of the peritoneal cavity was employed; this case recovered. One case was drained by two rubber tubes emerging through the lower angle of the wound; this case died. Two cases were drained each by a rubber tube led to the bottom of the pelvis and emerging through the flank; one of these cases died. Six cases were drained by a large rubber tube through the posterior vaginal fornix. Of these in five the appendical wound was closed completely, in one a glass tube was also used emerging at the lower angle of the wound; one of these cases died. Fourteen cases were drained by multiple gauze and wicking drains led to various parts of the pelvic and abdominal cavities; four of these cases died. Three cases were completely closed without drainage; all recovered.

For consideration of the possible effect the kind of drainage employed may have upon the final result we have a total of one hundred and sixteen cases drained by glass or rubber tubes placed in the pelvis and emerging on the abdomen or flank, with forty-eight deaths; fifty-eight and one-half plus per cent. of recoveries. Fourteen cases were drained by multiple gauze drainage, with four deaths; seventy-one and three-sevenths per cent. of recoveries. Six cases were drained per vaginam (one had an additional glass tube through the abdominal wound), with one death; eighty-three and one-half of recoveries. Three cases were closed without drainage, with no deaths.

Directly after operation the patient is placed in the elevated head and trunk position, even on the cart conveying him to bed.

At the German Hospital we employ a frame consisting of two side supports and a removable central bar connecting the two. This is placed beneath the frame at the head of the bed. The side supports have each three holes at different levels into which the connecting bar may be introduced according to the height desired. The first hole gives an elevation of seven inches, the second thirteen inches, the third twenty inches. The highest elevation is used except in shock, when the lowest is employed for the first few hours. A large folded pillow is placed against the buttocks and through the fold of the pillow is passed a stout bandage which is tied on each side to the head of the bed. This allows the patient to rest comfortably and maintains his position without exertion on his part. Moreover, the knees being flexed relaxes the abdominal wall, and this is always grateful to the patient. In place of the frame hardwood blocks may be placed under the head posts of the bed to secure the desired elevation.

A saline enema of one pint to one quart is

given every three or four hours for four to six times. If gas does not pass freely a high stimulating enema is given following the last of the saline enemas. Strychnine and whiskey are administered hypodermically to combat shock. Fluids by mouth are given frequently in small amounts. Persistent vomiting is rare in this position. When it occurs it is usually the regurgitation of gastro-intestinal paresis. In such cases the stomach is washed out at intervals to prevent vomiting and relieve epigastric distress. Dilatation of the stomach and duodenum is watched for, as it would seem that the position would predispose to it, but as a matter of fact it has not been observed in these cases. Nor has thrombosis of the femoral or internal saphenous veins been observed.

The glass drainage tube is redressed every four to six hours, the gauze strip removed and the contents evacuated. The gauze strip is soaked for the first three or four days, and there is usually one-half ounce to one and one-half ounces in the tube. After three or four days, when the discharge is lessening, a smaller rubber tube is introduced through the glass tube and the glass tube withdrawn, leaving the rubber tube in its place. This is shortened from day to day and finally replaced by a strip of plain gauze.

The average stay in bed of the cases recovering was twenty-two days. This comparatively long stay in bed was not as a rule necessitated by the wound condition, but by the weakened general condition of the patient. Blood examination made in many cases three to four days after the operation showed great deterioration in the red blood cells with secondary anemia due to the toxemia. All the cases, with two exceptions, showed an immediate and decided improvement of the peritoneal condition. Vomiting was allayed, gas passed, distention was diminished. The two exceptions were, one a case drained per vaginam, which died on the second day of profound sepsis with no abatement of the peritoneal symptoms, the other a case in which the appendix had sloughed off from the cecum and by adhesion had caused an obstruction of the ilium with subsequent intestinal paresis. In this case several primary enterostomies were done and the distended intestine emptied. There was no abatement of the paresis and the patient died on the second day. The effect upon the general symptoms of fever and high pulse is rapid or slow according to the amount of infection already in the blood.

In conclusion I would state the salient points in the treatment of these cases as follows: 1. A small incision and the avoidance of eventration. 2. Thorough cleansing of the primary focus of infection and removal of the appendix. 3. Evacuation and cleansing of all accessory abscess cavities and the pelvis before washing out the peritoneal cavity. 4. A rapid systematic flushing of the peritoneal cavity with hot saline. 5. The continuance of the saline flushing until the sutures are placed, and for the most part, tied. 6. The provision of proper drainage for the pelvis either by means of a large glass tube containing a capillary drainage strip emerging through the lower angle of the wound, or in females by a large calibre rubber tube filled with wicking passed through a posterior colpotomy incision. 7. The drainage of accessory abscess cavities with gauze or wicking. 8. The elevation of the head of the bed to accelerate the drainage of septic fluid into the pelvis, whence it can be removed through the tube, or in case of vaginal drainage find a ready exit.

I would also state that there are certain cases of diffuse septic peritonitis which may be safely closed without drainage. These are cases in which there are no necrotic areas and in which the serous covering of the intestine is not "blistered" or desquamated, or swollen and infiltrated. It is my firm conviction, however, that cases for complete closure should be carefully selected and can only be safely selected by an operator of wide and constant experience. No more striking evidence could be adduced in support of drainage than the frequency with which secondary abscesses form in these desperate cases. They do not form because of the drainage, but in spite of it, and often they can be easily opened through the drainage tract.

THE PHYSIOLOGICAL THERAPY OF SANITARIUM TREATMENTS.*

By Dr. BEVERLEY O. KINNEAR,
CLIFTON SPRINGS.

THE aim of this paper is to excite deeper general interest in the physiological workings of the human body, and a study of the same, as a chief preliminary factor to accomplish the object of every earnest physician, viz.: the prevention as well as the cure of the disease.

By a thorough knowledge of physiology as taught to-day, we gain an insight of both the general and special activities of the individual economy in health, and can then with comparative ease detect abnormal conditions, evident, perhaps, but not so easily understood, without this knowledge.

Besides, an exhaustive study of physiology includes and comprehends a familiarity with anatomy, combining, to a considerable extent, two invaluable studies in one.

I wish to bring before you to-day the effects of sanitarium treatments upon the circulation, as well as their action upon the vasodilator and vasoconstrictor nerves and centers.

For the past twenty-five years it has been my belief that one of the best methods of restoring diseased conditions to normal is to regulate the blood supply, or rather re-regulate it, so that the normal amounts of oxygen and nutrition may be carried to the affected parts, and the arterial,

* Read before the Medical Society of the State of New York January 30, 1907.

venous, and lymphatic circulations restored to healthy activity.

In a very instructive and thoughtful article by Dr. John P. Arnold, of Philadelphia, published in the *New York Medical Journal* for December 15, 1906, he says: "Alterations in the blood supply to any part are almost entirely controlled by the calibre of the arterioles. The changes in the calibre of the arterioles are regulated by the vasomotor mechanism." Again, "All curative measures must be directed to the restoration of the normal quality and quantity of blood to the part or parts affected. When we are able to do this, therapeautics will have become a science. To the accomplishment of this end, therapeutical research must be directed."

The query as to the existence of vasodilator nerves, now agitating the minds of histologists and physiologists, has long been settled in the affirmative, for the writer, from his clinical observation and experience, largely through the use of heat and cold over the spinal nerve centers.

I believe, then, with Dr. Arnold, that the restoration of the normal blood supply, in proper quantity as well as quality, will regenerate locally and generally in all forms of disease, where organic changes have not already taken place, which have induced an absolute destruction of healthy tissues.

The aim of the paper, then, is to demonstrate, if possible, that sanitarium treatments do effect such regeneration by restoring the equilibrium of the arterial circulation, whether the loss of that equilibrium be local or general.

The chief forms of disease treated in sanitariums are nervous cases, not insane, cases of rheumatism in its varieties, and a great number of chronic dyspepsias, both stomachic and intestinal, with their accompanying constipation or diarrhea, and the almost ever present anemia, the result of malnutrition. There are quite a large number of diabetic cases, and some of Brights, and many of that interesting diseased condition, polycythemia.

The advantage of sanitarium treatments lies in the immediate response of the physician to a hurry call, and the constant supervision of the patient by daily or frequent observation. A systematized life, in diet, exercise in and out of doors, rest, long hours of sleep, a staff of good nurses always at hand; the sanitarium atmosphere of repose, together with a great variety of treatments under one roof, including nearly all forms of electricity; which methods increase secretions and excretions when deficient and restore to normal, when in excess; relieve internal congestions, quiet the central nervous system, and as a result, the peripheral nerves, and restore a loss of equilibrium, to the systematic circulation, venous, arterial, and lymphatic.

These treatments are: hot air, Russian, Turkish, sulphur, sulphur-steam, and the arc and incandescent electric light cabinet—all of which induce profound perspiration, as well as molecular changes in the skin and deeper tissues and organs.

Electrical treatments are the cabinet bath just referred to, X-ray, blue light and high frequency currents; static, with its numerous applications, and galvanic and faradic currents given alone or in a bath. Stimulating, irritant and counter-irritant treatments under the head of the needle bath, cold bath, cold and hot douches upon the spine and body, salt rubs, with salt not too coarse, but sufficient to produce a pronounced rubefacient effect, stimulating rubs, and packs. Direct applications to the spine of heat and cold in alternation, vibration over the spinal interspaces, as well as local vibration, ice fomentations over the spine, and of sufficient width to cover the sympathetic centers, the spinal ice bag, and hot water bag of Chapman; spinal cuppings and fomentations; hand massage and machine massage for all parts of the body; the Nauheim bath for certain forms of heart disease, and a variety of other treatments.

Every one of these treatments act upon and influence the systemic circulation, venous, arterial and lymphatic, either by action upon the periphery of the body through the skin and sweat glands, or by effects induced upon the muscles and deeper tissues directly, or through nerve centers from applied local measures over the spine, or by reflexes arising from peripheral applications; or lastly by increased or decreased function of both sympathetic and cerebro-spinal centers. Such powerful effects upon the arterial circulation must be accompanied by metabolic changes, which in many cases give rise to speedy relief and ultimately often permanent cure.

That alterations in nutrition follow swiftly from these measures is proven by the fact that many patients at the outset of treatment lose several pounds of flesh, and after this poisonous or useless waste material has been excreted, they begin to put on weight and show symptoms of renewed vigor.

Others will gain in weight from the beginning of the treatment with a renewal of strength for a short time, and then present a condition of an overloaded portal circulation, and inaction of the liver and stomach, from the very activity of the circulation, and therefore the more active the processes of nutrition induced by the treatments.

In the latter case the system is ready to respond at once to the stimulus of a more active circulation; in the former, the organism first responds by getting rid of its useless disorganized or semi-organized tissues, and is thus prepared for a new start in the race for health.

It seems to the writer it may be considered an axiom that the vascular activities in an organ, or even in the majority of cells in warm-blooded organisms, regulate both their nutrition and function; and while this is true by simple clinical observation of the effects induced by vaso-

motor constriction and dilatation, which are under the control of the central nervous system, we are apt to forget that the central nervous system itself generates those nerve forces which control the arterial circulation, throughout the body, in normal or abnormal amounts, according to the quantity of arterial blood circulating actively within it—thus through the agency of the blood the nerve centers generate power which adjusts and regulates circulation and nutrition through the whole body outside the central nervous system, while this motor apparatus is also dependent upon the arterial circulation, for its own nutrition, and the proper or normal performance of its functions. Thus the blood is the life, and central nerve cells cannot manifest normal activities unless there is a normal flow of blood to, or within them. William H. Howell, in his Text Book of Physiology, page 548, after summarizing his general scheme regarding the vasomotor apparatus, says:

"It may be supposed that under normal conditions the activity of this mechanism is adjusted so as to control the blood flow through the different organs according to their needs.

"When the blood-vessels of a given organ are restricted, the flow through that organ is diminished, while that through the rest of the body is increased, to a greater or less extent, corresponding to the size of the area involved in the constriction. When the blood-vessels of a given organ are dilated, the blood flow through that organ is increased, and that through the rest of the body diminished, more or less."

If this be so, then hyperesthesias, excessive muscular contractions, abnormal secretions and excretions, vasomotor contraction and expansion, may be in many cases due to active hyperemia of the nerve centers, generating abnormal and excessive nerve currents.

This being so, one of the most effective methods of treating excessive functioning of nerve centers is to withdraw or expel from them the abnormal amount of blood circulating through them, and thus both quiet the excited centers, and by doing so subdue the peripheral manifestations, arising from the central excitation.

After seven years of experience in the use of sanitarium treatments, the writer is satisfied that their chief efficacy lies in their control of the systemic circulation, including that within the central nervous system. And it is to this statement—including that within the central nervous system—that I would particularly draw your attention. Let us take, for instance, cases of insomnia.

Physiology now teaches that during normal sleep there is not only contraction of blood-vessels within the cerebral substance, but at the same time there takes place arterial dilatation in the arm and foot. Referring to Howell's Text Book of Physiology, page 242, he says: "Making use of patients with a trephine hole in the skull, Mosso has been able to show that during sleep the volume of the brain diminishes, while that of the arm or foot increases. The apparent explanation of this fact is, that the blood-vessels in the body dilate, and receive, therefore, more blood, while a smaller amount flows to the brain." Dr. Howell found, by obtaining a plethysmographic record of the volume of the hand and part of the forearm, during normal sleep, the curve showed that during and after the onset of sleep, the blood-vessels in the arm slowly dilate, until between one and two hours after the beginning of sleep. "Shortly before waking, the arm diminishes in size, owing doubtless to the contraction of its blood-vessels, so that at the time of awaking it has practically the same volume as at the beginning of sleep."

Clinical observation of the simple fact we daily observe in the winter season, the condition of cold feet; and how impossible it is to obtain refreshing sleep while the feet are cold, even children know; so that it is not only true, apparently, that sleeplessness is due to hyperemia of the brain, but also, there cannot be undue dilatation of the arterial circulation in one part of the body, without resulting diminution of the same in other parts. This being so, the best method of overcoming insomnia is to use measures which will withdraw from the brain the excess of blood, and distribute it over the body.

I have adopted this treatment for many years, and have aided many patients suffering from this painful disorder. I have never yet found a case of insomnia of any duration without very marked coolness of legs and feet. I find that many cases of the slighter forms can be relieved by salt rubs, which dilate the capillaries of the skin, combined with massage, which induces more active circulation in the muscles and deeper tissues, and the induction of daily perspiration, by steam or Turkish baths, and at night hot medicated abdominal packs, foot and sitz baths.

In many light cases accompanied, as they are, by nervous tension, dysmenorrhœa in young women, dyspepsia, and constipation, the relief is prompt and striking. In cases of more obstinate type, the warm bath long continued at bedtime—and of its results Dr. Angell can give you a broader observation—will give excellent results. I also use in these cases the Chapman spinal ice bag, applied over the dorso-lumbar vertabræ, for an hour once or twice a day, as the case will bear, with excellent effects. The action of ice over the spine is to dilate the arteries controlled by the nerve centers over which it is placed, therefore in these cases, throughout the abdomen and legs, and in active circulation.

We can readily see, therefore, that these measures act by a rebalancing of the circulation; restoring to anemic tissues the normal blood flow, and therefore a normal nutrition, and relieving congested areas from hyperstimulation and its malnutrition.

Nothing would give me greater pleasure than to present to this society, case after case of rheumatism, nervous disease and congestive and other diseases, restored or relieved by

using measures which rebalance and restore the normal equilibrium of the arterial circulation, and thus generate healthy excretion through the venous and lymphatic systems, so that the processes of waste and repair return to their physiological basis, but time will not permit, and my paper is simply suggestive and not in the least dogmatic. My custom is always to examine the blood of almost every patient who comes under my care; the hemoglobin and red blood cell count. In many cases there is red blood corpuscle plethora, and this to me has come to mean a constant ptomaine poisoning due in the first place to the excessive quantity of blood, which widely distending both the arteries and arterioles, induces a sluggish condition of the circulation which checks normal osmosis and exosmosis, thus retaining within the system the waste products which are poisonous to the organism, and exhaust its vitality; but another effect, and equally injurious, developed by this polycythemia is a tendency to local congestions upon slight chills or over-exertions, and I feel satisfied that such states of plethora are a fruitful source from which arise abnormal mental conditions, arthritic deposits as well as muscular rheumatism, Bright's disease and congestive diseases of the mucous membranes in all parts of the body.

Such cases used to be bled, and a very good treatment it is, but almost obsolete with us, and the most effective measures with rapid relief to the patients are to reduce the diet to one-third or one-quarter of the usual fare, sweat the patient daily, give plenty of water to drink, insist on active exercise for short distances, gradually increasing to several miles per day, strenuous muscle massage, and long hours of rest at night.

Arterial hypertension we know to be present in certain organic diseases, but there are many such cases observed where no organic lesion can be diagnosed, and the majority of such cases I believe to be caused by errors in diet and the rush of the age, both of which will induce a tendency to dilatation of the circulation in the body above the waist, therefore hypertension of the arteries at the wrist and the temporal arteries, while at popliteal and arteries in the lower extremity the opposite condition will appear, for I have invariably found that such patients have cold legs and feet.

Such cases are best treated by massage, chiefly to the abdomen and lower extremities, the dorso-lumbar spinal ice bag, warm baths, sulphur or plain, as high as the waist, hot foot baths, salt rubs, preferably from the waist downwards, and the warm plain bath continued from thirty to forty minutes before retiring, for these patients almost invariably suffer from insomnia, or a profound sleep, which latter indicates pressure on the brain, and is almost a condition of coma, and from which the patient awakens unrefreshed or exhausted. Here I can requote from Howell's Text Book of Physiology, for this quotation illustrates precisely the symptoms presented.

"When the blood-vessels of a given organ are constricted, the flow through that organ is diminished, while that through the rest of the body is increased, to a greater or lesser extent, according to the size of the area involved in the constriction. When the blood-vessels of a given organ are dilated, the blood flow through that organ is increased, and that through the rest of the body diminished."

This quotation expresses precisely the state of the circulation in cases of hypertension, not due to organic lesions. The importance of a special study of the action of the sympathetic nervous system lies in the fact that arterial constriction may be specially referred to its ganglia, when we consider that by heat over the sympathetics hemorrhages may be checked, congestions dispersed, and incipient inflammations controlled by the centers over which the heat is applied.

These observations are also endorsed by experiments of those eminent men, Claude Bernard and Brown Sequard, which evidenced a contraction of arterioles in the face when a branch of the sympathetic was cut, and the severed end nearest the face was galvanically stimulated; while when the cut end of the chorda typani nerve nearest the submaxillary gland was stimulated by the galvanic current, the gland became active in secretion, while the arteries dilated to their fullest extent: the two experiments illustrating the control over the circulation in contraction and expansion, by simulating nerve currents so much so that it was declared by these physiologists that he who discovered any method by which the circulation of the blood could be controlled at the will of the physician, would open a new field, and widely efficient, for the prevention and cure of disease.

To some extent, at least, I believe that the treatments I have mentioned cover this ground.

THE FITTING OF GLASSES.

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IN the December number of the NEW YORK STATE JOURNAL OF MEDICINE, Dr. S. W. S. Toms, in behalf of the general practitioner, offers a few observations in an article, "The Science and Art of Fitting Glasses," which I read at the Centennial Meeting of the New York State Medical Society, January, 1906.

These observations and criticisms are, on the whole, made in a fair-minded manner, and I am indebted to Dr. Toms for his candid expression of opinion, even though it is not in accord with my own on several points un-

der discussion. There have been other observations made upon this same article, some fair and some unfair, and one medical journal has paid it the compliment of appropriating it entire without giving credit to the original publication. It is to answer the questions asked by Dr. Toms, and to make my own position on the several points raised in the discussion entirely clear, if I am able, both to the general practitioner and the specialist, that I venture to claim the attention of the reader.

1. *As to the value of the ophthalmometer in measuring the amount of the astigmatism.*—Dr. Toms says: "I do not rely on it (the ophthalmometer) for exactness." Then he reports two cases in which there appeared discrepancies between the amount and the axis of the astigmatism as indicated by the instrument and that indicated by the glasses accepted by the patient, with the following comment: "These two cases demonstrated that absolute dependence cannot be placed upon the ophthalmometer for exactness," with which comment I fully agree.

As long ago as 1892, in some rules laid down for the use of the ophthalmometer, I say*: "The ophthalmometer is not always *absolutely* perfect in its measurements of the eye, and never will be for that matter, or any other instrument, as long as the human eye remains a human eye and does not become a piece of machinery. No cast-iron mechanical rules will ever apply to a living acting tissue."

So we have no quarrel here, as *absolute perfection* was never claimed for the instrument by me or anyone else that I know of. What Javal claimed for the instrument was that in the great majority of cases it measured the astigmatism to within one-half diopter of the total amount present in the eye, when "with the rule" one-half diopter too much, and when "against the rule" one-half diopter too little. And such is the case as far as my experience goes. There are exceptions to this, of course, as with any other method, but long ago I laid down rules for detecting such discrepancies.† In these rules, which were among the very first to be formulated for the proper use of the instrument, it is distinctly pointed out, that when the astigmatism is "with the rule" one-half diopter is to be deducted from the reading of the instrument, and when the astigmatism is "against the rule" one-half diopter is to be added to the reading of the instrument. These rules are not *absolute*, and are not claimed to be. The only way to find out definitely the amount to deduct from, or to add to, the reading of the instrument is to go to the trial case. No matter how large the amount of the astigmatism indicated by the instrument, I always begin the test with the weakest plus cylindrical glass in the trial case, and gradually increase the strength of it (if it improves the vision) up to the point where it begins to make the vision worse, or, if plus cylindrical glasses are not accepted, I then try minus cylindrical glasses and increase same in strength until they cease to improve the vision, but not beyond that point. The cylindrical glasses accepted by this method of testing usually comes to within one-half diopter of the amount of the astigmatism indicated by the instrument. It may vary only one-fourth diopter, or it may vary as much as three-fourths of a diopter, and exceptionally it varies as much as one diopter or more, but this is rare. But, be that as it may, in these cases, as in all others with me, the comfortable acceptance of the trial lens is the final verdict. Just as Dr. Toms says it is with him and other oculists. From this it would appear that *absolute dependence* cannot be placed on any one method. Why does he expect absolute exactness with the ophthalmometer? So much has never been claimed for it. No, there must be brains back of all methods, and that is why the educated oculist need not fear the competition of the untrained optician.

2. *As to the value of the ophthalmometer as a guide in indicating the axis of the astigmatism.*—In my experience there is no other instrument nor any other method that approaches the ophthalmometer in exactness and rapidity in indicating the axis of the astigmatism. In cases of doubt, or where the trial lens differs from the reading of the instrument, I use all other methods at my command, and such has been my advice to others.

3. *As to the necessity and frequency of employing cycloplegics.*—Dr. Toms says: *"In low degrees of astigmatism,* where ciliary spasm practically always is present at all ages, a minus cylinder will invariably be preferred to a plus, especially by those under thirty-five years of age."

Now I challenge the correctness of this statement. Furthermore, I can prove it to be erroneous by numerous cases I have tested, both with and without a cycloplegic (a cycloplegic, mind you, atropin), where the patients accepted a weak plus cylindrical glass (+.25 D, or + .50 D), before a cycloplegic was used and the same strength glass when it was used.

Dr. Toms mistakes even the *normal* tone of the ciliary muscle for spasm of accommodation, if he thinks spasm of accommodation is present at all ages in low degrees of astigmatism. Why, may I ask, does he confine spasm of accommodation to low degrees of astigmatism? On this question of spasm of accommodation I am inclined to quote a high authority, Donders,* who says: "We have to distinguish different forms of spasm of accommodation. That which most frequently

New York Medical Journal, September 10, p. 295.
†New York Medical Journal, 1892.

*Donders: "Accommodation and Refraction of the Eye," p. 622 and 623.

occurs is nothing else than an exalted tone of the muscles concerned in the latter function. . . . Acute spasm of accommodation such as, for instance, is produced by Calabar, is undoubtedly very rare. I myself have never met with a clear case of it, and this may excuse my skepticism."

Dr. Toms, in order to confirm his extraordinary statement, that, "In low degrees of astigmatism, where ciliary spasm practically always is present at all ages," cites an illustrative case, to wit: A man, 40 years of age, had worn minus cylindrical glasses for one year, when after an attack of migrain, a strong mydriatic was used and the patient accepted plus sphero-cylindrical glasses. The following comment on this case is added: "The subsequent relief justified the use of the more scientific investigation of this case, *i. e.,* the employment of a cycloplegic."

The direct intimation here, by inference at least, is that those who do not habitually use cycloplegics would have failed in this case. The error of Dr. Toms is, he assumes that those who do not habitually use pseudo-cycloplegics have never believed in or used true cycloplegics, and do not now believe in or use them. This is a false, or, to say the least, a mistaken assumption. I repeat here what I have often expressed before in my writings, that I am a firm believer in cycloplegics, true cycloplegics (atropin, scopolamin, etc.), and use them when it is necessary, but *only when it is necessary, e. g.,* in cases where there is spasm of accommodation. But, just as positively, I am not a believer in these one-to-three-hour cycloplegics and their indiscriminate use in all cases and at all ages, as recommended by Dr. Toms. It will be admitted by all men of experience that these one-to-three-hour cycloplegics are of no value in cases of genuine spasm of accommodation, where a true cycloplegic must be used if we expect good results. This being admitted, why waste time with this drag-net of doubtful cycloplegics? They but serve to deceive those who use them indiscriminately into the belief that they have used a cycloplegic, with the result that they often fail to recognize the very cases that should be detected. I think I am just as capable of recognizing and detecting a case of spasm of accommodation without the employment of these admittedly useless cycloplegics in such cases as those who use such cycloplegics. In other words, in cases where there is really spasm of accommodation, one-to-three-hour cycloplegics are of no value, and where there is no spasm of accommodation they are not necessary.

If it is necessary to use a cycloplegic in all cases of refraction, as some of my confreres claim, then let them use a true cycloplegic, as atropin, and scopolamin. In fact, this very method of fitting glasses, that is, to use a cycloplegic (a true one) in all cases under forty years of age, was taught to me when I first came to New York; and, strange as it may seem, by D. B. St. John Roosa. Roosa was one among the very first men in this country to advocate the necessity of atropin in testing for glasses. However, that was in the days previous to the general use of the ophthalmometer. With the advent of this instrument we found it was not necessary to use a cycloplegic in all cases under forty years of age; in fact, that it was necessary only in exceptional cases, that is where there was spasm of accommodation present. We came to this conclusion and practice gradually and through experience, by evolution, if you please, and not revolution. We did not make up our minds all at once that cycloplegics were not necessary and suddenly stop using them, but, after having tested many cases without atropin and then under atropin and finding the tests to substantially agree, we came to the conclusion that cycloplegics were necessary only in those cases where there was spasm of accommodation. We then began to prescribe glasses more and more without the use of cycloplegics, and found that such cases got along just as well as those in whom we used cycloplegics, with the result that we have ceased to use cycloplegics, except in cases of spasm of accommodation, *where we use true cycloplegics,* and not the so-called one-to-three-hour cycloplegics.

4. *Ocular Muscle Insufficiencies.*—Dr. Toms says: "Dr. Davis omits to inform us how he differentiates between a so-called 'functional' insufficiency and a permanent one that is not a strabismus, which has existed from birth, not due to disease or paralysis."

Now I submit that an insufficiency which has "existed from birth" is not functional at all, since binocular single vision does not exist at birth, nor for some time afterwards, and is a function that must be acquired. But assuming that an insufficiency of an ocular muscle may exist from birth (for we can but assume it, as no reliable tests can be made until the child is five or six years of age) such insufficiency must of necesity be what I have designated *"anatomical insufficiency,* and due to either faulty development, insertion (attachment) or innervation of the muscles."*

Such insufficiency, as well as those due to disease, are always manifested both by subjective and objective tests, and there is always a limitation in the movement of the eye in the plane of action of the weak muscle. Moreover, such insufficiencies are fixed or *static* (or change but very slowly), whereas functional insufficiencies change from day to day or hour to hour. I am pleased to inform any critic that it is this *variation in the degree of the insufficiency at short intervals,* that enables me to diagnosticate a

Journal Amer. Med. Assn., November 24, 1901.

functional (dynamic) insufficiency from a permanent (static) one.

And I may state here for the benefit of the general practitioner, lest he be misled, that a static or permanent insufficiency is a very rare phenomenon, rarer in fact than spasm of accommodation, which later phenomenon, as we have already pointed out above, is an exceedingly rare occurrence, though by some supposed to be a common one

So much for the diagnosis of ocular muscle insufficiency. Dr. Toms enquires further: "Does he (Dr. Davis) wish the general practitioner to accept his teaching that it is better to do a tenotomy on an opposing muscle when its fellow is unable to functionate (because of a strabismus paralysis?) rather than investigate the relative strength of the long muscles and their ability to rotate the eyeball in the orbit?"

Now, this is a plain misstatement of fact, though it is in the form of a question. I have never taught "that it is better to do a tenotomy on an opposing muscle when its fellow is unable to functionate, etc., rather than investigate the relative strength of the long muscles and their inability to rotate the eyeball in the orbit," and I respectfully ask for a citation of such teaching in any of my writings. Nor have I, personally, ever operated upon any of the recti-muscles, without first having carefully tested the eyes for glasses and also investigated the strength of the ocular muscles.

In the very article he is criticising, and in the same paragraph, I say: "I then, with the glasses in position, test for muscle insufficiencies, by the simple prism test—that is, for adduction, abduction, sursumduction. In this way the relative strength of the muscles is shown, and if insufficiencies are present the indication for treatment is suggested. If the simple prism test is not satisfactory, I find the amplitude of convergence after Landolt's method."

It appears to me that is plain English, yet it seems not to have been understood. The objective tests for muscle insufficiencies are supplementary and confirmatory, but after all, the subjective tests form the final verdict in functional insufficiencies just "as the comfortable acceptance of the trial lens is the *final* verdict with all ophthalmologists," in testing for errors of refraction. Such being the case, I do not see any particular reason for growing "enthusiastic over the instruments of precision in objectively estimating muscular anomalies."

To illustrate this point, I cite, from among many others, a case recently in my office with a low degree of hypermetropic astigmatism against the rule, where the objective tests for muscle insufficiencies were negative, yet the subjective prism tests showed adduction of only ½°, abduction 6°, and sursumduction (right and left) 2°; or a marked insufficiency of the internal recti muscles.

In static insufficiencies and strabismus, I also use the objective tests in order to get the exact deviation. But in functional insufficiencies, which change frequently, this is not so necessary.

As to the case cited by Dr. Toms, of having seen a "superior rectus so tense as to cause 12° of hyperphoria that showed not a *vertical* strabismus but a *lateral,* which, when cut, dissipated the convergent squint and made binocular single vision possible," no mention is made of the refractive condition of the eye. This is a very important omission, and robs the case of any value as evidence bearing on the subject under consideration. I have seen such a compound deviation, convergence and sursumvergence relieved by glasses alone, and sometimes they get well without any treatment whatsoever. Moreover, I do not believe that tension, *per se,* on one of the straight muscles of an eye will cause tension in another straight muscle of the same eye, any more than I do in that other dictum, made in the same article and by the same author,* "that excessive accommodation is not directly a causative influence in convergent strabismus."

Donders' teaching on this point still holds good, despite the theory of hyperphoria as a cause of convergent strabismus.

Dr. Toms asks: "Does he (Dr. Davis) call 'functional' a condition of an externus that was so film-like in structure as not to hold a stitch in an advancement for an esophoral correction?" The mere fact of a stitch pulling out of the tendon of a muscle in an advancement operation, I would say, indicates nothing whatsoever as to the strength or structure of the muscle. Whether a stitch pulls out or not in an advancement operation depends much upon the tension put on the stitch, that is the extent of the advancement, whether it be great or small. I have seen stitches pull out of well-developed tendons, where the advancement was extensive, and the quilting suture had to be resorted to in order to hold the tendon.

Dr. Toms' final and italicised question is: "How does he (Dr. Davis) treat the cases of muscular imbalance *that have no refractive errors?*"

Now, it is just as easy to answer that question as the others he has asked. However, I should state that such cases, muscle imbalance without refractive error and with asthenopia, are so rare as to be medical curiosities. I have seen but two or three in my whole experience, and in these it was doubtful if the muscles were the sole cause of the asthenopia. But *when* I find such a case I treat it in exactly the same manner as I do other cases of muscular imbalance, except no glasses are given. Tonics, rest, open air exercises, where they can be had, are advised. If a strabismus de-

*G. T. Stevens, *Medical Record,* February 16, 1895.

velops, an operation should be performed, just as in the other cases.

In conclusion, I must call attention to the truism cited by Dr. Toms, that "Eye muscles are like other anatomical organs, they are not all the same in size, length or attachments."

In my judgment the great error of many of the writers on insufficiency and errors of refraction is, they forget or ignore this truism, and hence ignore Alfred Graefe's dictum of three decades ago—never to test the power of a muscle until the faulty refraction is corrected. It is the failure to lay stress on the static, fixed conditions, and to exaggerate the importance of measuring the power of muscles that vary almost hourly, that causes a great deal of false reasoning and conclusions.

The fundamental work of Donders is not yet thoroughly understood, at least in this country.

THE VISIONS OF AN HYSTERIC.

By F. E. FRONCZAK, A.M., M.D.,
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ON May 23, 1906, the inhabitants of Buffalo were startled by the news that a great prophetess and seeress was among them—one who was able not only to foretell the future, explain the past, but also to be in communion with the saints and God himself. On the afternoon of that day a rumor was spread through East Buffalo that, on the following day, a young girl would communicate with the Blessed Virgin and the saints and tell the people at large what are the wishes of heaven in regard to certain things to be done. On the following day, promptly at 10 o'clock, as foretold, I received a message that a young girl was stiffened in a room and was talking with saints. I was asked to come in my professional capacity to examine her. I hurried there, and found the street in front of the house crowded with people. I could not get into the house, as it was packed. Finally, after much struggle, I did get in, and there I saw, sitting in a chair, quite a handsome young Polish girl, aged 17 years, her hand extended, her eyes closed, anæmic in appearance.

I tried to speak to her, but at that time she began to speak softly, repeating what were supposed to be the words of the Blessed Virgin to her.

I examined her. She was perfectly stiff. I used all the force I could, but could not bend her hands or elbows; reflexes none; pupils widely dilated; insensitive to touch; I pricked her with needles and applied electricity to various parts of her body. She smiled and then said softly and pleasantly that the devil who was torturing her would drop dead if he did not stop. "The Blessed Virgin," she said, "told me that unless the doctor (and she seemed to know who I was, though I could see that her eyes were closed and insensitive to light) would turn as black as the stove;" and then she kept on speaking in the following words: "The Blessed Virgin says that great earthquakes are coming; that thousands of people will be killed; the Blessed Virgin says that the world is getting worse and worse; that God will punish the whole world with fire, war, earthquake and diseases; the Blessed Virgin, she says, will strike Dr. Fronczak dead unless he stops burning me." At that moment I was testing the reaction of her pupils with a lighted match. She murmured, she sighed and came to; she looked around bewildered; the folks in the rooms, who had been upon their knees, arose and began to kiss her hands, her dress and her feet, and to call upon the saints, and looking upon me as upon the very devil, and here and there muttering words of condemnation upon my head. When she came to, I examined her thoroughly. Aside from her anæmic appearance, she seemed to be perfectly well. She had her monthlies regularly for the past two or three years. She read the Bible, attended church formerly, but "stopped because the priests were bad."

She told me that at 2 o'clock that same day she would have another vision. I requested Drs. William C. Krauss and James Putnam, nervous disease specialists, to join me in examining the young girl. They did so, but could find nothing pathological about her. She went through the same form of stiffening, and repeated almost all her former sayings.

Somebody told us that her brother, who was a tall, large man, seemed to influence her. He was 6 ft. 3 in., weight about 250 lbs., leonine head, bushy hair, piercing eyes. While she was in this semi-comatose state, we watched her brother. We noticed that his lips were moving, and with the movements of his lips the girl spoke. We requested this man to leave the room. The moment he did so the girl came to. We called him in and the girl fell in her former semi-comatose state. We charged him with hypnotizing the girl, which charge he denied. However, we learned that he formerly took lessons in hypnotism. After consultation, we told the people that the girl was not a saint, but was simply suffering from exaggerated hysteria; was hypnotized and spoke only on the suggestion of her brother. Some of the people turned upon us three physicians present and abused us. Dr. Krauss then proposed that the girl submit to him and that he should hypnotize her. After proceeding for a minute with the movements of his hands on the girl's forehead and suggesting to her that she fall asleep, the people, at first, and then the girl herself refused to have any experiments made upon our seeress. We told the people that the whole affair was a fake. Many believed us and left the house

immediately. We notified the police, who dispersed the crowd from the house. The press took this matter up, and after telling the astonished citizens of Buffalo about the visions of the prophetess (?), also began to throw cold water upon the whole affair, and in a few days it quietened down.

The surprising fact of this was: first, the influence of the big brother upon this innocent, simple-minded girl; second, the ease with which the populace believes in certain so-called supernatural visions; and third, and most surprising, is the idea that many so-called intelligent and highly-educated women from the up-town district of Buffalo came in carriages and gave money for a chapel to be erected on that spot, and believed, with all the simple-mindedness of the ignorant people, that this was a supernatural gift.

At present, after the exposure of the whole affair and explanation that it was exaggerated hysteria — hypnotism and suggestion — the house has been almost deserted. Only occasionally, usually on Sundays, a few simple-minded folk come to the girl's house, pay twenty-five cents admission, and listen to the always same repeated talk of the poor hysterical girl. And thus another seeress was exposed by medical procedure.

CHRONIC NON-SUPPURATIVE MIDDLE EAR DISEASE.*

RESULTS OF TREATMENT.

By N. D. McDOWELL, M.D.,

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ARE we justified in recommending treatment for chronic catarrhal middle ear disease, so-called?

As it is probably true that one person out of every three has defective hearing in one or both ears, it may seem strange that one should ask if we are justified in recommending treatment for the most common cause of this condition. However, I think the consideration of this question timely, since it is no common occurrence to hear non-medical men say that treatment for increasing deafness is of no value, and recently, in a medical meeting, I heard a general practitioner of medicine, with a wide experience, say that it had been his observation that patients suffering from chronic inflammation of the middle ear heard less and less each year, whether they received treatment or not.

I think I do not exaggerate when I say that the profession generally believes that treatment of this condition is very unsatisfactory. Not longer ago than last week, a patient came to me for treatment of increasing deafness, and made the statement that he had been advised several years ago by a well known physician that treatment for his ear condition would avail him nothing. He was not treated, and since that time has lost all useful hearing in the left ear, and much of the acuteness of the right ear. The loss of hearing in this case has been due to a chronic catarrhal inflammation of the eustachian tube and middle ear. If treatment is valuable in these cases, this patient has been injured by the advice given him several years ago, as it was responsible for his not seeking further for relief until many permanent changes had taken place in the middle ear. This case is not unique by any means.

There is agreement among those who have made a special study of the ear that there are non-suppurative ear diseases which they are unable to benefit, and Politzer predicts that the advanced stages of otosclerosis of the middle ear will always remain beyond the ability of the otologist to reach. On the other hand, otologists firmly contend that there are many non-suppurative ear diseases—the majority in fact—that are improved by treatment and some of them stopped entirely.

Chronic non-suppurative middle ear disease is responsible for the majority of cases of deafness, and most forms of this disease are amenable to treatment. The disease is amenable to treatment because the causes underlying it may often be removed, and if the changes produced in the structures of the tympanum are not too far advanced, good hearing may be restored. In many cases the treatments have to be repeated from time to time, because we cannot completely remove the causes or prevent their return, owing to climatic conditions and habits of living which seem beyond our control.

The causes are any conditions which will bring about acute catarrhal attacks of the nose, throat and ear, and anything which will tend to make these acute attacks chronic.

These causes are local and general; the local, such as obstructions of the nose and throat, sometimes receive the entire attention in the treatment, to the exclusion of general causes. Toxines circulating in the blood often seem to have a predilection for the mucous membranes of the head, causing more or less continuous irritation there. Some of these toxines are due to improper action of the skin and digestive tract, intestinal auto-intoxication not infrequently playing a large part in the congestion of these membranes.

Otologists are realizing, in the treatment of this condition, that while no let-up in attention to local causes may be permitted, that more attention must be given to the possible general causes. Herein, I think, will lie success in the treatment of many cases which otherwise would have to be counted among the unsatisfactory ones.

*Read before the Rochester Hospital Medical Society, January 4, 1907.

Every patient presenting himself for treatment for deafness is entitled to a thorough examination, in order to determine the causes underlying and the seat of the disease in the ear. If the causes are such that they may be removed, and if the seat of the disease is the middle ear, treatment is of great value. If the disease is located in the internal ear, we are able to do little. Usually the seat of the disease may be located with accuracy. A few distinguishing features are as follows: In middle ear disease changes occur in the drum membrane; in internal ear disease, the membrane is unaffected. In middle ear disease, hearing is worse during a "cold in the head"; in internal, no increase is noticed. Paracusis Willissii —the hearing better in a noisy place—is pathognomonic of middle ear disease; in internal ear disease, hearing is better in a quiet place. Speaking roughly, the low tones are not heard well in middle ear disease while in internal the lower tones are heard better than the higher ones.

As to treatment of middle ear disease, the first attempt is to reach the causes in the nose and throat and the general system. Anything causing a congestion of the naso-pharynx should be removed. Cold plunges, sponging with cold water, proper physical exercises, especially with the arms and shoulders, may lesson the congestion of the mucous membranes of the head, while exercises of the abdominal muscles, the regulation of the diet, perhaps the drinking of considerably more water than has been taken, may prevent the absorption of toxines from the digestive tract.

If the eustachian tube is closed, it must be opened, with air blown through a eustachian catheter, if this can be done, otherwise with a bougie, with or without electrolysis, and then kept open with air or vapors blown through the catheter. I have found the Politzer bag alone of little value.

I should like to report very briefly three cases which are more or less typical of others we are called upon to treat.

CASE I.—December, 1899. S. M., age 27. History of repeated earaches in childhood; no rupture of drumhead, however; no history of deafness in family; catches cold easily; breathes through the nose usually, but often sleeps with mouth open; recently hasn't heard so well, and is annoyed by ringing and full feeling in ears. Examination shows nasal space somewhat obstructed by enlargement of turbinates and a small septal spur; naso-pharynx reddened, and mucous membrane swollen; drumhead markedly retracted, with some hyperæmia along the malleus. The tuning fork tests show that there is no involvement of the internal ear. The drumhead and malleus are freely movable. A good prognosis was given, provided the patient could remain under observation. The nose and throat condition was improved and the middle ear inflated through the eustachian catheter. Treatment in the form of inflations have had to be continued from time to time in this case, as congestion of the eustachian tube and middle ear occurred at varying intervals, but on the whole, the condition is decidedly improved over that of seven years ago, when he first applied for treatment, and he hears just as much or more than he did. The distressing tinnitus is entirely gone. Several things have had a part in keeping up the disease in this case, one of them being a persistent constipation.

CASE II.—T. B., merchant, age 47, came to me in 1903, saying that for a number of years his hearing had been becoming less acute, particularly in left ear, until now he often has difficulty in hearing ordinary conversation. Ten years previously the nose was operated upon and treated for some time by a well known rhinologist. Several years later he was treated for some time by another practitioner for increasing deafness. Hears better while on a car (which shows that contraction of tissues in middle ear and binding of ossicles has begun). Tuning fork tests show bone conduction and air conduction equal and considerable lowering of upper tone limit as well as raising of lower tone limit, thus indicating some involvement of internal ear as well as middle ear. Acoumeter heard four feet and whisper five feet in right ear and about one foot for both in left ear. The nose, eustachian tube and middle ear show hypertrophic catarrhal changes. Inflation of the ear and treatment of nose and throat produced considerable improvement in hearing. A few months later, the patient was sent to Dr. Dench for advice as to future treatment. He advised that I continue inflation of tube and middle ear with the use of the catheter at varying intervals, depending upon the length of time the improvement from the previous treatment lasted. This course has been followed now for four years, and patient hears the acoumeter ten feet and the whisper ten feet with the right ear, while the acoumeter is heard five feet and the whisper seven feet with the left ear, a decided improvement over his condition of four years ago.

CASE III.—E. W. G., age 63; has suffered from increasing deafness for fifteen or more years; left ear was first affected (my observation conforms to that of others; namely, the left ear is more often or more profoundly affected than the right ear). He says he always has been a catarrhal subject. Several years ago he consulted a physician as to treatment for his increasing deafness, and was told that treatment would do no good. To use the physician's words, "He didn't want to take his money." He has recently been unable to hear ordinary conversation. Treatment from time to time during the past nine months markedly improved his hearing, so that he is able to hear his minister preach, something he had been unable to do for some time. He is much pleased with the result of treatment, and there is no question but that treatment would have been worth more to him had it been instituted earlier in his middle ear disease.

The results in these three cases are similar to the results in others which might be given, and show that all cases of increasing deafness do not get worse each year in spite of treatment. At the same time, I expressly disclaim the desire to give the impression that all cases treated give such good results.

It is probably superfluous to say that the earlier treatment is begun, the better the results. The time of election for beginning treatment in many cases is in childhood, for it is during this stage of physical development that the foundation for most cases of chronic catarrhal otitis media is laid.

So I naturally conclude that the proper treatment of chronic catarrhal otitis media is not so unsatisfactory in results as is commonly supposed, and it is a mistake to advise patients suffering from increasing deafness that little can be done to relieve them.

THE OPHTHALMO-TUBERCULIN DIAGNOSTIC TEST: SOME CLINICAL OBSERVATIONS.*

By EDWIN R. BALDWIN, M.D.,

SARANAC LAKE, N. Y.

THE application of tuberculin to the eye in diagnosis has been recently introduced by Professor Calmette, of Lille, France, and gives promise of great advantages over the fever test.

This method is a modification of the cutaneous tuberculin test as applied by V. Pirquet, and depends upon the susceptibility acquired by the skin of tuberculous subjects to the presence of the poison of this disease.

Instead of scarifying the skin, as in V. Pirquet's method, a drop of a weak solution of tuberculin (1 per cent.) is instilled into one eye. A more or less marked hyperemia follows in tuberculous infected individuals which is absent in the majority of supposedly non-infected persons.

The redness develops in from three to forty-eight hours, and, in some, instances, is accompanied by a purulent secretion and edema of the lids when the reaction is severe, yet there is no marked discomfort or any constitutional effect or local reaction in tuberculous lesions. The reaction quickly subsides in most cases and produces no injury to the eye. Diseases of the lids and eye contra-indicate its use provisionally until further experience is obtained.

The author made use of two solutions for diagnosis, beginning with the weaker, to avoid unnecessarily severe reactions, followed by the stronger in the opposite eye in forty-eight hours if no reaction occurred to the first test. A measured drop was used for the sake of accuracy, and the solution in normal saline was prepared in sealed tubes and sterilized.

One hundred and thirty-six persons have been tested by the author and his colleagues to date, five of whom were controlled by the subcutaneous test. Of forty-four tuberculous patients in all stages, forty-two reacted positively, one was doubtful and one (advanced millary) negative. Of nine healed tuberculous persons (1 to 17 years healed), eight reacted and one was doubtful. Of twenty-six individuals suspected because of history, symptoms or physical signs, eight reacted positively, four doubtful, and fourteen negative. Of fifty-seven supposedly healthy persons, sixteen reacted, eight of whom gave a family history of tuberculosis, six of close contact with tuberculous persons and only two in which no such history was obtained. Among the forty-one who did not react, twenty were farmers and guides living in the open air; most of the others were in contact with tuberculous patients. In general, the results correspond to those obtained with the subcutaneous test. Of the six who were thus tested, all were negative to both tests save one who was known to have lues and reacted to .005 c.c. tuberculin. The figures with supposedly healthy people are not different from those obtained with the subcutaneous test, but idiosyncrasies must possibly be considered as playing some part in causing reactions until further experience and post-mortem observations shall establish the limits of specificity.

*Abstract of paper read at the First Annual Meeting of the Fourth Dist. Branch of the Med. Soc. of the State of New York, Sept. 18, 1907.

HISTORY OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK.

Dr. Walsh's History of the Medical Society of the State of New York has been completed, excepting that part devoted to the Biographies of Officers. These biographies will be published at intervals during the coming year.

The history proper is soon to appear in a volume, which should be highly prized by the medical profession.

FOR A NATIONAL DEPARTMENT OF HEALTH.—The movement for a national health department has become one of the chief objects of a number of medical and philanthropic organizations. At the last meeting of the American Academy of Medicine Prof. J. Pease Norton, of New Haven, Conn., said that the success of the movement for a federal organization of public health work requires widespread co-operation among all learned, philanthropic and fraternal associations. The appointment of a committee of one hundred was the result of a vote passed by the American Association for the Advancement of Science at its meeting in 1906. Since that, Prof. Irving Fisher, chairman, has appointed such a committee, consisting of persons identified with the leading learned and philanthropic societies which hold these objects in whole or in part. The purpose of this committee is to secure co-operation among many great associations capable of wielding vast influence and representing the power requisite for accomplishing the definite objects proposed. To work out the problem special committees have been appointed on legislation, finance, publicity, organization of health clubs, and co-operation. Prof. Norton said that beyond the work of these committees a far larger problem is the practical one of adequately presenting the movement. It is thought that $100,000,000 appropriated annually by the federal government would not be large for 80,000,000 population. To accomplish the thorough rousing of the people to the necessities of the movement, he stated that no more effective means could be imagined than the endowment by a Carnegie or a Rockefeller of a great International Institute of Peace at The Hague. International conferences should be held. Great laboratories should be endowed and equipped for experts devising inventions and discoveries against disease.

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Editorials.

DISPENSARY IDEALS.

THAT the dispensary question is not yet settled is evidenced by the great diversity of practice and opinion concerning the subject, and by the prevalence of criticism of our present dispensary methods. There are few men who have as well formulated views of dispensary management as Dr. S. S. Goldwater, Superintendent of Mt. Sinai Hospital, New York. He has recently expressed himself upon a plan for dispensary reform, based upon the principle of restricting the number of patients and increasing efficiency of treatment.*

The boast of dispensaries should be not how many patients are treated, but how well they are treated, and to this end Dr. Goldwater directs his thought. There are three general dispensary abuses: abuse on the part of the patient, who is able to pay a physician; abuse on the part of the profession in careless treatment; and abuse on the part of the dispensary in encouraging a large and indiscriminate clientele, which in turn fosters the two first abuses. These evils, according to Cabot, of the Massachusetts General Hospital, limit the usefulness of dispensaries, by fostering hurry and makeshift practices, and wholesale drugging. Dr. Goldwater urges that the proportion of patients is too great for the number of physicians in attendance or for the facilities of most dispensaries. This proportion should be cut down. He recommends the classification of patients into those needing dispensary relief only and those needing social aid or guidance. The latter should receive the house visits and instructions so admirably described by Cabot. The adoption of a system of districts in large cities, in which patients must apply for relief to the dispensary in their district, also commends itself as making misrepresentation more difficult on the part of patients who are able to pay, and also on account of facilitating the following up of cases and keeping them under nearer observation. He believes that ultimately such changes should lead to the work being placed more closely under the guidance of the State Board of Charities, or a similar body, which should limit by law the amount of work which each dispensary should do and confine it to a certain district; and which also should cause a registration of all families claiming dispensary relief, the adoption of a system of house visiting, the inauguration of new dispensaries wherever warranted, and a periodical readjustment of district boundaries to suit the changing exigencies.

However much may be said in defense of increasing the clientele of the dispensary, it is unfortunately true that its greatest weakness is that the patient does not receive the best attention which the physician is able to give, and this operates to the great disadvantage of both.

*Amer. Jour. of the Medical Sciences, September, 1907.

THE VALUE OF IRON PREPARATIONS.

THE consideration of the value of iron as medicine has been taken out of the hands of the manufacturers of proprietary preparations, and is receiving attention from investigators who have no iron to sell. The August number of the JOURNAL (p. 344) presented a valuable resumé of this subject, showing that the so-called organic preparations of iron, now being exploited by their manufacturers, are much inferior to the old inorganic compounds which, unfortunately, have had no

commercial interest behind them, and accordingly have fallen into neglect. The doctor's mail is not loaded with write-ups of the carbonate of iron: it is not running yachts for anybody.

The dose of most of these advertised organic compounds, said to contain iron, should be, according to Laspeyres, from twenty to fifty times as large as they are in order to be effective in iron dosage. Their chief value seems to be in the alcohol or bitters which they contain, but as iron preparations they are ineffective. What the patient has to pay for the amount of iron he gets out of them is preposterous. It is interesting to note that these proprietary preparations have been forbidden being prescribed by the physicians of the industrial insurance companies in some of the German cities.

PHYSICAL FITNESS AT THE THROTTLE.

AN important matter which should be under medical supervision is that of the physical fitness of persons engaged in occupations in which lives depend upon the good physical condition of an individual. The Government, for example, supervises the traffic rates and the finances of railroads, but takes little cognizance of the lives of the people who travel on them. It would seem that money is more important than human lives. The railroads give some attention to the matter, but neither in a scientific or disinterested way: they take the precautions which give a money value return.

The engineer of a passenger train fell unconscious at his post and his train collided with a switch engine with disastrous results. Another engineer was overcome with heat, presumably, and fell unconscious at the throttle, the fireman discovering the accident in time to stop the train. The same week an engineer on a freight train, after convalescence from a sickness, became suddenly insane, and ran his train at a high speed to escape an imaginary evil pursuer, until he was overpowered by the fireman and a brakeman. These three instances occurred all in one section of the country, and all within a period of three weeks.*

*Railway and Engineering Review, July 27, 1907.

It is well known that in many of the frightful railway wrecks, in which many lives are sacrificed, the accident has been due to the physical disability of some important person. The failure to set a switch, to recognize the color of a light, or to fail in some other physical act on account of physical defect has been responsible. This is too important a matter to be left to the corporations which have only a financial interest: it should be under governmental control. A railroad is violating a law if it is carrying freight for one party for a cent or two less than for another, but it is violating no law if a paretic engineer is rushing a trainload of people to destruction.

The same is true of all passenger-carrying enterprises. The physical fitness of officers of steamboats should be supervised by the State, not alone by the corporations. The eyes of motormen are tested in a perfunctory sort of way, but the motorman may have nephritis or diabetes or arteriosclerosis and drop down at a most critical time. It is a fact that in one of our large cities these positions are being filled by many men who have been found physically defective for the police and fire departments.

The automobile rushes through the streets and country in the hands of any one who lays himself to the task. The number of accidents is appalling. The driver may be half blind, deaf, or paretic—there is no restriction. The large number of fatalities are all in the day's work, so long as we do not know the parties involved; but still we may be the next victims, and then it becomes a different matter. No person should be permitted to run an automobile faster than four miles an hour within the town limits who has not been subjected to a physical examination and determined physically fit and free from disease which does or might suddenly incapacitate him. A medical examination should be necessary for a license, and the license should be good for one year. This need not be burdensome or expensive, and it would surely be for the public good. Our anti-paternalist might object to such an ordinance, but after he is run into by a cross-eyed paretic he will be convinced, if he survive.

Observations.

ON SEXUAL CONTINENCE.

"Regarding an editorial that appeared in the April, 1906, number of the JOURNAL on Sexual Morality, I desire to say that I heartily agree with all that it contains. I do, however, wish to ask a question or two concerning some points of the subject not touched upon. May I ask what are you going to advise for the unmarried man who has a passion for sexual indulgence and is desirous of stopping the habit and leading a decent life—a man to whom every suggestive look from amorous women, every lascivious picture he sees, and the subtle influences that meet him on every side, all conspire to inflame his senses and fire his blood? What shall we do for him?

"You may say to the unmarried man to find a wife. There may be good reasons why he should not get one. How shall we treat such a patient that he may not be disturbed by vain longings by day and erotic dreams by night? I grant you that the proper teaching of the child early in life will help to enable him to control his sexual nature, but what about the man who went into the world in ignorance and learned all that he knows of sexual matters from his companions.

"It is all very well to preach along the line you do—lots of men do not care enough about sexual indulgence to be bothered by the matter—but there are many who see the error of their habits, who desire to reform, and to whom this means the fight of their lives. What do you say for them?"

The author of this communication is a physician of a high degree of intelligence, who should be able to answer these questions himself. If there is any one who should be familiar with this subject in a practical way, in contradistinction from a sentimental way, it is the physician. Inquiries of a character similar to the above have been received, and this opportunity to elucidate the subject somewhat further will be taken advantage of.

The best interests of the individual, of the home, and of society, demand that man shall cohabit with none but his wife: in other words, if a woman is not his wife he shall not cohabit with her. This is a simple rule; it will stand the test of analysis; it is easy to remember; and should be taught, along with the reasons for it, to every boy and girl who reaches puberty.

Every infringment of this rule makes for ill. The penalties and dangers in its violation I should enumerate as follows. They are:—The moral and social degradation of a woman who otherwise would live rightly; the danger of causing disease in such a woman; the encouragement by example of a practice which stands preëminent as the great cause of social unhappiness; the subtraction of just so much joy and devotion from the woman who should or will stand in the proper relation of wife; the possibility of the propagation of illegitimate children; the strong probability of contracting venereal disease; the danger of transmitting physical or moral blight to one's offspring; the development of vicious habits; the cultivation of immoral society; the wasting of time and energy in unprofitable company; the social harm to one's self and family; the mental and moral harm which springs from acting in secretiveness and shame; the contracting of the concomitant vices which go hand in hand with venery for venery's sake; and the postponement of the organization, or the weakening of the strength, of the most potent factor in the solidarity of society—the home. These are strong reasons against extramarital sexual intercourse; and each is susceptible of most serious consideration. Moreover, to these should be added the fact that sexual intercourse is absolutely not necessary or even good for one's health: the suggestion that it is necessary is only repeated and passed along by the offenders who desire an excuse for their own laches.

Concerning the specific case in question—the man who practices what he knows is wrong and harmful—there is just one thing for him to do, and that is to stop. If he desires to correct his habits, but does not, and is much in a state of sexual excitement, then I should say that one or more of three things is the trouble: he is either suffering from idleness, the prime promoter of vice; his education and knowledge of the simple things are defective; or he has a mental defect which should receive consideration from the neurologists.

A man who has a serious hold on the essentials of life, and who is busy with useful work, as every man should be, whose mind is occupied with thoughts of wholesome interests, or whose time is consumed by his vocation, does not suffer the sexual dangers inherent in idleness.

Every man should have a knowledge of the anatomy and physiology of the sexual organs, and he should be familiar with the meaning and dangers of venereal disease, and also with the objections to extramarital venery which I have already enumerated. If he is not, his education in the simple essentials is defective. The prudishness which deprives young men of this knowledge is decidedly immoral in its results. The Japanese, among whom men and women innocently bathe in the same pool, are free from prudishness and from the vulgar sense of suggestiveness at the sight of feminine curves, which characterize the ogleing occidentals. For the same reason a boy brought up among sisters has less of this pernicious prudishness which covets the sight of hidden charms. Carlyle has said that the beginning of wisdom is to look on clothes till they become transparent. The man to whose eye they cover a great and elusive mystery is not an educated man.

To answer the question, What is this man going to do about it? is as easy as answering the question, What is the thief who wants to stop stealing going to do about it? He should stop; and if he does not, he should receive the attentions which a mental defective merits.

As to the cure of the healthy man, let such a man, first, be busy; and, second, let him

resolve upon the course which he desires to pursue. With fixed determination, a sane man can do about what he pleases. I know an unmarried man who has said to himself, I shall marry some day; somewhere in the world a woman is keeping her chastity inviolate for me; and I shall do the same for her. With this philosophy he dismisses the subject from his mind; the matter is disposed of; he does not bother his head with sexual debates; the question is settled; it can not come up for reconsideration; and he gives himself and his energies entirely to other matters. It is a splendid thing for a man to pronounce a final settlement upon an important question which otherwise might constantly recur and harass his mind. The man with a determined principle has clear sailing. A course of conduct then becomes easy. It is the unfortunate weakling who has not decided his questions, and the man who does not want to decide them, who keep themselves in hot water.

Let these men in question make themselves healthy, live hygienically, discard vicious and harmful habits, and they will have taken the first step toward eliminating the physical sources of vice; let them have an understanding of the meaning of causes and effects; then let them purge their minds of lust, and establish in its place thoughts of better things and clearly defined principles; and the victory is won.

Items.

Medical Legislators.—That "they order these things better in France," is shown by Dr. C. A. L. Reed, who makes a comparison between the number of medical legislators in America and in France (*Jour. Am. Med. Assoc.*, May 25, 1907). There are ninety-two physicians in the present French Congress, while there were four physicians in the two houses of the last Congress of the United States. The population of France is 38,228,969, while that of the United States is 85,000,000. The number of physicians in France is 28,000. The number of physicians in the United States is 122,167. The French Congress, like the American Congress, is composed of two houses. The upper house in France, like that in this country, is called the Senate, while the lower house, corresponding to our House of Representatives, is called the Chamber of Deputies. The French Senate has 300 members, of which 40 are physicians; the American Senate consists of 90 members, of which one is a physician. The French Chamber of Deputies has 595 members, of which 52 are physicians; the American House of Representatives has 386 members, of which, in the Fifty-ninth Congress, 3 were physicians. The interest which medical men in France display in matters of state cannot be accounted for on the basis of compensation. The pay, or the "indemnity," as it is called in France, is only about $1,800, for both senators and deputies, while the pay in the United States is $7,500, in both branches of Congress. It is interesting to note that members of the British Parliament serve entirely without compensation, and that the medical profession always has liberal representation in that body. Dr. Reed concludes that certainly with these wholesome examples before us it must be apparent that the medical profession of the United States is not doing its full duty in these higher activities of American citizenship.

The Mary Putnam Jacobi Fellowship.—The sum of $8,000 has already been raised for the establishment of the Dr. Mary Putnam Jacobi Fellowship Fund. Contributions have ranged from $2.00 to $1,000. The Fellowship Fund must amount to at least $25,000 in order to provide an annual income of $1,000 and render efficient aid to post-graduate women students in medicine. Among those interested in this Memorial, whose names are on the list of honorary members of the committee, are: Prof. Felix Adler, Mr. Jacob A. Riis, William Osler, M.D.; Pres. Nicholas Murray Butler, Hon. Seth Low, Pres. Benjamin Ide Wheeler, Mrs. Henry Villard, Pres. M. Cary Thomas, Mr. Richard Watson Gilder, Dean Laura Drake Gill, Rev. Percy Stickney Grant, Pres. J. Y. Schurman, Miss Grace H. Dodge, Charles L. Dana, M.D.; Howard A. Kelly, M.D.; Mrs. Ellen H. Richards, Emily Blackwell, M.D.; Francis P. Kinnicutt, M.D.; Mrs. Frederick Nathan.

Members of the Working Committee are: Chairman, Annie S. Daniel, M.D., 321 East 15th Street, New York City; Treasurer, Eleanor Tomes, M.D., 136 East 30th Street, New York.

Hospital Abuse in Paris.—The directors of the *Assistance Publique* have just issued a poster in the following terms: Advice at hospitals and dispensaries is exclusively intended for the really poor and necessitous. Everyone applying at an hospital must be prepared to prove his identity; to give his domicile in Paris, and to show that he is really poor by a certificate from a *bureau de bienfaisance,* as well as a receipt for his rent. Except in the matter of urgent cases, all the medical staff and the other employes of the administration of the *Assistance Publique* are forbidden to give treatment to anyone whose calling or the amount paid by him in rent appears to make it probable that he is not a fitting subject for hospital treatment. The *Assistance* will make inquiry into the truth of the statements of patients, and if they are found to be abusing the charity, the expenses incurred in their treatment will be recovered by law.

Christian Scientist to the Penitentiary.—The Court of Special Sessions, by a unanimous decision, sentenced one Clarence W. Byrne to prison for neglecting to provide medical attend-

ance for his daughter when she had pneumonia, because he believed in the tenets and practice of Christian Science. The Court held that the omission was a plain infringement of the statutes and declared that the father's religious belief did not constitute a legal excuse. The man was sentenced to a term of thirty days' imprisonment. According to the law, a physician, by the State authorized to practice his profession, must be procured for children dangerously ill, and a parent who omits this imposed duty can find no legal excuse, if the disease results fatally, in the fact that his views differ from the legislative policy of the State.

THE PUBLIC DISTRIBUTION OF MEDICAL SAMPLES has become an abuse which should receive the attention of every municipality. Poisonous drugs, such as acetanalid, cocaine and opium, are distributed in free samples of proprietary preparations from house to house, with the view of encouraging the use of the medicine. Many towns have passed ordinances forbidding this practice. It would be wise if every town council would follow this practice, for, by so doing, a vast amount of harm can be spared the less enlightened inhabitants.

WOMEN TO AID IN MEDICAL RESEARCH.—Five of the much-sought appointments to positions on the staff of the Rockefeller Institute for Medical Research have gone to women. The women appointees are: Miss Nellie E. Goldthwait, chemistry assistant; Miss Maud L. Menten, Miss Mabel P. Fitzgerald and Miss Wollstein, fellows of the Institute, and Miss Bertha L. Barker, scholar of the Institute.

A MAGAZINE FOR THE BLIND.—Mrs. William Ziegler has furnished funds to be used in publishing a magazine for the sightless. This will be the first of its kind in this country, and the second in the world. It will contain news items, stories, and special articles of interest to the blind, and will circulate in institutions as well as before the public.

TIPSTAVES' AND CROWNER'S QUEST LAW.—A Deputy Police Commissioner of New York recently issued an order to the police not to allow any one to touch or move a body in a suspicious case before a detective arrives. The coroners refused to allow such an order to include them, and announced that if a policeman interferes with them in the pursuit of their duties he will be subject to arrest, in accordance with Section 1776 of the New York City Consolidation Act.

"This is your charge: you shall comprehend all vagrom men; you are to bid any man stand, i' the prince's name."

"How if 'e will not stand?"

"Why, then, take no note of him, but let him go; and presently call the rest of the watch together, and thank God you are rid of a knave."

—*Much Ado About Nothing.*

Medical Society of the State of New York.

FIRST DISTRICT BRANCH.

The annual meeting of the First District Branch of the Medical Society of the State of New York, comprising the counties of Dutchess, New York, Orange, Rockland and Westchester, will be held at 2.30 P. M., on Monday afternoon, October 28, at the New York Academy of Medicine, 17 W. 43d Street, New York. The program, as at present arranged, is as follows:

Address by the President, C. E. Nammack, M.D., New York City.

The following papers will be presented:

"Difficulties in Procuring Pure Milk," H. J. Shelley, M.D., Middletown;

"The Problem of Regulation of a Rural Milk Supply," S. W. S. Toms, M.D., Nyack;

"Infant Mortality in the Summer Months; the Methods Adopted in Yonkers for its Reduction, and the Results Produced," S. E. Getty, M.D., Yonkers;

General discussion of the above papers;

"The Transmission of Typhoid Fever," H. D. Pease, M.D., Albany;

"The Advantages of County Water-sheds," Clark G. Rossman, M.D., Hudson;

"The Hudson River as a Source of Water Supply," F. J. Mann, M.D., Poughkeepsie;

"The Indications and Counter Indications in the Use of the Uterine Curette," Ralph Waldo, M.D., New York City.

Business Session of the Delegates from the various County Societies.

SECOND DISTRICT BRANCH.

The annual meeting of the Second District Branch was held in the auditorium of the building of the Medical Society of the County of Kings, 1313 Bedford Avenue, Brooklyn, on September 28, in the evening. This Branch is composed of the Counties comprising Long Island and Staten Island. The Counties of Kings, Queens and Richmond are also Boroughs of Greater New York, Kings County being known as Brooklyn, the other counties retaining their individual names. The district consists of both city and county and the profession is well organized and maintains active county societies.

Kings County has the enviable distinction of being the only County Society in the State that owns its building and maintains a medical library for the benefit of the profession, whether members or non-members of the County Society. This library has 60,000 volumes and is the fourth largest in the United States. By an agreement lasting for five years, made between the officers of the County Society and the House of Delegates of the Medical Society of the State of New York in 1906, any member of the State Society can borrow books, simply by paying express charges and agreeing to be responsible for their safe return.

The journals and books received by the State Society are all deposited here, and the Library is rapidly increasing in size and importance.

The meeting was called to order at 8.30 P. M., by Dr. Ross, of Brentwood, the President, who delivered the annual address. An oration on Medicine was presented by Dr. De Lancey Rochester, of Buffalo, and Dr. Martin B. Tinker, of Ithaca, spoke on "Surgery of the Thyroid Gland."

At the Business Meeting the following officers were elected for the year 1908: President, E. H. Bartley, Brooklyn; Vice-President, G. P. Jessup, New Dorp, Richmond County; Secretary and Treasurer, Victor A. Robertson, Brooklyn. The selection of the time and place of next meeting was left to the incoming officers.

THIRD DISTRICT BRANCH.

The first annual meeting will be held in Albany October 22, 1907.

The forenoon will be given up to Clinics at the Albany City, and probably other Hospitals, and to a demonstration of the Hygienic Exhibition of the New York State Department of Health, by Drs. Leonard M. Wachter, of Albany, and C. W. Crispell, of Kingston. Further particulars of the morning program, and of the social features, with other information, will be mailed to each member.

Afternoon session at City Hall, 2.30 P. M.

President's address: The Problem of the Costliness of Diphtheria Antitoxin from the Sanitary Standpoint. J. T. Wheeler, M.D., Chatham.

(1) The Treatment of Suppurating Glands of the Neck. J. M. Berry, M.D., Troy.

(2) The Successful Removal of a Hair-ball from the Stomach of a Child. J. B. Harvie, M.D., Troy.

(3) The Diagnosis and Management of Extra-Uterine Pregnancy. (Illustrated.) J. A. Sampson, M.D., Albany.

(4) A report of a case of Extra-Uterine Pregnancy. S. V. Whitbeck, M.D., Hudson.

(5) Transmission of Typhoid Infection. H. M. Pease, M.D., Albany.

(6) Thrombosis of the Inferior Vena Cava, report of two cases. H. W. Carey, M.D., and E. R. Stillman, M.D., Troy.

(7) Brown-Sequard Paralysis, report of a case. W. Kirk, M.D., Troy.

(8) Notes on the Early Diagnosis of Pulmonary Tuberculosis. H. M. King, M.D., Liberty.

(9) Poliomyelitis Anterior Acuta in the adult; with exhibition of case. La S. Archambault, M.D., Albany.

(10) Report of a case of Labor. R. Selden, M.D., Catskill.

FOURTH DISTRICT BRANCH.

The Fourth District Branch of the Medical Society of the State of New York had the honor of holding the first branch meeting in 1907. It was particularly appropriate that this Branch should hold the first meeting, as the president, Dr. D. C. Moriarta, came from Saratoga County, and it was in this county that the Medical Society of the State of New York really originated, because the first efforts toward the formation of the Medical Society of the State came from the members of the profession in the County of Saratoga over one hundred years ago.

The attendance was large and representative; the papers, as announced in the last issue of the JOURNAL, were read, and the discussion of some of them particularly interesting. The most notable paper, perhaps, of the meeting was that read by Dr. Baldwin on "The Ophthalmo-Tuberculin Diagnostic Test," for an abstract of which see page 413.

The Executive Committee meeting was held at the rooms of the Board of Health in the afternoon, and the following officers were elected for the ensuing year:—C. Stover, M.D., Amsterdam, President; D. L. Kathan, M.D., Schenectady, Vice-president; F. J. Ressegue, M.D., Saratoga Springs, Secretary; and G. H. Oliver, M.D., Malone, Treasurer. Amsterdam was chosen as the next meeting place.

The social features of the meeting were particularly delightful. The banquet in the evening, at the Riverside Inn, was given by the Board of Trade of Saranac Lake. The presiding officer, Mr. Duryee, was most felicitous in introducing the speakers, and soon had every one feeling perfectly at home, and the occasion was thoroughly enjoyed. Dr. Kinghorn entertained the Society with some excellent vocal music, giving some very interesting French-Canadian songs, in which the members joined heartily in the chorus.

The second day of the meeting was devoted entirely to seeing Lower Saranac Lake, the River, and visiting Trudeau and Ray Brook sanatoriums. At both of these institutions those in charge most kindly showed the visitors around, and thoroughly explained the methods in use. Too much cannot be said in praise of the work that is being done, and the public and profession of the State little realize upon what philanthropic and charitable lines the Trudeau Sanatorium is conducted. The yearly deficit of $25,000 is made up from contributions of friends of Dr. Trudeau and, from the thorough and painstaking manner in which all do their work, it is easily seen that "theirs is a labor of love."

The attendance was over eighty, which is more than 20 per cent. of the membership of the Branch, and every one who came to this meeting went away with the assurance that he would not only attend the meeting next year at Amsterdam, but that he would induce many of his colleagues to come with him.

The Branch meetings undoubtedly will fill a long-felt want in this state, namely, that of bringing together once a year those men who are practicing in neighboring counties and who do not meet often, and will also have the effect of stimulating study and increasing medical knowledge throughout the districts, promoting good-fellowship and in every way furthering the best aims of the professional men.

A Committee was appointed to confer with the officers of the Medical Association of Northern New York to see if the two organizations might not hold joint scientific sessions in the future.

FIFTH DISTRICT BRANCH.

The largest of the District Branch meetings held to date was that of the Fifth District Branch at Syracuse on October 3d. The College of Medicine of Syracuse University very generously tendered the use of the Histological Laboratory, and despite the fact that two hundred and seventeen comfortable chairs were provided, the accommodations proved barely sufficient, as during the morning session some were obliged to stand.

The day was most delightful and every portion of the District sent large representations of their best men. The papers were of a high order of merit, and the discussions most interesting. The program printed in last month's JOURNAL proved too lengthy for the one-day session and some papers had not been read when the meeting closed at six P. M. The program contained eleven papers for the morning session, and the same number for the afternoon, and it is worthy of notice that every one of the twenty-two writers was on hand and ready to present his paper. All had been carefull prepared, and with only one or two exceptions had been type-written, showing that they were not hastily written at the last minute, but represented the best thought of the essayists.

The profession of Syracuse tendered the visitors a luncheon at The Vanderbilt; and the general feeling was that if this was a luncheon, what would a dinner be? as everything possible was provided and thoroughly enjoyed by all.

At the business meeting the same amendments to the By-Laws as were presented at the Eighth District meeting were presented, and the feeling was that the delegate system for the Branches was not desirable. These proposed changes cannot be acted upon until another year.

The following officers were elected: Dr. W. M. Gibson, of Utica, President; Dr. G. D. Gregor, of Watertown, Vice-President; Dr. F. E. Fox, of Fulton, Secretary; Dr. W. D. Garlock, of Little Falls, Treasurer. Utica was selected as the next meeting place.

SIXTH DISTRICT BRANCH.

The Sixth District Branch held its meeting at Ithaca on September 24th, at the Stimson Hall, Cornell University, which had been kindly tendered by the Trustees of the University.

The meeting was largely attended, over sixty signing the register, and was enthusiastic and excellent in every way. The papers announced in last month's JOURNAL were read and evoked much interesting discussion. A trolley trip was taken around Ithaca and the Gorge. and other interesting view-points were thoroughly enjoyed by those in attendance. The Trustees of the University invited all to luncheon and this feature of the program was much enjoyed by all. The attendance was a thoroughly representative one, coming from every portion of the District.

The following officers were elected for the ensuing year:—W. A. Moore, M.D., Binghamton, President; J. C. Fisher, M. D., Elmira, Vice-President, and H. W. Fudge, M.D., Elmira, Secretary and Treasurer. Binghamton was chosen as the next meeting place.

SEVENTH DISTRICT BRANCH.

Preliminary Program of the First Annual Meeting of the Seventh District Branch of the Medical Society of the State of New York, which will be held at Rochester on Wednesday, November 13th.

"The Efferent Sensory Nerves," M. A. Veeder, M.D., Lyons, Wayne Co.;

"Cancer." W. B. Jones, M.D., Rochester, Monroe Co.;

"The Doctor of Drumtochty," W. L. Conkling, M.D., Mount Morris, Livingston Co.;

"Affections of the Spine Occurring in Children," R. R. Fitch, M.D., Rochester, Monroe Co.;

Papers will also be read by W. S. Cheeseman, M.D., Auburn, Cayuga Co.; W. J. Bott, M.D., Lyons, Wayne Co.; and A. L. Beahan, M.D., Canandaigua, Ontario Co.

A luncheon will be served, and those who will be able to attend are requested to kindly notify the Secretary, J. F. Myers, M.D., Sodus, as soon as possible.

EIGHTH DISTRICT BRANCH.

The Eighth District Branch held its second annual meeting in Buffalo on September 25th and 26th in the rooms of the Historical Building, one of the beautiful structures that remains in the Park as a reminder of the Pan-American Exposition held in Buffalo some years ago. The building is a fine marble structure, and the meeting room large, commodious and airy, with a magnificent picture of the Trial of Red Jacket back of the speaker's chair. The surroundings were in every way cheerful and inspiring, and the papers worthy of the occasion. The program was printed in the last issue of this JOURNAL, and all the papers were read, with one or two exceptions.

A most delightful dinner was held at the Hotel Lenox in the evening, at which the attendance was over sixty. Judge Wheeler, of Buffalo, Mr. Fleming, Hon. John Lord O'Brien, the Rev. Mr. Richards, Dr. DeLancey Rochester, President of the Branch, and D. F. C. Curtis, President of the Medical Society of the State of New York, made felicitous responses to various toasts. The following officers were elected for the ensuing year:—A. D. Lake, M.D., Gowanda, President; E. E. Snow, M.D., Batavia, 1st Vice-President; J. W. Grosvenor, M.D., Buffalo, 2nd Vice-President; L. M. Francis, M.D., Buffalo, Secretary, and C. A. Wall, M.D., Buffalo, Treasurer. Batavia was selected as the next meeting place.

A Committee was appointed to confer with the Central New York Association to see if next year a joint scientific meeting might not be held. As this organization is one of considerable influence in the Northern part of the State, it was thought desirable by those present, especially Dr. Curtis, State President, that a union should be made of the two bodies, if possible.

As the District Branches were organized purely for scientific purposes, there is, therefore, no business to come before them excepting the election of officers and the selection of the next place of meeting. The business can thus readily be transacted by the entire body, and to avoid the possibility of a failure to hold a meeting of the delegates owing to lack of a quorum, an important amendment was proposed to the By-Laws, that in future the system of delegates be done away with in the District Branch, and that the officers be elected, place of meeting chosen and any other business that may come before the branch, be transacted in open meeting. As the number of the delegates is usually but one for each hundred of the county membership, it follows that there might be a large attendance of members from the various counties and yet the absence of four delegates might prevent any business being transacted.

This change would seem desirable from every possible standpoint and will thus enable every member personally to have a vote in the selection of the District Branch President, who is a Councillor and an important officer of the State Society, as he is on the Executive and Finance Committees. This plan has to be approved by the Council of the State Society before it can become effective, and according to the By-Laws, the amendment has to lie over for one year before it can be acted upon.

SCIENTIFIC SESSION: DISCUSSION.

ANNUAL MEETING, JANUARY 30, 1907.

THE PHYSIOLOGICAL THERAPY OF SANATORIUM TREATMENTS.

DR. B. O. KINNEAR, of Clifton Springs, read a paper with the above title, for which see page 403.

Dr. E. B. Angell, of Rochester, said that Dr. Kinnear's paper illustrated the improvement that had occurred in sanitorium methods during the last twenty-five years. The time was when an intelligent physician was distrustful of the sanatorium. But with the introduction of modern physiological methods a great improvement had taken place in sanitorium treatment. It seemed to him that the greatest value of the paper for the physician consisted not in the suggestion of sending the patient to a sanitorium, but of using or applying physiological methods in a given case, the use of the warm or the hot bath for instance at home.

The paper read appealed to anyone who was distrustful of the old method of therapeutics by drugs and he believed the time was coming when they would depend upon physiological methods in the management especially of chronic cases. The paper was a very timely one.

Such has always been the spirit of the great minds in medicine. Let us be thankful for this *un*-commercial spirit which has been and is still the glory of our profession; which has given the results of its labors freely and without stint for the benefit of humanity; which has scorned to keep secret any discovery or to protect by patent any operation, instrument or device for the cure of disease. There is no antidote for commercialism like the love for science. If this is preserved, that cannot flourish.

See to it that you always stand for the dignity and honor of your profession. If the physician's life is a strenuous one, its rewards are many, and are within the reach of every one who with diligence and unselfishness will seek to serve his generation. It is the law of the moral universe that there are no short cuts to knowledge, no such thing as ready-made experience, and no counterfeit for character. Real and lasting success rests now, as always, on honest work and personal worth; or, as Lowell has put it,

"God's price is high; but nothing else
Than what He sells, wears long."

—L. E. HOLT, *Jour. A. M. A.*, xlviii, No. 10.

Progress of Medicine.

PRACTICE OF MEDICINE.

EDITED BY
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DE LANCEY ROCHESTER, M.D.,
Associate Professor of Principles and Practice of Medicine, University of Buffalo;
EDWIN H. SHEPARD, M.D.,
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THE EARLY DIAGNOSIS OF TUBERCULOSIS.

Hamman and Wolman, discussing the early diagnosis of pulmonary tuberculosis, call attention to the fact that the use of tuberculin as an aid to diagnosis must be undertaken with intelligence to be of value. There is no doubt in the mind of the reviewer that with more studious observation than is sometimes used in this test the objections which have been raised to its employment will largely disappear.

With all the symptoms of early tuberculosis the finding of slight signs does not actually prove the existence of the disease. Further observation of the patient's temperature, pulse, weight and other clinical symptoms, and repeated observations undertaken preferably at different times of the day, with more than one careful sputum examination, are demanded. After all this the diagnosis may still remain in doubt, and it is in this group of cases that tuberculin renders an invaluable service.

Moreover, the authors call attention to the fact that it is only when a negative reaction is secured that the test determines exact conditions, for it has been demonstrated that the reaction can take place when the patient has a pulmonary disease other than tuberculosis, which is causing the symptoms. Relying on this test only as an adjunct to repeated examination and observation we may accept its positive result, and occasionally send to the sanitarium a patient in whom the disease might be arrested naturally if untreated. We may feel under such circumstances, however, that we have done our best if we have condemned one patient needlessly to a year of treatment if in doing so we with certainty restore three or only two others to perfect health.—*Bulletin of the Johns Hopkins Hospital,* August, 1907.

TUBERCULOUS MEDIASTINAL GLANDS.

Gibson calls attention to the fact that in many children suffering from general weakness, exhaustion and emaciation there exists an enlargement of the small veins of the upper part of the chest where they approach each other in the vicinity of the manubrium of the sternum, and of the back of the chest where they have a stellar arrangement. One or both jugular veins are often prominent to a certain degree, and venous twigs are also seen under the chin, on the temples and on the forehead. Deep inspiration, whether the patient is lying or in an upright position, causes the jugulars to sink but little or not at all. In most of these cases palpable cervical lymph glands are found to be present. Gibson is of the opinion that tubercular bronchial glands are the cause for the enlargement of the veins, and calls attention to this condition as an aid for the often difficult diagnosis of mediastinal glandular enlargement. In all of such of the author's cases which have come to autopsy this condition has been found.—*Lancet,* October 20, 1906.

PENETRATION OF TUBERCLE BACILLI THROUGH THE SKIN.

At the meeting of the *Société de Biologie* in Paris, on June 22, Courmont and Lesier reported that they had made 100 experiments on calves, guinea pigs, and rabbits by rubbing tubercular sputum or pure culture upon the intact, depilated or shaved skin. Their results were as follows:

1. The tubercle bacillus can penetrate through even the uninjured skin, and if the hair is removed or shaved this is always the case.

2. The tubercle bacillus can cause local skin changes, or may leave no trace of its entrance, and yet can cause a more or less high grade general infection.

3. The skin changes have a similarity to lupus, and the glandular changes to those of scrofula, which may explain the pathogenesis of these affections.

4. The experiments on rabbits, where pulmonary tuberculosis was present without any trace of the place of entrance of the bacilli, speak in favor of the extra-pulmonary origin of tuberculosis of the lungs.

ALBUMINURIA IN SCHOOLBOYS.

Clement Dukes, the physician to Rugby School, says that the number of cases of albuminuria found in examining young boys of school age is somewhat startling. The condition was found in 157 out of 1,000 boys examined. He says that this functional disturbance is not of serious importance, however. Amongst those who were known to have this ailment during school life the author states he has never once found the condition to exist when they reached maturity. While the malady is largely dependent upon the state of the vasomotor system, it is also subject to some condition of the blood, inasmuch as Sir A. E. Wright has shown incontestably that it is at once removed by supplying the blood with lime salts, either in the form of an abundance of milk which contains a large amount of lime, or by the administration of lactate of lime. In the interests of the growth, develop-

ment, and happiness of boys of school age the author urges the importance of not placing lads exhibiting this condition, but without renal changes, upon a restricted diet, as is so frequently and needlessly done, as it has been proved that these regulations are not consistent with their welfare.—*Lancet,* August 24, 1907.

HERPES IN EPIDEMIC CEREBROSPINAL MENINGITIS.

Einhorn states that it is his experience in this form of herpes for the eruption to appear by degrees, so that both fresh and dried vesicles may be present at the same time. In most of the other acute infectious diseases the herpes vesicles appear at the same time, and with this the appearance of the vesicles ends. The atypical localization is also noteworthy in this special disease. Occasionally there is a spot on the ear, or on the eyelid, and in one case the eruption was observed on the thumb. Furthermore, the uncommon size and volume, as well as the slow healing, is a feature of the herpes of epidemic cerebrospinal meningitis.—*Wiener Klinische Wochenschrift,* 1907, No. 23.

ANTHRAX FROM FALSE HAIR.

Russ reports the case of a man who died of anthrax two days after wearing a false beard made of horse-hair. The beard came from Russia, and tracing the probable causes of the sickness it was decided to examine it bacteriologically. Inoculations in mice and guinea pigs showed conclusively that it was from the beard that the man had become infected.—*Wiener Klinische Wochenschrift,* 1907, No. 22.

BLOOD DIFFERENCES IN THE EXANTHEMATA.

In order to determine some differences between the blood in measles and in rubeola, Lagriffoul made a detailed study of this feature in 22 cases of the former disease and 30 cases of the latter. In measles a hyperleucocytosis and polynucleosis was generally found during incubation and invasion, occasionally changing to a very pronounced hypoleucocytosis with mononucleosis at the time of the eruption, returning gradually to the normal condition during desquamation. The stage of hypoleucocytosis is much less frequent in rubeola, and sometimes at this stage there is instead an increase of leucocytes with polynucleosis, or normal conditions. Therefore, no sharp differentiation may be found between these two diseases by means of blood examination, but they are together very easily distinguishable from the polynucleosis with eosinophilia in scarlet fever, and the mononucleosis with myelocytosis in smallpox.—*Arch. de méd. expérim.,* 1906, p. 18; *Zentralblatt für innere Medizin,* 1907, No. 33.

SURGERY.

EDITED BY

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Chief Surgeon, 1st Division, German Hospital; Attending Surgeon M. E. (Seney) Hospital; Professor of Surgery, Brooklyn Post-Graduate Medical School, Brooklyn, New York.

CARCINOMA OF THE BREAST STATISTICS.

The American Surgical Association, at its annual meeting in Washington, held an interesting and important symposium on the results of operations for cancer of the breast. Greenough (*Surgery, Gynecology and Obstetrics,* July) reported his conclusions, based on 416 cases of primary operation for cancer of the breast at the Massachusetts General Hospital (1894-1903), of which 376 were traced to a conclusive end, result, at an average period of eight years after operation, as follows: Sixty-four cases were alive and well, and 7 died without recurrence over 3 years after the operation. No case with palpably enlarged cancerous glands above the clavicle and no case of cancer of both breasts was cured. Recurrence in the scar occurred in less than one-half the cases. Internal metastases were most frequent in the lungs, mediastinum in the axillary and supra-clavicular glands, the liver and the spine. Seventeen out of 88 cases, or 19 per cent. of those passing the three-year limit, showed recurrence later, and 4 cases developed recurrence 6 years or more after operation.

Dennis (*same*), reporting on the end results of 50 cases, mostly private, concludes that the 3-year limit is too short a time to predict a permanent cure. Dennis divides his cases into three groups: (1) Cases all of which have been cured beyond the 3-year limit, and a few up to 25 years; (2) Cases cured beyond the 2-year limit which have died many years after the operation from causes independent of carcinoma; (3) Cases beyond the 3-year limit which have died many years after from metastases in the internal viscera. Group 1 includes 39 cases reported, some of which have lived 25 years without evidence of recurrence, including, however, a few with local recurrences in which subsequent operations were performed without further extension of the disease. All of these cases have lived from 5 to 25 years. Group 2 comprises 4 cases which have been cured beyond the 3-year limit and died of other diseases. These cases were for many years free from recurrence, and death ensued from causes not related to cancer. Group 3 consists of 7 cases where the patients lived for many years after the original operation and died subsequently of metastases.

In 4 the metastasis was in the lung and pleura. In 2 cases it was in the abdominal cavity, and in another in the pelvic glands and femur. In this list of 50 cases, all had reached the 3-year term. Dennis considers that his series of cases demonstrates the clinical fact that (1) cancer of the breast is sometimes permanently cured; (2) that cases may go as long as 18 years and yet have recurrence; (3) *that in the cases in which no return was present the operation was performed almost without exception within six months from the incipiency of the disease;* (4) the more radical the operation within reasonable limits, the better the prognosis; and (5) in some cases in which the outlook was unfavorable, as manifested by extensive ulceration, hemorrhage, widespread axillary involvement, the end results have been satisfactory. Palpable axillary involvement, however, according to Greenough, makes the complete removal of the disease more difficult, 12 per cent. only free from recurrence in such cases, as against 29 per cent. where no glands were palpable. Dennis reports one case where he removed a sarcoma of one breast, 14 years afterward removing a *carcinoma* from the other breast. Vanderveer has reported similar cases. Dennis reports 2 cases in which the patients had foul hemorrhagic ulcerating breasts, in which he operated simply with a view to making the patient more comfortable. To his surprise, one of these cases is alive, 8 years after operation, the other 4 years without evidence of recurrence.

RESECTION OF THE LIVER.

Garré rejects the elastic ligature, packing (except in injuries), and plates of pure magnesium to support sutures (because of liberation of hydrogen). He relies on silk ligatures and circular suture where vessels have been cut obliquely. He states that it is not difficult to apply clamps to the vessels if one is careful not to stretch the vessels in cutting through the liver. Compression suture of the wound and catgut suture of the surface are the safest means of hemostasis. Garré reports six successful cases.—*Surgery, Gyn. and Obstet.,* Sept., 1907.

THERAPEUTICS.

EDITED BY

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ELI H. LONG, M.D.,

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THE USE OF MORPHINE IN ASTHMA.

At the Balneological Congress, 1907, Dr. Goldsmith spoke upon the use of morphine in asthma (*Berliner Klinische Wochenschrift,* July 1, 1907). Noting the abundance of therapeutic measures advised in the books, for asthma, as for every incurable disease, he states that there is always also found the warning to give the asthmatic no morphine, except in the extreme case. He refers to this rule as one that every one preaches, but no one observes. When we have before us an asthmatic in terribly anxious distress, we will scarcely concern ourselves with the book rules, but will resort to relief by an injection of morphine.

But the warning is justified, for in institutions that care for persons with morphine habit we find at least fifty per cent. of the cases are asthmatics. It is, therefore, important to establish the limits of morphine use. To that end the author first presents a few observations as to the disease. Out of the rather wavering conceptions of asthma found in the books he has come to group cases that have common, characteristic symptoms, and he lays emphasis upon the type of respiration. He regards as asthma all difficult respiration that is characterized by short and unusually quiet inspiration, with prolonged, noisy expiration. At times catarrhal conditions may render the inspiration noisy; but such a case departs from the pure type of asthma. He emphasizes that pure asthma is a disease which shows throughout, aside of the appearance of great dyspnœa, an inspiration that is essentially short and noiseless, and an expiration that is extraordinarily prolonged and audible. In the more chronic cases we must distinguish between these in the so-called status asthmaticus (prolonged recurrent attacks, with intermissions) and those that throughout life persistently show the asthmatic type (asthma permanens), varying only in intensity.

That we would, in the classical cases where the attack occurs twice a year and lasts for one or two days, use morphine, without remorse, is apparent; but a full dose would not be given when the attack is regarded as transient. The question of giving morphine is more serious when applied to the chronic cases, but the author believes without hesitation that it can be answered in the affirmative. He does not assent to the dogma that prolonged administration of morphine leads absolutely to morphine abuse, for by trial one may be convinced that, with certain dosage, morphine may be employed for months at a time without any indication of morphinism or habit. In cases that he had treated with the drug daily for half a year, using it subcutaneously, no trace of morphinism had developed, and the drug was easily withdrawn. He advises small doses. It is remarkable with how small a dose an asthmatic will be eased to a sense of well-being. Gm. 0.003, 0.004, or at most 0.005 (gr. 1-20 to 1-12) will suffice in most cases to relieve the severest symptoms, at least to the degree of permitting sleep and a restful night. These doses do not lead to morphinism, in his experience; though it is admitted that there are

persons more susceptible, in whom morphine must be withheld, but such cases occur very seldom.

When then is the cessation of the drug called for? When does it become dangerous? In general, the author answers: The moment when symptoms of morphinism appear. The patient may not continue to respond to the beginning dose, but demands more; and for a time the dose may be increased; but when the original efficient dose is much exceeded, the moment of morphinism has arrived, and the drug must be substituted by chloral and other less efficient remedies.

ON THE TREATMENT OF DYSMENORRHEA.

A new treatment for dysmenorrhea, given by Dr. Oscar Polano (*Muench. Medizin. Wochenschrift,* August 27, 1907), not only is attested by success in his hands, but it deals with an interesting question in physiology, as to the influence upon the menstrual function of activity of the mammæ.

Rehearsing the common classification of dysmenorrhea into (1) those caused by mechanical obstruction to the flow, (2) those due to endometritis, (3) those regarded as reflex, and (4) the hysterical, the author discounts the pure mechanical factor. He notes the tendency to regard many cases as purely hysterical, and indeed, proof to the contrary is not easy. Pain being the only symptom, its reality and strength cannot be objectively known. Many dysmenorrheics show hysterical stigmata and must be treated accordingly.

But, as every practitioner of large experience knows, there remains not a small number of cases which all internal and minor surgical treatment has failed to relieve. For these Polano recommends the new treatment, which has served him well in many cases, in contrast to the lack of success with other methods. The treatment is simple and harmless, being based upon the assumption of an antagonism between the function of the ovaries and that of the mammary glands. As an increase in the activity of one prejudices the function of the other for a longer or shorter time, as their relations during pregnancy and lactation show, the suggestion occurred to lessen the intensity of the pathological forms of menstruation, particularly dysmenorrhea, through artificial stimulation of the breasts.

Upon this ground the author adapts the Bier method of treating mastitis, by applying the Klapp suction glass to each breast, beginning several days before the expected menstrual period and continuing, if possible, through the period. The air is exhausted, by use of a double-cock syringe, to a point of suffusion of the breasts and a sense of strong drawing felt by the patient, but not to the degree of painful sensation. The glasses are applied from one-quarter to one-half an hour at a time daily. After the treatment the breasts retain a hyperemia for hours, with a peculiar fullness, which, after a longer period of treatment, may continue for days.

The objection that this procedure is purely suggestion is set aside by the fact that it has an undoubted influence upon the menstruation, as the cases briefly reported show:

1. Aged 24, curetted three years because of dysmenorrhea, with slight improvement for a time. Six months later operation for appendicitis. Periods then regular, with pain. Later an ovariotomy, because of abscess in right ovary. After this operation suffered with most severe dysmenorrhea, pain beginning several days before the period and continuing four or five days, so that since two years ago patient had to lie in bed each time for five days, with constant pain of a severity that compelled the use of morphine. Objectively slight fixation of right border of uterus (result of operation), but no sensitiveness to pressure. For past nine months patient has been treated regularly by the above method, and she is now able to work during the menstrual period, uses no morphine and is not obliged to go to bed. Experimental stoppage of treatment allowed the dysmenorrhea to return in much milder form, which disappeared promptly with renewal of the treatment.

The periods are much less intense than formerly and with systematic treatment are often postponed five to six days beyond the expected time.

2. Aged 18, dysmenorrhea for nine months with menorrhagia, periods occurring every two weeks and lasting eight days. Treatment with styptics unsuccessful. Curettage refused. With first treatment by author's method (for eight days before the period) menstruation occurred after interval of three weeks from last period, and weaker than usual. After three weeks' treatment resumed for eight days, period delayed to four weeks, was weaker and lasted four days. Next period the same. Next period, no treatment, interval of three weeks, lasted six days.

3. Aged 24. Married. Nullipara. Uterus moveable, appendages free, examination painless. Periods every four weeks, last six to seven days, very strong, with very severe pain for first two days. During past year has had to be in bed on the painful days. After eight days' treatment period began without pain four days after expected time. Transient pain on second day. Flow much weaker than usual. After three weeks, second period of daily treatment, menstruation beginning ten days after expected time, with transient pain on first day.

In these cases, which could be multiplied by similar ones, there occurred, beside the favorable effect upon the dysmenorrhea, a retardation of the menstrual flow, as evidence of the influence of the method upon menstruation.

Complete failure has never been experienced with this method, though the success is not always so marked in the complete relief of the distress. The author has employed it in a large number of cases during the past year.

We know that tuberculosis is preventable and curable; yet we allow it to cost this nation 150,000 lives every year. Can we, as a nation, afford to offer up this annual sacrifice when the general adoption of preventive measures and their intelligent enforcement will gradually reduce this alarming mortality, and in due time stamp out the disease?—G. W. HOLDEN, *Jour. A. M. A.*, xlviii, No. 3.

OBSTETRICS.

EDITED BY

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RUPTURE OF THE UTERUS.

Scipiades declares that the operative treatment of uterine rupture, as shown by the literature, has yielded no better results than conservative measures. This conclusion is borne out by the experience of Tauffer's clinic, where just as large a proportion of cases has recovered under the use of drainage as by abdominal section.

Since transportation, especially before delivery and immediately after, has exerted a most unfavorable influence on the course of the cases in uterine rupture, the first treatment, the author thinks, should be carried out at the place of its occurrence. The first pack is not removed for eight days except on special indication. At this time the patient is taken to a hospital and the gauze drain replaced by a glass tube. This in turn is superseded in six or eight days by a rubber tube.

When operation is required total abdominal hysterectomy and supra-vaginal amputation have given the best results.

In the event of a subsequent pregnancy after rupture of the uterus, the author counsels early abortion; or if the pregnancy has gone to the period of fœtal viability, Cæsarean section he thinks offers the best prospect.— *entralbl. f. Gyn.*, August 3, 1907.

INVERSION OF THE UTERUS AFTER ABORTION.

F. Prüsmann has collected seven cases of inversion of the uterus after abortion. In three, this complication occurred directly after the expulsion of the ovum, accompanied by severe labor pains and profuse hemorrhage. In the other cases the inversion took place from nine days to five weeks post abortum.

The placenta was retained in every instance and found attached to the inverted uterus.

In one case of abortion at the fifth month the inversion followed lifting a heavy weight. In the others the cause is not stated.

In all but one collapse ensued from shock and hemorrhage. In the severer cases there was one death. In one instance the woman subsequently had six term births and one abortion. In one case spontaneous reinversion was observed after ten days.—*Zeitschr. f. Geb. u. Gyn.*, Vol. 60, p. 152.

HEART DISEASE IN PREGNANCY AND OPERATIVE STERILIZATION.

The internists Leyden, Kroenig and Gerhardt, says Hellendall, estimate the mortality of pregnant women with severe heart disease at 40 per cent. Fellner found in the abundant material at the Vienna obstetric clinic that fully one-seventh of the lesions are never recognized, and that only 6.3 per cent of the women succumb to the heart lesion. He claims that only the severe cases are affected by labor and the puerperium, that the majority recover the same condition of health as before pregnancy, and that many women suffering from heart lesions bear later births much better than the first one. Veit would await grave symptoms before interrupting the pregnancy. Hans Meyer-Ruegg emphasizes the fact that a moderate amount of fatty degeneration of the heart muscle in normal pregnancy has been demonstrated by Virchow, Lebert and Ponfick, and that acute fatty degeneration of the myocardium during the puerperium after long tedious births is a common occurrence in post mortem findings. It is an established fact that myocarditis is associated with the late course of chronic valvular lesions. If, however, a certain predisposition to fatty degeneration of the heart muscle exists during pregnancy and the puerperium of women with cardiac disease, it is quite certain that danger threatens them from this source especially.

Von Leyden believes heart lesions alone do not indicate interruption of pregnancy; should disturbances of compensation occur which cannot be removed by careful management, and which attain a threatening magnitude, then artificial interruption of pregnancy is demanded. Hans Meyer-Ruegg insists, however, that intervention should not be delayed too long if good results are to be expected.

The greatest danger is present in cases of mitral stenosis, and here even Fellner endorses more active measures. Hellendall says that 70 per cent. of the cases of valvular lesion are mitral lesions, and that the findings of those who have observed large numbers of cases in the post mortem room have shown that mitral lesions cause grave disturbances only in the presence of stenosis. In mitral stenosis, with its complications, we have therefore a condition which affects the pregnant patient most unfavorably.

The author reports such a case in which he performed artificial abortion and, after eight days of a febrile course, sterilization of the woman by removal of the tubes.

He thinks sterilization should be recommended in every case after artificial abortion in women whose life is endangered by chronic progressive disease, such as heart lesions, chronic nephritis, tuberculosis, psychoses, etc.

Of the 148 cases of severe cardiac disease in pregnancy reported in the literature 57 died, and the author emphasizes the fact that these 57 deaths might have been prevented had sterilization been performed.

Since Kehrer, in 1897, first recommended sterilization as a distinct operation with ligation and division of the tubes by anterior col-

potomy, there have been numerous modifications employed, and at the present day there is great diversity of opinion as to which is the best procedure.

Hellendall used the method employed by Friedmann. This consists in crushing the tube with an anterotryptor (Mikulicz) and ligation in the ligature groove with catgut. The mucosa is thus destroyed with the instrument while the serosa and resistent submucosa remain intact.

The author is engaged in experiments with this operation on animals, and hopes to report results later.—*Med. Klinik,* Berl., June 16, 1907.

Correspondence.

CONCERNING COLLARGOL.

To the Editor of the NEW YORK STATE JOURNAL OF MEDICINE:

We beg leave to refer to your editorial on "The Bactericidal Power of Certain Much Used Antiseptics" in your current issue, wherein you cite the findings of the Therapeutic Committee of the British Medical Association that, among other preparations tested, collargol has practically no bactericidal action.

Permit us to state that the efficacy of collargol, which is demonstrated to certainty by hundreds of authoritative publications, is not dependent upon germicidal properties. Robin has shown (*Intern. Clin.,* 1905, Vol. III) that colloid silver, even in infinitesimal doses, exerts profound physiological effects: It markedly augments the excretion of urea, uric acid and indoxyl, increases the nitrogen assimilation co-efficient, lessens oxygen consumption, occasions a transient vascular tension and, in septic patients, sets up an intense leucocytosis. He concludes that it has a powerful catalytic action like the organic diastes, and is destined to take a prominent place in functional therapeutics.

Professor Solis Cohen said (*Jour. Amer. Med. Asso.,* Oct. 20, 1906):

"It is quite probable that the therapeutic value of colloidal silver is largely due to katalytic action in taking up and again yielding oxygen, thus destroying toxins, bacteria or diseased cells—a chemical amboceptor action, to take an illustration made familiar by Ehrlich—and through such action it may prevent or retard sepsis. It certainly has a definite therapeutic action and should be employed more extensively in larger and more frequent doses."

The investigations of Beyer, Schade, Rodsewicz and others prove that, while collargolum has no such powerful bactericide effect as silver salts, it has marked germ-inhibitory properties, favors the oxidation of ptomaines by its electrocatalytic powers, and occasions a vigorous phagocytic reaction.

We trust that, in justice to collargol, you will accord this communication space in the columns of your esteemed journal, and remain,

Yours respectfully,

SCHERING & GLATZ.

New York, Aug. 16, 1907.

All of them had hobbies, followed faithfully and successfully together with medicine, and all of them deeply interested in the uplifting of the medical profession, especially in securing the rights of its members and saving poor sick people from exploitation by quacks and charlatans. All of them gave of their time, their most precious possession, for the political and social interests of their fellow-men, and felt in so doing that they were only accomplishing their duty in helping their generation to solve the problem that lay immediately before it.—*Walsh, "Makers of Modern Medicine."*

TRAVEL NOTES.

BEING SOME MEDICAL OBSERVATIONS ON A TOUR AROUND THE WORLD,

By E. E. BLAAUW, M.D.,

BUFFALO, N. Y.

For an accurate account of the condition of the medical world as I found it during my trip around the world (from August, 1906, till June, 1907), it would have been necessary to make notes—a thing distasteful at the time, and unsatisfactory afterwards. Nevertheless, I will try from memory to give a few particulars.

In Tokyo I had the pleasure of meeting the German Dr. Wunsch, who has the greater part of European praxis. Before settling at Tokyo he had been physician to the Emperor of Korea; he succeeded Baelz, who, together with Scriba, reorganized the medical university, and, a couple of years ago, returned to Germany, Scriba having died in Japan. Their busts were going to be unveiled on the extensive hospital grounds. Nowadays a foreign professor no longer is connected with the university.

I was hospitably received by Prof. Komoto, the oculist, who had his special education in Germany. German science and the German language, as intermedium between the Japanese and the foreign medical world, predominate in Japan. As a special privilege I was permitted to keep on my shoes, though along with the soft slippers one is bound to wear. The way in which the professor associates with the students seemed familiar, even cordial. That morning I was put in his place. The diagnosis, anamnesis, historia morbi, all these were written in German—not absolutely correct, it is true, yet quite comprehensive, although the young people were unable to converse in German.

I have a profound regard for the zeal with which the Japanese professors devote all their time to their hospital, students and laboratories—indeed, they make one feel that they are thoroughly up to their business.

Prof. Komoto was trying the value of Heine's cyclodialysis. Prof. Okada, specialist for ear and throat diseases, showed me two patients of his, whose larynx he had removed, in splendid condition, and told of his plan to have his experiences of some eight similar cases published in the *Laryngoscope.* The hospital rooms look comfortable and clean; the nurses dainty in their Europanized costumes. The university possesses a fine museum of pathological specimens.

To my friend Inouye, co-redactor of *Ophthalmology,* I feel much obliged for introducing me to Dr. Y. Fujikawa, who studied at Jena, is a nerve specialist, and devotes a good deal of his time also to medical literature, being redactor of a general medical journal. He made me a present of his book "Japanese Medicine," the fruit of ten years of labor—to our misfortune, written in Japanese. Owing to his courtesy I got the first Japanese book on Ophthalmology, translated from the Dutch; he presented me with Zoshi, the report of the first postmortem in 1754, and the first volume on Anatomy, a translation of the work of Kulmus by the three Japanese friends, Sugita, Mayeno and Nakagawa, which appeared in the third year of An-ei (1774).

During our stay in Tokyo (October, 1906) the imperial museum exhibited a multifarious collection on the influence of the Dutch in Japan. The director kindly unlocked for me one case after another, and so I found a good many Dutch medical books, Dutch translations from the German, and Dutch medical works reprinted in the original in Japan, on Japanese paper, upwards from the 18th century to the second half of the 19th century.

For about two centuries the Dutch had been the means of spreading European knowledge on the little island of Decima (now forming part of Nagasaki), where their life was rather a prisoner's existence, as they were not allowed to cross the bridge leading from the island to the town. The Japanese, eager for Euro-

pean knowledge, had to master it stealthily, as the Shogun's politics were bent on keeping the people out of European influence.

Of course the new era has not dawned yet for the uneducated classes, but that these should show more eagerness for or adhere to quackery than the highly cultivated western nations I do not believe. The hospitals bear proof of an enormous patronage; and the larger cities, as Tokyo, Kyoto and Osaka, are well provided for. Tokyo and Kyoto possess schools for the blind and dumb. The blind are taught reading in Braille print. They learn music in the same way as the Geisha girls. The deaf and dumb are taught mathematics and painting, taking their own old art reproductions as examples. The Kyoto school contains about fifty pupils, boys and girls. Blindness of keratoglobus and buphthalmus prevailed. The Japanese in their ophthalmological praxis make an ingenious use of their national eating utensils, viz., chopsticks. With two glass rods, about 15 centimeters long, used as they do their chopsticks, they are able, once the upper eyelid is reversed, a second time to turn over this eyelid, and thus expose to view the upper fornix *tuto et jucundo*. He who has witnessed the enormous number of trachoma sufferers in this country will appreciate this procedure. Expression and medical treatment are chiefly followed. The Japanese, of course, have transformed the Snellen's testtypes—in my possession is a card made by Prof. Asayama in Kyoto. However, I also found translations in British-India and Egypt, in the languages there spoken.

Shanghai is a large city, divided in different parts, the native quarters being behind the walls, the number of inhabitants being unknown, and all European influence wanting. The French territory contains a population of about one hundred thousand natives under French jurisdiction. Just at present some twenty-five of their prisons had to be evacuated to the hospital for infectious diseases, on account of "beri-beri." (The opinion as to the origin of "beri-beri" as yet remains unsettled. Its being infectious, however, has many adherents; whereas many agree about intoxication playing an important part in it, too). The rest of the city is governed by the highest representatives of each European nation. They select a few of their numbers, along with the president, for daily administrative business. Among these is the health department, at the head of which is Dr. A. Stanley. An annual report is published. Their influence on the sanitary condition has been highly beneficial. I visited a Chinese hospital under English administration (Dr. Davenport), which is much frequented, and is going to be enlarged, with separate quarters for women. All over the East our colleagues complain of an absolute lack of time for writing, as their help is insufficient. Here it is also the case. Indeed, it is to be regretted that an experience of over twenty years will be lost for us. Even for keeping accurate statistics, time is found wanting.

The Europeans at Shanghai are rightfully proud of their "Isolation Hospital." At my visit there I found only the above mentioned "beri-beri" patients, the other half of the buildings, used for Europeans, being as good as unoccupied. The building, as a whole, is quite up to date. The only complaint of the resident doctor was, that no post-mortems of the Chinese could be done, their religion forbidding, and the sufferers' relatives preventing it by taking them home when they are sure to die. My impressions of a Chinese hospital were intensified at Hongkong, where other climatic conditions prevail than at Shanghai. The cold months at Hongkong correspond with ours, when the temperature is so congenial that we enjoy outdoor life, but do not need thin clothes. This should be taken into account when we consider the hospital equipment. The Chinese hospital in Hongkong, Tung Wah, has as resident physician Dr. Jeu Hawk, who got his medical education in the United States, and four native physicians. All infectious cases are given over to Dr. Hawk, who treats according to our modern ideas; whereas all other patients have a right to choose how they want to be treated, either in the western way—then Dr. Hawk looks after them—or in the old Chinese way. In the latter case they take a cup, in which are put four little sticks, each representing one of the four native physicians. They shake the cup until one stick falls out, and the man whom it represents is to be their physician. One ward there is where patients have to remain the first twenty-four hours, either to die or to clear up the diagnosis.

In this hospital I found want of comfort and cleanliness, of quiet and calm, in the way we like so much to have it, the floors being worn-out tiles, the stairs ditto, the beds of a most primitive kind, no more than tables; the pillows lumps of wood, somewhat concave, with hardly any cover. The patient keeps on his clothes. As the hospital is situated in a very populous part, and the windows are open on account of the heat outside, and the Chinese as a nation are peculiarly noisy, you can well imagine that here no trace is found of the quiet atmosphere in our hospital wards. Wealthy Chinese annually contribute $50,000 for maintaining this hospital, and the English Government—if I remember right—about $6,000.

Here I recollect having seen a Chinese foot. The poor women keep their feet always bandaged, and they are very unwilling to unbandage and show them. The custom is said to date from the time when the Chinese were nomads, and in order to prevent the women of the invaded country from being taken along, as thus—with their bandaged feet—they were unable to keep pace with the warriors. In Canton we observed the utter impossibility for these women to roam around in the way we enjoy. When they go out shopping they have to be carried in palanquins, or sit astride the backs of their female servants. Fortunately this custom of mutilation is fast getting out of use, as is also the custom with the married Japanese women of blackening their teeth and shaving their eyebrows.

The drug store of this hospital is well worth being remembered. I was shown a large oven, where some thirty big pots were in use for decoctions and infusions. I saw the enormous amount of herbs and all the different dried animals; the two ways of making moxas, and the giant pills covered with paraffin and stamped —gilt when intended for the *praxis aurea*.

The beautiful laboratories in Manila have no need of description for Americans, as its director, Dr. P. C. Freer, has given a very elaborate account of it, illustrated with many photographs, in No. 22, 1905, of the publications of the Bureau of Government Laboratories, Manila. Dr. Strong, the head of the biological department, showed me around. The general impression is most favorable, and the activity displayed here cannot be sufficiently commended, the climate being of the most trying. It is a shame to hear whispered about an underhand hostile movement against these hard workers. Dr. Goff, an old Buffalonian student, showed me around the hospital for the leprous and the insane, where no coercion is exercised.

Although the Dutch Indies lie scattered all about the equator, and Dr. L. F. Barker, in his article in the *A. M. A. Journal* of June 16, 1906, does not seem to know of their existence, the amount of work done in the field of medicine is of high value, and not limited to the one-language reader. As Batavia is the capital and the oldest residence of the Dutch, it harbors the central laboratories and schools. All yong medical men, wishing to settle in the islands, likewise all military physicians, here follow a course in tropical medicine for at least three months, under the guidance of such men as Dr. J. de Haan and Dr. Gryns. A large hospital is connected with the laboratories, and original work is encouraged. For the natives they have a special school, where these are educated to become doctors-djawa, who have a right to practice medicine all over the archipelago. The school, at this moment harboring 150 pupils, is going to be enlarged.

A very important institution is the "Landskoepokinrichting," where animal vaccine for the whole island

of Java and Madoera is prepared, and which is steadily widening its sphere of influence, thereby annually materially decreasing the number of smallpox cases. Last year about 4 to 5 million vaccine doses were sent out, and this amount is continually increasing. Dr. Nyland, the director, very originally makes use of the banana stem as a means to forward and keep cool vaccine tubes, highly commended by Prof. Koch. The institute as a whole bears proof of what interest in a matter can bring about in the tropics. Here also they were enlarging the building, as the present accommodation is steadily proving too small. Dr. Nyland is at the same time Director of the Pasteur Institute. Last year 547 patients were treated: 217 Europeans and 330 natives. Dr. Gryns took me out to Prof. Neisser's apes and monkeys, when we chanced to experience one of the tropical rainshowers, which in no time cause rivulets in the streets. We were received by one of Neisser's assistants, Dr. Haelberstadt, who intended to leave for Japan in February, to report about their scientific results. As these by this time they will have become "Gemeingut" for those interested in Neisser's work, I will only mention the orang-outangs and monkeys, who, as soon as they see a human relative approaching, retreat as far as possible into their iron-wire cages.

Dr. Steiner in Soerabaia, a naturalized Swiss, keeps up his scientific interest and showed me a good many cases of pigmentation of the conjunctiva of the upper lid, a peculiarity also found among other brown brothers, but certainly occurring far less than in his particular region. I found a few traces of it in Batavia, in the ophthalmological clinic, also a few in Bombay; to have seen any in Cairo I do not remember; however, this is not saying much, as my chance visits (to clinics) can no more than have given me some indication and cannot be supposed to serve as scientific material.

At Buitenzorg, near Batavia, trials were made to combat the opium habit with decocts of a plant, belonging to the Angustifolium-family. Should it prove satisfactory, this would be a blessing. Profit may be derived from it, too, as I was told that the Chinese are willing to pay almost anything for a cure.

Now, since tropical medicine has come so much to the front, we should not forget that the foundation-stone of it was laid by Jacobus Bontius (Jacob de Bondt), who in 1628 and 29 described epidemics of dysentery and cholera in Batavia where he resided as physician. He died, 1631. Honor to whom honor is due! To forget a small nation, to which even North America is in some way indebted, would be an unpardonable mistake.

A most cordial welcome Major Dr. H. Herbert gave me at his clinic of the Cowasjee Jehangir Ophthalmic Hospital at Bombay. My visits all that February week shall not seen be forgotten. What a material! What a lot of bulbus operations! Dr. Herbert performs some 800 extractions yearly. It was a delight to see so consummate an operator at work. In the course of this year we may look forward to a new book of his about cataract-extraction. The one extant is too small, and as he says: "I gathered a little more experience: I believe I know how to do it after some 6,000 extractions." I earnestly hope Dr. Herbert will also write down for us his operative procedure for glaucoma, as in this way he has likewise gathered a wide experience, and his way as yet is unknown. I saw here some interesting cases of Saemisch, or Freuehjahr's catarrah, in which Herbert was the first to show blood changes; of xerosis; and also a peculiar form of keratitis, the microbes of which he had sent to Axenfeldt for demonstration at the Heidelberg Versammlung, 1906, and described by Axenfeldt in his latest book.

On the outskirts of Bombay after crossing the native city one is surprised to find, amidst lovely surroundings, the Government Hygienic Laboratories. Lieut. Col. W. B. Bannerman proved a kind, unwearied guide. He explained to me the difficulties they had in preparing culture media—the Hindoos not allowing animals to be killed and the Mohamedans forbidding pigs to be used. (Was not one of the reasons of the revolt 50 years ago the believing of the Mohamedans that pig's fat had been used with the bullets?) These religious feelings, however, have to be taken into account by the Government. Colonel Bannerman, in the meantime, has hit upon a splendid substitute. He showed me about 150,000 doses of anti-plague serum.

A lot of venomous snakes are kept in glass cases. A special "snake charmer" knows how to catch hold of them at the back of their heads, putting his foot on the tail. He then lets them bite into a wine glass covered with caoutchouc, the fangs perforate this and the venom drops down into the glass. This venom is dried and sent up to the colder regions, where horses hold out better. An anti-venomous poison, specific for each kind of snake, is then prepared, which, if timely used, saves a patient's life, although the bitten member, say the finger, becomes gangrenous and has to be amputated.

Ingenious devices are used to prevent contamination from the moment the anti-toxin is ready till its being injected. I happened to be at Bombay when a new crusade against the pest took place. The city was divided into separate parts, each part in succession being separated. Poisoned baits were spread out to kill the rats, yet the success of the experiment remained far behind the labor it cost to exterminate them. With 150,000 baits they killed only about 300 rats. Still at certain days some 1,000 rats, dead and living ones, were brought to the laboratory, where three or four men were busily engaged doing post-mortems and in keeping record of the localities—an enormous amount of work, only partly lightened by outward signs of infection—"a sort of bluish coloring of the less hairy parts of the body."

In Madras, Dr. (Major) R. H. Elliot showed me his (*i. e.*, the State's) new Ophthalmological Hospital, which he hopes will be ready before the end of the year, and then will stand the comparison with the newest and best equipped ophthalmological hospitals in the world. And this is very fortunate, when we take into account the operative material alone. I believe that the number of his operations annually amounts to over 4,000, about 1,100 of which are extractions, and as he operates only on Tuesdays and Saturdays, he often performs about twenty extractions in one morning.

A great pity it is that our colleagues in the Far East all complain about too much work and too little assistance, besides unsatisfactory financial help from the Government, whereas lots of money is spent on far less humanizing purposes.

A year ago Colombo has come in the possession of the "Victoria Memorial Hospital," chiefly meant for eye patients. The building from the out and the inside looks very attractive. The resident physician made his studies in London (Morfields). The bandages used there are very ingeniously made of thin cardboard, which will be appreciated by those who have visited Ceylon and remember its temperature conditions.

I want not to forget mentioning the pathologic laboratory, chiefly due to personal munificence, where Dr. Aldo Castellani, the discoverer of the trypanosome of sleeping sickness, daily is at work. Connected with it he has a hospital of some eighteen beds, with the privilege of studying the most interesting cases from the general hospital of Colombo. They were nearly all cases of tropical skin diseases.

My friend of the Luzern congress, Dr. Eloui Pascha, was hardly recovered from pneumonia, so he directed me to Dr. Sameh Bey, medical director of the Wakfs. The Wakfs are an institution for the preservation of old monuments and they have the supervision of chaitable concerns. The clinic of Kalaoun, which I visited, is one of the oldest eye clinics in the world. During the summer months often 2,000 patients are treater during the morning. While I was at Cairo I did not see so many as that. During my talks with our colleagues I learned, however, that the number of sufferers is diminishing, the population slowly beginning

to realize the value of cleanliness and various opportunities for medical help render good services. But in none of the countries I visited is the number of trachoma sufferers so large as I found there, although by far the most frequently occurring eye disease on the globe. Former observers maintain that flies play a large part in it as the carriers of infection; and if this be true to a certain extent, I myself, during my fortnight's residence there, very rarely had a chance to make the same observations, when frequently I wandered through the native quarters. However we had the cold season then (March, 1907).

Dr. Fischer is connected with the School of Medicine as ophthalmologist, and it was owing to his courtesy that I met Dr. Elliot Smith, well known as one of the pioneers of our knowledge with regard to the cerebellum. He showed me his very large collection of pre-historic bones. I saw lenses at least 7,000 years old.

The pathological collection is rapidly increasing, and I was shown a most instructive series of changes made by the bilharzia-Egyptian par excellence, and the large collection of parasites by Prof. Loos, the well-known investigator of ankylostomiasis.

Slowly we reached the shores of our beloved Old World. The courtesy and kindness of all our colleagues in the eastern part shall never be forgotten. I only regret that difference of language often causes so much good work done by one physician to remain utterly unknown to the other.

In Naples I had the good luck to meet Prof. Angelucci, who although it was vacation, showed me his method of lifting the upper eyelid and fixating the bulb during extraction. His gentility and his acting as a host in showing us the beautiful surroundings of Neapoli will be thankfully remembered.

Going northward many more clinics, all too well known by those who came to the Old World, were visited. Roma also in this showed herself to be an important center.

Highly fragmentary as these impressions are I beg to remember that a trip around the world was not undertaken in the first place to increase my medical knowledge, as this is done within a shorter time and in a quicker way at home and in Western Europe. Still it bears proof of the fact that where culture is brought the medical educated man follows directly and demonstrates the seeds of more rational treatment, thereby decreasing ignorance and suffering.

Becoming acquainted with local conditions, seeing the limitations of the surroundings, feeling the influence of different climates, we more than ever felt proud of our colleagues, who, far from their native land, far from stirring collegial intercourse, do their work for the love of their profession and feel happy and rewarded in devoting themselves without restriction to the fulfillment of what they consider their duty.

Buffalo, N. Y., July, 1907.

It helps a man immensely to be a bit of a hero-worshipper, and the stories of the lives of the masters of medicine do much to stimulate our ambition and rouse our sympathies. If the life and work of such men as Bichat and Laennec will not stir the blood of a young man and make him feel proud of France and of Frenchmen, he must be a dull and muddy-mettled rascal. In reading the life of Hunter, of Jenner, who thinks of the nationality which is merged and lost in our interest in the man and in his work! In the halcyon days of the Renaissance there was no nationalism in medicine, but a fine catholic spirit made great leaders like Vesalius, Eustachius, Stenson, and others at home in every country in Europe.—*Osler, Aequanimitas and other Essays.*

New Books.

Dining and Its Amenities. By a Lover of Good Cheer New York. Rebman Company. 1907.

The anonymous author dedicates his book "To the Deipnophlic Brethren," and lays down the thesis that "Moderation is the silken string running through the pearl chain of all virtues." It is devoted to the joys of eating, which, properly speaking, are something more than the amenities. In the "preliminary parle" the author dwells upon the aphorism, that, the destiny of nations depends upon the character of their diet. He says, it is to dine that men labor, and it is that he, too, may dine, that the cook prepares our food. He lays great store by the sayings of Brillet-Savarin, the illustrious author of "The Physiology of Taste," who said, "The universe is nought but life, and all that lives is nourished."

He regards the discovery of a new dish, that sustains our appetite and prolongs our enjoyment, as a much more interesting event than the discovery of a star, for enough of these luminaries are always in sight. The Master also lays down the porposition that, "To pretend that wines should not be changed is a heresy; the tongue is soon saturated, and after the third glass, the best wine proves but an obtuse sensation.'" Thus we have a new heresy blithely placed upon the Index, when God knows we have striven for two thousand years to keep the number down.

"Un dessert sans fromage est une belle à ui il manque une oeil," surely can not refer to the lady in the coffee house who had her eye put out with a piece of cheese. But here is a sentiment of which we may approve. "To await too long the coming of a tardy guest is a want of regard for all those who are present." At the same time, while considering the amenities, we should not forget that to sit down too soon is a want of regard for those who have not arrived.

This book really tells more about eating and how to eat and how people used to eat, and what, than any work with which we are familiar. It also describes all kinds of cookery and the history of cooking. We learn that the cannibals of the South Sea Islands originally ate their "long pig" in the raw state—"long pig" being human flesh and "short pig" being pork. No reference, however, is made to the cannibal who, smacking his lips after dining upon a particularly juicy parson, declared him to be "a prime minister."

As to drinks, mixed and straight, this particular deipnophilic brother has the ordinary bartender against the ropes and screaming for help. The reader who sighs for knowledge, or even thirsts for information concerning such potations as the sherry cobbler, sangaree, brandy-smash, John Collins, horse's neck, or the apple-toddy, will learn that they were household words before Columbus sailed the raging main. The classics are invoked to prove that the *Acratopotes* of the Greeks was none other than he who now "is called a soaker, a toss-pot, or a tank." Hereafter in our classic reading when we encounter *Acratopotes* we shall know that he is no gentleman. One of the earliest advocates of the "eye-opener" was Marcus Aufidus Lusco, for Horace has it that

"Aufidius first, most injudicious, quaff'd
Strong wine and honey for his morning draught."

The author regales us with the sayings of the gigantic infant Gargantua crying stentoriously, "Some drink, some drink"; and he quotes volubly from the loquacious Doctor Bushwacker, discoursing upon the sherry couplet or wine in verse. He agrees with the teaching of the dermatologists that the red nose is not necessarily to be regarded as the badge of the spirit drinker. (It was upon such a nose as Bardolph's that a black flea lit and it was mistaken for a black soul burning in hell fire.) The author also contradicts the ancient doctrine of "the hair of the dog that bit you," although he leaves no doubt of his approval of Sam Johnson's epigram as written down by his faithful chronicler, James

Boswell—"Claret is the liquor for boys; port for men; but he who aspires to be a hero must drink brandy."

By the time we have progressed thus far in this fascinating book we are reeling with thirst, so that when the author says, "Hot Jersey lightning toddy with a baked apple therein is not a bad winter night drink," we swear i' the faith it is a winter's night—t'ell with the calendar. It is immaterial if they have the law of entail in England, we have the rule of the cocktail here; and we know that for the brewing of a good punch, *secondum mortem* as Father Tom says, we must put into it brandy to make it strong, water to make it weak, sugar to make it sweet, lemon to make it sour, and repeat the mystic rote—

"Punch is a strong weak
And a sour sweet drink,"— and all drinks an inconsistency.

Then come chapters on tea, coffee, chocolate and other broths. Condiments and sauces also receive attention. Between the chapters on cream and butter is appropriately sandwiched this:

Fat Jack—Tut! never fear me; I am as vigilant as a cat to steal cream.

Prince Henry—I think, to steal cream indeed; for thy theft hath already made thee butter.—I Henry IV. 4, 2.

As to cheese, the State of New York alone contributed 119,762,496 pounds in 1889. It must be as precious as ambergris by this time for there is an old saying that, "The richness of cheese is discovered by the multiplicity of its mites."

Then come chapters on sweets in dishes and in verse and metaphor, conversation at table, the pleasures of the table, slang speech, anniversary feasts, table jests, superstitions, fasting and frugality, gluttony, trencher friends, food allowance to warriors, and tobacco smoking. All of these are rich with classic references and historic citations.

On the whole this is an extraordinary book It is as pregnant with information on dining and its amenities as Burton's Anatomy is with melancholy. It is encyclopedic were the Peppergrass Papers are but compendic. Its perusal is a delight and its possession is to harbor a wealth of scientific references upon a fascinating subject. The author should reveal his name. He has produced a worthy work.

A STUDY OF THE HUMAN BLOOD VESSELS IN HEALTH AND DISEASE. By ARTHUR V. MEIGS, M.D., Physician to the Pennsylvania Hospital, Philadelphia. J. B. Lippincott Company. 1907.

This is a supplementary work to the author's admirable book on "The Origin of Disease." It is the outcome of the author's studies of the blood vessels at the bedside, at the autopsy and in the laboratory. Dr. Meigs was placed under the fortunate circumstance of having to make his own pathological examinations upon patients dying in his hospital service. This inconvenience has the merit of bringing a man closer into relation with his cases than when the labor is subdivided with the pathologist.

The illustrations—one hundred and three in number—are all original. Among these are some steel engravings which were drawn directly upon the metal from the microscope without any intervening sketch.

The studies of the blood vessels have made advances, perhaps, greater than any other of the departments of pathological anatomy during the last ten years. This knowledge has been recorded in the current literature, but heretofore it has not been collected in a single textbook. Dr. Meigs has set down his own observations, but they have been made in the light of a familiarity with the observations of other investigators and hence embody a fairly full description of these conditions.

Dr. Meigs calls attention to his contention that there is a "disease of age," characterized by anatomical changes in the blood vessels. These changes are just as pathognomonic as are the anatomical changes in the lungs characteristic of pneumonia.

This book shows the development of new blood vessels in diseased tissues, in scars, adhesions and tumors, and also in the walls of diseased vessels. The constant tendency to the production of new fibroid tissue in all diseases is demonstrated.

The author's illustrations of giant-cells surely cannot be regarded as accurate; conditions are pictured as giantc-ells which it would seem to the reviewer should not be classified as such. In Fig. 25, K is clearly an illustration of an adveolar structure. That the so-called giant-cell is, properly speaking, no cell at all is very true, still pathologists are pretty well agreed as to just what collections of neuclei and protoplasm are to have this title, and the term has served a good use.

In studying the diseases of the vessel walls, the author has found that chalk may be deposited in any of the coats of an artery. One illustration is given showing chalk in the muscularis alone. The usual changes incident to old age are found in the intenia, causing a thickening of that layer. Meigs contends that such a thing as a "physiological old age" does not exist.

One of the common causes of death in persons over fifty years of age is the rupture of a vessel of the brain. This is usually associated with pronounced disease of the interna. The author expresses it as his opinion that in apoplexy ulceration of the blood vessels is the precedent disease. This causes a slowly increasing thinning of the arterial wall until perforation takes place just as in typhoid perforation of the bowel. Apoplexy, he contends, is not due to the rupture of a stiffened vessel by reason of some extra effort or increase of orterial pressure. Commonly is comes during sleep or when the patient is quiet. He has found this ulceration in several cases, and he has even been able to discover the perforation through the ulcerated area. The ulceration is often latent and slow, and not uncommonly there are certain symptoms preceding the attack which are well known to clinicians.

This book after dealing with the diseases of the blood vessels in general takes up the diseases of the vessels of the various organs. It consists mostly in descriptions of specimens which the author has found. The larger part of the book is given to these descriptions without reference to any particular application of the knowledge revealed. The author expresses the hope that it may be of some use as further study of the blood vessels is made.

It is to be regretted that more light is not thrown upon the etenology and nature of varicose veins and of aneurism. The book is a painstaking and scientific contribution to our knowledge of this subject which reflects such credit upon its author.

PROGRESSIVE MEDICINE, Vol. IV., December, 1906. Edited by HOBART AMORY HARE, M.D. Lea Brothers & Co., Philadelphia and New York.

The December issue of this quarterly digest completes the series for 1906. Dr. J. Dutton Steele devotes one hundred and twenty pages to "Diseases of the Digestive Tract and Allied Organs." His presentation of the subject, his attention to the details, and his clear deductions must prove suggestive to every reader. In considering "Occult Blood in the Diagnosis of Gastric Ulcer," he says: "By the use of the Weber test and its various modifications, we have changed the significance of blood in the stool, from a sign that gastric ulceration has reached a stage of danger, into a means of diagnosis that is available in the quiescent stages of ulcer." His handling of the causes of lowered gastric secretion are particularly forceful. The rôle of "Radiography in the Diagnosis of Gastro-intestinal Disease" is clearly defined, and the employment of the Schmidt trocar and the Schmidt method for injecting salt solutions directly into the peritoneal cavity open up great possibilities for the future.

Dr. William T. Belfield treats of "Genito-urinary Diseases from Tuberculosis to the Irrigation and Drainage of the Seminal Duct and Vescile." Under the "Diagnosis of Renal Disease," Dr. Kapsammer's report of over twenty thousand autopsies in Austrian hospitals, during the last ten years, is quoted. In regard to the relation of "Gonorrhea to Disease of the

Sexual Organs in Women," he says: "While it is doubtless wiser for physicians to exaggerate than to minimize the remote evils of gonorrhea in both sexes, yet there can be no doubt that the current tendency is to be sensational rather than accurate in dealing with this question." His summary of the "Bactericidal Effects of Silver Compounds"; the various operative procedures for the relief of *prostatic hypertrophy*, and the cure of Hydrocele, are valuable.

Dr. John Rose Bradford, in dealing with "Diseases of the Kidneys," says: "Functional albuminuria is a condition of great importance to all practitioners, both from a point of view of diagnosis and of treatment. Certainly, it would seem at the present time that many of these cases are submitted to far more rigorous treatment, especially in diet, than is necessary." "Paroxysmal Hemoglobinuria," the "Retention of Chlorides in Nephritis," and more particularly the treatment of "Nephritis," are carefully considered. This section concludes with an article on renal dropsy.

Dr. Joseph C. Bloodgood devotes one hundred pages to Fractures, Dislocations, Amputations, and the Surgery of the Extremities. The healing of fractures, the problems presented by fractures at the lower end of the humerus, metacarpal fractures and sprains of the ankle-joint are all thoroughly discussed. So with Osteomyelitis, Paget's disease, and bone tumors. Bier's Treatment with Hyperemia is detailed at some length, and this section is freely illustrated. His conclusions in regard to the treatment of Tuberculosis of the bones and joints are: "I believe, if these patients come to treatment in the early stage, that open air, combined with Bier's hyperemia and proper orthopedic apparatus, will accomplish an untimate cure in an increasing proportion of cases, and operations will be performed, relatively, less frequently." Dr. H. R. M. Landis contributes over sixty pages to the "Therapeutic Referendum." "It has now been estabilshed beyaond a reasonable doubt that in tetanus antitoxin we possess a certain means of preventing tetanus, and that this serum should be used after all wounds in which there is any possibility to tetanus developing." Many useful suggestions are made in regard to drugs. Cases of poisoning by so-called "headache powders" are cited and the possibly injurious effects of adrenalin if used continuously.

Uric Acid. By Francis H. McCrudden, of the Laboratory of Physiological Chemistry, Harvard Medical School. Paul B. Hoeber, New York. 1905.

This work is devoted to the chemistry, physiology and pathology of uric acid and the physiologically important purin bodies, together with a discussion of the metabolism in gout. It started as a study of the metabolism in certain chronic bone diseases (rheumatoid arthritis, osteo-arthritis, osteitis deformans, etc.) As a result of this study the author was led to the conclusion that rheumatic disease and uric acid metabolism do not seem to be closely related. McCrudden, working in the Laboratory of Physiological Chemistry in the Harvard Medical School, has reached the conclusion that Haig's views are entirely unwarranted in attributing rheumatic disease to uric acid.

It seems to have been pretty clearly proven that it is the purin bodies in the food, either free or combined in nuclein, and only the purin bodies that have any action on the excretion of exogenous uric acid. Modern knowledge shows the fallacy of the alkaline treatment of gout. The author of this work has made a thorough study of the pure chemistry of uric acid, and of its decomposition products, and of those purin bodies which have physiological importance; also of the behavior of uric acid in solutions of pure water; in the solution of simple and mixed electrolytes, and of organic compounds; and in the urine and blood. He has also studied all of the research that has been made in this line, and arranged all of his material systematically, going from the simple facts to the more complex problems of metabolism.

The work is an exhaustive study of these important questions and contains practically all of the important references to the literature. It is a monument to the scientific skill of the author, and should serve to place the subjects, which it treats upon a more intelligent basis than heretofore.

Transactions of the Florida Medical Association. 1906. H. & W. B. Drew Company, Jacksonville.

This is a very creditable volume of transactions for a State society with only two hundred and seventy-nine members. It is well gotten up and contains some good papers The address of the President, Dr. J. M. Jackson, is well worthy of perusal. It is an historic resumé of the development of medicine.

Speaking of the contemporary medical men of eminence he says: "William Osler needs nothing but the mention of his name. Richardson, of Washington; Eagleston, of Seattle; the Mayo Brothers; Hyde, of Chicago; Johnson, of Virginia; Jewett, of Brooklyn; Otis, Weir, Mitchell, Ochner, Mellory and Wright, are but a few of the greatest contemporary scientists whom I might mention."

Stenhouse and Ferguson's Epitome of Pathology. By John Stenhouse, M. D., of the University of Toronto, and John Ferguson, M.D., Toronto, Can. 12mo., 285 pages. Lea Brothers & Co., Philadelphia. 1906. (*Lea's Series of Medical Epitomes.* Edited by Victor C. Pedersen, M. D.)

Drs. Stenhouse and Ferguson devote the first half of their work to *General Pathology*, after which the *Special Pathology* of the various organs and systems is considered. This arrangement conforms to the modern method of handling the subject, so that this excellent epitomization will serve not only the student in acquiring a well assorted knowledge, but also the practitioner who desires to post up on the leading points. Mastery of the information so easily presented in this compact volume will qualify its readers on the essentials of the subject and facilitate the work of those who desire to pursue it further in the larger treatises. It is truly an admirable little work, crowding the fundamentals of pathological anatomy into a very small space.

The American Illustrated Dictionary. By W. A. Newman Dorland, A.M., M.D., Fourth edition. Philadelphia. W. B. Saunders Company. 1906.

This is really the ideal medical dictionary for the physicians general use. It is of convenient size, up to date, and sufficiently full for the ordinary requirements of reference. Its definitions are concise, and it stands midway in fullness between the medical encyclopedia and the ordinary student's dictionary. It does not stop at strict medical terms, but gives words in the collateral sciences.

Under each drug are given its composition, sources, properties, uses and dose. The more important diseases have given their etenology, symptoms, etc. Under the principal organs is found a brief description of their anatomy, function, etc. A large amount of accessory matter is also contained. The book is well illustrated, largely in colors. The type is large and clear. We have taken at random a number of words which we have found missing from some recent medical dictionaries and found them all well defined in this volume.

This fourth edition represents an addition of some two thousand words, and brings the work strictly up to date. We have pleasure in recommending it highly.

Outlines of Human Embryology. By George Reese Satterlee, M. A., M. D., New York. John Wiley & Sons. 1906.

This is a medical students' handbook by the instructor in histology and embryology in the University and Bellevue Hospital Medical College. It gives an outline of the principal facts in human embrology. Theories and details are omitted. It takes up first the essential features of the male and female genital organs, the process of fertilization and the function of the primary germ layers. From this it develops the embryo, showing the cause and progress of the commoner congenital deformities. It is well illustrated, interleaved with blank

pages for notes or illustrations, and contains a student's glossary. This little book will be of much service to the student in mastering the rudiments of the subject.

AN EPITOME OF DISEASES OF THE NOSE AND THROAT. By J. B. FERGUSON, M. D., of the New York Post-Graduate Medical School. Lea Brothers & Co., Philadelphia and New York, 1907. (*Lea's Series of Medical Epitomes.* Edited by Victor C. Pedersen, M.D., New York.)

The author has presented in concise form the diagnosis and treatment of diseases of the troat and nose. He has planned the book to be helpful to the undergraduate and post-graduate medical student in gaining familiarity with laryngological work, and likewise to the general practitioner, who is often called upon to treat diseases of this region, and who needs to have the chief points in diagnosis and treatment concisely placed at his command. All these classes of readers will appreciate the systematic arrangement, the clear directions for examination, the illustrations of preferable instruments and of diseases, and the abundant formula for the best medication.

THE TECHNIC OF MODERN OPERATIONS FOR HERNIA. By ALEXANDER HUGH FERGUSON, M. B., M. D., C. M., F.F.M.S., of Chicago. Cleveland Press. 1907.

This book, the author says in his preface, deals only with the surgical technic of operations for hernia, and does not enter into etiology, diagnosis, symptoms, prognosis or non-operative treatment. It gives a full classification of all of the varieties of hernia. Every form of this disease is described, including the eponymic hernia. The author's large experience in this class of operations makes him an authority upon this subject.

The illustrations, while displaying none of the fancy features of the ultra-modern school of medical illustrators, nevertheless are good in that they fulfill the two requisites of medical illustrations; they are accurate (*i. e.*, truthful) and they show what the author desires to illustrate. One of these pictures is novel because it is from an actual case and shows five different kinds of hernia: (1) interstitial; (2) oblique inguinal; (3) epigastric; (4) direct inguinal; and (5) femoral.

Besides giving descriptions of the operations for hernia, the author shows his disregard for his prefatory remarks by retiring into general discussions upon complications of hernia, the indications for operation, bacteriology, results of operations and practically all of the things necessary to give a pretty complete treatise upon the subject. He pays his respects to W. B. Coley by saying that, "It is futile and unwise to give any consideration whatever to statistics, however honestly and faithfully compiled, based on one line of work on children in the determination of the most useful method of curing inguinal hernia by operation."

This is a valuable book and contains the best knowledge of the operative treatment of hernia.

County Societies

ONONDAGA MEDICAL SOCIETY.

THE QUARTERLY MEETING WAS HELD AT SYRACUSE, N. Y., SEPTEMBER 24.

Program.

1. "Kidney Stones," Dr. R. C. McLennan.
2. "Stricture of Spleen," Dr. W. L. Wallace.
3. Report of Cases, Dr. A. B. Breese.

MEDICAL SOCIETY OF THE COUNTY OF ULSTER.

THE REGULAR MEETING WAS HELD AT KINGSTON, N. Y., OCTOBER 1.

Program.

"Diphtheria," Frederick W. Loughran, M.D., New York City.

"Report of a Case of Double Empyema," Albert H. Palmer, M.D., Marlborough.

"Malnutrition," George H. Van Gaasbeek, M.D., Kingston.

Remarks, J. T. Wheeler, M.D., President of the 3d District Branch, Chatham.

JEFFERSON COUNTY MEDICAL SOCIETY.

THE ANNUAL MEETING WAS HELD JULY 11, AT ALEXANDRIA BAY.

Program.

"Insanity," Dr. F. W. Robertson, of New York.

"Ulcer of the Stomach," Dr. G. C. Madill, of Ogdensburg.

MEDICAL SOCIETY OF THE COUNTY OF KINGS.

THE STATED MEETING WAS HELD SEPTEMBER 17.

Scientific Program.

"The Sources of the Contamination of the Air in Greater New York." By D. D. Jackson, B.S., Director of the Laboratories of Water Supply, Gas, and Electricity, City of New York. Discussion by James W. Fleming, M.D., and T. R. Maxfield, M.D.

SECTION ON PEDIATRICS, September 27.

Program.

"Dysentery in Infancy and Childhood": Etiology and Pathology, by Dr. W. B. Meister. Symptoms, Diagnosis and Prognosis, by Dr. Wm. M. Hutchinson. Treatment, by Dr. Henry N. Read.

Deaths.

GAYLORD PARSONS CLARK, M.D., dean of the College of Medicine of Syracuse University, died suddenly of heart disease, September 1, at his home in Syracuse; aged 50 years.

SAMUEL LEWENGOOD, M.D., of New York City, died September 10, after a brief illness; aged 45 years.

FRANCIS H. MARKOE, M.D., surgeon to several New York hospitals, died in New York City, September 13, after a long illness; aged 52 years. He was the son of the late Thomas Masters Markoe, M.D. He was formerly assistant demonstrator and demonstrator of anatomy at the College of Physicians and Surgeons, and, later, lecturer and professor of clinical surgery.

EDWARD J. MESSEMER, M.D., of New York City, died August 5 at Marburg, Germany. He was for thirty years an attending physician to Mt. Sinai Hospital Dispensary.

FRANK H. MOYER, M.D., died at his home in Moscow, August 28, after a prolonged illness; aged 60 years.

MILES H. NASH, M.D., died in Ridgefield Park, N. J., on August 13; aged 74 years. He was a surgeon during the Civil War, and for eight years was assistant to Dr. J. Marion Syms. He retired from active work a few months ago.

FELIX NORDEMANN, M.D., died of heart failure at his home in New York City, September 15. He was one of the best-known German physicians in New York, and was founder of the German Medical Society.

SENECA D. POWELL, M.D., vice-president of the Pan-American Medical Congress in 1895, president of the Medical Society of the State of New York in 1897, professor in the New York Post-Graduate School, died at his home in Greenwich, Conn., August 25, after an illness of three years; aged 60 years.

JOHN H. SWASEY, M.D., of New York City, died in Portland, Me., September 13; aged 58 years.

GEORGE WALDRON, M.D., of Rochester, was instantly killed in an automobile accident August 28.

LANSING B. WINNE, M.D., of Albany, died suddenly September 2, from a gunshot wound; aged 51 years.

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Original Articles.

SYPHILIS IN CHILDREN.*

By LUDWIG WEISS, M.D.,

Attending Physician to the Skin and Genito-Urinary Service, German Poliklinik; Consulting Dermatologist, Hebrew Orphan Asylum,

NEW YORK.

IN dealing with the syphilis problem in children, one is constrained to touch at least cursorily on syphilis in the adult. It is the syphilis in the parent which transmits itself to the offspring and which causes all the misery in the tainted newborn. Among the triad of human scourges—tuberculosis, alcoholism and syphilis—the last one would prove the most devastating, if statistics could be made available as in tuberculosis. The contagion of tuberculosis is tied mainly to the expectoration and only in a minor way to contact. The tuberculosis patient, well trained in his behavior by the very efficient crusade of latter years, is a safe companion, relatively speaking. If he takes care of his sputum, using one or the other of the many devised spitting receptacles, which he afterwards consigns to the fire, and if he attends to his personal cleanliness, then he is a menace to none. Besides, the degree of contagiousness of the tubercle bacillus is one of a very slow intensity. In comparison to it syphilis is of a threefold disadvantage in reference to its spreading capacity. Its contagion is one of high intensity, its spread is connected with the most irresistible of instincts, its contaminating possibilities are more varied and manifold.

The number of cases of acquired syphilis in children is insignificant in comparison to the number of cases where the syphilitic taint has been inherited from the parents. The manifestations of inherited syphilis may appear in utero or show themselves immediately or soon after birth; or, less frequently, at a remoter period of life, say from the second to the twenty-eighth year, but with predilection between the sixth and eighteenth year. In this latter event we call the condition *retarded hereditary syphilis.* Here we vainly look for a primary lesion as an entrance of the poison; here the manifestations at once appear generalized.

*Presented in the Symposium before the meeting of the American Society for Sanitary and Moral Prophylaxis, October, 1906.

As to the mode of transmission there are naturally different possibilities which play a decisive rôle as to the course of the disease and the fate of the child.

1. Direct infection of the healthy mother by a diseased father, one having florid secondary symptoms (chancre, mucous patches, erosions on the genitals), causing in the mother the same kind of lesions. The child procreated in this case will then descend from parents which are both syphilitic and will then have the curse of a double inheritance in its system. This is equal to a death sentence, as such a child usually dies in the womb and is aborted by its mother.

2. Direct transmission of the syphilitic taint through the infected sperm of the father, the mother being healthy. In this case the semen infects the ovule of the healthy mother. The infection takes place at the moment of impregnation. This mode of infection is called the spermatic or germinative infection. In it the mother may remain well and the child also often escapes. Fournier states paternal heredity to be 38 per cent.; that is, out of a hundred men affected with secondary syphilis, 38 procreated syphilitic, and 62 procreated apparently healthy children. In this event abortions will take place at a somewhat later date, or there may be a stillbirth, or, if the child is born at the normal term of gestation, it soon succumbs from lack of vitality. It is maintained that the presence of the infected fœtus in the womb makes the mother immune against syphilis by the absorption of toxins in her system elaborated by the fœtus. This is the so-called *choc en retour.* Such a mother may suckle her child without fear of infection, when a strange wet nurse would surely become infected. This is the essence of Colles' Law.

Another possibility in this intricate matter is the effect of maternal heredity on the child. In this case the healthy semen of the male impregnates the syphilitic ovule of the female—ovular infection. The taint originating from maternal source is more disastrous to the child than paternal heredity. Fortunately this occurs very rarely. In five hundred marriages recorded by Fournier the husband brought syphilis into wedlock 487 times,[1] while the wife contributed only thirteen times, a proportion not quite three per centum, reflecting favorably on the morals and continence

[1]E. Finger: Die Veverbung d. Syphilis, p. 15.

of the women belonging to the broad milieu of citizens' families.

3. The third condition, which by no means exhausts all the possibilities, is the infection of the fœtus when the parents were healthy at the time of impregnation and infection of the mother has taken place during pregnancy. This eventuality has been called post-conceptional syphilis. In this case the child has received its infection, the source of which may come from either parent—from its mother by way of the placenta. By treatment of the parents, or when by lapse of time the poison becomes attenuated, viable healthy children may follow. Such healthy-born children who have escaped infection are immune during their life against acquiring syphilis (Profeta's Law).

After this cursory review, the too minute detailing of which would obscure the topic to the non-medical members of our Society, I will dwell upon the symptoms of inherited syphilis in a generalizing way, exemplifying conditions as they usually appear in practice. A man marries while his syphilis is yet in a florid state, the blissful event is consummated by his infecting his wife who becomes pregnant. The child will either die in the womb and will be aborted, or miscarried as a macerated, doughy, parody of a human form. Thirty-three per cent. of cases do so. An irrelevant cause is attributed to this mishap and strong hopes for the future are entertained. At a second pregnancy abortion again takes place, but this time in a later month; or a dead, or perchance a live, puny child is born with syphilitic attributes, which soon dies. Another instance: the birth of a live child is made possible by treatment which the husband has undergone meanwhile. If his infection is yet a very recent one or the treatment inefficient, the child will be born with the marks of inherited syphilis. It will show a bullous skin eruption—pemphigus—either on the hand and feet alone, or over the whole body; there will be cracks and fissures on the lips and around the mouth and nose; it acquires the snuffles, preventing it from suckling. The child is withered, senile looking, the skin redundant, as if too large for the emaciated body, its head out of proportion, and the skull bones gaping—the child whimpers instead of the customary lusty crying, and whines its little life away starving and stuporous. Twenty-five per cent. of such children die within a few weeks. What an awakening of the parents from the dreams for a happy future, to the dire and cruel presence,—an appalling situation.

Again, the child may be born in a fairly good condition, the goal of a happy expectation has been reached. It is somewhat frail and delicate, but it suckles bravely and sustains its life. But an inherent weakness counteracts its efforts. At a close examination a spasmodic contraction of the flexor muscles of the extremities will be noticed, called "myotony of the newborn" by Hochsinger. The knees and elbows will be found in a flexed position, the upper arms spasmodically pressed against the chest, the toes drawn backward, the hands forming a fist, with the wrist bent downward, producing the so-called paw position. This contraction disappears on antisyphilitic treatment. But in spite of all efforts the child fails and dies suddenly, apparently *without cause.* This sudden demise in itself is characteristic. In yet another instance such children are viable enough to fight the battle against the inherited taint. These are the children afflicted with what is called retarded inherited syphilis. They may reach their second or third year without any symptoms. They may reach the period of second childhood, of adolescence, and may even grow up into manhood or womanhood, the inherited taint appearing in some of these epochs. It is maintained by Fournier and others that inherited syphilis is capable, just as the acquired, to cause manifestations up to mature age. In any of these epochs tertiary manifestations and parasyphilitic symptoms may, and do, disturb the supposed peace which, alas, has proved to be only a treacherous armistice.

A composite picture of a syphilitic child, or adolescent, would probably look as follows: Externally these children are recognizable through congenital weakness. The tainted newborn and suckling infant will now be found much improved. In his strenuous battle for survival the child has gotten rid of a great many of its shortcomings. It looks now fairly well nourished, his intellect is up to the average, but its whole make-up reflects a physical weakness. Its skin is dry and thin, subcutaneous fat-deposit scanty, a bluish net of veins is visible on its head, especially on the temples, chest and abdomen. The head formation is at once recognized as one out of the ordinary. It may vary from a slight enlargement only to an overdistension of some part of its skull. There may be a protrusion of its frontal bones, overshadowing the eyes in a convex dome-shaped manner. In other instances the head is enlarged in its side aspects, bulging out over both ears with a network of veins shining through the thin skin of the temples. It is a striking picture, such a head, lending the face a senile wise-looking aspect. It causes the face to look narrow and elongated, framed in by a superimposed roof formed by the broad and enlarged skull. The forehead fontanel is found wide open and gaping, and under high tension from the accumulation of fluid in the ventricles of the brain (hydrocephalus), the pressure of which, there and in the spinal canal, frequently causes convulsions, spasms and other symptoms of the central nervous system. Or the fontanels close too rapidly, the child's head remaining small (microcephalus), and its development arrested. A further examination, if the child survives, will show some trouble in its long bones. One or

more of the fingers may assume a spindle form, due to a puffy swelling of its bones and joints (dactylitis syphilitica). The contours of the bones of the forearms will be found enlarged at their juncture with the wrist joint. The joint imparts the sensation of looseness, and can be bent far back over the wrist. But the point of predilection is the tibia, in 70 per cent. of cases it becomes enlarged in its middle half through an overproduction of bony material, forming a convex protrusion in its front aspect, causing the shinbone to look like a curved scabbard. Or the junction between the shinbone shaft and its soft cartilaginous capping (epiphisis), where it joins the knee joint, becomes separated by a rarefying and softening inflammation, depriving the shinbone of its ability to carry the weight of the body. Such a child walks as if paralyzed, if it can walk at all (pseudoparalysis of Parrot).

The inner organs, one or several, are always affected in inherited syphilis. Their involvement at such an early time is the rule here, while in acquired syphilis they become affected at a later date. Foremost in frequency is the structural involvement of the liver, causing the almost fatal jaundice of the newborn. The lungs may be so diseased as to make sufficient breathing impossible to support life. The kidneys may prove insufficient to act in a proper way, causing suppression of urine. Affections of the brain will blight the child's intellect, lesions of the eye be the cause of impairment of vision. Every organ may be infected, especially during development. The syphilitic taint may break out in the second childhood or adolescence, with decay (necrosis) of the palate, of the nasal bones, perforation of the soft and hard palate and other facial deformations. There exists quite an array of other symptoms which help to establish the recognition of inherited syphilis, and complete the so-called syphilitic countenance. These manifestations are looked upon as developmental defects, brought about by the devitalizing, disintegrating and deteriorating influence of the syphilitic virus. These defects in development, called distrophies, consist in imperfections, abnormalities, arrested formations, of monstrosities, infantilism and idiocy. The syphilitic taint forms a very efficient nutrient medium especially for rickets and scrophulosis. Such children are prone to become affected with tuberculosis of the lungs as well as of the brain, they are apt to acquire lupus and other scrophula-tuberculous joint and bone affections. One of the most striking manifestations of the syphilitic countenance are the so-called Hutchinson teeth, a peculiar deformation in the shape of the two central incisors in the upper jaw of the permanent set. They are not only found in children or adolescents, but also in adults up to the twenty-fifth year. The milk teeth do not show this typical deviation in form, although Fournier[2] maintains that the first set of teeth may also show this same deformity. These so-called "test teeth" are transparent, chalky, often ill developed and small, narrower at the free border than on the base and hence wedge-shaped. They rarely grow parallel, but converge slightly, and show a broad semilunar notch on their incisor surface. These teeth are the most reliable symptoms of hereditary syphilis forming the so-called triad of Hutchinson. The other two are interstitial keratitis and labyrinthian deafness, that is, a deafness caused by the involvement of the acoustic nerve. A deafness without an accompanying inflammation, and which in forty times out of 212, according to Fournier,[3] that is in 22 per cent., has proved incurable. To complete the description of this unenviable ensemble, I will mention yet the convergent creases around the lips and angles of the mouth resulting from old fissures and cracks, chronic nasal catarrh, ill-developed nose, broad and flat at the bridge (Mongolian type), deaf-mutism, of which next to scarlet fever hereditary syphilis is the most frequent cause, and a general fragility of physique, striking enough to recognize the taint to those who know to read the signs. I desire to draw your attention, in a fragmentary way only, to the manifestations of inherited syphilis of the nervous system. The skin manifestations, with their hideous monstrosities, which appear in 28 per cent. of cases, complicated by destructive bone lesions, ostracising the poor victim from society and encroaching upon his earning capacity, are superseded by the dire consequences arising from the involvement of the brain and spinal marrow, which, although affected less often, are extremely dangerous. Here the intellect suffers or is wiped out, the highest attribute of mankind has departed. It is also in a social, educational and legal aspect of these nerve manifestations which make their influence of paramount interest.

According to Rumpf the nervous system participates with thirteen per cent. in the symptoms of inherited syphilis.[4] In forty-three syphilitic marriages collected by Julien there occurred 206 pregnancies, 162 children remaining alive. One-half of these surviving 162 children had meningitis and convulsions. In Fournier's statistics of 212 cases, the brain was affected 42 times. The symptoms of nerve syphilis can be condensed as follows: headache, vertigo and vomiting, epileptic attacks, causing convulsions which may be entire or half-sided, paralysis, disturbances of co-ordination like in St. Vitus dance (chorea), and defects of intellect up to complete idiocy. The vacillating intensity of these symptoms from better and worse is a characteristic of the inherited syphilitic taint. Obstinate, especially noctur-

[2]Lecture on Syphilis Hereditaria Tarda. By A. Fournier, translated by Drs. Körbl and Zeissel, 1894, p. 47.
[3]*Ibid*, p. 150.
[4]Dr. J. Bresler: Esbsyphilis und Nervensystem. Leipzig, 1904, p. 4, *et seq.*

nal headaches, in children and adolescents, if there are nausea and other nervous sensations present, should put the physician upon the track for the search of syphilis. If, with or without these symptoms, the children show a restlessness, or fall into convulsions on trivial causes, or get spasm of the glottis—a very dangerous condition to which they occasionally succumb—or have an irritable character, are wrathful, passionate, capricious, wilful, stubborn, or exhibit unwarranted cruelty, one should think of the inherited taint. With one or more of these symptoms may be associated, when schooling time comes, inattentiveness, lack of concentration, indocility, lack of intelligence, which is taken for stupidity, stubborness and wilful negligence, which is punished unjustly. Here is a wide field for our educators for contemplation, untrodden paths in the mysterious domain of diseased brain cells, presenting their baneful influences, are to be explored. Here the physician has to step in and assist and enlighten the educator, parents and social worker, and administer special treatment rather than punishment. Backward children in the schools of this city have been of late officially subjected to the operation of removal of their tonsils and adenoids in cases where mouth breathing and subsequent impairment of hearing was found to be the cause of their indocility. The riot of the mothers and their storming the schoolhouses to save their children from "having their throats cut," is yet fresh in our memory. Far be it from me to criticise the curette-swinging throat specialist; his interference, no doubt, is well needed in a series of cases; but why not give the syphilographer a chance in the other series? I firmly believe from the experience of others and my own that those cases of enlarged tonsils and adenoids that are associated with palates that form high and narrow roofed arches, protruding angular upper jaw and teeth, long and narrow noses with obstructed nasal breathing—that these cases are developmental defects, due to inherited syphilis, and will yield to specific treatment, kindly and effectually, if given a chance. There are some other instances yet in which inherited syphilis, or its non-syphilitic sequences, play a paramount rôle where impaired moral responsibility, actions which we are wont to look upon as degenerate, and the adjustment of criminal acts are concerned. I have no doubt that stinted brain cells, or growths in the brain due to syphilis, with their altered anatomical and consequent psychical derangements are the cause for many baffling cases of moral and criminal insanity. But I refrain from further discussing it as outside the scope of this paper, and will only enumerate one or two other phenomena.

Epilepsy, the essential as well as the half-sided, is, according to Soltman, Gowers, and others, more often than it is believed, an effect of inherited syphilis, a predisposing cause for it. Unlike in other consequential affections of syphilis, the epileptic mostly does not show recognizable signs of the inherited taint, but mostly only developmental defects in form of rickets or scrophulosis, which condition has misled investigators. We find a child getting restless without apparent cause, delirious and in convulsions. In a few days one or the other extremity is taken with spasms, after which it remains slightly paralyzed and becomes retarded in development. Some trivial cause, like a cold, is made responsible for this occurrence. But to the physician who knows, its syphilitic origin is clear, and according to Kowalewsky, attributable to maternal inheritance, while the common (cortical) epilepsy, says he, is due to paternal taint. In Erlenmeyer's five cases of Jacksonian epilepsy, three were due to paternal inheritance. In four hundred cases of epileptic children collected by Bratz five per cent. were due to parental syphilis, but the percentage is probably greater yet.

Progressive paralysis in children is one of the most frequent results of inherited syphilis. Here the influence of the taint reigns absolute. In 41 cases collected by Alzheimer, 28, and probably 31 cases, that is about 75 per cent., proved to be connected with the inherited taint. He remarks that in the remainder of the cases syphilis was not excluded entirely, but for accuracy's sake, he had not counted them in. While in the syphilitic paralysis of adults the number of affected men surpasses that of the women seven times, the proportion in which both sexes share in paralysis of children is equal. The earliest date the effection shows itself is the ninth year; it is most frequent around the fifteenth year, and becomes rare after twenty. It usually lasts longer than in adults, that is, four and one-half years in average. In children we miss the ideas of exaggeration so frequent in the adult. In the former it shows its inroads by gradually lacking intellect, early paralysis of the extremities, ocular (pupillar) symptoms and disturbances of speech and articulation. This dire condition leads to idiocy sometimes connected with epilepsy. Barry, Griesinger and Binswanger regard inherited syphilis as a cause of idiocy. In 74 cases from an institute for defective children, the syphilis of the father could be traced seven times, and in nine cases this taint was probable. Zichen has found inherited syphilis in 10 per cent. of idiots, and in 17 per cent. such a source was more than probable. According to Wildermuth, 11.8 per cent. of idiots are affected with inherited syphilis. Brown, in his thirty-five years of experience of asylum practice in Barres, Mass., found that 1½ per cent., and Down that 2 per cent., of all idiots have inherited syphilis. Another frequent sequela is hydrocephalus; it may develop already intra-uterine or children may be born with it, soon to succumb. When they survive, we find in them anomalies of physical development, enlargement of liver and spleen, and slow development of the intellect. They learn to talk

and walk very late and are generally backward. The appearance of their head is sometimes ludicrous and monstrous, their countenance grimacy, their looks senile. In 18 such so-called waterheads, Elsner found syphilis three times, that is in 16.6 per cent. The mothers of such children aborted in 35 per cent. of cases. Hochsinger in 1904 collected 35 cases of hydrocephalus from 362 cases of early inherited syphilis, equal to 9 per cent. It made its appearance intra-uterine six times; in the third to eleventh month 15 times; in 14 cases it was unknown. Circumference of skull between 39 and 56 ctms. Three of these 24 children remained idiots; 8 of them died.

Locomotor ataxia may occur from the fifth to the fiftieth year. Some of these cases in adults may be regarded inherited in the absence of acquired syphilis. There exists an infantile juvenile tabes. In Marburg's 34 cases (19 girls, 15 boys), inherited syphilis was the cause in 22 cases, resulting in 12 cases of blindness. Chorea appears in 4 per cent. of cases.

The scope and character of a semipopular paper peremptorily demand its conclusion. I could only touch on some and exclude other enunciations of inherited syphilis in children. I hope I have conveyed to our lay members the tremendous importance of syphilis on the well-being of the race. None of the scourges that visit mankind can boast of such fatalities. A glance at the tables will be convincing. The death rate of children with paternal heredity is 38 per cent., of maternal heredity 60 per cent., of mixed heredity 68 per cent. As in many other ailments, the social status of the affected is of a decisive influence on the mortality. In the hospital where such children of the ill-nourished poor were treated, the percentage of deaths was 84 per cent., in private practice 60 per cent. The time limit has a great influence next to the source of inheritance. When the father married while yet having his early infection, there took place 88 deaths out of 100 births. Out of 491 pregnancies in syphilitic families only 109 living and 382 dead children resulted.[5] This means that 77 children out of 100 die. Fournier's statistics even show as much as 83 per cent. Out of these 382 dead children, 372 were either aborted or dead born, or died within the first year, and only ten cases were viable enough to reach the first year, when they died. The polymortality of children in some of these families is often as high as 99 per cent., and in some instances absolute extinction, tabula rasa, is made with families, which means 100 per cent. of deaths, equal to no posterity in such a family and annihilation! I do not think that even tuberculosis can boast of such disastrous results. Have we ever found whole nations afflicted with tuberculosis? No! But we have examples of such happenings with syphilis. A celebrated Japanese physician, Nagatomi Dokushau, of the eighteenth century, narrates that during his itineration through the country he found, especially in cities, eight or nine out of ten people afflicted with syphilis, and that he could not find a place where syphilis was absent. Scheube,[6] in his treatise on venereal diseases in the warm countries, cites a Japanese proverb indicative of the spread of syphilis in the land of the rising sun, which sounds like this: "Onobare to kasake eo nai mona wa na," and means in our vernacular, "There is none who is exempt from vanity and eruption." Among his patients 10 per cent. were afflicted with syphilis. In Korea syphilis was known one thousand years ago; in China, which transmitted it to most of the Asiatic countries, it was known even two thousand years ago. In Zanzibar, according to Friedrich, five-sixths of the natives are syphilitic; on the Gold Coast, according to Aburi and Fish, 30 per cent. of the population has syphilis. In the Fiji Islands, where syphilis had been imported by Europeans in the eighteenth and nineteenth century, it soon became epidemic and then assumed its present form (Framboesia). Finucane reports (in the *Journal of Tropical Medicine*, 1901, No. 8, page 129) that the disease is so diffused among the population, that hardly anyone is exempt from it. Furthermore, it is stated that it is absolutely necessary for a child there to get the disease in order to resist the onslaught of other diseases. This is almost equal to a general vaccination of the disease. The infant mortality is consequently very high and a cause of the rapid extinction of that race. In the Sandwich Islands syphilis, at the time of its importation through Cook's crew, soon became, as it always did, epidemic, and in a few decades the whole population became permeated. Beaumanoir says that it is a "de notoriete public," that all natives are syphilitic. The population there is declining. In Nicaragua, the mild course of syphilis is due to a general permeation of the population; 70 per cent. of the male and 50 per cent. of the female population are affected. There is hardly a woman among them that has not aborted one or several times. The population generally is thoroughly saturated. In Brazil, according to Moncorvo-père, 55 per cent. of his little patients have inherited syphilis, and it is, next to malaria, the main cause of death. There, and in other countries like Portugal, a syphilization has taken place and relative immunity bestowed upon the people. Such an event is only possible if the whole population was or is permeated. What a statistic, overshadowing in its immensity that of tuberculosis. could be gotten together if it were obtainable!

[5]Fournier: Lect. on Syph. Hered. Tarda, p. 105.

[6]B. Scheube: Die Vener. Krankheiten in den Warmen Ländern, Leipzig, 1902, p. 15, *et seq.*

The great and growing danger from venereal diseases, which permeates unchecked our population in a degree barely conceivable by the casual observer, the inoculation of guilty and innocents alike by a poison more serious and lasting in its consequences than any other contagious disease; the ravages, especially in the later manifestations, which outclass even those brought about by tuberculosis; and the deteriorating influences on the race and the generations yet to come, has finally awakened the profession and society at large from the habitual lethargy into an attempt at active interference. A propaganda of action having as its aim to interest the profession, and especially to enlighten the broad masses of the importance and dangers of venereal diseases, is the next step in the crusade to attack the hydra which endangers humanity in the present and threatens it in the future.

This society is the medium which will help us in the battle.

42 West 91st Street, New York.

CARDIAC DILATATION FOLLOWING ACUTE INFECTIOUS DISEASES.*

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CARDIAC dilatation, with or without hypertrophy, is a common phenomenon, and it is more or less well known and recognized by all practitioners.

The causes are numerous, but they may all be grouped under six main divisions:

1. Excessive muscular strain: as sometimes seen in athletes and others.

2. Excessive mental emotion: as joy, fear, anxiety, etc.

3. Mechanical interference with the circulation: as seen in insufficiency or stenosis of the heart valves; aneurism of the aorta; high vascular tension; repeated attacks of coughing, etc.

4. Various but little understood degenerative changes which occur in the hearts of most adults past the meridian of life.

5. Degenerative changes in the heart due to malnutrition, as in anæmia, etc.

6. Degenerative processes in the muscular and nervous organism of the heart, resulting from acute toxemias. For the most part, such toxemias are caused by acute infectious disease; and it is to this class of cases that I desire to call especial attention.

It has long been known that acute cardiac dilatation may follow degeneration of the heart muscle, as the result of acute infectious disease, and most of the leading works on medicine mention infectious disease as a cause of dilation.

"Dilatation sometimes follows degeneration of the heart muscle as a result of the acute infectious diseases, notably typhoid, erysipelas and pneumonia. It is then attributed to the anæmic condition or to the action of toxines circulating in the blood."—(French, Practice of Medicine.) "Dilatation may occur either slowly or acutely as a result of weakness of the heart from acute fevers, such as typhus, typhoid, rheumatism or pneumonia. In such cases the heart is weakened by anæmia and poor nutrition, the toxines of the disease, or as a result of overwork from rapid action. In some cases the cardiac ganglia are degenerated."—(Thompson's Practical Medicine.) "Impaired nutrition of the heart walls may lead to a diminution of the resisting power, so that dilatation readily occurs. The loss of tone due to parenchymatous degeneration or myocarditis in fevers may lead to a fatal condition of acute dilatation. It is a recognized form of death in scarlatinal dropsy, and occurs in rheumatic fever, typhus, typhoid, erysipelas, etc. The changes in the heart muscle which accompany acute endocarditis or pericarditis may lead to dilatation, especially in the latter disease. In anæmia, leucæmia, and chlorosis the dilatation may be considerable."—(Osler, Practice of Medicine.) "We have seen several times quite a marked dilatation of the heart during an attack of malaria. Sometimes the heart is slightly dilated in chlorosis."—(Strümpel, Text Book of Medicine.) "Sudden death sometimes occurs in diphtheria, typhoid fever, etc., when the patient sits up in bed. This is caused by the abrupt distension of the ventricles followed by paralysis. In croupous pneumonia overdistension of the right heart takes place and often causes death."—(Salinger, Modern Medicine.) "In a few instances in malignant forms of the infectious fevers, such as scarlet fever and diphtheria, the nutrition of the heart may be so rapidly impaired by the toxic agent which causes the disease that dilatation occurs with little or no undue intra-vascular pressure."—(Tyson, Practice of Medicine.) "In the course of infectious fevers parenchymatous degeneration and acute myocarditis are frequent causes of weakening of the heart muscle, and may lead to sudden and fatal cardiac dilatation unassociated with hypertrophy. These conditions have been noted particularly in typhoid fever, diphtheria, articular rheumatism and scarlet fever, and my experience inclines me to include influenza. Anæmia and chlorosis are not infrequent causes of myocardial degeneration and dilatation."—(Pepper, American Text Book of Medicine.)

But although all these authors mention infectious disease as a cause of cardiac dilatation, none of them describe the affection as found in the course of an infectious disease, and from their remarks on the general subject of dilatation it is impossible to gain any clear conception of the conditions present in this particular class of cases, or to obtain any precise information as to their course, prognosis, or treatment.

So far as I am aware, there is no work in which this general topic is considered. Babcock is very good on diseases of the heart, and he treats of dilatation following influenza, typhoid, diphtheria, et cetera, but he does not mention dilatation following infectious disease as a class. The monograph on cardiac dilatation following typhoid, in Nothnagle, is the best article on the subject of dilatation that I know; but of course it only considers dilatation following typhoid. However, as the cardiac condition following typhoid is closely similar to that following other infectious diseases, the symptoms and prognosis

*Read before the Brooklyn Hospital Club, January, 1905.

are likewise similar, so the monograph gives a fair idea of the general course of the affection as usually observed.

The current literature on this topic is very meagre. After a careful examination of the journals back to 1900, I have been unable to discover any article dealing with the general subject of the effects of infectious diseases on the heart. But there are a few articles which deal with the effects of special diseases on the heart, and these are worthy of mention.

Wood[1] reports two cases of acute cardiac dilatation following moderate attacks of influenza. Both occurred in previously healthy adults and both recovered.

Carpenter[2] describes four cases of uncomplicated myocarditis in children. The first followed an acute throat trouble, supposedly diphtheria. When admitted to the hospital the lips were blue and the apex beat feeble in fifth space outside the nipple line. Patient was discharged cured nine weeks later. The cause of the second case was not determined. On autopsy the right auricle and ventricle were found dilated and the left ventricle hypertrophied. There was well-marked interstitial myocarditis. The third case was caused by an acute attack of rheumatism. One week after admission to the hospital the temperature fell to normal, but a mitral murmur remained. Ten days later the patient developed shortness of breath and precordial pain. The temperature had remained normal and neither the pulse nor respiration had increased. But examination showed a diffuse impulse beat felt in the sixth space, outside the nipple line. Death occurred four days later. At autopsy the left auricle and ventricle were found greatly dilated. The endometrium and valves appeared normal. Microscopically, the myocardium appeared normal except at scattered points, which showed evidence of fatty degeneration. In the fourth case there was likewise dilatation of the left auricle and ventricle and degeneration of the myocardium. The condition developed in a case of acute general miliary tuberculosis, but it is uncertain whether this or a preceding attack of rheumatism was responsible for the dilatation.

Stanley discusses the similarity of symptoms in diphtheria and beri beri. The cardiac symptoms are practically the same, but in beri beri they do not appear until about a month after the onset of the disease. Signs of cardiac dilatation were present in 11 out of 500 cases of diphtheria, and in 98 out of 341 cases of beri beri. He attributes the comparative infrequency of dilatation in diphtheria to the low arterial tension which is commonly associated with that disease. Other authors, however, believe that dilatation occurs in diphtheria more frequently than these statistics would appear to indicate.

Poynton[3] discusses the infectious nature of rheumatism and its effects on the heart. He shows that dilatation is often one of the first symptoms of rheumatic endocarditis, and that it may persist indefinitely after the attack is apparently well. Incidentally, he notices that nearly every fatal case of diphtheria shows a greater or less degree of dilatation. And he also shows that murmurs often occur with myocarditis without valvular lesion, and believes that this is really the condition present in those cases of rheumatism with cardiac murmurs which later recover and fail to show evidence of valvular disease.

Fischer[4] notes that myocardial degeneration and cardiac dilatation are common occurrences in scarlet fever and advises, first, that all cases should be kept in bed for at least four weeks after the passage of the attack; second, that the heart should be carefully watched to recognize symptoms of failing strength, and to guard against overstrain. He dwells on the fact known to all observers, that the temperature chart fails to give evidence of cardiac insufficiency; that this may develop after the temperature has reached normal, and that it may occur in comparatively mild attacks. He reports two illustrative cases.

In addition to the above leading articles, there are a few reports of striking cases following attacks of various infectious diseases, and that is all.

The paucity of contributions to this important and interesting subject would seem to imply either complete familiarity with, or comparative ignorance of, this condition, on the part of the general practitioner. And from my own investigations on the subject, I am compelled to believe that it is not the former.

And yet, cardiac dilatation after infectious fevers is by no means an uncommon condition. Several such cases have come under my own observation within the past two years; and I have known of several others where the symptoms pointed to dilatation, but the cases were not recognized as such by the physician in charge.

I believe this to be of fairly frequent occurrence. The reasons are evident. Many cases show no particular symptom till the occurrence of an overstrain causes sudden dilatation and almost instantaneous death. Such are often diagnosed "heart failure," or even apoplexy. In many cases the symptoms develop slowly, and may be more or less marked by the symptoms of the primary disease. If the patient is lying quietly in bed, a marked dilatation may occur without the development of alarming symptoms to direct attention to the heart. When convalescence appears to be established, the weak pulse and impaired circulation are only too often attributed to general weakness; the heart is not examined, and the dilatation not discovered. Acute dilatation has been mistaken for pericarditis with effusion; and occasionally the differential diagnosis may be difficult. But as a rule, the recog-

[1]The Cardiac Complications of Influenza, *Amer. Med.*, October 17, 1903.
[2]Uncomplicated Myocarditis in Children, *Lancet*, May 30, 1903.
[3]Rheumatic Endocarditis, International Clinics, 1903.
[4]*New York Med. Jour.*, December 17. 1904.

nition of the true condition presents no great difficulty to one accustomed to examining the heart.

The size, position and methods of examining the heart have been so often and so well described, that I shall omit them. But in examining for dilatation, several points should be recollected. Normally, the heart dullness extends about one quarter of an inch to the right of the sternum in the fourth space; and to the left in the fifth space, to within an inch or an inch and a quarter of the nipple line. But the latter boundary is only correct when the subject is standing. Lying down, the apex beat is felt considerably above and mesially to its position in the erect posture. And an apex beat in the fifth space, an inch or so inside the nipple line, with the patient lying on his back, indicates a moderate dilatation; for a change to the erect posture would displace such an apex behind the sixth rib, or even into the sixth space. Allowance, moreover, must be made for differences in individual size, and for irregularities in the position of the nipple. The distinction between dilatation and pericarditis with effusion is sometimes troublesome, but there are two points wherein the symptoms differ. In dilatation, the angle between the right margin of the heart and the surface of the liver is always an acute angle; whereas with effusion into the pericardial sac the angle is always an obtuse one, In dilatation, the heart sounds and apex beat are heard and felt to the margin of the deep dullness; in effusion, there is always a crescent-shaped area on the outer border where the impulse is absent and the heart sounds diminished or absent. It should be noted, however, that in dilatation the apex beat may be so diffuse and feeble as not to be felt, even when it can be seen.

As is commonly known, the heart is a hollow muscular organ, which by its rhythmic contraction constantly forces renewed supplies of blood into the arteries, maintains therein a considerable tension, and thus sustains the circulation. At each diastole the heart dilates; and the question at once arises why it only dilates just so far and no further. Furthermore, it dilates more during severe bodily exercise than during rest; and the further question arises, how does this normal dilatation differ from pathological dilatation? The second question can be readily answered. So long as the increased dilatation serves merely to increase the amount of blood expelled, and the heart contracts with unimpaired power, emptying itself at each systole, the process may be considered physiological. But the moment the dilatation reaches such a point that the heart power is impaired, and the ventricles fail to contract normally each time the process has become pathological. The exact amount of dilatation which can be considered physiological is dependent entirely on the individual and collective strength of the muscular fibers. But in any case, this apparently normal dilatation is comparatively slight and may be passed without further consideration. When we attempt to answer the first question, why does the heart dilate normally so far and no further, we meet the same difficulty which is found in every attempt to explain the essential nature of life and activity. We can only repeat that the muscular tone of the heart muscle prevents hyperelongation of its fibers, and that this muscular tone, although resident in the fibers themselves, is apparently dependent upon the cardiac ganglia. Anything which diminishes cardiac tone favors cardiac dilatation, and the deleterious influence may act directly on the muscular fibers, or indirectly through the sympathetic system and cardiac ganglia. In either case the ultimate result may be the same in producing dilatation.

In attempting to give the reasons for dilatation occurring in the course of or following infectious diseases it is necessary to consider the various deleterious influences which may be at work. In many fevers there is a very considerable destruction of red corpuscles, a true secondary anemia is produced, and the heart suffers from the lack of nutrition together with the rest of the body. In other diseases the inability to take sufficient nourishment leads to the same result. Excessive rapidity of action alone would hardly be sufficient to account for acute dilatation, even though it were accompanied by increased tension. In exophthalmic goiter, where rapid heart action and increased tension often continue for months, hypertrophy rather than dilatation ensues. But increased rapidity of action combined with diminished nutrition may lead to myocardial degeneration and dilatation. Direct interference with the circulation where the heart is normal leads to hypertrophy rather than to dilatation. But the sudden rupture of a valve under extreme strain may result in acute dilatation and paralysis of the sound heart. In a heart already diseased a slight strain may produce the same result. Dilatation occurring in pneumonia might be attributed to mechanical interference with the circulation. But as dilatation may occur in pneumonia where but little of the lung is involved, and also with pneumococcus infections without involvement of the lung, and may be absent in cases where several lobes are solid, it could not be maintained that the inflammation of the lung itself was more than a contributing cause. In every case of dilatation following infectious disease, the toxemia undoubtedly plays the principal rôle. In all infectious diseases quantities of highly toxic products are produced as the result of the infection. The heart suffers in common with the other tissues. In some cases it apparently escapes unharmed, whereas in others it appears to suffer the principal damage. If the poisoning is sufficient to cause myocardial degeneration loss of muscular power inevitably results, and if the muscular fibers become so weakened as to be unable to completely empty the ventricles dilatation ensues. If the poison acts through the cardiac

ganglia, causing loss of muscular tone, the result is likewise loss of power and eventual dilatation. If the dilatation becomes so great that the circulation can no longer be maintained, death inevitably follows. Such dilatation may result from progressive weakening of the muscular fibers, but it is more commonly caused by overstrain in the weakened and ofttimes dilated heart.

Cases which have come to autopsy have regularly shown dilatation of either or both ventricles, more commonly the left; sometimes the auricles are also dilated. The walls are thin, flabby and pale. Most of the cases which have been examined microscopically showed cloudy swelling, fatty infiltration and fatty degeneration. In a few cases degeneration of the cardiac ganglia without involvement of the muscular fibers has been noted. These changes form the anatomical basis of the symptoms observed during life.

In order to gain a clear conception of the symptomatology, course and prognosis of acute cardiac dilatation following infectious disease, it will be convenient to group the cases in several main classes:

1. Cases in which no especial cardiac symptoms are noted until the sudden onset of a rapidly fatal cardiac paralysis.

2. Cases in which no especial cardiac symptoms are noted until the sudden onset of dangerous cardiac weakness, followed by eventual death or recovery.

3. Cases in which the loss of muscular power appears to be progressive and the circulation becomes more and more embarrassed until death ensues.

4. Moderate or severe cases which developed more or less rapidly, but which tend to partial or complete recovery. This includes the vast majority of the cases.

The history of cases belonging to the first class is about as follows: The patient has suffered from a moderate or severe attack of infectious disease, but convalescence has been established. There are no marked symptoms of cardiac weakness, and it passes unnoticed. Then the patient suddenly subjects himself to an unaccustomed strain. He sits up in bed or gets out of bed; perhaps he walks upstairs or takes a walk in the garden. The result is a sudden overdistension of the heart and cardiac paralysis. The patient becomes cyanosed, gasps for breath and falls dead. The number of such cases is considerable. They occur more frequently in diphtheria than in any other infectious disease, perhaps more frequently than in all other infectious diseases combined. A typical history of this class is as follows: Boy, aged 12; convalescent from a moderate attack of diphtheria; membrane gone for several days. Against the doctor's orders he took a short walk and returned home, having gone less than five hundred feet. Just after crossing the threshold he fell dead.

In all such cases there is either a myocardial degeneration or ganglionic degeneration, or both, and a careful examination of the heart would reveal evidence of the same in nearly every case. But the examinations must be frequently repeated, for the evidences of the degeneration may arise within twenty-four hours.

An analagous condition sometimes follows operations. In Fowler's Surgery are noted a series of eight cases occurring in his practice in which sudden death occurred at a time when the patient was supposed to be on the high road to recovery. I recollect a similar case which occurred in the service of Doctor Dickinson when I was house surgeon in Brooklyn Hospital. In most of these cases the operation had been comparatively slight, and in all the convalescence was uneventful up to the moment of the fatal attack. In no case was sepsis present. In every case the attack occurred when convalescence was nearly completed, and was caused by some unaccustomed act, such as siting up in bed, getting out of bed, or moving about the room. In one case the patient died in a carriage while on her way home from the hospital. In the latter case the fatal attack occurred in the third week; in the others during the second week. In five of these cases an autopsy was held, and in each case the heart showed myocardial degeneration and dilatation. The cardiac ganglia were not examined. The etiology of this class of cases is obscure. In some the cardiac degeneration appears to have existed before the operation; in others it is doubtful. The products of decomposition of animal tissues are poisonous, and the toxins produced are similar in nature to those produced by the bacteria of infectious disease. The various anesthetics appear to exert a deleterious effect on the heart, and one or the other of these agents, acting upon a heart which for some reason is particularly susceptible, appears capable of so lowering the cardiac tone as to result in dilatation and death. Whether a normal heart could be so profoundly affected, and whether the poison acts primarily on the muscular or nervous tissues, is still a matter for investigation.

In the second class of cases the course is the same up to the moment of the fatal attack. But in this class either the strain is less or the resisting power of the heart is greater, and though dilatation and great cardiac weakness ensues, death does not at once occur. The subsequent history of such cases differs in different instances. In a certain number of the cases the heart has been irretrievably damaged. After a period of improvement, or without it, increasing symptoms of cardiac insufficiency become manifest. Cyanosis, œdema of the extremities, and disturbance of the digestive and excretory functions appear. Finally death results from an acute attack of heart failure or from pulmonary œdema. Fortunately such cases are rare. They are only apt to occur in the possessors of hearts already weakened by previous disease, or in elderly persons in whom the recuperative powers are slight. The vast majority of these cases tend to improve.

Even though the symptoms increase in severity for a time and dyspnea and edema appear, the prognosis is favorable. Improvement usually begins within two weeks after the sudden onset and at first is apt to be rapid. Within a few days the line of deep dullness may recede from an inch outside the nipple line to the nipple line, or even within this line. The subsequent contraction proceeds at a slower rate. With the decreasing dilatation there is an improvement in the rational signs. The edema and cyanosis disappear; the heart sounds become clearer and less diffused, and the general strength of the patient shows a steady improvement. Whether such cases recover completely depends, I believe, on the subsequent management. If the patient is supposed to be suffering from general weakness, is dosed with stimulants, and is allowed up as soon as he is able to stand, the heart fails to get the relief which its condition demands, and it fails to contract; subsequently it hypertrophies and the patient recovers with a dilated and hypertrophied heart. Such cases were very numerous after recovery from typhoid in soldiers taking part in the Spanish war. If, on the other hand, the heart is relieved of all possible strain, it eventually contracts approximately to its normal size and recovers its normal strength. But this may require weeks in bed and months of very quiet life.

Under the third class we include those cases in which the loss of muscular power appears to be progressive, and the circulation becomes more embarrassed until death ensues. Sometimes the weakening and dilatation appear to be steadily progressive; in others the dilatation occurs in repeated attacks until the maximum is reached and paralysis ensues. In the former case the symptoms of cardiac embarrassment become more and more apparent. Dyspnea, cyanosis, edema of the extremities, and weakness of the pulse increase until the circulation fails altogether and death follows. Cardiac dilatation following pneumonia, rheumatism without endocarditis, and pericarditis apparently usually belong to this division. In the latter case the dilatation appears rather suddenly. Symptoms of cardiac embarrassment ensue. Then after a few hours, with or without an intervening period of improvement, another attack of dilatation supervenes, and the circulatory disturbance becomes more pronounced. Several such attacks may occur before the fatal issue. Fisher's case following scarlet fever appears to belong to this class. Fortunately the number of these cases is relatively small, except in pneumonia, where they are responsible for a considerable proportion of the deaths. The treatment is prophylactic and supporting. The avoidance of all possible strain on the heart, the supply of sufficient nourishment to the organism, and the elimination of poisons as rapidly as possible—these are the chief points to be remembered in prophylaxis. The treatment we will consider in connection with the next class of cases.

The fourth and last class includes all cases of cardiac dilatation following infectious disease, except those in which the initial symptom is dangerous cardiac failure, and those in which the condition tends to become progressively worse and to lead to a lethal outcome within a few days or even hours after the first apparent symptom. The dilatation may develop during the course of the disease, or more commonly after convalescence has begun. In either case it is most apt to be noticed during convalescence.

The first symptom to be noted is generally softness and irregularity of the pulse, or possibly dyspnea, if the patient attempts to sit up. In the severer types the symptoms are apt to become progressively worse for several weeks. Marked edema of the extremities, moderate cyanosis, and dyspnea on the slightest exertion may develop. The pulse may be rapid and irregular, but is often slow and shows a tendency to remit. The remissions may be so numerous and prolonged that the patient is unable to sleep. He complains that when he goes to sleep his heart stops and wakes him up. This is often a very troublesome symptom, for it is absolutely necessary that the patient should have the proper amount of rest. An uncomfortable sensation in the heart or consciousness of heart action is frequently complained of. Attacks of angina may occur, but they appear to be uncommon. The ingestion of food and drink, or the evacuation of the bowels, often causes a marked increase in the pulse rate. Consciousness is usually not disturbed. Moderate cyanosis and edema of the extremities are not uncommon in severe cases. Congestion of the kidneys occurs. If the heart be examined under such circumstances, usually no apex beat will be felt. If present, it is a diffuse heaving of the chest wall. The deep dullness will extend outside the nipple line and down to the sixth rib, or even into the sixth space. The cardiac sounds will be feeble and audible over a much larger area than normal. They are always to be heard as far as the deep dullness extends, in contradistinction to effusion, in which the sounds do not extend to the margin of the deep dullness, a crescentric area intervening. The second sound may be relatively accentuated. In some cases a mitral murmur develops either as the result of stretching of the auricular ventricular orifice, or of the papillary muscles, allowing regurgitation.

In the worst cases death may ensue. The dilatation may be progressive or occur in repeated attacks, and this may occur with the patient resting quietly in bed. An attack of vomiting frequently ushers in the fatal termination. Such an outcome is fortunately comparatively rare. Even in the bad cases with edema and cyanosis recovery usually follows if the condition is realized and properly managed. The symptoms may reach their height within a few days, or not for several weeks; they may then remain stationary

for days and weeks before much improvement can be noted. In the cases which I have observed personally some hearts remained about the same size for a few days, others for several weeks, and then they contracted several fingers' breadths within a few days. With this contraction came an improvement in the patient's general conditions, but ultimate recovery required weeks or months.

In the milder cases the course is somewhat similar, but the symptoms are slight. There may be dyspnea and the patient easily tires. The pulse is apt to be rapid and irregular, but it may be slow and intermittent. The condition is commonly attributed to general weakness; the heart is not examined and the real condition is not diagnosed. Such patients are very frequently encouraged to exercise some; to get around and enjoy the fresh air, etc. Frequently they are obliged to resume their occupation at the earliest possible moment. The result is that the overtaxed heart never gets an opportunity to contract, and compensatory hypertrophy occurs. This condition frequently follows typhoid fever and influenza. The prognosis as to life is good, but as to ultimate recovery with a sound heart, it is unfortunately very bad, and it is bad simply because the trouble is so frequently overlooked and not properly managed. The compensatory hypertrophy allows such patients to get around and do a moderate amount of work, but as a rule they cannot endure severe or long continued muscular strain.

In treating cases of cardiac dilatation, there are several points to be kept in mind. The work of the heart must be reduced to a minimum, and all strains carefully avoided. The elimination of toxines circulating in the blood must be promoted so far as possible. The general bodily strength must be built up as rapidly as possible. The nervous irritability which is commonly present must be controlled, and the circulation must be regulated and the cardiac tone improved.

To diminish the work of the heart to a minimum, the patient must be kept in the recumbent posture and all excitement avoided. The ingestion of large quantities of food or drink, or the ingestion of very stimulating articles of food or drink, such as heavy soups, gravies, and alcoholic beverages should be prohibited. Light, easily digested articles of diet, and those leaving the least residue are to be preferred. The bowels should move once a day, and should be kept soft to prevent straining. If necessary an enema may be given. The kidneys should be kept active, and to flush them a fair amount of fluid is necessary. But large amounts of fluid at any one time should not be taken. As a tonic, iron, arsenic and strychnia, in various combinations, are the most valuable. In many of these cases there is a marked instability of the nervous system. Insomnia is frequently present. For this condition, lupulin, codeine, trional and asafetida are often indispensable. Bromides are unsuitable, for they upset the digestion. Hyoscine is too depressing. Codeine and strychnia together exert a marked quieting effect on the circulation, but these need to be supplemented by drugs which act directly on the heart itself. As a pure heart tonic, sparteine sulphate is probably the best drug known. In doses of ¼ grain, three or four times a day, it strengthens and steadies the pulse. It is usually advantageous to combine with it small doses of cactus grandiflorus, or strophanthus. In the early stages digitalis is distinctly contraindicated. It acts directly on the muscular tissue of the heart, and it is a priori unwise to attempt to stimulate this if it is already degenerated. Furthermore, if the degeneration is marked, digitalis may fail to act. I recollect one such case where digitalis was given for about 48 hours, and the only effect noted was that the heart became weaker and more irregular. If, as is often the case, the degeneration affects the cardiac fibers irregularly, stimulation by digitalis will cause contraction of the least affected fibers, whereas it will cause little or no contraction of the most affected fibers, and thus may result an irregular dilatation of the heart wall and possible ultimate rupture. But although digitalis is contraindicated in the early stages, it is a valuable remedy in the later stages, particularly in those cases where after the heart has nearly regained its normal size it remains weak and irregular. But the doses should be small, not more than 10 minims of the tincture per day, and usually half that quantity is sufficient.

When the heart has regained its normal size and the patient is able to sit up, resistance exercises should be practiced to increase the nutrition and strength of the organ.

It is doubtful whether in any case the heart exactly regains its former size. It is probable that very slight dilatation with compensatory hypertrophy always remains, but with care and good management these cases recover with practically as good a heart as before and capable of enduring as much work. But it may require several years for the heart to recover its normal powers of endurance, and during that time it is necessary to guard against overstrain, physical or emotional.

The following cases illustrate most of the preceding types of cases. Except the first, all have occurred in my own practice:

Case I.—Male, aged 30. Very severe attack of typhoid. Temperature range during second and third weeks, 104 to 105, in spite of baths and sponging. Moderate hemorrhage on the twenty-fourth day. Toward close of fourth week, temperature normal mornings; but afternoon rise continued during fifth week, and the temperature did not become subnormal and remain so until the end of the seventh week. On the twenty-ninth day, the nurse noted that the pulse had become very variable in rate and volume. During the next few days it appeared more normal. On the thirty-ninth day the pulse was of good quality, the temperature normal, and the patient was allowed to sit up in bed one hour. During the succeeding week patient allowed to sit up in bed about an hour every afternoon. During this week it was frequently noted that the pulse was very

variable, and it often appeared stronger when sitting up. On the forty-seventh day it was noted that the taking of food, or even the mere sight of food, would change the pulse rate as much as twenty beats in the minute, and sometimes more. Furthermore, it was noted that the average rate had increased during the preceding two days, from about eighty to about ninety beats in the minute. On the forty-eighth and forty-ninth days the pulse was stronger, but very variable. On the fifty-second day, sitting up for an hours in bed raised the pulse rate to 118; five minutes after lying down it had dropped to 100, but it required an hour for it to reach 90. From the fifty-second to the sixtieth days the pulse continued variable and very compressible; it averaged about 84, except when sitting up or after taking food, when it might rise as high as 120. Up to this time the condition was regarded as one of great prostration following a severe attack of the fever, and treated accordingly. On the sixty-first day a careful examination of the heart was made. The dullness extended nearly an inch outside the nipple line and behind the sixth rib. Heart sounds feeble; apex beat diffuse and practically absent. Small doses of cactus, sparteine, iron, arsenic and strychnia were administered during the succeeding week, and patient ordered to remain quiet in bed. During the week, the heart contracted to a point about one-half inch inside the nipple line. Pulse rate averaged about 80, still impressionable, but not so irregular as during preceding weeks. Patient allowed to sit up five minutes at a time and gradually lengthen the period. On the seventy-sixth day allowed to sit up in bed for half an hour morning and afternoon. On the eighty-first day allowed out of bed for the first time. Heart practically normal in size, pulse about 80. During the later stages of convalescene, sparteine sulphate and codeine were the principal drugs employed. In this case, the loss of cardiac tone appeared to be due quite as much or more to the involvement of the cardiac ganglion and to the sympathetic as to muscular degeneration. The excessive cardiac instability or irritability continued for weeks after the heart had regained its normal size. There was likewise involvement of the vasomotor system, as shown by rapid changes in the vascularity of different parts.

During the months of November and December the patient gradually gained in strength; but on January 20th he was attacked with influenza, and on the 23d developed broncho-pneumonia in the right lower lobe anteriorly. A few days later patient noticed that the heart had dilated to the nipple line. On February 4th, the heart had contracted to nearly normal size. During the intervening days, the highest pulse rate had been 114; highest temperature, 102.4; respiration hardly disturbed. During these nine days the area originally involved cleared, but there were minor extensions into neighboring parts of the lobe. On February 7th, the fifteenth day of the illness, the disease attacked the entire lower lobe. Improvement from this relapse began three days later and continued slowly, interrupted by minor extensions into the lower margin of the upper lobe. On February 23d, the patient complained of an oppressed feeling in the heart, and examination showed that it had again dilated out to the nipple line. On the following day the patient was evidently much worse. The temperature remained about 102.6, and the pulse about 130. On the succeeding day, examination showed dullness and absence of breathing over the entire middle lobe. The heart was dilated out to the nipple line. Patient cyanosed, pulse above 130 in spite of stimulants. Temperature during afternoon remained about 103 to 103.2. During the night a marked improvement occurred, and the following morning temperature was 98.8, pulse 92, respiration 24. On the succeeding morning the temperature was subnormal, pulse and respiration normal. On February 28th, the fifth day of this severe attack, dullness had disappeared, and only a few moist rales and diminished respiratory murmur were to be found, over middle lobe. During the succeeding week, the moist rales continued over middle lobe, and there was a regular rise of temperature every afternoon, but in spite of this the heart once more contracted well within the nipple line. On March 10th, the forty-seventh day since the pneumonia began, the middle lobe was nearly normal, but there were a few points where rales and diminished respiratory murmur persisted. On this morning patient felt restless and irritable; pulse weak. Examination showed apex beat not to be felt; dullness extended outside nipple line. On the fiftieth day a careful examination of the lung failed to reveal any points of inflammation. The apex beat was feeble just inside the nipple line. Four days later the apex beat was one-half inch inside the nipple line, but localized points of inflammation once more appeared in the lower lobe. A few days later these cleared up, and convalescence was finally established about the end of the second month. The heart gradually contracted, and a month later it had approximately regained its normal size. But the recovery of the normal nervous tone required much longer, and it was about two years before the patient could endure any great amount of nervous or physical strain.

CASE II.—Aged 30. In the spring of 1904 he suffered from an attack of influenza which confined him to the bed for several days. Returned to business feeling weak and miserable. Slight exertion caused dyspnea. Continued at business and symptoms gradually subsided. For nearly a year has been in good health, except that he has been treated for ptosis of the stomach. Considered himself sound when the present attack developed. On February 4th, 1905, throat became very sore; and on the second day thereafter he was treated at our office for pharyngitis and tonsilitis. Two days later he was again seen at the office. Temperature, 100.6; pulse, 120. The right tonsil was covered with a thin, dirty-grayish pellicle, which, however, could be very easily swabed off. An examination of the exudate showed pus cells and a pure culture of diplococcus lanceolatus. The capsules stained perfectly. A culture made the preceding day failed to show the bacillus diphtheriæ. On the following day a large peritonsilar abscess was evacuated and irrigated. The inflammation in and around the tonsil began to subside, but the patient failed to recover. The temperature remained about 100, and the pulse above 100 and weak. On February 12th, the ninth day of the attack, a chest examination was made. Lungs negative. Heart, apex beat diffuse; cardiac dullness extends an inch outside the nipple line, under upper border of sixth rib. Patient, who had been sitting up in bed, was ordered to remain in the recumbent posture and avoid strain or excitement. Three days later the temperature fell by crisis; it became subnormal and so remained for several days.

At the same time, sweating was very noticeable. The pulse rate became slower, but it did not return to normal till some days later. At this time the cardiac dilatation was the same as when first discovered. The apex beat and the pulse were, however, stronger than one would expect with a heart so much dilated. During the succeeding week the heart contracted, and on the 27th the margin of the apex beat was just inside the nipple line. The pulse was strong and regular. Regulated exercises were prescribed, and a week later the patient returned to work. He has felt well for the past two years, but the apex remains just inside the nipple line. In the light of our present knowledge, the cause of this continued dilatation is clear. In the spring of 1904 the patient suffered from an attack of influenza, which was followed by an acute dilatation of the left ventricle. As is too often the case, the condition was neither recognized nor treated. The patient received the general direction to go out, take exercise and become strong—the worst possible direction under the circumstances. He returned to business with a dilated heart. Some contraction probably occurred, compensatory hypertrophy took place, and he suffered no more inconvenience until an infection with the pneumococcus occurred. This was followed by another attack of dilatation. But as the heart was already hypertrophied, the pulse remained fairly regular and moderately strong, a feature which puzzled us at first. As soon as the

pneumococcus infection had passed, the heart contracted, but only to its former size, and not to the normal. This case is remarkable in showing the symptoms of general systemic poisoning usually associated with pneumonia, with the site of infection limited to the tonsil, and no evidence of inflammation of the lung. A few weeks later I heard of a similar case which died. It was described by the physician in charge as pneumonia of the throat, or as pneumonia with the lung infection left out.

Case III.—Male, aged 30. Well developed, powerful individual, but very stout. He was examined for life insurance a couple of times within a few months before the onset of this attack, and heart and lungs found to be normal. On January 21st I was called, and the patient presented the following appearance: He was sitting propped in a chair, with the sweat rolling down his face, with an almost continuous hacking cough, pain in the side, and inability to breathe when lying down. He had felt ill for a week, but had only given up work the preceding day. A rapid examination of the chest revealed a general bronchitis, and a bronchopneumonia in the right lower lobe. The apex beat was diffuse and felt outside the nipple line. Dullness extended about one-half inch outside nipple. The pulse was soft, slightly irregular, and about one hundred. The first sound at the apex was muffled, the second pulmonary accentuated. The patient was put to bed, but had to remain in a semi-sitting position, on account of the dyspnea when lying down. Sparteine, strophanthus, and strychnia were administered, and later ammonium carbonate. The bronchopneumonia ran a tedious course, and it was about three weeks before that disappeared. The heart beat became somewhat stronger under the use of the above mentioned stimulants; but on February 28th, the thirty-second day after I first saw him, the cardiac dullness still extended to the nipple line. Ten days later, the limit of dullness had receded three-quarters of an inch, and the pulse had become of better quality. In another week, the heart approximately regained its normal size; but it was several weeks later before the patient could endure any exertion, and it was in April before he could return to business. Even then he had to take great care to avoid any physical exertion. This case is very interesting from several points of view. The bronchopneumonia was undoubtedly of grip origin. And the cardiac dilatation is to be attributed to the grip poisoning, rather than to the lung inflammation *per se*. The dilatation occurred early in the attack, and persisted more than three weeks after the pneumonia disappeared. When the contraction began, it was at first rapid, and then more gradual. The normal size was not regained till about fifty days after the onset of the pneumonia. Even then the heart was weak and irritable, and months afterward it was very easily disturbed by slight influences. In fact, this patient never became strong, and a few months later developed well marked symptoms of exophthalmic goiter, from which he is still suffering. The exhibition of small doses of digitalis was attempted on February 27th, when the pneumonia had about disappeared. But it made the pulse weaker and more irregular, and its use was abandoned after thirty-six hours. On the other hand, it was again administered after the heart had contracted nearly to its normal size, and it then had a pronounced beneficial effect in slowing and steadying the heart.

Case IV.—Boy, aged 8. Severe attack of diphtheria. On the fourth day the father took the child in his arms to show him the garden. The boy became cyanosed and almost pulseless. I had left stimulants to be given in case of heart failure, and the boy soon recovered his normal color. When I next saw the child, two days later, the apex beat was at the nipple line, the pulse weak and slightly irregular. On the fifteenth day the membrane disappeared, and four days later the bacilli were reported absent by the Board of Health. On the latter day the pulse averaged 88, although the child was in bed playing quietly with his toys. On standing up, the pulse jumped to 120, and he was immediately laid down again. Four days later he was able to go around the room without the pulse going above 100. On this day the heart had about returned to its normal size. But it required several months before the child could bear exertion without dyspnea. As is well known, the diphtheria poison has a particularly damaging effect on nervous tissues; and it appears probable that in this and similar cases the cardiac ganglia are the part particularly affected.

Case V.—This is practically a duplicate of the preceding case, with two exceptions. The patient, boy aged about 10, was well of the diphtheria, and had been discharged as cured by the physician in charge. About a week later he was asked to see the child, which appeared to be loosing strength instead of gaining. On examination it was found that the pulse was weak and rapid, the extremities cold, and the child suffering from dyspnea on exertion. After three weeks rest in bed, patient recovered. The case was considered as one of heart weakness following diphtheria and treated as such; but the heart was not examined, and the dilatation was not discovered, although it undoubtedly existed.

Case VI.—Girl, aged 10. Was treated by me for fractured arm only a few months previous to the present attack. At that time the heart was perfectly normal. In February, 1905, she was treated for a mild attack of scarlet fever by Dr. B., and after about three weeks was discharged cured. A week or two later, I was attending in the same family, and noticed the child. The hands and lips were blue, pulse rapid and weak. Examination showed a heart dilated out to the nipple line. She was ordered to spend most of the time lying down, and to avoid exertion. In a couple of weeks the heart receded to its normal position, and the child recovered her former strength.

Case VII.—This is introduced as a type of case of which dozens were examined by my father, as one of the U. S. Pension Examiners in Brooklyn. Male, aged about 25 to 30. Always been in good health till he entered the army during the Spanish War. Had typhoid in Chickamauga and compelled to return to camp duty almost as soon as he was able to leave hospital. At first was very weak and suffered from dyspnea on exertion. Has gradually improved, but never fully recovered former strength. Is unable to endure severe muscular strain. Examination shows a dilated and hypertrophied heart, the apex being about at the nipple line. The condition is clearly one of dilatation following typhoid, succeeded by compensatory hypertrophy. The patient was compelled to return to duty before the heart contracted, and now there is no reason to suppose that it will ever do so. He is able to do a fair amount of work not involving too severe strain, but he has not now, and probably never will have, the endurance which he previously possessed.

In concluding, I would like to emphasize the following points:—In all toxemias the heart is more or less affected. This is particularly true of the acute infectious diseases. In typhoid, influenza, rheumatism, diphtheria and scarlet fever, the heart involvement is very frequent and is very often out of all proportion to the severity of the original attack. The symptoms of cardiac weakness may develop at any time after the beginning of the attack, but most commonly after convalescence has begun. The first evidence of cardiac involvement is revealed by changes in the first sound heard at the apex and diminished tension in the arteries. If the loss of cardiac tone is sufficiently great, dilatation follows. This is characterized by irrritability of the heart, softness, weakness and irregularity of the pulse. Symptoms of failing circulation depend upon the degree of muscular weakness and extent of dila-

tation. A dilatation out to one finger's breadth beyond the nipple line is usually recovered from; two fingers' breadth is exceedingly dangerous, and three fingers' breadth is usually fatal. Vomiting in a case of acute dilatation is usually the precursor of sudden death.

All cases of infectious disease should be carefully watched and appropriate measures taken to reduce the work of the heart to a minimum, prevent strain, and eliminate toxines as rapidly as possible before symptoms of heart failure threaten or are present. In every case of infectious disease the heart should be frequently examined until convalescence is fully established.

The prognosis is usually good in those cases in which the danger of this complication is appreciated and the patients intelligently treated.

THE TREATMENT OF LUMBAR POTT'S DISEASE, COMPLICATED BY PSOAS CONTRACTION.

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THE case which I wish to report is of interest only from the standpoint of treatment. A short history of the case is as follows:

The patient is a small boy, aged five. He was admitted to the Samaritan Hospital on May 23, 1906, complaining of a lump on the lower part of back, drawing up of left leg, and a running sore on the back of left thigh.

Family history was negative. Father and mother were living and well. Two sisters were living and well, and one brother died of whooping cough when six months old.

Past history. Patient was born naturally, and was a healthy child. As is usual in these cases, there is a history of a fall, and the mother of the child traces the beginning of the present trouble from that. Two years ago, when three years old, the patient had a rather bad fall. Following this fall the mother says that the patient would spit up blood at times, and that numerous abscesses, the scars of which can yet be seen, broke out on patient's hands and limbs. Some time after this the mother noticed that the patient's back seemed lame, and that he would cry out in his sleep at night.

The patient was seen by various doctors, and was treated for Pott's disease for some time, wearing at first a plaster cast and later a steel brace. The parents neglected to keep up the treatment, however, and deformity of the back with increasing disability occurred. During the winter of 1905 a swelling appeared on the back side of the left thigh, which broke and discharged. This sore never healed.

The physical examination at the time of admission was as follows:

Patient is a rather poorly nourished, apathetic-looking child. Skin is pale, mucous membranes are of a fairly good color. The left eye has a healing cornial ulcer. Patient keeps his mouth open most of the time. The skin over the alæ nasi is covered with crusts. The skin over the chest and back is somewhat scaly. There is no glandular enlargement in the neck.

Lungs. Breath sounds are harsh, but no rales.

Heart. Sounds clear, no murmurs.

In the lumbar region of the spine there is a marked kyphosis projecting backward about 1½ inches. The kyphosis begins 2½ inches above the lumbo-sacral articulation, and its most prominent part is 4½ inches above the same point, and its upper limit 6 inches. There is no tenderness over this area. The right leg is normal. The left leg is flexed to nearly 45°, and cannot be straightened without severe pain. Jarring does not seem to be painful. All movements of the leg seem to be present (with slight muscular spasm), except extension and abduction. Both of these movements are markedly restricted. There is no riding up of the trochanter above Nelaton's line. On the back of the left thigh there are several fistulous openings which discharge a thick yellow pus. On probing these they seem to run inward for some distance; just where cannot be determined on account of pain.

FIG. 1. Patient at beginning of treatment.

There is no tenderness around the hip. Weight, 35½ pounds.

The accompanying photograph (Fig. 1) shows the condition of the patient.

The diagnosis was Pott's disease of the lumbar spine with marked kyphosis; psoas contraction following abscess with persisting sinus; malnutrition.

There are two recognized methods of treating Pott's disease: The treatment by recumbancy and ambulatory treatment. The treatment by recumbancy is usually affected by some form of frame while the ambulatory treatment is affected by a plaster cast or steel brace. The case in question offered some difficulties as to treatment due to the presence of a marked kyphosis, psoas contraction and a discharging sinus on the back of the thigh.

Several methods of treatment were possible. In the first place it might have been possible by the use of plaster casts, extending from below the knee of the affected side to the axilla, to gradually overcome the psoas contraction. This is the method employed by Lorenz in overcoming deformities in hip joint disease. The objections to this method in this case, however, were the condition of the skin of the patient and the presence of the discharging sinus, cutting openings for which would materially weaken the cast. The correcting of the contraction under ether followed by the application of a plaster paris cast had the same objections as the above and there was the additional danger from the ether. Treatment by steel braces, a combination of a Taylor spinal brace and a Thomas hip brace, being what would have been required, was not practicable for the reason that the hip brace would interfere with the care and dressing of the sinus, and moreover, there was no money available for getting such a brace.

The recumbant treatment was all that was left, and recumbancy with traction to reduce the deformity from psoas contraction was what was demanded. The usual manner of treating Pott's disease by recumbancy is by the use of the well known Bradford frame. This is a rectangular gas pipe frame somewhat longer and somewhat wider than the child and is covered with canvas with the exception of a space in the center to accommodate the buttocks of the child. The child lies on this frame on its back and is strapped to it.

For obvious reasons such a frame would not do in the treatment of this case; the kyphosis was so great that the child could not lie flat on its back on a level surface.

Whitman has devised a modified Bradford frame as follows: He makes the frame narrower and longer and then bends it into a curve. This form of frame has an advantage over the Bradford frame in that it overcorrects the spine and has more of a tendency toward the reduction of deformity. It was of especial value in the treatment of the case in question, since by cutting an oval hole in the canvas to admit the projecting kyphosis, the child could lie on its back on the frame without the kyphosis interfering in any way. There still remained the psoas contraction to be treated.

With the patient lying on his back on the frame the contracted leg projected upward at an angle of nearly 45°. An inexpensive and efficient arrangement for applying traction was made in this way. A board somewhat longer and wider than the leg was taken and a slit was cut at one end to admit one arm of the frame (Fig. 2). The board was then pivoted to the arm of the frame in such a manner as to allow of raising and lowering at will. The leg splint was further improved by a device fastened above to the end of the leg splint and below to the end of the frame, which allowed the splint to be adjusted and held at any desired level (Fig. 3). The leg splint was carefully padded and a cotton ring was used to protect the heel. (Fig. 4 shows the frame ready for use). The patient was strapped to the frame and extension applied to the contracted leg by means of the Gorman extension apparatus.

The following things were now being accomplished: The patient was being treated by recumbancy with a tendency to correction of deformity of the back. The discharging sinus on the back of thigh was not interfered with. The patient could be removed from the frame, bathed and the wound dressed once a day. Extension was being applied to the contracted leg.

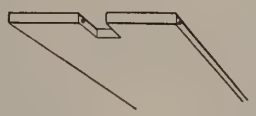

Fig. 2. Board with the notch in end.

The condition of the skin soon cleared up under olive oil inunction. The eye condition soon healed under appropriate treatment, as did also the condition of the nose. Internally the patient was given syrup of the iodide of iron, but this was found to upset the stomach, and it was discontinued. The patient received no other medication, except an occasional laxative.

The leg splint was gradually lowered under extension, and in about one week the leg was out straight. After this had been accomplished, during the day-time the patient's leg was strapped to the splint, and he was put out of doors on a blanket, the extension being reapplied during the night. The improvement in the general condition of the patient was remarkable.

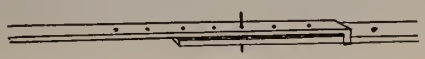

Fig. 3. Adjustable support.

After about two months of the treatment outlined above, the patient was removed from the frame and put in a plaster cast extending from below the knee of the contracted side to the axilla, cutting windows for the kyphosis and the sinus. The patient was fitted with a high shoe on the well side, given a pair of crutches and allowed to walk around; but the sinus which had partially healed broke down again, and after a month the cast had to be removed. A few days after removal of the cast, the left leg began to contract again, and it was therefore necessary to put the patient back on the frame with extension.

Fig. 4. Frame ready for use.

The persisting sinus was troublesome all this time. At first, under hydrogen peroxide irrigation and iodoform and balsam peru dressings, there was some healing. Under irrigations of 1 per cent. silver nitrate solutions, the healing was still more rapid, but still it would not heal completely. As a happy inspiration, Bier's method of suction hyperemia was tried, and the sinus healed up very rapidly; and what is better, has remained healed.

FIG. 5. Plaster case applied.

FIG. 6. Taylor brace and Thomas hip splint combined.

A second plaster cast, similar to the first, but extending only to just above the knee, was applied on November 13, 1906, and the patient allowed to run around without a high shoe or crutches (see Fig. 5).

This method of treatment was not wholly satisfactory, on account of uncleanliness and the necessity for frequent new plaster jackets. In February, 1907, money by this time being available, the plaster jacket was removed and a combination of a Taylor back brace and a modified Thomas hip splint substituted (see Fig. 6). This is so constructed that when the psoas contraction has been so overcome that there is no tendency to return, the Thomas hip splint can be removed and the patient wear the back brace alone. At the present writing the patient is wearing the combination of brace and is doing well.

The treatment of the case is of interest as regards the inexpensive and efficient frame for treatment by recumbancy and extension and the combination of Taylor and Thomas braces for ambulatory treatment.

GYNECOLOGICAL DISEASES.*

SOME CONSIDERATIONS OF THE SCOPE OF MEDICAL AND SURGICAL GYNECOLOGY FROM THE MODERN STANDPOINT.

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IN the evolution which the practice of medicine has undergone in the past quarter of a century, the tendency has been to the division of labor. During this period the spirit of investigation and progress has so dominated the medical mind that the profession as a whole have accepted the proposition that no single mind could attempt, in any exhaustive manner, the research of all medical questions.

This special work is not nor ever should be construed as an argument against the ever needful presence and scientific labors of the general practitioner.

In fact the work of the specialist only supplements the labor of the general practitioner, and their combined efforts have brought the greatest good to the greatest number. It is in this reciprocal relation that the greatest advancement was not only made possible, but that it has reached such beneficent ends.

Some unworthy or incompetent men have presumed on a capacity for special work for which neither their attainments or their capacity fitted them, while others have assumed such an air of superiority to their professional brethren as to raise a barrier to that cordiality of relations, which, after all, is the bond which should unite all interests.

*Read before the Brooklyn Medical Society, December 21, 1906.

In no special department of medicine has more progress been made than in gynecology. Now and then some general surgeon has thought it necessary to inveigh against the gynecologist as an intruder on his pre-empted domain, but it is proper to remind this contingent of objectors that it was the labors of the pioneers of American gynecology, like McDowell, Dunlop and Atlee, who demonstrated, in opposition to the conservative professional sentiment of their times, the possibility of successful ovariotomy, and thus prepared the way for the development of all intra-peritoneal surgery, with its marvelous capabilities of lessening human suffering and saving life.

The medical colleges and the post-graduate schools of the country, alive to the highest interests of the profession, have recognized the imperative demand of the times for special instruction in gynecology. Some hospitals have been reluctant in making up appointments to provide for this specialty, and some others ignored it altogether. There is dominant in the staff of some hospitals a spirit of intolerance in which there is a barrier to this division of labor. There are other hospitals in this city whose surgical staff have assigned to them all cases in the department of surgical gynecology, but who have deemed it expedient to appoint consulting gynecologists. If you will go over the names of the men who have become conspicuous in any department of special practice, few will be found who did not preface their special work by years of general practice. A potent influence which has led to this unfortunate want of unanimity has arisen from an arbitrary and unreasonable sentiment in some professional circles, which has attempted to divorce medicine from surgery, an attempt to accomplish the impossible, which has and ever will militate against the best welfare of the patient and react to the injury and the reputation of the profession. Such sentiment and the action it inspires rests on no reasonable or logical basis.

It must be admitted that some general practitioners, while well founded in the tenets of medical practice, are slow to discern the use ful limitations of such treatment and the time when surgical aid should be summoned; neither can it be denied that some operators have been so impressed with the surgical aspect of these diseases as to neglect, if not ignore, the possibly equal importance of medical treatment. The *eclat* of surgical procedures and the glory it throws on the results of successful operations and the successful operator has sometimes dimmed the conception of other factors which justly claimed important or equal consideration.

I desire for a moment to digress from the subject to venture an expression of my own opinion as to what the cardinal qualifications of a practitioner should be before he regards himself fitted for the practice of any specialty.

Five or ten years is a period none too long for the general practitioner to familiarize himself with the relation of diseases to each other and their appropriate treatment. Without such experience and training he is likely to misinterpret the relations between cause and effect, and be less capable in determining what conditions require local treatment than the general practitioner who makes no pretense to special knowledge.

That preparation which fits the general practitioner for a specialist must include special study and observation under competent masters until he has required an easy mastery and intimate knowledge of the etiology, pathology and treatment of such diseases. As long as the graduate of to-day becomes the specialist of to-morrow the medical profession will look with disfavor on the rôle he assumes, and so long will the reputation of the profession suffer in the house of its friends. The remedy for this evil rests with the discriminating general practitioner. The fact should never be lost sight of that knowledge and familiarity with the general principles of medicine are the underlying conditions of rational practice for the general practitioner or the specialist. These considerations embrace some of the potent influences which have retarded the symmetrical development of the gynecological art and give undue prominence to its surgical aspect.

The evolution of American gynecology, starting with ovariotomy, has expanded and grown until its improved methods embrace the treatment of all diseases peculiar to women. I say "American" for two purposes: first, it exemplifies the essential of all such procedures, and second, the time at my disposal forbids reference to other sources of its development. In fact, the brief mention I shall make of men who were leaders in thought and practice in this field thirty or forty years ago were residents of this great metropolis, whom some of us knew personally, the reputation of whom we are all familiar with. These two groups of names, including the early ovariotomists and a cluster of names in New York City who flourished thirty years ago, have contributed largely to the knowledge and progress of this department in medicine. It is hardly more than forty years since Marion Simms, fresh from his failures and successes in the South, came to New York City after he had finally demonstrated the curability of vesico-vaginal fistula, and his fame became world wide. Near this time Thomas Addis Emmett pointed out the before unrecognized lesion of laceration of the cervix uteri and its rational treatment. Coincident with this he devised and perfected the plastic operations for repair of the pelvic floor and perineum, which gave a new impetus to gynecological study. At the time when these truths became established none of the medical centers of this country had post-graduate schools and *competent special instruction* in gynecology was difficult, if not impossi-

ble, to obtain. The leaders of this specialty in this great metropolitan center at that time were Simms, Emmett, Peaslee, Skene, Thomas and Barker. Fordyce Barker was distinctively a medical gynecologist, and Thomas, Peaslee and Skene, who by their teachings contributed much to the medical aspect of the subject, were, with Emmett and Simms, the leaders in surgical gynecology. As late as 1877 there were but three men in New York City who gave special private instruction in gynecology, Fordyce Barker, Horace T. Hanks and Paul F. Mundé. Dr. Barker's terms were so exclusive, and his disinclination so great to undertake the task, that the sphere of his work was limited. The facilities for special study offered by Hanks and Mundé were so attractive and valuable as to make their clinics and instruction greatly sought after. Doubtless the work of these men hastened the establishment of schools for post-graduate instruction, and not a few who were sharers in these earlier advantages remember with appreciation and gratitude the benefits they enjoyed. Any history of gynecology covering this period which does not recognize the far-reaching influence and the value of the teachings of these men would be incomplete.

The number of women who seek advice and treatment for diseases peculiar to their sex form no inconsiderable percentage of all cases, and are justly entitled to the highest consideration. The necessity for accurate diagnosis is first in this and every other condition. On this attainment and its power to meet the indications of rational treatment will rest the ground of success. The problem of differential diagnosis between those diseases, whether organic or functional, will be among the most difficult to solve. Faulty treatment is as fatal to success as defective diagnosis. It would be a hopeless effort to undertake, in the task before me, to formulate in any general statement which of the diseases peculiar to women are medical and which are surgical. Not a few of these would perforce fall into the one or the other category, as the pathologic conditions in the case varied or changed in their progress. It will be my purpose rather to deal more with those conditions which determine their medical or surgical management, and if I take up the distinctive treatment of a few diseases it would be to illustrate the basis of judgment which should apply to the whole category. No one of sound judgment would dispute the fact that the shock and hemorrhage of ruptured ectopic tube, a twisted pedicle of an ovarian cyst or solid ovarian growth, demanded surgical treatment, or that cases of hysteria or ovarian neuralgia or mild cases of sepsis, puerperal or non-puerperal, belong to the domain of medicine. Apart from emergency cases, most gynecological conditions require a longer or shorter period of medical treatment, and it is to this feature I desire to direct special attention.

Non-surgical treatment should be for three distinct purposes. First, that specific treatment which precedes and prepares the patient for operation. On the conditions and limitations of such treatment is not my purpose to speak. Second, that wider medical treatment which is necessary to increase the muscular and nervous strength of the patient to put her in the best condition for operation. In my opinion some operators have not only neglected but practically ignored the necessity for such restorative treatment.. The time element has been almost eliminated. In the exhaustion following septic states, puerperal or non-puerperal, in the debility incident to chronic suppurative disease of the pelvic organs, and in the prostration following long continued uterine hemorrhage, the vitality and powers of normal resistance are so impaired as to demand time for restoration if the best results are to follow operative interference. Without such preparation the risk of operation is manifestly increased, and the skill of the expert operator may fail of its beneficial purposes. Third, that treatment which looks with expectation to the restoration of the patient without recourse to operation, and which is entitled to most serious consideration. In this class of cases, if operation becomes needful, the patient will not lack thorough preparation. While non-surgical treatment may be for any of these three distinct purposes, it embraces three different methods, and they apply equally to the second and third classification and are hygienic, dietetic and medical. The hygienic embraces proper rest, proper exercise and suitable diversion. It may require all the tact and skill of the attendant to devise and carry into operation such a plan for management as will restore the anxious and demoralized patient to a state of mental repose and hopefulness, but it is worth all it costs. A change of climate has a value peculiar to itself and needs to be experienced to be properly appreciated. If your patient lives in the city or near the sea, send her to the country or to the mountains. If her home is in the interior, at an altitude, direct her to visit the seashore or take an ocean voyage. Insist on proper exercise in the open air if her condition permits, and if active exercise is impossible give her the benefit of passive exercise by massage.

As to dietetics, the food should be best and most nutritious and that suited to the condition of the patient; and the question of what the patient drinks is of no less importance. Forced feeding has its uses as well as its limitations. Watch and see what agrees and what disagrees with her; beware of the frequently baneful effect of tea and coffee and the injurious influence they exercise on the digestive organs and the nervous system. The health of many women is impaired, sometimes seriously, by the inordinate use of tea or coffee. I restrict or exclude tea or coffee in scores of cases every year, and

without such rigid supervision I could not accomplish the best results for my patients.

Before prescribing for any woman, a thorough examination of the vital organs should be made, and as far as possible the condition of each function learned. This should be no perfunctory duty, but must be undertaken systematically. The condition of the digestive organs, the state of the respiratory and circulatory system, together with an intimate knowledge of the renal function, are essential to intelligent treatment. That condition described under the term "renal insufficiency" demands special investigation. To this must be added such an investigation of the nervous system as will determine whether the ailment is due to organic disease of the pelvic organs *per se,* or to disorders of the nervous system. In the aggregate many cases present themselve which tax the resources of the most expert diagnostician to determine whether operation should be advised or not, even though there be no question of diagnosis. These include cases of septic peritonitis from a variety of infections, and may be so grave as to forbid operation. Some of these cases recover without operation, therefore they demand the highest degree of medical skill to insure the best results.

The adaptation of drugs to the treatment of these diseases is worthy of consideration, but must be passed over hastily. When indicated the bromides, arsenic, strychnia and the organic salts of iron are most valuable nervines and restorative remedies, and hydrastinin, stypticin and ergotin as vaso-motor contractors. I desire to give special emphasis to the invaluable power of arsenic and organic iron as systemic tonics and hematic restoratives. A word concerning cathartics. A wise discrimination must be exercised, particular care being taken not to deplete the patient or irritate the digestive tract by the administration of strong vegetable cathartics. It should not be forgotten that mild local inflammations of the genital tract in women are often the expression of impaired vitality, due to mild infection, and when these conditions are overcome by restorative systemic treatment relief follows, and this applies to many of the minor ailments of women. The hygienic influence of climatic change on the arrest of membranous dysmenorrhea is a striking example. Many of the hemorrhages so common in women are unconnected with any disease of the endometrium. Ovaritis, salpingitis, together with the influence of shock operating through the nervous system, and arterio-sclerosis, are potent factors in these hemorrhages. It cannot be inferred that ergot on the one hand and the curette on the other are the only measures of relief. As to the causes, a careful differentiation should be made, otherwise the treatment will be illogical and faulty. Those due to hypertrophy and degeneration of the endometrium and those arising from the retained products of conception often require the use of the curette. In cases where curettage is required after miscarriage the use of the finger, if possible, is better than a curette. In those hemorrhages which are the product of acute overitis or salpingitis, acute peritonitis and shock, only medical remedies should be used, except in rare cases where the tampon may be required. Here systemic remedies may be useful and these before mentioned are most valuable. To use the curette in these latter cases and not to use it when indicated in the former is surely culpable. That form of uterine hemorrhage, due to arterio-sclerosis, which of late has attracted much study from the physiologic and pathologic point of view, calls for distinctively different management than either of the foregoing. In these cases there is change in the walls of the blood vessels by which their lumen is diminished. Under these conditions the nitrites are the remedies most likely to prove useful. To resort to the use of drugs which increase the blood pressure might involve the risk of a rupture of these degenerated blood vessels.

One other form of uterine hemorrhage must be mentioned, that happening after the menapause, most often due to incipient malignancy, and known among the laity as a "return of the change of life." In the inflammatory diseases peculiar to women, localized infection, varying in intensity with the virulency of the germ and the power of resistance of the patient, is the common etiological factor. Reluctance or refusal to recognize the gravity of these conditions and the disposition in certain quarters to rely on systemic remedies when surgical interference offers the only relief possible is greatly to be deprecated.

The proper scope of surgical procedure in the mind of some practitioners is vague and ill-defined. At a recent meeting of a large and influential medical society in an adjoining state at which I was present, a general practitioner of mature years, large experience and conspicuous ability, related the history of several cases of large, bleeding fibroids, and inquired if they required operative interference. No uterine fibroma or myoma should ever be allowed to attain a large size. Bleeding fibroids should not be permitted to remain long enough to seriously deplete the patient, certainly not when palliative measures as previously referred to have failed. If ever "procrastination is the thief of time" (and it might be added, of health and life) it is under conditions like this. After long observation it is my settled conviction that no other single cause, except gonorrhea, contributes so much to invalidism in women as prolonged and excessive loss of blood. With improved modern technique and the ease of supra-vaginal hysterectomy, the invalidism and mortality of these causes can be reduced to the minimum. It is gratifying to know that so many practitioners are fully alive to the needs of these cases, and it is devoutly to be hoped that the iteration

and reiteration of these principles will lead to such a sentiment as will receive universal acceptance.

Among the many ills of women that of cancer of the uterus and mammary glands deserve notice. The alarming increase of the manifestations of malignancy in these organs calls for the greatest circumspection in their management and demands early diagnosis, and if conditions permit, prompt extirpation. Cancer is the typical condition in which its radical treatment finds no place for the physician. The border line cases in gynecology, as in every condition are the ones which require all the diagnostic skill of the specialist and the general practitioner for their elucidation. Every accessory which science and skill can invoke must be placed under contribution for their differentiation.. In chronic cases time for study and comparison for all phenomena will aid in the solution of the problem until conclusions more or less positive are formulated.

But one other condition will claim our passing notice, that of uterine displacement. There is an erroneous impression abroad, that the normal orbit of the uterus has one fixed relation and that any deviation from such standard implies displacement and requires treatment. The fact is that every uterus has its own normal standard of position, and that as a rule, when deviations from that standard do not produce symptoms of discomfort they may be disregarded, and further, it may be affirmed, that symptomatic relief meets the demands of the situation. If these principles are kept in mind much mechanical and operative tinkering may be avoided. This, however, is not to be construed as teaching that the use of pessaries and corrective operations for displacements have no rational basis. Time has not permitted reference to the bacterial factors which enter so largely in these cases and demand the most serious consideration.

As a whole, it is confidently believed that a reasonable regard for the principles here inculcated will lead to right diagnosis and aid in determining proper courses of treatment. Science loses nothing in the frank avowal that its laws and truths are known but in part, nor the gynecologist that his knowledge and skill have their limitations. These principles, if rightly applied to the commonplace and extraordinary things of everyday duties, will dignify our own labor and lend honor to our profession. Such course of action fearlessly announced and conscientiously followed bring to the attendant and patient the best results.

To recapitulate some of the topics considered it may be remarked, first, that a subdivision of work into specialties is in keeping with the general sentiment of the time, but that the mature judgment necessary for such work should include knowledge of and long experience in the practice of general medicine and thorough mastery of a special topic under competent masters. Second, that while some practitioners have given undue prominence to the surgical aspect of these cases, others have been equally derelict in failure to recognize the inadequacy of medical treatment and the necessity for prompt surgical interference, and that such delay has too often contributed to avoidable mortality. Third, that while medical and surgical gynecology have their distinct fields, their mutual relations and inter-dependence should never be lost sight of. Fourth, that in gynecology, as in other specialties, the ideal will only be attained when the individual specialist has developed, by proper training and experience, equal skill and judgment in the conduct of both medical and surgical cases.

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MILK PRODUCTION.*

THE NECESSITY FOR INSPECTION OF THE SOURCES OF MILK AND THE PREVENTION OF SUBSEQUENT CONTAMINATION, HUMAN AND BOVINE.

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IN presenting this paper, I shall deal as sparingly with scientific dictum as will be possible, confining myself to touching on only the practical points of the subjects suggested by the title.

First we shall speak of the source of milk production. To do this I shall be obliged to ask you to leave behind the delicately scented boudoir, where your chosen profession calls you, and follow the veterinarian to the stock farm where the brand of perfume will be in keeping with the cleanliness, light, and ventilation which you find there. Since the fountain head of our milk supply is the cow, let us begin at this point to make our observations. I shall mention the conditions only which I consider most important, such as occur most constantly and are capable of being remedied in a practical way, leaving dissertations on theories to more able and imaginative minds, conditions which many of you as medical men and the family confidant could assist in bettering where your practice calls you in rural districts.

A cow that is physically unwell in any way, other than mild forms of digestive disorders, is unsafe as a milk producer for human consumption, and the use of her milk should be discontinued temporarily or permanently, depending upon the nature of the malady. For convenience we might divide diseases into two classes: those of the udder and those affecting other organs. Of the latter we will mention advanced tuberculosis. The likelihood of inter-communicability we shall discuss later.

Septic infection from retained after-birth is

*Presented at April Meeting of the Orange County Medical Society, at Middletown, N. Y.

not uncommon in the average dairy. How often we have entered a stable at milking time to find an attendant milking a cow with a filthy vaginal discharge being switched by the tail all over the teats and udder; only to be milked ultimately into the pail. Question the milker as to the cow's appetite and lactic production and you will find that his answer will coincide with the appearance of the cow, which is pretty bad.

The udder affections most often seen are mamitis or garget, as it is commonly called. Three forms of this are recognized: acute, chronic, and tubercular. If we are to consider the bovine tubercular bacillus at all dangerous, I know of no more direct mode of exposure than by consuming in a raw state the product of a diseased gland. As for acute mamitis, its duration is so transient, and usually attended with suppression of the milk flow, that it requires little or no attention.

Chronic mammitis is a condition in which we have more or less induration of the gland, producing a secretion varying from a serous to a thick, glutinous, stringy substance, loaded with streptococci. If not a direct disease-producing product, it is at least a gastric irritant, particularly for infants.

Concerning the prevention of milk contamination, I shall not go into detail as to the care of the milk. Suffice it to say that the danger of contamination steps up to shake hands with this warm, inviting fluid the instant it leaves the cow's udder, and to overcome contamination from the milk pail to the consumer is a question even more serious than the obtaining of it from a healthy animal. Unclean milk, disproportioned milk, or milk contaminated with pathological germs foreign to the bovine is not the fault of the cow. If my memory serves me justly this society listened to a very able paper about one year ago on the injurious effects of the various methods for the preservation of milk; to-day you are to have a paper which will go into detail as to the care of milk, therefore it is best that I confine my remarks to pathogenesis, which after all would seem the most important, since a few pathogenic bacteria will do more harm than myriads of non-pathogenic organisms. I shall, however, say that milk properly cooled immediately after being drawn from the udder is not near so favorable a medium for the growth of bacteria as milk of a higher temperature.

In considering the danger of contamination, it would be necessary to see that the milkers, attendants, and all others who may handle it or its receptacles are free from contagious diseases. Typhoid fever, scarlet fever, diphtheria and consumption are diseases known to be carried by milk. Not long since I was talking with a veterinarian from Philadelphia connected with the Health Department there, who had just been called upon to assist in investigating an outbreak of typhoid fever. It was found that nearly every patient was consuming milk delivered by a local dairyman. Upon further investigation it was learned that one of his family had been ill for some time with typhoid fever and the excreta of the sick-room were taken out on the hill-side and presumably buried. A warm rain had flushed the snow and ice down the hill into the spring used for cooling the milk. Here the milk cans had their daily bath; and possibly a dipperful of this infected water was added occasionally to the not-quite-full milk can for good measure. Many similar instances could be cited.

Now a word concerning inter-transmissibility of human and bovine tuberculosis. It is not within the sphere of my knowledge to even hint at contradicting such an eminent man as Prof. Koch; but I think I may state that high authorities have disagreed with him and coupled their statements with very logical arguments, some of which I will mention. Until 1872 bovine tuberculosis, also called *Perlsucht,* was supposed to be syphilis and known as "French disease." That year County Physician Heym in Spandau refuted the syphilitic nature of tuberculosis. Up to the seventies of the last century the same opinion was prevalent regarding *Perlsucht* as was regarding phthisis in man; that it was purely a hereditary disease. In 1882 the tubercle bacillus was discovered by Prof. Koch, and it was shortly after demonstrated that *Perlsucht* and tuberculosis had the same generator. Fifteen years later, Koch was doubtful as to the identity of human and bovine tuberculosis, and as is well known, his address before the British Congress on Tuberculosis in July, 1901, caused an awakening of the medical world. Physicians, bacteriologists and veterinarians immediately began experiments and investigations; money was appropriated by different bodies; and a war of research begun. Koch's doubt regarding the identity of the two was caused by the difficulty of transmitting human tuberculosis into the bovine species. This theory Von Behring, Lorenz, and others answered with the known fact, that certain germs after having passed through a certain species of animal will lose their virulence for some species, while for others it will prove to be still more virulent. It has not as yet been proven that the bovine bacillus loses its virulence by passing through man. In 1905, Schiveinitz, Dorset and Schroeder conducted extensive experiments on hogs, cattle and monkeys. Every animal was first subjected to the tuberculin test, and only those giving no reaction were used for the experiment, all animals being kept under conditions necessary to make such work reliable from a scientific standpoint. I will give a summary of their work.

Experiment on Hogs.—Cultures used were those taken from children and those taken from the bovine. As a result of these experiments, the conclusion was: first that certain tubercle bacilli of human origin possesses quite as great pathogenic power for hogs as did tubercle

bacilli of bovine origin; second, the disease induced in hogs by human cultures was distinctly progressive in character, death taking place in two of the animals in twenty-eight and sixty days respectively. Modes of infection: intravenous, subcutaneous and by feeding.

Experiment upon Calves.—Cultures used from children and adults. Modes of infection: intravenous and subcutaneous, 33 1-3 per cent. becoming affected. The conclusion that there is no essential difference between tubercle bacilli derived from bovine sources and those derived from man was justified. Virulent human tubercle cultures cannot be distinguished from the classical bovine type, either with regard to their cultural characters or their pathogenic power for cattle and other animals. Dr. Theobald Smith has been an advocate for a racial distinction between bovine and human tubercle bacilli; still he does not deny the infectiousness of bovine bacilli for man; on the contrary, he considers those cultures of human tubercle bacilli which correspond culturally and in respect to their pathogenic powers with the ordinary bovine tubercle bacilli as being originally of a bovine origin.

Experiment on Monkeys.—Cultures used: bovine and human for comparison. Mode of infection: subcutaneous and feeding. Since it is a generally admitted zoological fact that man stands nearer in relationship to the quadrumana than other animals, it would seem that this experiment should carry with it some convictions. The results briefly stated are, that no important difference exists between the two tubercle cultures used, and that they are both infective to monkeys.

Experiments where Infection was by Means of Digestive Tract.—Dobroklonski has attempted to decide definitely the disputed questions whether tubercle bacilli can enter the body through the intestinal tract and whether a lesion of the intestinal mucous membrane is necessary for such infection to take place. The animals experimented upon were guinea pigs. The infecting material used consisted of tubercle cultures on glycerinized bouillon. A small glass tube with rounded ends was inserted into the throats of the guinea and a few drops of a pure culture were allowed to flow through it. The animals were not fed for some little time after they received the culture and were guarded carfully against any outside infection. They were killed on the fourth, tenth, fifteenth, twentieth, twenty-fifth, thirty-second, and fortieth days, respectively, after being fed the culture. At the autopsy a careful microscopic examination was made of the entire length of the intestine, and microscopic sections were made from large portions of that organ, those portions which indicated the slightest variation from the normal being given specially careful study. As a result of this extremely laborious experiment the author found that it is entirely possible for tubercle bacili to pass through the normal intestinal mucosa of guinea pigs. He is not able to say just how the entrance is effected, but draws the following conclusions: Tuberculosis may certainly infect animals through the digestive tract. For this infection to take place, no lesion of the intestinal wall is necessary; no epithelial desquamation; no local changes of any character; no previous inflammatory process. The tuberculosis virus—the bacilli as well as the spores—can pass through the epithelial covering of the perfectly normal intestine. This penetration is particularly easy in cases where the contact of the tuberculous virus with the intestinal wall is prolonged, but for the penetration to take place it is not necessary for this contact to be prolonged. The tubercle bacilli, as well as their spores, if they are not long in contact with the intestinal wall, are not capable of provoking inflammatory processes or modifications of the epithelial lining of this wall. The tubercle bacilli probably have no definite way of gaining entrance into the organism—for example, by leucocytes exclusively—but they may be carried by the lymph current and later, being arrested at some places in the tissues, they there give rise to the formation of the tubercles.

Nocard says, that in cases of cats, young animals are especially liable to contract tuberculosis through the digestive tract. He fed to four six-weeks-old kittens and also their mother a paste with which was mixed a very abundant culture of tubercle bacilli. All four kittens died within four months of a very severe type of tuberculosis. The mother lived for a long time in good health, but when killed at the end of three years, tuberculous lesions of the liver, spleen, and lungs were found.

Clausen, while holding the position of slaughter-house inspector in the town of Husum, in Germany, was struck by the fact that the hogs slaughtered for the almshouse and hospital were more or less infected with tuberculosis. Hogs of the same breed fed in other places, however, were entirely sound. The tuberculous changes were usually found in the liver, mesenteric glands, cervical glands, or the lungs. Hogs suffering from generalized tuberculosis had to be condemned as unfit for human food. On this account it became very desirable to find the cause of this disease. As the hogs at the almshouse were supposed to be fed only upon barley, corn meal, cooked potatoes, and some green fodder, the food was not at first suspected. The stalls were in very good condition; nevertheless, before the introduction of fresh hogs they were cleansed with hot soda solution and disinfected with carbolic acid, and fresh lime was scattered over them. One day, quite accidentally, Clausen noticed that the refuse from the hospital portion of the institution, in which a number of tuberculous patients were being cared for, was thrown out to the hogs. He forbade the further continuance of this practice, and never found another

tuberculous hog at that institution. As a result of this observation the author is convinced that hogs may contract tuberculosis directly from men. He consulted his day-book and found that hogs which had been cared for by men suffering with tuberculosis often showed that disease when slaughtered.

Tjaden reviews the statistics concerning primary intestinal tuberculosis in children and also reports some experiments conducted by himself in collaboration with Hertel and Koske. They fed milk from tuberculous cows to sixteen young pigs. Only one of these developed a primary intestinal tuberculosis. The others had an infection of the mesenteric and also of the cervical lymph glands. From this fact the author infers that a great number of the cases of tuberculosis of the cervical glands in children may be caused by tuberculous milk, and that infection through the food is not always indicated by tuberculosis of the intestines.

Nocard used six monkeys of the same origin for an experiment, which was briefly as follows: Three of the monkeys were reserved as checks. They remained perfectly healthy. The other three, which were fed several rations containing a small amount of culture of bovine tubercle bacilli, became tuberculous after a short time. The localization of the lesions thus produced showed clearly that the intestinal mucous membrane was the entrance point of the virus, and there can be no doubt that the infection was the result of eating the infected food. The monkeys showed the same susceptibility to bovine tuberculosis that is seen in all other mammals; therefore in Nocard's opinion, we have no right to suppose that there is a difference in the case of children. The milk from a cow suffering with udder tuberculosis must be considered as equally dangerous.

Cipollina records the results obtained by feeding an ape with cow's milk, to which had been added a pure culture of bovine tubercle bacilli in the proportion of 1 öse to 150 c.c. of milk. This feeding was kept up for a month, the tubercle bacilli being administered every other day. Before the feeding commenced the animal was kept under observation for some time and carefully watched in order to see if it showed any signs of illness, and it was also tested with tuberculin before the experiment began, the test giving a negative result. The animal began to lose in weight and show symptoms of illness after a month and a half and died at the end of three months. The autopsy showed a severe tuberculosis of the abdominal organs and many nodules in the omentum and over the serous surface of the intestines. The mucous membrane of the stomach and intestine was not affected, with the exception of a few small areas in the colon, which were slightly hemorrhagic. This condition was due to the intestine being adherent to diseased mesenteric glands at those points. The kidneys and lungs exhibited many caseous nodules. This experiment, according to the author, shows, first, that the ape is susceptible to cattle tuberculosis by feeding; second, that the bovine tubercle bacillus may pass through the intestine without any lesions at the point of entry.

Ravenel, Schottelius and Huls have made investigations along these lines with similar results; so while the transmissibility stands unproven, still it would seem logical with the evidence we have to regard it with dire suspicion. In concluding, let me say that I hope the time is not far distant when the medical and veterinary profession will go side by side, hand in hand, as guardians of health and the protectors of life.

CHRISTIAN SCIENCE DESCRIBED.—Judge Gray, of Indiana, was attacked by the Eddyites in communications to the public press because he rendered a decision unfavorable to that particular cult. When asked for his opinion off of the bench, this is what he said:

"The argument that people get well under their ministration, and that many people believe in the doctrine proves nothing. Thousands of people got well without medicine or prayer or faith hundreds of years before Mrs. Eddy was born. Every educated physician knows that the inherent recuperative forces of the human organism tend to restore the afflicted. The doctor seeks to aid by furnishing favorable conditions. Nature heals a cut. It is only the simpleton who would sing or pray when the gaping wound ought to be sewed up. A broken leg will get well after a fashion, without treatment of any kind, but much sooner and better under intelligent coaptation. Prayer won't set a broken leg and it is humbug to talk about it. Prayer will not destroy the germs that cause consumption, malaria, typhoid, diphtheria or even the itch. The human organism cures, medicine assists. That some good people believe in Christian Science proves no more in its favor than the same fact proves the infallibility of Mormonism or Mohammedanism. Some people will believe anything, especially if afflicted in body and mind. Sometimes the more ridiculous the proposition the more intense the faith. And then, again, Christian Scientists claim that it is God that does the curing, and that they are the only fellows that can get Him at it. What do you think of that? Now, if God is going to give direct assistance in curing the sick, why should He not aid the Christian physician who probably knows more about science than a carload of so-called healers? Christian Scientists claim to be the only fellows that are obeying the 'dual commandment' to preach the gospel and to heal the sick. Better turn and re-read that commandment again. Here it is: 'Go ye to the lost sheep of the house of Israel, and as you go, preach, saying, the kingdom of heaven is at hand. Heal the sick, cleanse the lepers, raise the dead, cast out devils.' This is the golden text of Christian Scientists. They scold the people because they only preach, while they do the whole thing. But they don't. They violate the commandment constantly. First, they are commanded to go to the lost sheep of the House of Israel. They don't do it at all. They never treat a Jew. Not much. The Jews are too smart to be caught that way. They work on the Gentiles exclusively."

"The public health is the foundation on which repose the happiness of the people and the power of a country. The care of the public health is the first duty of a statesman."—*Lord Beaconsfield.*

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Editorials.

THE FACTORS OF SAFETY IN ANIMAL ECONOMY.

IT is interesting to observe that Meltzer in his Harvey lecture takes exception to the conclusion of Chittenden that the minimum amount of food is the best. He shows that, in mechanics and engineering, safety demands that the strength of a structure must for safety's sake be far above any demand which will be placed upon it. The same is true of the human organism; it displays a prodigality of tissue and power. Many organs exist in duplicate where one only is necessary, and in the case of most of these a large part of their substance may be destroyed and still the smaller remainder abundantly suffice to carry on the necessary functions of life. Two-thirds of each kidney may be removed without interfering with the necessary function. A large part of the lung or one whole lung may be easily sacrificed. The ovary secretes many thousand more ova than can be used. The removal of the whole thyroid gland produces serious disease, but if only one-fifth of the gland be left, that is sufficient to perform the requisite functions. The removal of all the suprarenal glands is absolutely fatal, but if one-tenth of the gland be left, that suffices to keep the animal in good health.

This prodigality of nature is not only true of organs, but also of their essential secretions. Nature produces vastly more than is necessary. The importance of this appears when an organ becomes diseased, and when much of its structure is rendered non-functioning.

The wide range of safety is seen also in the circulatory apparatus where the mechanism is such that an increase or decrease of circulating fluid is provided for. Another interesting example of the duplication of organs to perform the same function is seen in the muscles of respiration. Ordinarily this function is carried on alone by the abdominal muscles, but if for some reason they become incapacitated, respiration is carried on by the intercostals; and beyond these is still another group of respiratory muscles rarely called upon.

When we come to the supply of fuel or food for the body, inorganic salts, water and oxygen, Meltzer shows that they are all provided in great excess. The body stores up carbohydrates and proteid food which it does not require for immediate use, and in fact may not require. This excess represents the factor of safety. The amount of food which is eaten in response to appetite cannot be taken as the amount which the body requires for its immediate functions, for Chittenden has shown that men may be apparently well and healthy on much less than that. But Chittenden has gone so far as to assume that the minimum diet is the best diet. This Meltzer declares is an assumption not in keeping with the general economic principles of the body, and he says, that, "Finding that men can continue to live with a certain minimum is a fact; the assumption that this minimum is the actual requirement of the organism is, however, only a theory, and a theory which decides that, in contrast to a human-made machine, the animal machine should be provided with a minimum supply of energy just sufficient for the average daily incidents and daily work." A man may live in perfect health with but one kidney, but that is no ground for declaring that to have but one kidney is the ideal arrangement.

The statement of Benedict is well worthy of consideration, that, "Dietary studies all over the world show that in communities where productive power, enterprize and civilization are at their highest, man has instinctively and independently selected liberal rather than small quantities of protein."

THE FRESH AIR TREATMENT OF DISEASES OF THE LUNGS.

PROPERLY speaking the application of fresh air to tuberculosis of the lungs is not a treatment—it is simply giving the lungs what they are intended by nature to have. Tuberculosis develops when the lungs are fed upon impure air. Making the patient live out of doors is a return to the natural and normal requirements of the respiratory apparatus. When one has become ill from impure food, he is cured by giving healthful food. When one is made ill by breathing illuminating gas the first step in the treatment is to give pure air. Most of our diseases, except those incidental to old age, are due to violations of the laws of health; and the natural tendency of the body is to overcome disease, if it is but given a chance.

We know a country doctor who insists that veratrum viride saves his pneumonia cases. As a matter of common sense, and habit, he puts his patients' beds near an open window, but insists always that it is the veratrum viride that cures them. Maybe the drug helps, but the doctor has taken a long step towards the cure when he restores the patient to the natural air which the lungs are intended to breathe, and for which they are hungering.

When a fisherman on Cape Cod contracts pneumonia, they put him in a little bedroom which is nearly as air-tight as though it had been calked. He has been used to wind and weather all his life, and his wife will tell you that that is what brought on his pneumonia. The blinds are closed, and in the sick room you will find an old nurse fanning the patient, and a veritable young stove of a kerosene lamp sucking up the oxygen.

The mortality from pneumonia among these men is extremely high. When the doctor arrives, he has driven five or ten miles through a wind that has nearly taken his breath away; he goes in the house, and is thankful enough to find a good shelter. It is the most comfortable place he has been in since he left the last house an hour before. If he should suggest more air for the patient his orders would not be carried out. Now, this is what happens to the old fisherman: he dies.

It is curious enough that a dry-goods clerk would stand a better chance of recovery under these circumstances than the sturdy fisherman, for kind nature bestows a certain measure of immunity against bad air upon those who habitually live in it. By practice the diver can remain longer and longer under water. A man may accustom himself, at the expense of his health, to get along with less and less oxygen. This habituation stands him in good stead when he has to be shut up in a tight room with a quarter or a half of his oxygen-absorbing apparatus put out of commission. But our fisherman, whose bellows has been blown up with wind from every point of the compass, has not had the immunity to bad air which our dry-goods clerk has enjoyed, and when his oxygen is shut off he dies like a rat under a bell-jar.

EPILEPSY AND ALCOHOLISM.

IF there is any etiological relationship, the certainty of which we are familiar with, it is that between alcoholism and epilepsy. We have as good evidence of this as we have of the causative relation subsisting between the bacillus typhosus and typhoid fever. This is a subject of such great importance that it should be kept constantly before medical attention; and through the medical profession the public should be thoroughly familiar with it, which unfortunately is not the case.

It presents itself to us in many phases. The drinker himself becomes an epileptic; but the most important consideration is the relation of drinking on the part of the parent to epilepsy in the child.

The epileptic colonies are witnesses to the old saying that "the sins of the fathers are visited on the children unto the third and fourth gen--eration." Matthew Woods,* in a paper on this subject, suggests that this familiar quotation may imply a recognition of the law of atavism, or it may mean that in case of such a transgression as habitual drunkenness, the family would not endure longer than the third or fourth generation. He pronounces the belief that while this is true, still, by proper living, the harm inflicted upon a family lineage by a drunken ancestor may be eliminated from the stock, as Brown-Sequard showed could be done in guinea-pigs. If it can be done for the guinea-pig, it should be done for man.

All observers of epilepsy report upon alco-

*Jour. Am. Med. Asso., XLVIII, No. 6.

holism as a most prominent cause of this disease; but there is a large class of cases which, according to our biological theories, would seem almost outside of the influence of heredity. These cases are so commonly observed that they represent a distinct and important contribution to the study of heredity. We refer to the occurrence of epilepsy in offspring conceived while a parent was under the temporary influence of alcohol, while offspring born before and after, which were conceived while the parent was not using alcohol, were free from the disease. Woods cites the case of two epileptics under his care, the only cases occurring in their respective families, which were easily traced to single instances of transgression in the use of intoxicants. He also reports the case of a young imbecile girl who was conceived at a time when the father was intoxicated; four children born before this period of inebriety and two born subsequent to it being perfectly well.

Spratling and Mandsley agree that epileptics, because of alcoholic drinking on the part of parents, "are as much manufactured articles as are steam engines and calico printing machines" —the product is precisely what might be expected. Both Woods and Spratling quote the Russian observer, Kovalovosky, as follows:

"Caucasus is a country of grapes and wine. The natives quench their thirst not with water, but with wine that contains from 5 to 15% of alcohol. Wine drinking is so common in Caucasus that no one considers it inebriety. Everybody knows what a high percentage of epilepsy is caused by the abuse of alcoholic beverages. I have spent the summer during the past fifteen years in Caucasus, where I have a medical practice, and in no place have I had so large a proportion of epileptics among my patients."

The studies of Bourneville also are cited. He observed 2,554 children who were admitted to the Bicêtre and Fontain Vallee, 2,072 boys and 482 girls, all suffering with idiocy, imbecility, epilepsy and other neuroses. He found that 1,053 of them were the offspring of drunken parents. Also Demaux is cited as reporting thirty-six epileptics whose histories were well known to him, of whom five were conceived while the fathers were intoxicated.

There is a sad side to these studies. The unfortunates are the children. Parents may have a high degree of influence upon the children, but the children are born involuntarily and have no choice of parents. Some of these cases are striking commentaries upon the law of compensation—industry and the frugal life yielding healthy offspring and opulence yielding epileptics. Here is the case of a lawyer who scarcely knew the taste of liquor, and who became the father of four healthy children. Then he became prosperous and famous, organized a wine cellar and became a *bon-vivant*. Two more children were born, both of which developed epilepsy.

While medical men are familiar with this etiological relationship the public is not, and it behooves us to exert every influence that the public shall understand that we know this much of the etiology of epilepsy, and that so much of it at least is not an undiscovered mystery.

TESTS OF CARDIOVASCULAR EFFICIENCY.

THE present methods in vogue for making examinations of the heart seem satisfactory enough if some gross lesion which is easily discovered exists; but the physician sees many cases in which as a matter of fact he really is able to discover nothing, but still in which he regards the heart as not altogether normal. We may learn something of the functional power of the cardiovascular apparatus by certain inquiries as to shortness of breath upon exertion, the number of pillows one requires in sleeping, the presence or absence of palpitation, the matter of cyanosis, cough, etc. Cabot and Bruce* have supplemented their inquiries by further studies of the general condition of the patient and by observations of certain signs. One of the valuable tests to which they call attention is the effect of changed position. The normal difference between the pulse rate in standing and the lower pulse rate in the recumbent position disappears when the heart is seriously weakened. In healthy individuals there is a normal slowing of seven to fifteen beats per minute produced by recumbency. This number they find is reduced or altogether lost in cases of uncompensated valvular disease, and when the heart is seriously weakened.

Herz's test (Selbsthemmungsprobe) consists in counting the pulse over a sufficiently long period to assume a reasonably constant rate per minute. The patient then is made to sit down and very slowly flex and extend the right forearm, putting his full attention upon the movement, and endeavoring to avoid any contraction of the muscles. The physician all the

*Am. Jour. Med. Sci., October, 1907.

while supports the patient's elbow with his left hand, while with his right hand grasping the patient's wrist, he directs the slow movements of flexion and extension, without, however, assisting or hindering them in any way. In the normal heart it seems that this procedure exerts no influence upon the pulse rate, but in the weakened heart the rate is notably slowed. Certain hearts which show no other evidence of disease are slowed from five to twenty beats. In carrying out this test extension and flexion each should consume a full minute.

Katzenstein's test consists in compressing both femoral arteries just below Poupart's ligament and noting the effect upon systolic blood pressure in the brachial artery. In normal persons this procedure causes a rise of 5 to 15 mm. of mercury in the systolic pressure within two or three minutes. If the heart is weakened from any cause the pressure will be less elevated or not at all.

The test to which Cabot and Bruce have given the most attention is that elaborated by Graüpner of Nauheim. He found that after the pulse rate has risen as a result of exertion and again fallen to normal, the systolic blood pressure begins to rise, reaches its maximum some minutes later than the pulse rate, and gradually falls thereafter to normal or sometimes below normal. This phenomenon is observed in normal cases. In weakened hearts, if the damage is but slight, this still occurs, but is delayed or diminished. In seriously weakened hearts it does not occur at all, the blood pressure declining from the start, and then gradually reascending to the normal. This can be easily tested by the healthy person who will run up a couple of flights of stairs and then count his pulse. After the immediate acceleration has passed or during the slowing of the pulse following, it will be noted that the heart beat and strength of the pulse become much exaggerated. One feels the thump of the heart against the ribs more strongly after the pulse has almost or quite reached its normal rate than during the preceding period when the pulse is most accelerated. Graüpner, in making his test, employs a weight-and-pulley ergometer.

Tests such as these are of much value, for in the diagnosis and prognosis of cardiovascular disease the functional ability of the organs is the main thing, and is really of more importance than discovering the anatomical changes which have heretofore received so much attention.

A FRENCH VIEW OF MEDICAL ETHICS.

IN a recent number of the *Presse Medicale* (XV., No. 7) appears an article on medical ethics by A. Pinard, which is worthy of consideration. It touches upon many of the questions in ethics that come before the physician, and is altogether an admirable expression of an enlightened Frenchman's views on this subject. Common sense should be the watchword; and Pinard rejects the law or medical usage when they come in conflict with it. The physician has a duty to society as well as to his patient, and no patient should be able to retain a physician as his counsel in order that he may do damage to the public.

The physician must often violate the letter of the law. If a patient with a contagious venereal disease declines, upon the advise of the physician, to postpone his marriage, is it not the physician's duty as an humane man to advise the father of the girl that he should not allow his daughter to marry the man at that particular time? The doctor might be prosecuted for breach of professional confidence and condemned by the court, but his conscience would be cleared of the sin of neglect to humanity. This French writer believes that the time is coming when the physicians of the two families will confer concerning the physical fitness, just as the lawyers of the two families (in Europe, at least) confer concerning the marriage settlement.

The physician should testify that a man was the victim of poisoning, but he should not suggest who had done the crime. He should violate professional secrecy by reporting that a child to which he had been called was the subject of inhuman treatment, but no power should compel him to announce the author of the crime. He should warn a wet nurse that she would be incurring great risk if she took charge of a syphilitic child, even though the parents were his patients and the nurse a stranger.

These lines of conduct involve a violation of professional secrecy in which such secrecy conflicts with humane conduct. These contentions should be endorsed upon the ground that the physician is first a humane man and then a physician, and that the common good has precedence over the interests of the individual.

Observations.

ON POLITICS AS A FIELD OF USEFULNESS FOR THE PHYSICIAN.

EVERY physician has been advised to keep out of politics. This advice cannot be escaped. The commencement-day orator hands it out to the graduating class, the old physician cautions the young man against "mixing in politics," the literature of medicine perpetuates the admonition, and medical circles have a perennial sneer for the "political doctor." We earnestly wish that there might be less of this sentiment. It is neither fair to the State nor to the medical profession: it deprives the former of the interest of its best class of citizens and the latter of the advantages of availing itself of the opportunities of self-government. To advise any class of citizens to abstain from politics is to advise self-disfranchisement.

Politics is the science and practice of government. It is "clean" or "dirty," as the people who participate are clean or dirty. No class-day orators are advising the dive-keeper or the man who preys upon the lives and property of the people to keep out of politics; as a matter of fact he is strictly in it, and has more legislation influenced in his interest and places more of his friends in office in one year than the medical profession does in ten years. This is partly due to class-day oratory.

* * *

The science of medicine has brought about as far as it can the solution of the tuberculosis problem and the typhoid fever problem and a host of other similar problems which are as vital to the people as are the lives of their children, and in fact they are the same. Medicine has shown how these diseases may be exterminated. Now these matters are up to the State. That means their further development is in the hands of politics. And shall our profession, after having hunted down the monster of typhoid, and gotten it at bay in its lair, cowed and at our mercy, desist from giving the *coup de grâce* because the stroke must be applied with the bloody lance of politics? We need more doctors in our legislative chambers and in our executive offices. Medicine has long ago grown past the function of administering to those who perchance have fallen sick. It has become the most salutary department in the commonwealth, and we are not raising up men fast enough to administer its new offices. We may justly be accused of slothfulness in our duty to the people.

* * *

There are a large number of cities in this country in which the best administered office is the department of health under medical supervision, but in many municipalities this important department is handicapped by an absence of medical influence in the bodies to which it is answerable. In legislative matters the medical man can be counted on to be on the right side of the great questions concerning the health of the people, and he is the only legislator of whom this can be said. We strive for wise medical laws, we are confronted by the urgent need of a national department of health, but in order to secure these benefits for the people we must appear as suppliants before the legislative bodies, which are utterly without sympathy or appreciation of the meaning of these things. The few physicians in these bodies are of inestimable help. But the United States Congress, made up of 476 members, contains only four physicians; that is, one physician to represent every 22,000,000 of inhabitants.

* * *

In the minor municipal offices we find physicians. Usually these men are selected by the civil service system. They represent a high grade of culture in the municipal service, and the city is fortunate in having them. The number of offices which can be filled only by medical men is constantly increasing and will continue to increase. Medicine is destined to play a rôle in politics which it is not difficult to foresee, and it behooves us to prepare for it, and not hold aloof from the duties and opportunities which the future has in store.

Besides the consideration of the emoluments of office (and on the whole the people pay their servants well), the physician should consider his duty to the community. If he can afford to give some of his time or substance to charity or philanthropy, as most physicians do, he can employ his energies in no better channel than in labor for the common good through the agency of politics. *Government is not in the hands of the people—it is in the hands of the people who take it into their hands.* Among the finest features of the glories of medicine in this country are the signatures of the doctors of medicine to the Declaration of Independence. Of them we should be proud. Political doctors, they!

The experienced eye, the power of perceiving minute differences and fine analogies, which discriminate or unite the objects of science, and the readiness of comparing new phenomena with others already treasured up in the mind—these are accomplishments which no rules can teach and no precepts put us in possession of. This is a portion of knowledge which every man must acquire for himself; nobody can leave as an inheritance to his successor. It seems, indeed, as if nature had, in this instance, admitted an exception to the will by which she has ordained the perpetual accumulation of knowledge among civilized men, and had destined a considerable portion of science continually to grow up and perish with individuals.—*Dr. John Brown, Edward Forbes, Spare Hours.*

Items.

Poliomyelitis Epidemic Statistics.—An investigation of the poliomyelitis epidemic of the year 1907 is being made by the committee appointed by the New York Neurological Society, with the co-operation of the committee appointed by the Section on Pediatrics of the New York Academy of Medicine. The members of the committees above mentioned are anxious to make a thorough investigation of, and to collect all the data relative to, the epidemic of poliomyelitis of 1907. To this end they must have the co-operation of all those who have had, or will have, an opportunity of studying this disease in hospital or private practice. Physicians willing to assist in this work will kindly inform the Secretary, Dr. Edwin G. Zabriskie, 37 West 54th Street, New York City, who will send history-forms so as to secure uniform records. Physicians who cannot collaborate with the committee will confer a favor by reporting to the Secretary the number of cases of poliomyelitis they have treated during the past six months.

The joint committee wishes to state most emphatically that due credit will be given to everyone who contributes to this collective investigation, and that the publication of the committee's report will in no wise interfere with any article or articles to be published on this subject. Moreover, the committee's report will surely not be printed earlier than a year from date, so that medical men will have ample time to publish their articles long before the committee will have its report ready.

The Committee of the Neurological Society consists of B. Sachs, Chairman; E. G. Zabriskie, Secretary; J. R. Hunt; J. F. Terriberry; L. Pierce Clark; Simon Flexner, for the Rockefeller Institute; C. F. Bolduan, for the Department of Health, New York City. The Committee of the Section on Pediatrics of the New York Academy of Medicine consists of L. E. LaFetra, Herman Schwarz and L. C. Ager.

Public Lectures on Medical Topics.—Much has been said concerning the duty of representative medical bodies in giving information to the public upon medical subjects of present importance. The Medical Society of the County of Kings has arranged a course of lectures at the Society's Building, which shall be open to the public, and which are to be given under the joint auspices of the Society and the Brooklyn Institute of Arts and Sciences. The subjects are as follows: "Typhoid Fever and other Infectious Diseases: How they are Spread," by Thomas Darlington, M.D.; "The Care of the Sick Room," by Florence Leigh Jones, M.D.; "The Milk Supply, and the Certification of Milk," by Harris Moak, M.D.; "The Relation of Bacteria to Disease," by J. M. Van Cott, M.D.; "What Surgery Can and Can Not Do," by William Francis Campbell, M.D.; "Tuberculosis: Its Modern Treatment," by John A. McCorkle, M.D.; "Quacks and Quackery," by Hon. Champe S. Andrews, M.D.; "The Physical and Mental Development of Children," by Elias H. Bartley, M.D.; "Adulteration of Food and Drugs," by H. W. Wiley, U. S. Department of Agriculture. Such a course of public lectures given by a medical society can be of great value in instructing the people and in breaking down the barrier existing between them and organized medicine.

College of Medicine, Syracuse University.—Gaylord Parsons Clark, A.M., M.D., Dean of the College of Medicine of Syracuse University and Professor of Physiology, died at his home in Syracuse, September 1, 1907. On the day after registration, at the opening of the college, a meeting of students and faculty was held, at which addresses of recognition of Dean Clark's long and efficient service and of his noble character were made by the Chancellor and others.

Frank P. Knowlton, A.M., M.D., at present associate professor of physiology, has been advanced to the head of the department of physiology. A competent laboratory assistant to the chair of physiology will be selected at the earliest possible moment.

Harold Dickenson Senior, M.B., F.R.C.S., at present an associate in anatomy at the Wistar Institute of Anatomy, Philadelphia, has been elected to the chair of anatomy and as director of the anatomical laboratory, to take the place formerly held by Dr. George M. Price. Dr. Senior was educated in England, at Durham University. He was first assistant demonstrator of anatomy at Durham University, then junior demonstrator of anatomy at Charing Cross Hospital Medical School, London. He came to Canada and engaged in the practice of medicine successfully for a number of years. His love for investigation in the field of anatomy led him to give up practice. He went to the Medico-Chirurgical College as demonstrator of anatomy, but gave up that position to devote himself to investigation and became an associate in anatomy at Wistar Institute. His first published paper was on "The Anatomy of the Heart of the Tarpon." He is now about to publish a treatise on "The Anatomy of the Shad." He will have supervision of the departments of histology and embryology, and will secure an able assistant, trained in laboratory work, to take the place of Professor Reese, who has accepted a position in the University of West Virginia.

Gustave M. Meyer, B.S., Sc.D., for four years assistant to the chair of physiological chemistry at Columbia University, New York, has been elected to the chair of physiological chemistry. Dr. Meyer received his degree of

Sc.D. at the University of Geneva, Switzerland. His thesis was entitled "The Influence of Repeated Hemorrhages on the General Composition of the Blood." He has published many papers giving the results of his investigations, the latest of which will appear in the October number of *The Am. Journal of Physiology,* under the title "The Elimination of Radium in Normal and in Nephrectomized Animals." He will succeed Dr. George A. Hanford, who resigns to enter business.

LABORATORY AIDS TO DIAGNOSIS.—In an oration on medicine before the American Medical Association, Dr. J. B. Herrick said that one should not look on the laboratory as a short cut to a diagnosis. Sometimes it is, but often its workings are slow and cumbersome, and because of their complexity the results are not easily expressed in practical, every-day, usable terms, and are, therefore, inconclusive or confusing. In other words, the laboratory diagnosis is not yet one of machine-like accuracy. The time has not yet come when a diagnosis can be made without the exercise of brain power. We do not wish our professional work to be degraded by being "dementalized," to use Weir Mitchell's expression. Anamnesis, physical, and laboratory findings are to be studied and compared and a result reached that not only gives a name to the disease, but gives a conception of the disease as it exists in the particular individual, with all that such a comprehensive diagnosis implies in the way of prognosis and hints as to therapy.

THE PHARMACOPEIA, A TEXT-BOOK.—The American Pharmaceutical Association has been endeavoring for some years to bring about a return to the practice of medicine based on the Pharmacopeia, and as the medical colleges are represented on the Committee of Revision of the U. S. Pharmacopeia, it is the sense of the Association that a great advance in the ethical practice of medicine and pharmacy will be made when the medical colleges make the Pharmacopeia a prescribed text-book or book of reference and require a familiarity with it in their examinations. The governing authorities of all medical colleges in the United States accordingly have been requested to put into force such a ruling in their respective institutions as will insure in future classes a well-grounded knowledge of materia medica and pharmacognosy, as set forth in the Pharmacopeia.

DR. T. FLOYD WOODWORTH has been re-elected to the position of Health Officer of Kinderhook, N. Y. The administration of this office by Dr. Woodworth has been to the great advantage of the village and to the credit of his profession.

Medical Society of the State of New York.

FIRST DISTRICT BRANCH.

The first annual meeting of the First District Branch was held at the Academy of Medicine in New York City on October 28, 1907.

All the members of the Branch had received in their notice of meeting a neat card stating that, "The Medical Society of the County of New York invites the members of the First District Branch to attend the regular meeting of the Society on Monday evening, October 28, at 8.15. A collation will be served after the meeting, to which all members of the First District Branch are cordially invited. Walter Lester Carr, M.D., President."

The members, therefore, had presented for their consideration not only the excellent program of the afternoon, but a series of papers arranged by the Committee on Public Health of the County Society.

The full program was as follows:

"Difficulties in Procuring Pure Milk," H. J. Shelley, M.D., Middletown.

"The Problem of Regulation of a Rural Milk Supply," S. W. S. Toms, M.D., Nyack.

"Infant Mortality in the Summer Months; the Methods Adopted in Yonkers for Its Reduction, the Results," S. E. Getty, M.D., Yonkers.

"The Transmission of Typhoid Fever," H. D. Pease, M.D., Albany.

"Advantages of a Country Watershed," Clark G. Rossman, M.D., Hudson.

"The Hudson River as a Source of Water Supply," F. J. Mann, M.D., Poughkeepsie.

"The Indications and Counter Indications in the Use of the Uterine Curette," Ralph Waldo, M.D., New York City.

Arranged by the Committee on Public Health:

1. "The Prevention and Disposal of Dust," by Walter Bensel, M.D., Commissioner of Street Cleaning.
2. "The Effect of Dust on the Human Body," by Harlow Brooks, M.D.
3. "The Mortality of Dusty Trades," by Mr. Frederic Hoffman, Statistician of the Prudential Insurance Company.

The meeting of the Delegates for election of officers and other business was postponed owing to lack of a quorum.

THIRD DISTRICT BRANCH.

The first annual meeting of the Third District Branch was held in Albany, October 22, 1907.

Those intrusted with the arrangement of the program had made an excellent division of the day, the morning hours being devoted to clinics, the afternoon to reading of scientific papers. During the midday recess an excellent luncheon was served at the Albany Hospital, the members of the Branch being the guests of the Board of Governors. The long corridor in the centre of the building upstairs made a very attractive luncheon room, and the trained nurses in caps and uniform kept every one well supplied with the many delicacies prepared by the excellent chef of the Hospital. Such reunions are particularly enjoyable, as men renew acquaintance with those whom they knew in hospital or college, and lay the foundation for new friendships.

The full program was as follows:

TUESDAY MORNING, SCHEDULE OF CLINICS, ALBANY HOSPITAL.

10 to 11. Medical Clinic. Dr. Samuel B. Ward.
11 to 12. Surgical Clinic. Dr. Willis G. MacDonald.
12 to 1. Surgical Clinic. Drs. Albert Vander Veer, S. R. Morrow, E. A. Vander Veer.

ST. PETER'S HOSPITAL.

9.40 to 10.40. Surgical Clinic. Dr. Arthur W. Elting.
10.40 to 11.40. Medical Clinic. Dr. Henry Hun.

SPECIAL CLINICS.

12 to 1. Demonstration of Widal Reaction, Klebs-

Loeffler bacilli, etc. Bender Laboratory, Dr. Richard M. Pearce.

12 to 1. Methods of obtaining, preparing and standardizing anti-toxin. Anti-toxin Laboratory, 278 Yates Street, Dr. Herbert Pease.

12 to 1. Experimental Pharmocology and Therapeutics. Bender Laboratory, Dr. Holmes C. Jackson.

12 to 1. Psychiatic Clinic. Pavilion F, Albany Hospital, Dr. J. M. Mosher.

12 to 1. Pediatric Clinic. St. Margaret's House, Elk and Hawk Streets, Dr. H. L. K. Shaw.

1.15 P. M. Luncheon at the Albany Hospital.

TUESDAY AFTERNOON, 2.30 O'CLOCK, COMMON COUNCIL CHAMBER, CITY HALL.

President's Address. Dr. John T. Wheeler, Chatham.

1. "The Treatment of Suppurating Glands of the Neck." Dr. J. M. Berry, Troy. Discussion opened by Dr. McGarrahan, of Cohoes.

2. "Treatment following Abdominal Section." Dr. G. Chandler, Kingston. Discussion opened by Dr. W. G. MacDonald, Albany.

3. "The Successful Removal of a Hair Ball from the Stomach of a Child." Dr. J. B. Harvie, Troy. Discussion opened by Drs. Archambault, Cohoes, and Elting, Albany.

4. "The Diagnosis and Management of Extra-Uterine Pregnancy" (illustrated). Dr. John A. Sampson, Albany.

5. A Report of a Case of Extra-Uterine Pregnancy." Dr. S. V. Whitbeck, Hudson. Discussion by Drs. Gage-Day, Kingston, and A. Vander Veer, Albany.

6. "The Transmission of Typhoid Infection." Dr. Herbert M. Pease, Albany. Discussion opened by Dr. F. C. Curtis, Albany.

7. "Thrombosis of the Superior Vena Cava." Report of two cases. Drs. H. W. Carey and E. R. Stillman, Troy.

8. "Brown-Sequard Paralysis." Report of a case. Dr. William Kirk, Troy. Discussion opened by Dr. H. C. Gordinier, Troy.

9. "Notes on the Early Diagnosis of Pulmonary Tuberculosis." Dr. Herbert Mason King, Liberty. Discussion opened by Dr. Samuel B. Ward, Albany, and Dr. Crispell, Kingston.

10. "Acute Anterior Poliomyelitis in the Adult, with exhibition of case." Dr. La Salle Archambault, Albany.

11. "A Case of Septic Peritonitis following Labor." Dr. Selden, Catskill.

At the meeting of the Delegates, amendments were proposed to make the election of officers and selection of place of meeting the duty of the general body; in other words, to do away with the delegate system in the Branch. These lie over for a year.

The following officers were elected: H. C. Gordinier, Troy, President; J. L. Archambault, Cohoes, Vice-President; H. L. K. Shaw, Albany, Secretary; and D. Connelly, Kingston, Treasurer. Troy was chosen as the next place of meeting, the date to be the fourth Tuesday in October, 1908.

In the evening about fifty availed themselves of the kind offer of the managers of the Hotel Ten Eyck, who reserved the front dining-room for the exclusive use of the members and served an excellent informal table d'hote dinner from 6 to 8 P. M. After dinner some members attended the theatre, while others took the evening trains home, thoroughly satisfied that the first meeting of the Third District Branch had been a great success.

THE ANNUAL MEETING.

Members of the Medical Society of the State of New York desiring to read papers at the Annual Meeting to be held in Albany, beginning January 28, 1908, will please send their titles at once to Dr. Leo H. Neuman, 194 State Street, Albany, N. Y., Chairman of the Committee on Arrangements.

Progress of Medicine.

SURGERY.

EDITED BY

ALGERNON T. BRISTOW, M.D.,

Clinical Professor of Surgery in the Long Island College Hospital; Surgeon to the Kings County, St. John's and the Long Island College Hospitals, Brooklyn, New York,

NATHAN JACOBSON, M.D.,

Professor of Surgery, Syracuse University; Surgeon to St. John's Hospital, Syracuse, N. Y.,

RUSSELL S. FOWLER, M.D.,

Chief Surgeon, 1st Division, German Hospital; Attending Surgeon M. E. (Seney) Hospital; Professor of Surgery, Brooklyn Post-Graduate Medical School, Brooklyn, New York.

RESECTION OF THE INFRA-ORBITAL NERVE.

W. Dreesmann, Cologne, describes an operation for resection of the infra-orbital nerve through the antrum of Highmore. He has previously called attention to the feasibility of the operation in antrum cases. The operation was done twice, once on a male patient, Sept. 16, 1906; once on a female patient, Jan. 30, 1907. By this operation it is possible to remove the nerve completely from the bony canal without injury to the orbit and without leaving any external scar. Resection, however, seems to the author more advantageous, since it offers no subsequent complications.

The steps of the operation are as follows: The mucous membrane is incised along the superior maxilla where it stretches from the cheek to the alveolar process from the second bicuspid to the first incisor tooth. The periosteum is incised and elevated from the bone as far upward as the infra-orbital foramen. With chisel and mallet a one and one-half square centimeter window is cut in the wall of the antrum, just below the foramen. The nerve is exposed at its point of exit from the foramen, caught with a blunt hook, and freed externally. Tension upon it readily shows the course of the canal. With artificial light the mucous membrane overlying the course of the canal is incised and pushed back. By means of a Hartmann curette the thin lamella of bone underlying the nerve is readily removed and *pari passu* with the removal of the bone the nerve is pulled out of its canal into the antrum. In this manner the entire length of the nerve is freed. It is then seized as far back as possible and avulsed. Neither sutures nor drainage is necessary. The bleeding is slight, and if it interferes at all with the operation it is readily controlled by a temporary tamponade. D. thinks the fear of infection groundless. Should there be marked secretion in the antrum this can drain from the nose or into the mouth. Should there be an existing inflammation of the antrum this would be favorably influenced by the operation. Neither of the cases showed any fever. The cosmetic result was excellent. There was no sinking in of the cheek at the site of the window into

the antrum, as the periosteum is left and quickly replaces the bone.—*Zentrallblatt f. Chir.*, No. 35, 1907.

MYOCELE.

Pichon (*Revue de Cherurgie*, Aug.-Sept., 1907) gives a very complete analysis of injuries of muscles which subsequently form myoceles. He criticises the classifications of former writers and offers the following as the most satisfactory because descriptive of the lesion: (1) Muscular hypertrophies which are localized and physiological, such as those which occur in athletes; (2) Protrusion of a muscle (myocele) through a rupture of its aponeurosis alone; (3) Myocele due to associated rupture of both aponeurosis and muscle.

Pichon quotes Guinard as follows: In the case of a rupture of an aponeurosis enveloping a muscle, the hernia (myocele) will appear passively when the origin and insertion are approximated and the tumor will have the following characteristics: It will disappear when the muscle is extended passively in its long diameter. It will disappear when the muscle contracts actively without producing any effect on its bony levers. It will noticeably diminish in volume and hardness when the muscle contracts with free movement of the bones to which it is attached.

Pichon gives an account of fifty-eight cases of rupture, the muscles being effected as follows: Middle adductor, twenty-five cases; anterior tibial, fourteen cases; flexor communis digitorum, three cases; rectus femoris, seven; biceps brachealis, four; one case each of common extensor of the fingers, triceps, tensor of fascia lata, and semi-membranosus. Pinchon observes that these cases of ruptured aponeuroses or muscles occur almost exclusively in men and that they may be of a traumatic or non-traumatic origin. Thus, myoceles occur secondary to wounds of aponeurotic structures or contusions (more frequent). The traumatism may be internal, however, as when the aponeurosis is torn by a fractured femur (two cases). Some authors have denied the possibility of non-traumatic myoceles, but Pichon states that non-traumatic myocele is not only possible but very frequent. He terms this form of myocele a hernia of effort, dynamic myocele. He regards the tibialis anticus as peculiarly subject to this form of hernia. Treatment may be palliative or radical. Bandages, compresses, thigh or leg pieces have not been very successful, as they provoke pain edema and varices. The best results are from open incision and suture, (a) of aponeurosis after freshening the edges of the tear, and (b) excision of muscular hernia and suture, if the hernia is of such a size as to prevent approximation of the severed ends. After operation absolute repose in bed, until the fifteenth day, then an elastic bandage for a time.

THE PARATHYROID GLANDULES.

Evans discusses the results of his investigations as to the blood supply of these bodies, with the following conclusions: (1) The glandules are always supplied by definite arteries; (2) These vessels usually arise from the inferior thyroid, but may arise from the anastomosing channels between the sup. and inf. thyroid arteries; (3) Few if any vascular connections exist between the glandules and the connective tissue envelope of the thyroid. Halsted, with these anatomical studies as a basis, states that it is necessary to preserve the blood supply of the glandules by ultraligation of the superior and inferior thyroids, that is to say, beyond the point where the parathyroid arterids are given of. Frequently this distance is barely sufficient for the introduction of a mosquito clamp. Essential to the operation is the division of the sterno-hyoid and omo-hyoid muscles near their insertion. Separate division of the sterno-thyroid muscle. All these muscles being reflected, the thyroid body is gently dislocated from its bed by the knife handle. The blood vessels entering the gland are then ligated close to the gland, care being taken to have a dry field. In fact, all the vessels must be ligated as far peripherally to the gland as possible. Near the inferior laryngeal nerve the sharp pointed clamps must even be thrust into the substance of the gland to seize the bleeding vessels. Halsted suggests the use of cold to the neck by chilling or even freezing the neck before or after operation to prevent absorption, and delay the processes of repair in order to prevent the toxemia which follows operations for Graves' disease.—Halsted and Evans, *Annals of Surgery*, Oct., 1907.

TETANY THYREOPRIVA.

Pool, in reporting a case which recovered subsequent to the administration of parathyroid extract and the subcutanaous implantation of the five parathyroids, discusses the symptoms. These are intermittent tonic spasms of the voluntary muscles, the flexor groups being exclusively involved. Contractions of the muscles of the chest, back and abdomen are rare. The spasms are symmetrical and bilateral. Attacks last from a few minutes to a number of hours. There are three diagnostic tests, known as the signs of Trousseau, Chvostek and Erb. Trousseau's symptom consists in the gradual appearance of tetanic spasm in a limb as a result of compression of its main nerve or artery. Chvostek's sign is a twitching of the facial muscles produced by tapping over the area of distribution of the facial nerve. Erb's symptom is an electric hyperexcitability of the motor nerves, there being a marked increase in the galvanic irritability, especially in the lunar nerve, though increased reaction to the faradic current is less common. There is only one condition which may be con-

fused with the disease, namely, hysteria. Thyroid gland treatment is ineffectual. Improvement has always followed the use of the nucleoproteids of the parathyroid glands. The effect of transplantation is problematical.—*Annals of Surgery,* October, 1907.

RECTAL ANESTHESIA.

Leggett discusses the effects of this method as formerly used and attributes them to the condensation of the ether in the rectum, this being due to the method of administration. The ether was boiled and the vapor allowed to find its way into the rectum with disastrous results, proctitis and colitis ensuing in a number of cases, so that the method was abandoned. Cunningham, of Boston, has revived the method, but the vapor of ether is forced into the rectum so that condensation is impossible and thus fluid ether is never forced into the gut. This is done by keeping the ether heated, but always below 37.5 C., the fumes being forced into the bowel by a rubber bulb. A cut of the apparatus appears in the article, which is self-explanatory. Ether thus administered very rarely causes nausea. The author cites a number of cases where this method was used either alone or in combination with mouth anesthesia. In the cases where the rectum was used exclusively, complete anesthesia required from twenty minutes to half an hour. In the other cases the combined method was used to produce surgical anesthesia, and then this was continued by the rectal method alone. There were no bad results. In one case the method proved ineffectual. The advantages of the method the author states as follows:—Lessening of nausea, lessening of bronchial secretion and irritation of the lungs. In operations about the head and neck, the removal of the ether cone from the field of operation. Essentials to the safe conduct of this form of administration are a completely empty bowel. The use of a Y-tube and exhaust tube therewith to empty the rectum of vapor if the patient complains of a sense of fullness, and the desire to defecate before anesthesia has supervened, also the use of a U-tube to guard against the introduction of pure ether, are spoken of. The author reports 31 cases in all.—*Annals of Surgery,* October, 1907.

"I beg you to listen to me when I say that you can make no greater mistake at the outset in your course than to attempt to inject into the medical school any of the boyish frivolities or foolish customs that obtain and that may even be encouraged in high schools and colleges. Put all such things behind you for they have no place here. If you have not 'been to college' do not, I beg of you, suppose that the medical school in some way is to supply an imaginary lack. Don't call yourself a 'freshman.' We have no 'freshman' here. Don't do the foolish things that many college students do because you are in a 'college.'"—*Willis G. Tucker, M.D. Address Delivered at the Opening of the Seventy-seventh Session of the Albany Medical College.*

THERAPEUTICS.

EDITED BY
CHARLES G. STOCKTON, M.D.,
Professor of Medicine in the University of Buffalo;
ELI H. LONG, M.D.,
Professor of Therapeutics in the University of Buffalo.

MEDICAL AND LOCAL TREATMENT OF RHEUMATISM AND OF GONORRHEAL ARTHRITIS.

In the *Muenchener Med. Wochenschrift* of September 24th, Dr. G. Treupel reports treatment and results of 529 cases during the past four years. The treatment consisted of the systematic administration of salicylic acid preparations in connection with local hyperemia. In the large number of cases opportunity was afforded for studying the comparative value of the various salicylates and antineuralgics and the methods of inducing local hyperemia.

Of the whole number, 471 cases were acute and subacute articular rheumatism. One-fifth of the cases were afebrile. Nearly always several joints were involved, very frequently old valvular heart lesions were present, less often were fresh endocarditis and complications in the serous membranes observed. All of these were treated with salicylates internally or intravenously, and with local hyperemia. The attempt was always made to use sodium salicylate, and only when this failed within four or five days—also by intravenous injection—were other salicylic preparations resorted to. In order to a comparison, as far as was possible, 18 cases were treated in three groups, with aspirin, phenacetin and azethylsalicylamid ("arthrisin"), 6 with each. The last-named acted very well, but the author does not see in it any essential advantage over the older preparations. The average duration of the illness in these 18 cases was twenty-nine days. With sodium salicylate, 295 cases (65%), reacted promptly, with an average duration of illness of twenty-eight days. The administration usually consisted of 4 to 6 grams by mouth each twenty-four hours for the first two days, and, as improvement occurred, the quantity was reduced to 3 grams in twenty-four hours, which was then given until continued normal temperature and absence of pain were attained. That sodium salicylate may be thus used, their extensive observations confirmed. Referring to the findings of Luethje, that after the use of efficient dosage of salicylates, irritation of the urinary tract, and especially the kidneys, occurs, the question is raised whether the administration of salicylates in high daily dosage and for a long time can be advantageous. In 1903, in following Luethje's work, the author, with others, enlarged the inquiry so as to establish the condition of the urine in normal persons, and in those having rheumatism, without salicylate treatment. Their experiences have been published by Klieneberger and Oxenius, but the author cannot help repeating some points, as it seems to him that lately

the property of salicylic acid as a "kidney poison" has been overrated. Even in normal urine, with sufficiently careful sedimentation, will elements of kidney and urinary tract be found in isolated examples; while in the majority of cases of rheumatism with fever these are more abundant and accompanied with albuminuria, in the absence of salicylic treatment. This desquamative catarrh of the urinary tract occurs also with salicylic administration as an undoubted result of the action of the drug, but—and this is most important to our present topic—these desquamative catarrhs recover under the continued use of salicylates. "As we have confirmed Luethje's report on the one hand, on the other hand we have, out of our extensive investigations, obtained authorization of the salicylic therapy, thoroughly employed, in articular rheumatism." Also further careful observation of the urine with the use of salicylates tallied with the above and convinced the author that any real damage to the kidneys or any permanent detriment with the use of salicylates need not be considered. Even in chronic nephritides, with polyarthritis supervening, have relatively severe symptoms, as reflected in the urinary findings at the beginning, being found to lessen under salicylic treatment.

In all acute and subacute cases that did not respond to sodium salicylate in the first five days (158 cases, or 35%), generally obstinate cases, several drugs were given in succession, but each for not less than four or five days at a time. Sometimes a drug that was unsuccessful in its first trial gave good results when repeated later.

In 102 of the 158 cases sodium salicylate and aspirin were thus employed, with an average duration of illness of forty-four days. The two drugs seemed to match each other as a rule, though in 5 cases the results showed more favorably for sod. salicylate and in 12 cases for aspirin. In 10 cases sod. salicylate and phenacetin were used, with an average duration of illness of forty-three days, in 10 cases sod. salicylate and "arthrisin," with average duration of forty-one days, in 26 cases sod. salicylate, aspirin and phenacetin, with average duration of fifty-six days, and in 10 cases sod. salicylate, aspirin phenacetin and arthrisin, with an average duration of sixty days.

Beside the general medical treatment, in all of the 471 cases the affected joints were treated by rest and the production of local hyperemia. Rest to the swollen and painful joints is regarded as most important and necessary, and the author agrees with Franke in regarding the fear of "too long immobilization" as unauthorized. The ordinary rest enforced by the pain may not be sufficient, but the joints sometimes must be protected from any movement or pressure by use of bandage and cushions. Of simplest application is the use of wadding bound about the affected joints, and this, at the same time, is the simplest way of inducing local blood stasis. Thus were treated 198 of the cases. With the rest various other measures and applications were used; but of all measures hot air and stasis were more useful. For the more obstinate and easily relapsing acute cases stasis is the best means of local treatment. Upon shoulder and hip, where stasis cannot be employed, preference is given to hot air, but otherwise the best of success has attended the use of stasis. The latter is employed from two to six or eight hours daily, and the bandage is so supplied as to induce a degree of redness and heat that has to be controlled in the course of half an hour. The author comments upon the treatment by antistreptococcic serum, but his experience in that direction has not been encouraging. In his opinion, the need of both local and general bacteriacidal treatment is fully met by salicylic acid.

In more chronic cases, or when, after a comparatively rapid decline of other local symptoms, one joint remains painful and swollen for a long time, good results were had by alternating the hot air and stasis. The pain particularly yields so soon to this treatment, as to allow comparatively prompt resort to massage of the joint. As soon as the improvement permits passive motion, treatment by baths is resorted to.

In the treatment of gonorrheal polyarthritis and monarthritis, beside removal of the causative disease, chief reliance is upon stasis, hot air, and, later, massage and baths. In the severe, prolonged affection of one joint from gonorrheal cause, or from influenza, scarlatina, pneumonia, and occasionally from abdominal typhus, of which 12 cases have been treated in the past four years, much patience and perseverance is demanded on the part of the patient and physician, but which are nearly always rewarded by complete recovery. The sad cases of chronic articular rheumatism, whether primary or secondary to the acute, with gradual deformity or loss of mobility, are regarded as incurable; still here, with local treatment by hot air, massage and baths, transient arrest and improvement may occur, as was attained, though after months of systematic treatment, in 46 cases in this series. And here, also, for the relief of the severe pain, salicylic treatment by intravenous injection (Mendel's method), served the best.

As a matter of course proper dietetics must be observed in addition to the treatment given. The author in this regard would emphasize abstinence from alcohol as essential.

As putrefaction in the alimentary canal represents one of the causes of the general wear and tear of the human body, it was only natural to suggest the method that I have just referred to as a means of combating it. This method may now be summed up in a few words. It consists in the consumption of food stuffs, not contaminated with microbes or entozoa, and in the introduction into our alimentary canal of an artifically cultivated bacterial flora, foremost among which are the lactic acid microbes.—*"The New Hygiene," Metchnikoff.*

BACTERIOLOGY.

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A NEW SIMPLE METHOD FOR STAINING THE POLAR BODIES OF DIPHTHERIA BACILLI.

Blumenthal and Lipskerow, after a comparative study of the different stains for the diphtheria bacillus, came to the conclusion that the Lyublinski pyoktanin method was the most satisfactory. They found, however, that even with this method, uniform results could not be obtained. Invariably the polar bodies were sharply defined, but very frequently their relation to the body of the bacillus was indefinitely shown. To overcome this defect, Epstein (Pathological Laboratory of Mt. Sinai Hospital, New York), suggests the following:

(1) Pyronin solution for 20 seconds, or Loeffler's solution for one-half minute; (2) rinse in tap water; (3) Gram's iodin solution for 10 seconds; (4) rinse in tap water, dry and examine; counterstain is not required.

With either of these stains, the polar bodies and the body of the bacillus are sharply defined; with the pyronin solution the polar bodies appear as large, dark brick red, round or oval bodies, whereas the bacillus is usually slender and of a light red color. With the Loeffler solution, the polar bodies appear greenish black and the bacillus greenish in color.—Albert A. Epstein, *Journal of Infectious Diseases,* 1906, v. 770. L. K. B.

EXAMINATION OF UNSTAINED BLOOD SPECIMENS.

Although the various stains are of inestimable aid in blood diagnosis, Kroenig calls attention to the fact that absolute dependence need not be made upon them, but that oftentimes fully as important facts can be learned from the examination of the fresh unstained specimen. It is the practice of many specialists in blood work to always examine the fresh, as well as the stained specimen. Kroenig recommends use of the oil immersion lens. The acidophilic and neutrophilic granulations, and the various forms of the nuclei are easily recognized and differentiated. The structure of the nuclei can be quite plainly recognized after the addition of a few drops of dilute acetic acid. With some practice and attention erythroblasts can be found when present, recognized by their lesser amount of protoplasm, and the nuclear framework which is easily distinguished. Even the plasmodia of malaria, or the spirilla of relapsing fever can be recognized. The fresh blood specimen is superior to the stained in demonstrating the presence of fat droplets. The student should first study the elements of the blood in the stained specimen, and then he will readily recognize them in the unstained specimen. The latter method, says Kroenig, has the advantage of simplicity and of economy of time in diagnosis, and at the same time excludes many errors of technic in complicated staining which so frequently troubles the amateur.—*Berliner Klinische Wochenschrift,* 1906, No. 17.

THE QUESTION OF THE ROUTE OF INFECTION IN TUBERCULOSIS.

This question aroused very considerable interest at the recent International Tuberculosis Congress in Vienna.* The following represent the opposite views on the subject. It would probably be generally admitted that infection may occur either by inhalation or from the alimentary tract. In any event the necessity for careful disposal of sputum and protection from droplet infection (e. g., by the patient's holding a cheesecloth handkerchief in front of the mouth while coughing), is obvious.

Experimental Researches in Tuberculosis. Infection through the Alimentary Canal.

Dr. Calmette et M. M. C. Guérin, Vansteenberghe, M. Breton, Grysez Sonnerville et Georges Petit: "Recherches expérimentales sur la tuberkulose effectueés à l'Institut Pasteur de Lille," Fasc. I, 1906, Paris. Mason et Cie, 1907, II, u. 131 S. 8°. (Abstracted by Ferdinand Blumenthal, *Zeitschrift für Tuberkulose,* 1907, II, 163).

This volume contains experimental studies of the pathogenesis and prophylaxis of tuberculosis. It contains twelve reports of researches concerning the alimentary canal as the avenue by which tuberculosis gains entrance into the body. Most authorities have considered the respiratory tract as the chief route of infection, but Behring, in 1903, questioned this assumption, and brought forward the hypothesis that all pulmonary tuberculosis in adults was the late development of an intestinal infection occurring in early life.

In an attempt to settle this question experimentally Calmette inoculated she-goats in the udder with bovine tuberculosis. The kids nourished by these dams almost without exception developed tuberculosis of the mesenteric lymph glands, and later miliary tuberculosis in the lungs. If kids were fed artificially on tuberculous milk, the resulting tuberculosis was limited to the mesenteric glands.

If adult animals were similarly fed the mesenteric glands did not become diseased, but tuber-

*See also "The Etiology of Tuberculosis," Mazyck P. Ravenel, *Am. Jour. of the Med. Sciences,* 1907, CXXXIV, 470.

culosis of the lungs developed. This finding is not in harmony with Behring's hypothesis that the tuberculosis of adults is only a late development of an infection received in early childhood, but indicates that infection may take place by way of the intestinal tract at any age and without causing any disease in the intestine itself.

Calmette was unable to force dust particles into the lungs either by inhalation or intratracheal insufflation further than the first subdivisions of the bronchi, and never succeeded in producing anthracosis in this way. On the other hand, he produced typical anthracosis of the lungs by administering coal dust through the œsophagus.

He looks upon pulmonary tuberculosis as invariably a result of intestinal infection, and in his experiments was able to demonstrate tuberculosis, in the lungs, 30-45 days after infecting the œsophagus. The process never begins within the alveoli or within the bronchi, but always in the capillaries of the lung and the subpleural connective tissue. The bacilli are taken up in the lymph vessels by polynuclear leucocytes and in this way carried to the blood vessels and capillaries. Other organs than the lungs, the glands, and joints may be also infected, especially in children.

Tuberculosis is spread, according to Calmette, by the introduction into the alimentary tract of virulent tubercle bacilli derived from sputum; consequently the greatest pains should be taken to destroy sputum. This is the most important measure in the prophylaxis of the disease.

Studies were undertaken regarding the production of pneumonia and other inflammations of the lung as a result of intestinal infection. Pneumococci were introduced into the œsophagus of guinea pigs and afterward demonstrated in the lungs. Histological changes, characteristic of pneumonia, were, however, lacking.

Sterilization of tuberculous products does not render such products entirely harmless, for it was demonstrated that guinea pigs could be poisoned with dead tubercle bacilli. The sterilized milk of tuberculous cows may also be considered unwholesome.

Even tuberculin was found to be somewhat poisonous for non-tuberculous animals, especially young ones, and they did not become accustomed to it. The diagnostic reaction may follow administration by the mouth instead of by injection.

A further confirmation of the intestinal origin of pulmonary tuberculosis was found by the authors in the fact that in tuberculosis of the bronchial lymph glands tubercle bacilli could be demonstrated in the mesenteric glands, even though they appeared healthy.

INHALATION TUBERCULOSIS.

Conclusions of C. Flügge, Berlin. Sixth International Tuberculosis Conference, Vienna, September, 1907. *Tuberculosis,* 1907, VI, 468.

1. Pulmonary tuberculosis can be produced in animals by causing the inhalation of a few tubercle bacilli (with guinea pigs less than 50), floating in the air in the sputum droplets accompanying the act of coughing.

2. Part of the tubercle bacilli thus inhaled are carried into the finest bronchi. This is proved by that fact that if, shortly after the inhalation, parts of the peripheral surface of the lungs are inoculated into other guinea-pigs tuberculosis is produced.

3. If tubercle bacilli are given with the food so that they can only enter the body from the intestines or the throat, the number of bacilli necessary to produce disease must be very many times greater than that by inhalation.

4. The above fact proves that inhaled bacilli do not become efficient only by part of them being swallowed and entering the body from the intestines or throat. On the other hand, in the case of food tests, it can very well happen that only minute quantities of food containing bacilli are inhaled during the test and that this leads to such a rapid development of lung infection as has never been observed in the case of pure food tuberculosis when this source of error is excluded.

5. Yet if the occasion for carrying tubercle bacilli into the intestines is frequent, while that for inhalation is rare, the latter way, though far more dangerous, loses its practical importance.

6. The occasions for infections differ in man from those in animals. If pigs and calves are reared with the milk of tuberculous cows, the occasion of infection from the intestines predominates and the animals all perish of intestinal infection. But cattle which escape intestinal infection may be stricken with inhalation tuberculosis as a result of staying near coughing tuberculous cows and inhaling air filled with droplets containing tubercle bacilli.

7. For man the occasions for infection vary according to customs and habits. Children may be infected with intestinal tuberculosis as a result of being fed tuberculous milk or butter, or of putting fingers smeared with sputum in their mouths.

A more extensive source of infection is the quantity of droplets containing tubercle bacilli coughed out by the tuberculous patient and mixed with the atmosphere of his immediate surroundings. The danger from dust containing tubercle bacilli is less important, but in constant intercourse with a tuberculous patient many occasions for inhaling droplets are offered.

Flügge considers inhalation of air containing bacilli the most dangerous way by which infection is brought about and that in this way infection occurs from the smallest quantity of bacilli. He believes that by far the largest part of all cases of tuberculosis in man is acquired by the inhalation of tubercle bacilli ejected in the shape of droplets by tuberculous patients.

NEW METHODS OF DIAGNOSIS IN TUBERCULOSIS.

The Cutaneous Tuberculin Reaction.

Von Pirquet showed in May, 1907 (*Berlin Klin. Woch.,* May 29, 1907), that placing a drop of diluted tuberculin on the scarified cutaneous surface, would, in young infants at least, aid in the early diagnosis of surgical tuberculosis. If the patient is tuberculous the scarified area becomes reddened and œdematous and a papule like that of vaccina appears. After eight hours or more the reaction begins to subside.

Later studies show that while there is a well-marked difference in the reaction between tuberculous and non-tuberculous children under two years of age, as shown by 360 tests in the Vienna and Berlin clinics, in older individuals the difference is slight.

The Ophthalmo-Tuberculin Test.

Calmette and Wolf-Eisner suggested independently the conjunctiva as a favorable site for the tuberculin test. Calmette's first communication was published in the *Presse Medicale,* June 19, 1907. (Sur un nouveau procéde de diagnostic de la T. chez l'homme par l'ophthalmo-reaction a la tuberculin). A marked hyperemia of the conjunctiva is produced in infected individuals as a result of placing a drop of tuberculin in the eye. This is entirely absent or very slight in non-infected individuals. This hyperemia depends upon the susceptibility of all the tissues to the tuberculin developed in infected individuals. Calmette employs a tuberculin free from irritant substances, such as glycerine, beef extractives, etc., prepared by precipitating old tuberculin with 95 per cent. alcohol and dissolving the precipitate in sterile water. A drop of 1 per cent. solution is placed in one eye of the patient. Within a few hours the tuberculous patients show very evident congestion of the palpebral conjunctiva. In some cases there is edema and purulent exudation. Changes are especially evident in the region of the caruncle. No pain is complained of, as a rule, but there is some slight discomfort and interference with vision on account of the abundance of the exudate. In Calmette's first series the reaction was positive in 16 tuberculous individuals and negative in 9 non-tuberculous. There was no constitutional reaction in any instance.

His later observations cover 321 tests (*Presse Medicale,* June 19, 1907, July 13, 1907). All subjects clinically tuberculous reacted. Several patients not thought to be tuberculous reacted, but were found on more careful examination to have lesions. A number of French and of German articles have appeared confirming Calmette's results.

Baldwin (The Ophthalmo-tuberculin Test, New York State Journal of Medicine, Oct., 1907) has made a number of tests in this country. He employs purified tuberculin prepared by precipitation with 95 per cent. alcohol from Koch's old tuberculin. The precipitate is dissolved in normal salt solution. One-half and one-third per cent. solutions are used, as he considers a 1 per cent. solution too strong. The solution is kept in small glass tubes, sealed at both ends and sterilized. A measured drop (.025 c.c.) is employed.

Absolutely no fever or constitutional reaction has followed the most marked eye reactions. The severest local discomfort is limited to photophobia, scratchy feeling, swelling and edema of the lids with more or less secretion of tears and exudation of pus, accompanying intense redness of the palpebral and ocular conjunctiva.

The majority of cases complain of no special discomfort. The irritation begins in from three to forty-eight hours and lasts two to three days. Perceptible redness of the caruncle and inner canthus may remain a week.

The author suggests the following:

SCHEME FOR RECORDING REACTIONS.

Negative.—No difference in color when lower eyelids are pulled down and compared.

Doubtful.—Slight difference, with redness of caruncle.

\+ = distinct palpebral redness with secretion.

++ = ocular and palpebral redness and secretion well marked.

+++ = deep injection of entire conjunctiva with edema of lids and photophobia.

Contra-indications.—The author believes the test should not be used when there is disease of the conjunctiva, eyelids or cornea, such as acute or chronic conjunctivitis, hay fever, blephartis, ulcers, trachoma, or where there is disease of the internal structures of the eye.

Undue exposure to dust, smoke or strong light during the test should be avoided.

The test was applied by Baldwin and his colleagues in 137 instances, as follows: Pulmonary tuberculosis, 45; healed tuberculosis, 9; suspected tuberculosis, 26; apparently healthy individuals, 57. Of the proved tuberculosis two failed to react. One of these was a case of miliary tuberculosis and the other was a patient who had received a course of tuberculin treatment. One case of "healed" tuberculosis of 17 years' standing gave a doubtful reaction. Of the 26 suspected cases, 14 failed to react. Of the 57 apparently healthy cases, 16 reacted, but in only two of these was a family history of tuberculosis or a history of exposure to infection lacking.

The test has the advantage over the subcutaneous test that it does not cause a constitutional reaction and may be used in cases with fever. So far as present indications go it has nearly the same value and is subject to the same limitations. No value should be placed on a positive reaction in the absence of symptoms requiring treatment, nor should a negative result give rise to a false sense of security.

SANITATION AND PUBLIC HEALTH.

SEVENTH ANNUAL CONFERENCE OF THE SANITARY OFFICERS OF THE STATE OF NEW YORK.

At this meeting, held in Buffalo, October 16, 17, 18, 1907, the State Commissioner of Health, Dr. Eugene H. Porter, presented a report upon the work of the State Commission for the past year. This report showed that the pollution of our streams and lakes is one of the most important and difficult questions before us. Sanitary maps have been prepared of many of the watersheds on a scale to show plainly each stream of appreciable size, with the location of each source of water supply, and all important sources of pollution. The Oswego, Upper Hudson, Lower Hudson, Susquehanna, Genesee and Niagara watersheds are now practically completed. The work done by Massachusetts in this line has been most excellent and far ahead of anything we have ever been able to do. But the increased appropriation in the supply bill renders it possible to begin this important work and every public water supply in the State has been examined and reported on.

Another line of special work undertaken is the Tuberculosis Exhibibtion, the first ever owned by the State, and the Hygienic Laboratory Exhibit, which is but the nucleus, it is hoped of a larger collection. The work of preparing these exhibits have been most onerous, the more so because of limited means, but the enthusiasm of Dr. Pease and his assistants has never flagged. It is the purpose to further perfect the tuberculosis exhibit, and use it as a traveling exhibit for educational purposes. It is one of the things most sorely needed by the department. Already many requests from cities and towns to have it sent to them have been received.

Also in the exhibition is a collection of books and some apparatus for tuberculosis work. These are traveling outfits—the one a small collection of specially selected books on sanitation, for the use of health officers, and the other a practical and always ready outfit for bacteriological work to be done on the spot where investigation and action are needed without delay.

The very general interest now manifested by the more intelligent citizens on sanitary matters is due to the dissemination of increased knowledge. If these discoveries of truth never passed beyond the closed doors of our laboratories, or could only be found between the covers of technical pamphlets, their influence and power for good would be very limited. Education must continue. Education in sanitation spells progress in sanitation. The department has determined to begin the publication of a series of circulars and pamphlets for popular distribution on topics vitally concerning the public health. What may be termed the first one of the series is the very complete and instructive prize essay by Dr. Knopf, on the Treatment of Tuberculosis.

The last Legislature increased the appropriation for the department by almost $42,000. The Governor allowed every increase asked for by the department and stated that he did so in order to increase the efficiency. But the appropriation does not as yet meet the requirements. The total amount of money available for the department, exclusive of the Cancer Laboratory, is still less than $100,000. It is still severely crippled in the amount allowed for "Investigations," for the "Division of Engineering," and for the "Division of Laboratory Work." Pennsylvania for the two years beginning June 1, 1907, has appropriated for its Department of Health—after the payment of the annual salary of the Commissioner and the salaries of numerous other officers, the sum of $1,459,312—$400,000 of which is for "the dissemination of knowledge relating to the prevention and cure of tuberculosis." The appropriation made by Massachusetts also exceeds that of New York.

The department believes the State should have, without delay, a wise and practical pure food law, and that the enforcement of it should be placed in the hands of the Health Department.

A fact most gratifying to record is that, during the past two years, marked and increasing progress has been made in lessening the pollution of our rivers, streams and lakes. If we estimate that 20,000 cases of typhoid occur in New York State in one year, with 2,000 deaths, the money loss to the State is easily figured. Allowing each life to be worth $3,000, a low estimate, and estimating that 15,000 of the 20,000 cases were men and were kept from labor 40 days, and putting the value of a day's work at $1.50, the total pecuniary loss to the State amounts to $7,000.000. We know without telling what misery and suffering were caused by these thousands of cases, what grief occurred when death entered hundreds of homes; and to this must be added the very serious business loss of a community when the disease occurs in any way approaching epidemic form.

It is well known that there are at present some thousands of our fellow-citizens throughout the State in the early stages of tuberculosis who might, under favorable conditions, be kept among the living, not speaking of advanced cases, which must inevitably soon be numbered with the dead, nor of those incipient cases receiving competent care, but of those which are entitled to treatment which they do not receive. Shall the State, that houses, treats and cares for both the acute and chronic insane, refuse to consider the needs of those afflicted with tuberculosis? Are the blind, the crippled and the epileptic to be given State aid and the consumptive refused it? It must not be forgotten that the indigent consumptive in any stage of the disease, unlike the wards of the State just mentioned, is a constant menace and danger to those with whom he is living.

Without notification it is apparent that any real progress is rendered impossible. We cannot give aid to any consumptive until we know where he is, nor can it be known what help he requires until the case is properly reported and the conditions are described. Every physician in the State should promptly notify his health officer of any case of tuberculosis occurring in his practice.

The medical officers of the Department have been for some little time so selected that it is now possible to divide the State into districts, each one having within its boundaries at least one medical officer. At some central point in the district a station may be established in charge of the medical officer, and should contain a supply of diphtheria and tetanus antitoxin, a bacteriological outfit, report cards and blanks, and a full supply of all the circulars and pamphlets issued by the Department on tuberculosis. The station would also contain outfits for the collection of sputum in order to facilitate early and definite diagnosis. The station and its contents would be an educational center. The circulars would be for both physicians and the laity, and their distribution would be made by the medical officer and the health officers in the district. The circulars would be sent to the press, and would undoubtedly be published. Addresses by health officers before medical societies and popular audiences, organizations of sanitary societies, the Sanitary Institutes of the Department and the use in larger towns of the tuberculosis exhibit, would all prove powerful and effectual factors in the fight against the Great White Plague.

In its bacteriological work the State Laboratory labors under these two disadvantages: namely, physical inability to make speedy reports and lack of contact with the physician and health officer. To obviate as far as possible the first difficulty the Commissioner has recently issued a notice to the effect that the reports upon the primary cultures from suspected cases of diphtheria and upon the Widal tests for typhoid fever be made by telegraph at the Department's expense. This will effect a saving in some instances of twenty-four hours in making these reports. It is not unlikely that a further saving in time can be obtained in the future by the improvement in the details of the transportation of specimens, such as, for example, a provision for the incubation of cultures while en route.

To obviate the second difficulty, a traveling bacteriological laboratory has been prepared, which will be sent with a trained laboratory diagnostician to those communities in which problems especially difficult of solution arise in connection with these diseases. Already the State Laboratory has conducted one such field investigation in an extended and uncontrollable outbreak of diphtheria.

New Books.

SURGERY: ITS PRINCIPLES AND PRACTICE. By Various Authors. Edited by WILLIAM WILLIAMS KEEN, M.D., LL.D. Vol. 2. Philadelphia and London, W. B. Saunders Co., 1907. 920 pp.

This volume opens with a chapter on Diseases of the Bones, by E. H. Nichols, which deals briefly and in a general way with the subject.

The chapter on Fractures, by D. N. Eisendrath, is full and practical, although we heartily disagree with the traditional statement which is passed along from one surgery to another to the effect that plaster of paris is objectionable as a primary dressing bectuse of "the rapidly increasing swelling which occurs in the first week." We have many times called attention to the fact that this "rapidly increasing swelling" is largely due to defective immobilization, and that if the ordinary fracture is *immobilized* immediately after its occurrence the swelling is but slight. The author, in describing the technic of applying a plaster case to a limb, says that "the limb is covered by several layers of sheet wadding" before applying the plaster bandage. If this is done, we should say that the leg will not be immobilized. No leg with such a bulk of cotton around it is immobilized. It is just such a dressing as this that gives rise to the swelling tradition. It is not a great mass of padding about a limb that is necessary to save it from damage: the important thing is that the plaster splint shall be applied in such a way that it lies smoothly and evenly. The reviewer for years has had no hesitation in applying a plaster splint to a broken tibia immediately after the injury, and with only a thin cotton stocking between the skin and the plaster. Had he employed imperfect immobilization (or more properly, mobilization), advocated in so many of our text-books, he should surely expect to have the traditional swelling. In the treatment of fractures of the lower end of the humerus the author favors the right angle splint. The operative treatment of fracture of the olecranon is not much encouraged. The author advocates operation through a transverse curved incision in the treatment of fracture of the patella. This chapter is well illustrated, and gives the learner a practical and conservative view of the subject.

The Surgery of the Joints is well treated in a chapter by R. W. Lovett and E. H. Nichols. The chapter on Dislocation by D. N. Eisendrath is good. While the unsurgical method of reducing dislocation of the elbow by the method of Sir Astley Cooper is described (as it is in nearly every book on this subject, still the author also gives the modern and best method for this operation.

The chapter by R. W. Lovett on Orthopedic Surgery deserves especial mention. It is practical and up to in the same space. The discussion of congenital dislocation of the hip is admirable. Exercises for the treatment of flat foot unfortunately are missing. The Surgery of the Skin and its Appendages is written by J. A. Fordyce, and is a valuable addition to a work on general surgery.

The Surgery of the Nerves, by G. Woolsey, gives valuable descriptions of the treatment of the neuralgias, although we miss the more radical procedures for the cure of trifacial disease. Both the operative and more tentative measures are described. The chapter contains some good original illustrations.

Of much medico-legal value is the chapter on Traumatic Neuroses by F. X. Dercum. This subject has the shortest paragraph on treatment of any of the chapters in this work.

The chapter on Surgery of the Spine, by G. Woolsey, deserves especial mention. It is practical and up-to-date. The osteoplastic laminectomies are dismissed as offering no advantages over the old method of resection of the spines and laminæ, and present the disadvantage of taking longer to perform. The author inclines against operation in destructive injury to the cord from fracture of vertebræ.

The second volume of this surgery shows the same general care in its preparation which characterized the first volume. It is strictly up to date, and posses the merit that it omits much material which is so extremely new as to lack the sanction of modern surgery.

J. P. W.

PHOTOSCOPY (Skiascopy or Retinoscopy). By MARK D. STEVENSON, M.D. Philadelphia and London, W. W. Saunders Co., 1906.

This little volume, well gotten up, with good paper, clear type, abundantly illustrated, should be greatly appreciated by the profession.

The subject matter is treated in a careful, painstaking manner, and the author on the very first page places the reader under obligations, by a clear, concise definition, not taking anything for granted, but explaining the phenomena in its completeness.

The term "Photoscopy," as adopted by the author and reasoned out by him, seems well grounded, and will doubtless do away with confusion of ideas and must simplify the derivative terms.

The writer is in every respect well acquainted with his subject, of large experience, scientific in his deductions, and having what so many authors have not, *i. e.*, ability to transmit to the reader the knowledge which his research has placed in his possession, and therefore anyone who carefully reads this book cannot fail to gain a comprehensive knowledge of the subject under discussion.

NELSON L. NORTH.

THE HARVEY LECTURES. Delivered under the auspices of the Harvey Society of New York. 1905-6. Philadelphia. J. B. Lippincott Company. 1906.

These lectures were delivered before the Harvey Society in New York, which was organized in 1905 with the object of the diffusion of medical knowledge by means of lectures upon special subjects. It has been the intention of this Society to present lectures upon the most advanced work, especially that which might be called experimental, in lines of general interest and importance to the profession.

This volume contains the first course of lectures given under the auspices of this Society. Thirteen lectures were given, all by leaders in thought in their special lines. The importance of these lectures can be judged by the titles and the names of the lecturers which are herewith given: "The Theory of Narcosis," by Prof. Hans Meyer, University of Vienna; "Modern Problems of Metabolism," Prof. Carl von Noorden, University of Vienna; "On Trypanosomes," by Prof. Frederick G. Novy, University of Michigan; "Autolysis," by Dr. P. A. Levene, Rockefeller Institute for Medical Research; "A Critical Study of Serum Therapy," by Prof. W. H. Park, University and Bellevue Hospital Medical College; "The Neurons," by Prof. Lewellys F. Barker, Johns Hopkins University; "Fatigue," by Prof. Frederic S. Lee, Columbia University; "The Formation of Uric Acid," by Prof. Lafayette B. Mendel, Yale University; "The Extent and Limitations of the Power to Regenerate in Man and Other Vertebrates," by Prof. T. H. Morgan, Columbia University; "On the Nature and Cause of Old Age," by Prof. Charles S. Minot, Harvard University; "Modern Views Regarding Placentation," by Prof. J. Clarence Webster, University of Chicago; "Some Phases of Tuberculosis," by Prof. Theobald Smith, Harvard Univesrity; and "The Cause of Heart Beat," by Prof. W. H. Howell, Johns Hopkins University.

N. J.

TRANSACTIONS OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA. Third Series. Vol. XXVIII. 1906.

The transactions of this institution is a volume which does credit to the work of this old organization. Founded in 1787 it has continued to represent the best thought and practice in medicine.

This volume contains some twenty-five scientific papers. It also contains lists of officers, committees, etc. Obituaries of three members are also included. One of the most interesting reports is that of the librarian giving an account of the origin and growth of the library of the College from twenty-four volumes in 1788 to close on to one hundred thousand in 1906. This is now one of the great medical libraries of the world, and among other functions serves to cement together this admirable organization of medical men.

N. J.

A TREATISE ON THE PRINCIPLES AND PRACTICE OF MEDICINE. By ARTHUR R. EDWARDS, A.M. M.D., Philadelphia. New York. Lea Brothers & Co. 1907. 1328 pp.

Edwards' book is a thorough treatise on practice and reaches easily the level of our best text-books on this subjects, nor does it seem to owe so much to other treatises as certain other recent works on practice. Upon its pages is stamped the author's individual personality as teacher and clinician, and it is a personality redolent of large bedside experience and of sound deductions therefrom.

Certain epigrammatic affirmations occurring naturally throughout the text afford evidence of the progressive character of the work. We shall instance two: "Prophylaxis has as wide a scope in medicine as asepsis and antisepsis in surgery," and "Systematic cooperation regarding sewage regulation and water supply could efface typhoid." Such utterances are not mere euphemisms, but are actually indicative of the present trend of medical thought and doctrine. They may be taken as keynotes of the whole work, which is praise enough.

The work is strong on treatment, for, says the author, "the final object of its existence is the application of knowledge *to the cure or alleviation of disease.*"

Opsonic therapy is not touched upon, but, in the present light of our knowledge of this subject, the omission cannot be rated as a mortal sin.

The dosage of antitoxin recommended in diphtheria is large. With this counsel we are in full accord. In severe cases, 10,000 units as an initial dose are advised. Edwards endorses McCallum's doses of 50,000 units in desperate cases and alludes to the use by Sutherlin of 498,000 units in one case! But one cannot but think of the cost of such dosage. Assuming 10,000 units to be a dose, about 50 doses would be required. However, the principle is sound.

The author considers the use of a string necessary for extubation in private practice. All will not agree with this.

The word "sanitorium" is used in several places on page 360, in connection with the treatment of tuberculosis. We believe that sanatorium would be more in accord with the best usage.

While a large section is devoted to fresh air in the treatment of tuberculosis, nothing is said about the use of window-tents for that very large class which cannot avail itself of verandas, shacks or tents for sleeping purposes.

Pycnocardia, as it is rendered by Lewellys Barker and by Gould, becomes, at the hands of Edwards, "pyknocardia."

The Adams-Stokes syndrome is quite thoroughly discussed under bradycardia and fatty heart.

Hypertrophied tonsils should be removed at once by the *knife* (italics the author's). One cannot tell certainly whether or not this is a ruling out of the guillotine, which is a knife in a sense.

"Adenoids * * * should * * * be removed * * * by the finger or curette." Does the author mean to give the finger a kind of precedence?

In the treatment of enteroptosis, says the author, supports to restore and maintain the viscera in their normal location often give considerable relief. He remarks that strips of adhesive plaster are useful but uncomfortable, yet suggests nothing better.

"The claims of the Italians, that Flajani (1800) first described the affection (exophthalmic goiter), are ill-founded" (p. 888). Why not "the claim * * * is ill-founded"?

The serum of Rogers and Beebe is not mentioned under the treatment of exophthalmic goiter.

The spelling goitre seems to be preferred to goiter, thyroid to thyreoid.

In reciting the ocular symptoms of exophthalmic goiter certain occasional signs are not specifically mentioned. The author speaks of eye paralyses and other changes in a general way, but does not describe Gifford's or Kocher's signs, nor does he allude to tremor of the eyeball, subjective sense of pressure behind the eyes, excessive dryness, or, on the other hand, epiphora. The sign of Jellinek and Rosin is not spoken of. The cardinal eye symptoms are, of course, fully discussed.

One is reduced to the necessity of using a fine-toothed comb and a biconvex lens, figuratively speaking, who searches for defects of any moment in Edwards' Practice. Criticism based upon the results of such search will very nearly approach the captious.

Besides the 19 plates there are 100 engraved cuts.

J.

The Practice of Obstetrics in Original Contributions by American Authors. Edited by Reuben Peterson, A.B., M.D., Philadelphia and New York: Lea Brothers & Co. 1907, xv, 1087 pp. (*The Practitioner's Library.*)

Peterson has as collaborators ten American authors. The book is a companion volume to others upon Gynecology and Pediatrics. It is a well-directed, well-coordinated work and the whole field is adequately covered.

The work is above all else practical. Even bibliographic references are dispensed with. Theory, while not neglected altogether, is decidedly subordinated. One instance of this is the treatment of the subject of puerperal toxemia. While the nature and sources of the toxins, and the pathology of the condition, are briefly, yet thoroughly, discussed, the statement is made that complicated procedures looking to the estimation of the toxicity of the urine, and even estimations of urea eliminations, are valueless, so far as practical conclusions are concerned (Ehrenfest). Nothing is said about acetonuria nor the ammonia coefficient.

Lewis, writing of the new-born, appears to be anything but enamored of silver nitrate either as a prophylactic or curative agent. He uses protargol *when he suspects* gonorrheal infection, or when there is quite positive evidence of its presence. "In other cases it will be sufficient to wait until symptoms of conjunctivitis appear before applying the silver solution." When the eyes show actual infection, then one-half per cent. solution of *protargol* or *argyrol* should be instilled into them twice daily. Here again the use of silver nitrate appears to be discountenanced. All this seems an almost flippant attitude to take on such a subject—and there is no more important subject in the book. We think Edgar's prophylactic use of a one per cent. solution of the nitrate to be the sanest practice that one can follow here. The argyrol strength recommended is certainly conservative, to say the least.

Under treatment of post-partum hemorrhage neither acetic acid nor compression of the abdominal aorta against the vertebral column is mentioned. Twenty minims of ergotole are suggested, which, for conservatism, is on a par with the argyrol dosage.

Kerr's recent figures anent version vs. forceps in contracted pelves are quoted. They are contrary to the generally accepted idea that version is safer than forceps in flat pelves.

Chemic disinfection of the interior of the uterus is very properly pronounced a delusion. The use of mercury in particular, even in exceedingly weak solutions, is condemned as dangerous, and the text-books that continue to recommend it are scored. Douching either before or after labor, except for cause, is also discountenanced.

In moderate degrees of uterine rupture tamponade and abdominal pressure after delivery are advised, such cases being handled expectantly. In complete cases surgical intervention is advised, although statistics are presented which show conflicting results.

Expectant treatment, *at first,* is also advised in cases where the curette has perforated the wall of a septic uterus. Light tamponing and the omission of irrigation are here practised. Where the uterus is not septic and the technic has been aseptic, perforation is not usually followed by serious consequences.

That excellent addition to our resources, the Pomeroy bag, is not noticed under dilatation of the uterus. Neither is the best of the pelvimeters, that of Sidney Jacobson.

The Bossi dilator is discussed very fairly and pronounced the best of the steel instruments for its special purpose. Both its dangers and its good points are emphasized.

The immediate repair of most cervical lacerations is not necessary. Sharp hemorrhage continuing from a contracted and empty uterus indicates a tear requiring attention. Extensive tears with or without hemorrhage may be repaired, for spontaneous repair will probably result in the deposit of excessive cicatricial tissue.

The axis-traction forceps is pronounced the only proper one to use in both the high and median operation. We endorse this teaching heartily. The crossbar may be removed when the head reaches the vulva. This is contrary to Webster's strong advocacy of completing the delivery of the head with axis-traction.

Walcher's position is said to have no advantage when the head is at the outlet. This is hardly true, since it relaxes the perineum and decidedly diminishes the risk of laceration. The lithotomy position puts the perineum upon tension and increases the risk of rupture.

If the occiput is persistently posterior at the brim and forceps is elected, manual rotation of the occiput is advised. Nothing is said about manual rotation of the trunk by grasping the shoulders. In our experience manual rotation of the occiput alone is not apt to suffice. Let go of it and it swings back, as a rule.

Rotation of posteriors in suitable cases by means of the forceps is discussed favorably.

Sulphite of sodium is not suggested in the treatment of thrush. Permanganate of potassium (1-200), followed by water, is recommended.

Hebotomy and vaginal Cæsarean section are fully described. The former is not illustrated.

There is a typographic error in the tenth line (from the bottom) on page 297, and the punctuation near the bottoms of pp. 300 and 985 might be improved upon. So also might that on pp. 789-790. "Bacteriacidal" (p. 884) is more unusual than "bactericidal." We find "hypodermically" on p. 790. In fig. 502 the numerals which should appear upon the engraving are missing and the word "hysterotomy" in the explanatory text is misspelled. We have never seen a labium just like the one shown in plate XI. It approaches the so-called Hottentot apron type. The plate is merely intended to show the bluish tinge of the anterior vaginal wall seen in early pregnancy, but the labium is the more interesting exhibibt.

In addition to the 30 plates there are 523 engravings. The general excellence of the illustrations is worthy of special note. This is as it should be, for, as Peterson remarks in the preface, "Obstetrics is peculiarly a subject in which apt and direct illustrations are of practical value." J.

The International Medical Annual: A Year Book of Treatment and Practitioner's Index. 1907. Twenty-fifth Year. New York, E. B. Treat & Co.

This is one of the year books which is devoted especially to treatment. The first part discusses the advances in therapeutics. The newer local anesthetics receive attention, and serum therapy, of course, is given full consideration. This part of the work also gives a dictionary of remedies—an alphabetical arrangement of medicaments of which some new application has been made during the past year.

The review of medical and surgical progress covers most of the progress in these branches. The chief advances in medicine seem to have been in the realms of opsonic therapy, the study of myocardial disease, and the diagnosis and treatment of diseases of the intestine.

The dictionary of treatment begins with anesthesia and ends with urinary surgery. The review of new treatment takes most of the book. It covers the ground of the English literature particularly. The illustrations, many of which are colored, are good. The work is distinctly British. The text is good; the binding is poor. N. J.

BUSINESS METHODS OF SPECIALISTS: or, How the Advertising Doctor Succeeds. An Exposition of the Inside Workings of the Complicated Structure the Advertising Specialist has Built About Himself, the Doors of Which are Seldom Open to the Professional Investigator. By JACOB DISSINGER ALBRIGHT, M.D. Phil., The Author. (c. 1907).

This curious little book purports "to give publicity to the methods and procedures of the advertising specialist, apart from any consideration of the question of ethics, in the belief that the spreading of information of this character will interest and *benefit* (italics ours) those of the profession into whose hands it may come."

The reviewer has scanned the book in earnest quest of the aforesaid information. He has found much that would assist him were he contemplating entering upon irregular practice, but nothing that would seem to offer him benefit in his present estate.

Thus one of the things which Dr. Albright counsels us to practise is the recounting of symptoms to a patient instead of telling him that he has aortic insufficiency. This will make a "hit." On page 97 he says: "This being the plainly indicated condition, we excuse ourselves for a few moments and read up on the symptoms, for as this is an absolutely certain diagnosis we do not wish to miss mentioning any of them."

We are told, too, that the quack oftentimes fulfills a good office in the medical scheme of things. Thus a quack is quite often a practitioner who has learned to treat a certain class of patients successfully (*sic*), and his patients come to him, "as a rule, only after they have been mistreated, maltreated or trifled with by some member of the regular profession" (page 106).

This is revelation indeed to those of us who have always conceived of the quack as a shrewd impostor, essentially a business man of a low order, caring nothing about moral or medical obligations, and as an individual who has failed as a legitimate therapeutist—if, indeed, he has ever essayed such a *rôle*.

As a matter of fact, then, there is a third profession of which we have taken little account and upon which we have bestowed only abuse and prosecutions. Here is a serious state of things. Pharisees all of us, we persecute a noble fraternity whose attainments are great though esoteric, who cure when we cannot even relieve, who are gleaners in the great field of therapeutics. Beneficent charlatans, greeting!

"During the last decade a distinctly high grade of advertising medical specialists has been developed" (page 18). "Let no one imagine that all advertising specialists are dishonest and incompetent" (page 106). "The term 'quack' * * * is not usually applicable to the modern advertising specialist" (page 13). It is only when the public can obtain something from the irregular physician which cannot be obtained from the regular that the former is preferred (page 14).

So these practitioners are men whose talents are so great that they have simply and naturally passed beyond the conventions and reaped the golden harvest which their attainments merit. That is all. And "it is safe to assume that to the majority of physicians, at some time during their professional career, there comes the thought, 'shall I advertise?'" (page 99). Remember your own trying ordeal, reader!

"Many methods are employed by dishonest specialists that are detrimental and injurious to their patients and an everlasting disgrace to the profession of medicine, and yet they often contain elements of value which, in proper hands, can be turned to the mutual advantage of both patient and physician" (page 6). Anything jesuitic in that?

We presume that the urine test described on page 69 *et seq. is* one containing "elements of value." Four bottles, three containing varying strengths of Ag No. 3, and one containing merely water, are used. At the first visit the strongest solution is used and the resulting precipitate signifies a seminal "drain." As the treatment progresses the "improvement" is entirely under the control of the "specialist." At the last visit test No. 4 shows complete cure.

You can see now what Dr. Albright means when he says that a quack is a practitioner who has learned to treat a certain class of patients *successfully*. J.

A TEXT-BOOK OF MATERIA MEDICA FOR NURSES, Including Therapeutics and Toxicology. By GEORGE P. PAUL, M.D. Phil., Lond., W. B. Saunders Co., 1907.

Paul's text-book may be recommended as an excellent guide for the nurse in training or in practice. Neither too much nor too little is included between its covers, which is saying a good deal for a nurse's text-book, and the material is well arranged. Stress is laid upon pretoxic signs throughout the text. The drugs are classified alphabetically and there is a special section to which drugs of minor importance are properly relegated. Another section gives brief notes on new drugs of importance. There are also tables of common synonyms, of relative weights and measures, of percentage strengths, and, finally, a thirty-page section relating to practical procedures which, though brief, covers the ground satisfactorily. J.

ATLAS AND TEXT-BOOK OF HUMAN ANATOMY. By Dr. JOHANNES SOBOTTA. Edited, with Additions, by J. PLAYFAIR MCMURRICH, A.M., Ph.D. Vol. 2: The Viscera, Including the Heart. Phil., Lond., W. B. Saunders Co., 1906.

A review of Vol. 1 of this work appeared in the JOURNAL in March, 1907, in which the general plan of the book is described. We called attention to the accuracy and beauty of the illustrations, and suggested that anatomy was not learned unless the student could call to mind an accurate picture of the part, and that the strikingly natural appearance of the pictures in this work were of inestimable aid to the student for this reason. The study of anatomy from so perfectly illustrated a work goes on almost without the necessity of the text.

This volume deals with the viscera and contains over two hundred colored pictures. Many of the pictures are in three colors and present a very natural look. The text, translated from the German, is clear and sufficient for all practical purposes. N. J.

PHYSICIANS' MANUAL OF THE PHARMACOPEIA AND THE NATIONAL FORMULARY. By C. S. N. HALLBERG, Ph.G., M.D., and J. H. SALISBURY, A.M., M.D. American Medical Association, Chicago, 1907.

This is a little book of some 200 pages, but small enough to go easily into the inside coat pocket. It is an epitome of all of the drugs and preparations contained in the United States Pramacopeia and in the National Formulary, and is altogether an admirable work. It shows the physician at a glance the composition, use and dose of the preparations given in the two large works from which it is compiled. All of the materials are arranged alphabetically.

A therapeutic index at the end of the book gives an alphabetical list of diseases and remedies which are employed in the same. Spir. frumenti is given among the internal remedies for "bites of insects, reptiles, etc." Alcohol is also recommended for shock, although the consensus of surgeons who have studied the matter shows that it does positive harm. Strychnin is also recommended in this condition, although Crile has pretty clearly shown its harmfulness. Thus the fetishism

of drugs is perpetrated to the eternal damage of the unfortunate.

An index of synonyms adds to the value of the book, which, on the whole, will be found useful to every general practitioner. N. J.

County Societies.

MEDICAL SOCIETY OF THE COUNTY OF ALBANY.

A special meeting was held in the Albany Medical College on September 4, 1907, to take action on the death of Lansing B. Winne, of Albany, President Lempe in the Chair. The Committee on Resolutions consisted of Drs. Mereness, Classen, Ball, Blair and Perry. Resolutions were presented expressing sympathy for the family of the deceased. Drs. Stillman, O'Leary, Perry, Blair, Classen and Morrow all spoke of the many good qualities of Dr. Winne.

The semi-annual meeting of the same Society was held October 9th, in the Albany Medical College, President Lempe in the Chair. Dr. Howard E. Lomax presented as his Vice-presidential address a very instructive paper on the "Upper Right Abdominal Quadrant" from the standpoint of the physician. An animated discussion followed. Dr. Samuel B. Ward, of Albany, was elected delegate to the State Society. Dr. Charles E. Whitbeck, of Cohoes, was elected a delegate to the Third District Branch.

The Committee on School Inspection reported that daily inspection of the schools had been inaugurated. The committee was continued. The committee regarding Pavillion F was continued, as was also the committee on the investigation of the condition of tuberculosis in the City of Albany. The committee on milk inspection reported that the standard of the Albany supply continued high. Dr. Shaw, as Secretary of the Third District, urged all to attend the October meeting.

COLUMBIA COUNTY MEDICAL SOCIETY.

The Annual Meeting Was Held on October 8, 1907, at Hudson, N. Y.

Program.

President's address, Henry Warner Johnson, Hudson; Address, Professor Albert Vander Veer, Albany; Paper, "X-Ray Therapy," George Miller Mac Kee, New York; Paper, "Pelvic Myomata," John Albertson Sampson, Albany; Report, "Placenta Prævia," Clark Green Rossman, Hudson; Report of cases, Martin M. Kittell, Jamaica, N. Y.; "Correcting an Error," T. Floyd Woodworth, Kinderhook.

There was a good number of members present. S. V. Whitbeck, of Hudson, was elected President; F. C. Maxon, Jr., of Chatham, Vice-President; T. Floyd Woodworth, of Kinderhook, Secretary and Treasurer.

MEDICAL SOCIETY OF THE COUNTY OF DUTCHESS.

The Quarterly Meeting Was Held on October 9, 1907, at Vassar Institute, Poughkeepsie.

Program.

1. "Quarantine," Dr. Godell.
2. "The Use of the Placard," Dr. Gribbon.
3. "Disinfection and Disenfectants," Dr. Huntington.
4. "Bacterial Tests for Efficiency of Disinfection," Dr. Andrews.
5. "The Control of Contagious Diseases as Practiced in the Hudson River State Hospital," Dr. Harris.

MEDICAL SOCIETY OF THE COUNTY OF KINGS.

A Stated Meeting Was Held October 15, 1907.

Scientific Program.

I. "The Control of Social Diseases," by Nathaniel P. Rathbun. Discussion by Henry H. Morton, Homer E. Fraser, Charles S. Cochrane.

II. "The Dietetic Treatment of Nephritis," by Leon Louria. Discussion by Joseph Merzbach, John A. McCorkle.

III. "The Value of Sphygmograms and Blood Pressure Estimations in Diagnosis," by Alfred Stengel, M.D., Professor of Clinical Medicine, University of Pennsylvania, Philadelphia.. Discussion by Theodore C. Janeway, William Browning, Henry G. Webster.

SECTION ON PEDIATRICS.

Joint Session held with the Brooklyn Society for Neurology on October 30, 1907.

Program.

1. "Etiology of Acute Anterior Poliomyelitis," by Dr. Bernhard Fedde. Clinical Studies by Dr. Hyman Climenko, Manhattan.

2. Symptomatology. a. "Previous History and Environment," by Dr. J. F. Terriberry, Manhattan; b. "Onset and Acute Stage," by Dr. Louis C. Ager; c. "The Sensory Elements," by Dr. William Browning; d. "The Chronic Stage," by Dr. A. C. Brush.

3. Treatment. a. "Acute Stage," by Dr. L. Pierce Clark, Manhattan; b. "After Treatment"—Orthopedic, by Dr. J. M. Clayland; Neurological, by Dr. Frederick Tilney.

SECTION ON GENERAL MEDICINE.

Program.

I. Presentation of Clinical Case—Chronic Malaria With Blood Slides, T. H. Dexter.

II. "The Ethical Relations of the Physician and the Surgeon," E. H. Bartley.

Discussion by A. T. Bristow, John Harrigan, Gordon R. Hall.

MEDICAL SOCIETY OF THE COUNTY OF ST. LAWRENCE.

The Annual Meeting Was Held at the St. Lawrence State Hospital, Ogdensburg, N. Y., October 1, 1907.

Scientific Program.

Presidential Address, Dr. R. L. Leak, Ogdensburg; Paper by Dr. W. G. Cooper, Ogdensburg; Report of Cases, with Pathological Specimens, Dr. E. A. Nevin, Ogdensburg; Report of Cases of Laryngeal Diphtheria, Dr. S. W. Sayer, Gouverneur; Paper by Dr. F. J. Fuller, Potsdam.

The Society announces that membership in the County Medical Society carries with it membership in the District Branch and State Society. Members receive:

First. The New York State Journal of Medicine.

Second. The Medical Directory of New York, New Jersey and Connecticut, issued annually.

Third. Legal defense in suits for alleged malpractice, if necessary up to the highest court.

Fourth. Privilege of taking books from the library of the Kings County Medical Society.

Fifth. Privilege of membership in the American Medical Association.

MEDICAL SOCIETY OF THE COUNTY OF LIVINGSTON.

The Annual Meeting was held in Geneseo on October 8, 1907.

The following officers for 1908 were elected: President, W. E. Lauderdale; Vice-President, F. R. Dries-

bach; Secretary, A. P. Reed; Treasurer, R. W. Green; Censors, E. C. Perry, J. P. Brown, F. R. Driesbach, F. A. Wicker, F. B. Dodge; Delegate to District Branch, W. K. McGowan; Alternate, J. C. Dorr; Delegate to State Branch, F. R. Driesbach; Alternate, J. H. Burke.

Program.

"Removal of Prostate," Dr. L. W. Byam. Discussed by Drs. Lauderdale and W. B. Jones.

"The Importance of Determination of Blood Pressure," Dr. F. R. Driesbach. Discussed by Dr. Haskins.

"Obstetrics," Dr. F. B. Dodge. General discussion.

Cases of interest were reported by Drs. Green and McGowan.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

A STATED MEETING WAS HELD ON OCTOBER 28, 1907.

Scientific Program.

1. "The Prevention and Disposal of Dust." By Walter Bensel, M.D., Commissioner of Street Cleaning.
2. "The Effect of Dust on the Human Body. By Harlow Brooks, M.D.
3. "The Mortality of Dusty Trades. By Mr. Frederic Hoffman, Statistician of the Prudential Insurance Company.

Discussion by Thomas Darlington, M.D., William H. Park, M.D. and John H. Huddleston, M.D.

ONEIDA COUNTY MEDICAL SOCIETY.

THE QUARTERLY MEETING WAS HELD OCTOBER 8, 1907, AT ROME, N. Y.

Papers.

"Vascular Spasm," Dr. Elsner, Syracuse; "Simple Technic of Intestinal Anastomosis," Dr. J. Gromann, Utica; Reports and Presentation of Cases.

SENECA COUNTY MEDICAL SOCIETY.

The annual meeting of the Medical Society of the County of Seneca was held at Willard State Hospital, October 10, 1907. The State Hospital Yacht "Nautilus" met the physicians of the north end of the county, their wives and other invited guests at Geneva and conveyed them to Willard, where they were met by the members of the hospital staff and physicians of the south end of the county.

The business meeting was called to order by the President, Dr. Thomas J. Currie, of Willard.

Officers for the year 1908 were elected, as follows: President, Dr. Lester W. Bellows, of Waterloo; Vice-President, Dr. R. E. Doran, of Willard; Secretary, Dr. Frederick W. Lester, of Seneca Falls; Treasurer, Dr. Erving Holley, of Willard; Board of Censors, Drs. Knight and Crosby, of Seneca Falls, and Dr. Barnes, of Ovid; Delegate to Seventh District Branch, Dr. T. J. Currie, of Willard; Alternate, Dr. Robert Knight, of Seneca Falls; Delegate to New York State Convention, Dr. George A. Bellows, of Waterloo; Alternate, Dr. Adolph Letellier, of Seneca Falls.

The society went on record as favoring and supporting the action of other county medical societies in asking for an amendment to the garnishee bill so as to put the physicians on an equal footing with the merchants in regard to collecting accounts. The society also favored and will support the law for the "Suppression of the Illegal Practice of Medicine."

An interesting and instructive paper dealing with the "Open Air Treatment of Pneumonia" was presented by Dr. T. J. Currie, of Willard, and was discussed by Dr. Elias Lester, of Seneca Falls, and Drs. Carlisle, Russell and Waldo, of Willard.

Owing to the increased cost of living, of maintaining a stable, of drugs and of surgical material, and in accordance with the action taken by nearly all, if not all, of the county medical societies of the State, the question of the raising of certain fees was taken up and thoroughly discussed, with the result that the society adopted the following fee bill, to take effect on November 1, 1907:

1. Visit and medicine, village, $1.50.
2. Each additional patient, 50c.
3. Each additional mile out of the village, 50c.
4. Consultation or prescription in office, 5cc.
5. Consultation in office with medicine (lowest charge), 75c.
6. Complete examination of chest, $2.00.
7. Ordinary examination of urine, $1.00.
8. Topical application to eye, ear, nose or throat, 50c. to $2.00.
9. Administration of an anesthetic, $5.00.
10. Administration of an anesthetic, for dental work, $2.00.
11. Proof of death for insurance companies, $1.00.
12. Examination of soldiers, $3.00.
13. Consultation visit in village, $5.00.
14. Attendance natural labor, $10.00.
15. Delivery by instruments, $15.00 to $25.00.
16. Night visits in village, between 11 P. M. and 5 A. M., $2.00.
17. Night visits in country, ordinary fee with $1.00 extra.

Office consultation and medicine strictly cash.

From the above it will be seen that the increase is 50c. in No. 1; 25c. in No. 5, and $1.00 in No. 17, making an increase in fees in but three items of the fee bill of the old society, which was adopted with the changes as noted.

The semi-annual meeting of the Society will be held at Seneca Falls during the second week in May, 1908.

SUFFOLK COUNTY MEDICAL SOCIETY.

The Annual Meeting was held at Riverhead, N. Y., October 31, 1907.

Scientific Papers and Discussions.

1. "The Vagaries of Influenza," Dr. L. S. Baldwin, Bellport.
2. "The Radical Cure of Femoral Hernia in the Aged," Dr. Paul Monroe Pilcher, 386 Grand Avenue, Brooklyn.
3. "A Study of Calcalus Lodged in the Ureter," Dr. Roland Hazen, Brentwood.

Deaths.

JOEL WILBUR HYDE, M.D., of Brooklyn, a line officer and later surgeon during the Civil War, consulting gynecologist to the Long Island College Hospital and attending obstetrician at the Bushwick Hospital, died September 22d; aged 68 years.

DAVID A. KNAPP, M.D., for more than sixty years a practitioner of Dutchess County, died at his home in North Clove, September 22d; aged 87 years.

BYRON E. OSBORN, M.D., of Auburn, died recently in Rochester, N. Y., and was buried at Auburn, September 12th.

JOHN BALDWIN WELLWOOD, M.D., of Roslyn, N. Y., died at Wantage, L. I., September 26, from the effects of a stab wound; aged 50 years.

ELECTRA B. WHIPPLE, M.D., of Buffalo, died at his home in Orchard Park, September 13th; aged 59 years.

PETER M. WISE, M.D., died in New York City, September 22d; aged 64 years.

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Original Articles.

EDEMA AND ASCITES AS SYMPTOMS OF MYXEDEMA; WITH REPORT OF CASES.*

By CHARLES STOVER, M.D.,

AMSTERDAM, N. Y.

THE majority of authors upon this subject do not state that true edema and ascites are among its symptoms, some of them, indeed, considering their presence as contra diagnostic of myxedema.

Anders (Practice of Medicine, 5th Ed.) says, "Ascites may be present in some cases," "pressure does *not* produce pitting as in true edema"; while Tyson (Prac. Med., 3d Ed.) affirms that "true edema *may* be associated," remaining silent as to the presence of ascites.

Though Sir William Gull in 1873 had described this malady, whence it was called Gull's disease, William M. Ord, four years later, gave it the name of myxedema. Ord's description has been copied over and over in one text-book and another for the past twenty-five years. Perhaps this is not to be wondered at, for Ord saw an unusual number of cases for one man, some of them having been followed to autopsy and very carefully studied.

Two facts contribute further to this monotony of expression: the one, mentioned by Hare (Prac. Med., 1905), that "It is a rare disease, particularly in the United States; physicians connected with large hospitals may see a case only once in many years"; and the other, that books nowadays are largely written one out of the other, and thereby error as well as truth may be perpetuated. In may be noted in passing that, although Ord (Quain's Dict. of Med., 1884) referred to "the firm swelling of the skin, not pitting on pressure," he also stated "that late in the disease ordinary anasarca is often added to the mucoid edema."

It appears from a perusal of his cases, that although he describes both edema and ascites occurring in myxedema, they were associated with albuminuria. This fact has not always been clearly noted in our text-books when the presence of edema has been emphasized as a differential point of diagnosis.

A perusal of the literature, to which is added a case of the writer, indicates that edema and ascites, singly or together, may be present in both simple and complicated myxedema. Forty-five articles were selected from a very considerable literature. The greater portion of these either stated that there was no edema present, or failed to mention it at all. The cases having some bearing on this topic are arranged in chronological order.

William M. Ord (1878, *Med. Chir. Tr.*, Lond., v. 61, pp. 58-78) reports a case in a female, aged 54, who had been under observation as an out-patient since 1871. She was a widow, had given birth to two children, both of them alive. She developed symptoms of myxedema, and her urine was repeatedly examined—sp. gr. 1008-1017, contained no trace of albumen in 1871 and 1872. At the beginning of 1876, on her appearance after a long absence, the urine was found to be albuminous, and there was true edema of the hands and legs. In January, 1877, her state had undergone much change. The complexion was pale yellow, and in the flush on the cheek were many enlarged vessels. With the occurrence of ordinary anasarca there was some abatement of the old nervous symptoms. The urine was 1004 sp. gr., was faintly acid, pale, clear, and contained a little albumen; quantity increased. The symptoms attending destruction of the cortex of the kidneys were clearly developed, and had taken the place of many of the older, quite distinct symptoms. These late symptoms, increasing in severity, ended fatally by breathlessness and exhaustion at the beginning of March, 1877. Post-mortem examination showed that "there was edema of the skin generally; but the cut surfaces yielded less fluid than their appearance would promise. There was much serous effusion in the pleuræ, pericardium and peritoneum. The heart was of large size, weighing 16.5 ounces; left ventricle hypertrophied, the wall being an inch thick; valves practically healthy. The arteries were everywhere thickened, the larger ones atheromatous. The cortical substances of both kidneys was much wasted and granular both on surface and on section. The renal arteries were thickened and atheromatous, and there was thickening of the outer coats."

*Read before the 4th District Branch, Medical Society of the State of New York, Saranac Lake, September 18, 1907.

The author reports four other cases in which the patients were women between 40 and 60 years of age. There was no affection of the senses or viscera in one case till about six months before her death, when the urine, hitherto perfectly normal, began to be albuminous, and the vascular symptoms of renal disease were rapidly developed. In two cases the urine became at length albuminous, but not till the anasarcous appearance had existed six years in one, and nearly ten years in the other case.

Dr. Dyce Duckworth, 1880 (Two Cases of Myxedema, *Med. Press and Circ.*, Lond., n. s., v. 30, p. 411), says of the first case which he reports, "The thyroid body was small. The integuments of the trunk and limbs were all swollen and puffy." Later he says also, "The amount of ordinary edema in the eyelids and lower limbs varied occasionally. No albumen was found at any time in the urine."

In the second case of a woman, aged 46, milliner, he says, "The belly was flatulent, bowels constipated. Pulse 80 while standing. The legs were edematous, the right pitting more than the left. The urine was of sp. gr. 1005, acid, and void of albumen on every occasion when examined."

William M. Ord, 1880 (Cases of Myxedema in *Tr. Clin. Soc.*, Lond., pp. 15-19), reports a case, female, aged 52, multipara. After her last confinement the face became puffy as usual (in her case the face became puffy for a little while after the birth of each child), the feet began to swell, and the belly, to use her own expression, "never went down." She gave the other characteristic symptoms of myxedema. The writer also says, "There was some fluid edema of the legs and feet. * * * The urine was copious throughout, and always contained a trace, but not more than a trace, of albumen. No casts, blood or renal epithelium were ever seen." At the post-mortem examination the lungs were found congested and edematous, and there was a good deal of fluid in all the serous cavities, etc.

Stephen Mackenzie, 1883 (*Tr. Clin. Soc.*, Lond., v. 16, p. 260), reports a case of myxedema in a male, aged 51, seaman. Regarding edema, he says, "Face is considerably swollen, upper and lower eyelids are puffy and transversely wrinkled, and there is marked thickening of the lips and alæ of the nose. The trunk and limbs generally are swollen, but nowhere, except on the legs, is there pitting on pressure. * * * The skin of the trunk and thighs seems to be in a natural condition, there being no abnormal roughness or dryness noticeable, but that of the upper extremities and legs, dry and rough, especially on the extensor aspects of the forearm and hands. * * * There is some pitting on pressure in the legs, but this, with rest, disappears."

Robert T. Edes, 1884 (*Boston M. and S. J.*, v. 110, pp. 385-386), in "Clinical lecture on a case of myxœdema," says, "There have been exceptions enough to this unfavorable prognosis to give certain amount of encouragement that a cure may not always be impossible, or that at any rate symptoms may be mitigated and life prolonged even beyond the usual very chronic course. Curiously enough it has happened that in some cases when ordinary dropsy comes on as a consequence of renal disease supervening on the condition we are now discussing, the myxœdema has disappeared."

One case is reported where abdominal dropsy occurring in a man affected with myxœdema grew sufficiently severe to demand tapping, which having been done, both the ascites and myxœdema disappeared. (No reference to this case is given anywhere, and I have not been able to find it in the literature.)

John Harley, 1884 (*Med. Chir. Tr.*, Lond., v. 67, pp. 189-204), reports a case of myxedema in a female, aged 27, multipara, of which he says, "excepting an occasional pitting over the tibiæ, and a little puffiness of the ankles, there was no thickening or œdema of the legs. * * * The urine was frequently examined and found to be free from albumen and casts." The post-mortem examination reports state, "The body was well nourished, the skin singularly fair, like alabaster or œdematous tissue, but quite free from œdema excepting around the ankles, where pressure caused slight pitting. * * * The peritoneum contained a pint and a half of clear serum; here and there there were a few fibrous adhesions, but about the uterus they were strong and general. * * * Kidneys were unusually firm and glistening, the cortex injected, the capsule stripped off too easily, and the arteries were thickened. Otherwise the organs were quite healthy." "The right pleural cavity contained half a pint of clear serum, the apex of the right lung was firmly fixed by old adhesion."

L. J. Brandes, 1886 (Cong. period, internat. d. sc. med., compt. rend., Copenhagen, v. 2, sect. de. med., pp. 66-69), reports a case of myxedema in a girl 14 years old. He says there was no ascites present, but pressure with the finger left impressions which disappeared rapidly, and that upon puncture with a needle no serum escaped.

Zielewicz, 1887 (*Berl. klin. Wochenschr.*, v. 24, p. 400), reports a case of myxedema accompanied by marked stomatitis and hepatitis interstitialis. Patient was a male, aged 64, who claimed to have been perfectly well up to about six months prior to date of admission to treatment. A diagnosis of myxedema was not made till later, but instead one of lienteric leukemia. The next day castor oil was given, which produced marked reduction of the size of the abdomen and permitted establishment of ascites, which led to the diagnosis of beginning cirrhosis of the liver. In the further course of the disease the ascites and edema of the lower extremities, as well as the albuminuria, increased. Patient died from suffocation. Section showed con-

siderable atrophy of the liver, abundant ascites, and congested kidneys. The general condition was that of myxedema, and the writer is of the opinion that the stomatitis and liver trouble were accidental complications.

Arthur Davies, 1887 (*Tr. Clin. Soc.*, Lond., v. 20, p. 267), reports a case of myxedema in a male, aged 38, of which he says among other things, "The chest and abdomen are normal. There is some slight pitting along the course of the left tibia. Some solid œdema over the back of the feet. Urine 1016, no albumen or sugar. * * * Has a sister who is dropsical."

Godart-Danhieux, 1895 (Un cas de myxœdème avec ascite traité par l'estrait thyroidien. *J. de med., chir., et de pharmacol.*, Brux., v. 53, pp. 433-441; 643), reports a case of myxedema in a woman, aged 51, who presented a typical appearance of myxedema with the addition of the presence of ascites. Godart considered that this was the only case in literature. He gave thyroid extract which improved the patient and caused the ascites to disappear. He thinks this due to the lymphagogic action (l'action lymphagogue) of the extract.

A. E. Hertzler, Kansas City, Mo. (*Am. Jour. Med., Sc.*, Feb., 1906, p. 245), reports a typical case of myxedema of a man 44 years old, ill for six years, who, however, gained in weight fifteen pounds during the sixth year of his illness. He had no albumen nor sugar in his urine. He had leucoplacic spots on the backs of his hands. The abdomen was markedly distended. Dulness extended 3 c. m. above the umbilicus. The line of dulness varied with a change of position, and a palpatory wave could be clearly made out. Under thyroid extract the patient was cured, though obliged to continue its use.

The writer's case is a woman past her climacteric, married, who previously presented no marked illness other than attacks of colitis or dysentery, usually during the summer season. During 1902 and 1903 her face became pale and swollen, with marked loss of expression, her speech slower and less distinct to such a degree that the suspicion of glosso-labio-laryngeal paralysis was indulged. The palpebral fissure was conspicuously narrowed. There was also an uncertain and slow gait, to the degree that her friends gossiped about a possible drug habit. She was asthenic, ate but little, yet did not emaciate. At this time, in December, 1903, she came under medical observation. In June, 1904, there was edema of the feet and ankles. There was greater hebetude and a tendency to melancholia. She had become bed-ridden. There was subnormal temperature, coldness of the body surface and the feet, a feeble pulse, and low arterial pressure. She had neither albuminuria nor glycosuria. In May she developed ascites. There was no tumor present. Tubercular peritonitis and carcinoma were discussed, as frequent consultations were held, and the advantage of an exploratory incision was suggested. About this time another patient with myxedema came under notice, and no doubt served to suggest the correct diagnosis for the case under consideration. On June 17, 1904, six quarts of fluid were removed from the abdomen by paracentesis. This was frequently repeated, the last time July 24th. Meanwhile, beginning in June, she was given thyroid extract. At one time ten grains t. i. d. caused slight thyroid intoxication, though later this amount was tolerated. Improvement steadily followed and attendance ceased the following December. Twice during the succeeding two years there was a recurrence of symptoms owing to the withdrawal of the drug by the patient, and a prompt disappearance of the trouble each time its use was resumed. The woman takes about two and a half grains of the extract t. i. d., and is told that she must accept that as her fate for life.

In looking back over this history it seems very doubtful that we would all have been so long groping had we not been misled by the very positive statements in our literature that exclude edema and ascites as symptoms of myxedema.

These reports show ten cases of edema, five complicated with kidney or liver lesions, and five simple or symptomatic. There are eight cases of ascites, four complicated and three simple or symptomatic. The case of Edes is excluded as not having been verified.

It seems fair to conclude that either edema or ascites, or both, may be present among the symptoms of myxedema; and that they may occur, as in other diseases, to indicate an organic complication, or, on the other hand, presenting a symptom, as little understood as is the ultimate cause of the loss of function in the thyroid gland.

THE TREATMENT OF VENTRAL HERNIA.

By THOMAS BRAY SPENCE, M.D.,

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WHILE a small number of ventral hernias develop spontaneously, the vast majority of them are due to traumatisms and occur as the result of abdominal operations. A recent text-book on operative surgery says "Undoubtedly the best treatment for post-operative ventral hernias is, to use an Irishism, not to have them." It is true that much can be done and in recent years much progress has been made toward the prevention of such an unpleasant sequel to abdominal operations. The almost universal maintenance of asepsis in primarily clean wounds has done more than any other one measure of prophylaxis, and this is accomplished by the simple and effective technic of the present day. While surgical cleanliness, as nearly perfect as possible, is essential to this end, it is also important that wounds should be

subjected to the least possible traumatism. Hemostats should include but little tissue in their grasp and should never be used as retractors, as is sometimes done, except, perhaps, to drag forward the peritoneum. A bit of crushed muscle, or fascia, or adipose tissue offers a most excellent nidus for the growth of those bacteria, which are present, we are told, in nearly every wound.

Much can also be done toward protecting the surfaces of the wound from contamination by infective material from within the abdomen. The removal of a badly inflamed appendix or of a pus tube may leave the peritoneum in a condition quite able to care for itself, and yet a careless disregard of the wound may lead to its infection and a prolonged suppuration. A piece of gauze wrapped about such a diseased organ and the protection of the exposed layers of the abdominal wall by means of gauze pads will often prevent an otherwise unavoidable infection. The practice of some operators of bringing the peritoneum forward and clamping it to the skin may, perhaps, be a good one, though I have never followed it. At any rate it is often possible for the operator and his assistants to hold diseased tissues in such positions that they will not come in contact with the wound during their removal, and, if the hands are cleaned before suturing, one may then confidently look forward to a primary union.

Though one should not be cramped in his work by an incision that is too short, it must be remembered that a longer incision may sever the nerve supply of the abdominal muscles and thus cause a subsequent weakness and sagging in the region of the scar. The intermuscular incisions are ideal and should be employed wherever possible. I often make the McBurney incision in cases of suppurative appendicitis, even when drainage is necessary, and never have cause to regret it, nor have I ever seen a hernia following this incision.

The layer-to-layer suture of abdominal wounds is a method that was strongly advocated by certain careful surgeons for many years and it has at last come to be pretty generally accepted as a rational preventive against subsequent stretching of scars. The overlapping of the fascial layer is, I believe, an additional means of strength and should be followed as a matter of routine. The layers should not be dissected back, however, in order to accomplish such imbrication, lest pockets be formed where blood may collect and thus defeat the all-important objects of good approximation and primary union.

In the after-care of the patient much attention should be paid to the prevention of meteorism. A marked distension of the abdomen tends to pull apart the edges of the wound and in some cases may even tear loose the sutures. It is also readily understood that the patient should not be allowed up until the new tissues formed during the repair of the wound shall have become mature and strong. I believe two weeks to be the shortest time in which this can be accomplished. With the intermuscular incision and under great stress of circumstances this time may be lessened, but there will be many cases in which a longer time should be allowed.

Abdominal binders and supports of various kinds have been recommended by some operators after laparotomy and have been exploited by instrument makers. They are probably useful on very stout patients, especially those with pendulous abdomens, but in the ordinary case such an appliance is a nuisance that can well be omitted.

We must remember, however, that it is not possible to treat all abdominal wounds in so ideal a manner as that we have laid down, for abdominal drains are still necessary at times, and, though their use has been greatly restricted during the last few years, they will probably never be completely banished from the equipment of the operating room. We should reduce their size to a minimum, and the method of Fowler renders this possible and has proved most satisfactory in every way. A large tube is inserted and the wound is sutured closely about it, thus leaving only a small opening where the wound edges are not approximated. A small tube can then be passed through this larger one whenever necessary, and any fluid that has collected will be easily pumped out. No other method of drainage, it seems to me, can be so positive as this, and it prevents by only a little the complete closure of the wound.

In spite of all these precautionary measures and means of prophylaxis, we will still encounter many cases of ventral hernia. The necessity of getting the patient off from the operating table may be so urgent that rapid closure of the wound must be done, perhaps by means of through-and-through sutures, and infection of the wound will sometimes be unavoidable. Our advice will still be sought as to the best manner of the treatment of ventral hernia. Our opinion in regard to an abdominal belt will surely be asked, and many patients will resort to this conservative treatment if any encouragement toward a satisfactory result be given them. It is my own belief that such a support is occasionally of service if applied at the beginning of the stretching of a short scar. I also think that a bulging of one side of the abdomen, due to the weakness of muscles that have probably lost some of their nerve supply, may sometimes be cured by the application of a belt; but if a hernia is also present, the result is not usually so happy.

As in other kinds of hernias, in the vast majority of cases we must resort to the radical treatment by means of an operation if we are to get a result that can be in any way considered a cure; and it should be our endeavor to persuade patients to submit to operation soon after the discovery of the condition, before time has been given for the enlargement of the ring, wide

separation of the muscles and fascia, and the formation of a large sac with probable development of a number of smaller sacs. Such an unwarranted delay also tends to encourage the growth of adhesions between the viscera and the sac, and if the sac be very large the increase in the bulk of the omentum may render the reduction of the contents of the sac difficult or impossible. All of these conditions make the operation more difficult and the result more uncertain, and the only way to avoid them is to resort to early operation.

The keynote to a successful operation is the careful and complete removal of all the scar tissue, which is present, of course, in all cases, is in fact the most important cause of the defect to be remedied. The scar in the skin should be excised because of its poor vitality and its predisposition to infection, and the new connective tissue between the deeper layers of the original wound should be cut away with the utmost care. The necessity for the most extensive dissection should not deter one in this attempt to get rid of tissue that will certainly foil the efforts toward a cure if left in place. The muscles on either side of the wound should be exposed if possible, and it is absolutely essential that normal fibres of fascia shall be obtained for approximation by means of sutures.

It will not always be necessary to open the peritoneum, and if we can thus avoid entering the abdominal cavity we will, in the first place, not be put to the necessity of suturing the peritoneum, sometimes a difficult procedure in these cases, and in the second place we will not expose our patients to the discomfort and danger of meteorism, so likely to be caused by handling of the intestines. The latter is a matter of much importance, for abdominal distension may defeat the whole object of the operation. The lessened time of the operation and the lessened probability of shock would almost impel us to leave the peritoneum intact unless there is a positive indication for opening it. The presence of a distinct sac would constitute such an indication, for a sac should always be excised. Inspection of the abdominal viscera will sometimes be wise and the removal of adhesions and bands will, perhaps, occasionally avert a future intestinal obstruction.

While the removal of the scar and the clearing of the different layers of the abdominal wall is usually a tedious task, the real difficulties of the operation confront one in the closure of the wound. Careful apposition of the layers must be obtained and an imbrication of the layers is highly desirable. If such an imbrication can be effected and primary healing of the wound can be obtained, we may rest assured that our patient is safe from a recurrence of the hernia. A very wide gap should not discourage one in efforts to approximate the edges of the wound, for unless there has been a great loss of tissue by reason of previous infection and necrosis, it will be possible to get a satisfactory closure in nearly every instance. Various kinds of sutures and various methods of their introduction may be resorted to, and one should always have a variety to choose from. Chromicized catgut or kangaroo tendon will answer admirably in the ordinary case. When there is a wider hiatus to close silkworm gut or silver wire may prove advantageous, or perhaps a combination of the various sutures will be best suited to some of the cases. A considerable degree of tension on these sutures will often be unavoidable, and a few heavy strands placed well back from the wound will help to relieve such tension at the edges where constriction is most detrimental to the process of repair. Mattress sutures will be found useful in making an imbrication of the layers, and sutures should as a rule be interrupted in order that the surfaces of the wound may be accurately coapted and securely held in place. One must be prepared for some disappointments in this respect, for the difficulties in the way of closing all spaces are sometimes very great and small collections of blood will be found much more commonly in these wounds than after the ordinary laparotomy. Fortunately these small collections of blood, provided they remain aseptic, do not greatly delay healing and they detract very little from the strength of the wound.

Plastic operations on the muscles have sometimes been recommended, but there are good reasons for not adopting such measures. Muscle tissue is not well adapted to plastic work and it is not very resistant to intra-abdominal pressure unless it is strengthened by fascia. The attachment of muscles by means of sutures is unsatisfactory, and therefore there is danger of still further weakening the abdominal wall by severing the muscles from their natural attachments.

Meshed silver wire placed in the depths of the wound over the hernial opening has given excellent results at times, and it is claimed that some cases can be cured by this means which would otherwise be inoperable because of the large size of the hernia. This is undoubtedly true, but a case must be very bad indeed that will not permit closure by some manner of suturing, and it is beyond argument that a patient's live tissue is preferable to a foreign body of any description. It should be our aim to bring these cases to operation before excessive stretching of the scar has taken place, and we can thus avoid the necessity of resorting to such ingenious but uncertain devices as silver gauze and celluloid plates.

The after-care of these patients is practically the same as that advised in any laparotomy case. Distension must be most carefully avoided, and confinement to bed should be somewhat longer than ordinarily. Three weeks is none too long for a hernia of some size and four weeks will sometimes be indicated. Abdominal belts will rarely be needed, and I have sometimes felt that

they do actual harm by restricting the action of the muscles, thus causing a loss of tone.

Attention to the details of the operation will nearly always bring about a perfect cure, and I meet no more grateful patients than those who have been relieved of this unpleasant and, at times, disabling and distressing condition.

SHOULD THE GENERAL PRACTITIONER STUDY REFRACTION?

By GEORGE M. GOULD, M.D.,

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I HAVE been receiving so many letters from practitioners and from young men beginning medical life, asking advice in reference to taking up the study of ophthalmology, that the answerings have become frequent and onerous. To save repetition and time I purpose to publish the following general reply.

My answer to the inquiry of the above caption is, Yes! It may be you are not adapted to the work; it is possible that you will add one more to the already absurdly large number of "ophthalmic surgeons," success-hunters, "exaggeration"-criers, and refraction decriers—lots of good ideals and motives go wrong, lots of good men go wrong; we can't help that, and then, perhaps, after all, the ideals and the men were not so very good and very strong, and deserved failure.

The reason for the *Yes* is that of our 80 million people at least one-half need spectacles. At present it is utterly impossible for any but a small fraction of these needy ones to get right and accurate spectacles. Wrong ones increase disease, and there are millions of wrong ones now being worn. If at the lowest 30 millions of Americans are suffering and handicapped by the want of proper glasses, then surely not over one million more have secured their due of relief. There are thousands of hundred square-mile stretches of our country in which there is not a skilled refractionist. In most cities not one in a hundred are correctly "glassed," although hundreds of oculists and opticians are begging for the business. In some large cities, and in many smaller ones, there is not a man who will or can estimate and prescribe for ametropia correctly. In smaller cities, and in villages, there is usually no one who pretends to do so, and in the country live millions who cannot even go to those who falsely pretend. If competent to do the work, and filled with the right spirit, ten thousand refractionists could set forth in one day, and each would soon be happy in his work of relieving human lives of disease and trouble, and within a year each could be making at the least from $2,000 to $5,000 a year.

The thoughtful and helpful editor of the *Medical Record* has so happily expressed one phase of the truth that I cannot forbear repeating here his entire editorial taken from his issue of June 22, 1907:

There is an enormous amount of suffering among the rural population of this country, especially the wives and daughters of farmers, due to uncorrected astigmatism and other ocular defects. On first thought one may be inclined to doubt the correctness of this statement, for the farmer is supposed to lead an outdoor life and to be little given to literary pursuits. But this is not true of many, if not the majority, of the rural population. In most farm houses of the better class one will find the weekly political paper and one or more agricultural or poultry journals, and in not a few several of the magazines and weekly story papers are also taken and faithfully read from cover to cover. Moreover, the women have their sewing and their mending and their fancy work—more eyestrain, in fact, than many of their well-to-do and perhaps better educated sisters in the city. Numbers of these poor women are martyrs to headache, gastric disorders, and other ocular reflexes, ignorant for the most part of the cause of their suffering and unable, even if they suspect that their eyes are "weak," to obtain relief. At the best, or worst, they go to the country store and select from a small assortment the spectacles which they think they need, and their last state is perhaps worse than the first. The country doctor is seldom able to help them, for as a rule, up-to-date, sensible, and skillful practitioner as he is, he lacks the practical training and experience necessary for the correction of errors of refraction, and even if he has the qualifications needed for such work the demands of a country practice leave him no time for the tedious work of testing eyes.

Herein lies an opportunity for relieving suffering and attaining material success which is worthy of the consideration of the recent graduate in medicine. Specialists must, from the nature of their restricted practice, live only in the cities and larger towns, where the number of consultations are sufficient to occupy their time and afford them a living practice. But in the case of refractive errors especially, which are still so wrongly regarded as among the minor ills, the farmer and his women folk cannot afford the time and expense of a journey to the city in search of relief. There is need here for missionary effort, and, contrary to the rule of most missionary endeavor, the man who undertakes such a needed work will reap an ample reward. There is an opening in nearly every county of every State in the Union for a thoroughly trained and skillful oculist who will establish a circuit of small towns in each of which he has an office in which he may be consulted, say two days a month or a fortnight, by the country people in the district. The man should be an educated physician, with hospital training—as should be every specialist—and preferably with an experience of several years in general practice, during which time he has devoted his unoccupied hours to a study of the eye and its diseases and of refractive errors and the means of their detection and correction. He should indeed be the equal of any of his fellow specialists practising in the city. His way at first may not be easy, for he will be a missionary, and his task will be to educate the people, through their medical advisers, to an appreciation of the rôle of eyestrain in the causation of many of the headaches and "dyspepsias" from which they suffer. He must be tactful in his relations with the practitioners in the towns embraced in his circuit, and should, of course, confine himself strictly to his specialty, and not encroach on the general practice of his colleagues. It will not be long, however, before such an "itinerant oculist," if he is skillful, and as honest and tactful as he is skillful, will make his way. One successful case in each town will establish his reputation, for farmers' wives are great gossips, and if he is careful to respect the rights of the local physicians they will be only too pleased to send him their teazing cases and "chronics" that their medicines have not relieved and which they will them-

selves soon learn to recognize as "eyestrain" cases and gladly refer to the oculist for relief.

There is nothing unethical in such a practice. Traveling quacks have caused honest physicians and intelligent laymen to regard the "itinerant" with suspicion, but the origin of all specialism was in quackery, and it was only when reputable practitioners began to devote themselves exclusively to a study of special diseases that the stigma attaching to special practice was removed. There are even now many reputable physicians and specialists who have offices in two or more places in the same city or in different cities, and a slight extension of this principle by educated, earnest, and honest young ophthalmologists will cause the itinerant oculist (not optician) to be regarded as a valued and honorable member of his profession.

Most of my letters have come from men who have been in general practice for some years, but others are from undergraduates and those just starting in practice. The latter class of men I always beg to give at least two years to the study of ophthalmology before going out as missionaries. After that the advice to the not-yet-practicing, and to those with established general practice, is much the same.

Almost always it comes sharply down to a question of money. How are the time and the expenses to be paid for? To the younger or inexperienced man that condition may be met:

1. By securing an internship in some hospital —a capital plan.

2. By acting as assistant to some oculist with established practice.

3. By unconquerable resolve and will to meet and overcome the obstacles.

To those who deserve to succeed the stern lineaments and denials of Fate grow softer, and finally she turns to help, when she finds she cannot scare the intrepid one. Hardships become unconquerable to weaklings.

And the overcoming of obstacles will also depend largely upon what kind of a motive spurs your resolve. One may hope you will be conquered by the obstacles, and will fail, if you have not something in your soul of benevolence, the love of humanity, the knowledge, inspiring heroism, that in refraction is a long and shamefully despised but a mighty means of beneficence. If you want only Success, with a big S, if you desire only "an elegant city practice," if you are after medical politics, professorships, fame, LL.D. degrees, presidencies of medical societies, and all that, if you find in your own heart nothing but plain appetites and selfishness—well, perhaps you'd better then go hang yourself! You would thereby do more good to medicine and to the world than to proceed.

To the physician with practice already well or fairly established, I counsel not giving it up if it is in any way possible to hold it. The financial reason may demand it, and over and above that is the advantage gained from knowledge of general diseases and the opportunity it gives to show patients that glasses will cure when drugs, etc., will not; that innumerable patients are pitifully, and pitilessly, passed through the hands of medical men unhelped, and that the sole way to help them is by glasses. General practice is a happy vantage-ground for the refractionist. Of course, one must leave the practice in the hands of some other while making the necessary long visits to the cities in the hunt for knowledge and skill in ophthalmometry. If one is on the good terms with neighbors which is desirable, this transfer and lending of practice is usually feasible. Visits at least six weeks long to the city hospitals and to the post-graduate schools, etc., should be planned and carried out, and should also be as frequent as possible. It goes without saying that if one resolves to break with general practice and give all the time required to the special study, then the two years of continuous study is most advisable.

How soon may one trust himself to commence refracting his home patients during the time of preparation, and when he comes back to practice from the cities? To that I should return with a "Yankee reply:" If you begin to refract soon will you stop the city visits soon? If so don't begin soon. But if you will keep up the month-or-two-long city visits for several years, then it would be well to try your hand at once upon cases, even after the first city-time of study. The reason for this apparently unconservative advice is, in a word, this: You can't do worse refraction than is being done by the neighboring optician and "the leading ophthalmic surgeon" of the next city. As the chances are that you will do far better than these, duty to humanity counsels that you at once try to help people out of the bad predicament we as a profession have put them into. But you must study hard, think hard, be most careful, seek advice constantly, go over the work again and again (regardless of cost), and keep up the study-trips to the city, all until you are sure of yourself, not because of the security of egotism, but that of knowledge, and the results of treatment

In order to begin refractions at home thus early, one, of course, must devote the early studies entirely to refraction. Leave operations, pathology, and even inflammatory diseases aside at first, and learn the art of diagnosing ametropia and of prescribing lenses. Precisely that is what the world of sufferers needs. They need far less that you should become an "ophthalmic surgeon." So soon as you've got that art well in hand then go at the pig's eyes, see all the operations you may, learn all possible about inflammatory diseases.

Where shall you begin to study? As you must begin with refraction there can be only one answer: In Philadelphia. Things are bad enough there, Heaven knows, but they are so bad elsewhere that Heaven couldn't know. By the art of refraction, of course, is meant subjective refraction, supplemented by retinoscopy when the subjective method is impossible. Only two or three men in all Europe know anything about this art, and if you went there to study you'd never find them. The same may be said of New

York, Chicago, etc. Some day some discerning philanthropist will give a million or two dollars to found a school of refraction. And if it should get into the right hands it will do more good to humanity than all the hundreds of millions that have been given to "charity" in the last generation. In the meantime we must wait and blunder along as best we may, until an aroused and repentent profession tires of anatomic pathology, laboratories, "Leaders," and east wind.

Because, when in your acquirement of this art, you come in contact with authorities in ophthalmology you will discover an amazing thing:—Opthalmology, long "pointed to with pride" as the perfected example, a true realized ideal, of medical science, accurate and mathematic in diagnosis and treatment, this hosannæd ophthalmology does not exist. The claim is arrant nonsense. So far as refraction is concerned it is the most inaccurate of all unsciences, a most ridiculous farce. Should the experiment be carried out with skill and cunning, any one of a million of sufferers from "migraine" giving the same symptoms, and going to 25 different leading physicians, would be ordered 25 radically different treatments: the stomach-man would test-meal her and wash her stomach out; the rest-cure man would put her into his private hospital; the nerve-man would say, *neurasthenia, Good morning;* the surgeon would gastrotomize her; the gynecologist would gynecologize her; the appendix-man would deappendicize her; others would make her a morphinomaniac; she would be phenacetinized, antikamnized, X-rayed, and laboratorized in a dozen ways; she would be wet-packed and talked learnedly about by one, dieted to death by a number, "passed on" by all. Now if the same patient were sent to 25 leading oculists of the cities the orders would be as variant and opposed: one would at once tenotomize, and keep on doing it, *ad infinitum;* others would "advance," or tenotomize different muscles; one would send her to the general physician, or play the part himself; others would give glasses with prisms, placed one way, or placed another way; others would opthalmometerize her, or retinoscope her; some would give no attention to astigmatism; some would give one axis, some other axes; all would give different amounts both of the spherical and of the cylindric corrections, and the extremes would differ by two or three diopters; some would ignore presbyopia, or not order bifocal lenses; the frames of the patient would turn even good work into bad in the majority of cases, and few would attend to the optician's part with the care required to cure. In a word, the 25 (or the 100 indeed) would differ from each other by measures and amounts which constitute the essentials of eyestrain therapeutics. Success and failure are only by means of any one of these differences. If one is right, the other 24 or 99 are wrong. Such is ophthalmic science to-day! The picture is not overdrawn or exaggerated.

My last correspondent asks: *"How, where, of whom, may I learn how to be sure that the prescription I write for glasses is the single correct one which will cure my patient?"* Well, that is the essence of the matter! That is the whole difficulty. It will never be possible in an absolute way until we have an authoritative School or College of Refraction, and until, as a result of it, there is a sufficient number of men in agreement as to the science and art to form a body of authoritative opinion. Every oculist has learned to do his refraction-work in a differing and peculiar way, from all sorts of sources and authorities, but he has been mostly self-taught. Hence there is no science, no agreement; all is utter and absolute individualism. You will be compelled, for the most part, to teach yourself, the same as the rest of us have done. By our aid you can now learn to short-cut better than we did. I have set forth about 80 different sources of error in refraction work, 80 causes "why glasses failed to cure." I believe any one of these 80 points neglected may bring failure, and yet one-half of them at least are wholly neglected by the majority of oculists. I trace all of my success in curing patients to the strict observance of each one. It is not an impossible task, by any means, not even a difficult one, and if you will religiously carry it out you will not be at all worried by the assumed superiority or contumely of the leaders, nor by their outrageous differences from one another. If you carry it out you will speedily find gratitude beyond desire from a numerous and ever-increasing body of patients.

One of your greatest difficulties will come from the unaccountable blundering and botchwork of the opticians. If you rely upon them for making and fitting your glasses, you will, as a rule, find an early grave. In some cities men who know their business may be found. We are exceptionally fortunate in Philadelphia. Generally the optician is forgetting his chief function and duty of fitting glasses, for the thing he never can do—the prescribing of glasses. Many opticians can prescribe far better than many oculists, but that does not change the law that the prescription of glasses, in a civilized civilization, must be a medical affair. If you do not live in a big city, you would better learn the great art of adjusting spectacles. Much of your success and failure will depend upon this art.

AMETROPIA, ITS IMMEDIATE AND REMOTE CONSEQUENCES.*

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IT is a reproach to the medical intelligence of to-day that a paper with this title should find a place on the program of a meeting of medical men. The truths which it presents (for

*Read before the Sixth District Branch Medical Society of the State of New York, September 24, 1907.

they are truths, verified in a thousand instances) should be so familiar that any repetition of them should be unnecessary. The immediate and remote consequences of ametropia should be known to every physician. That they are not, is the reason of this paper; what they are, the results and the remedy, will be my endeavor to present. Ametropia simply means an eye with incorrect measurements. It means that such an eye, in the state of rest, does not bring parallel rays of light to a sharp focus on the retina. That is a little thing to cause trouble to its owner, too little in the opinion of many physicians to be regarded at all. Let us see what are the facts in the case and how intimate is the relationship of this simple thing to the health, happiness and habits of the individual. Let us take up seriatim the three grand divisions of ametropia, myopia, hyperopia and astigmatism.

It is interesting to note how opposite are the effects of near- and far-sightedness upon the growing child. Myopia is a condition in which the far point of distinct vision is at a finite distance. Degrees so low as even a half diopter will mean for a child inability to participate in any of the out-door games. This means a deprivation of exercise in the open air, an ill-developed musculature and a disproportionate development of the brain at the expense of the body. Such children become solitary in their habits. In disposition they become morose. In school they are inattentive to blackboard work and are reproved for that which is no fault of theirs. All these have their marked influence on the growing mind and body, and character is altered therefrom. Hyperopia is the opposite of myopia, and produces opposite but no less marked results. In this condition parallel rays of light can be brought to a focus on the retina only by an effort of accommodation. In other words, distinct distant vision is secured only by constant muscular action and near vision only by a still greater effort. Children with this condition detest study, are thought to be indolent and can only be driven to close application. They delight in out-door games, are physically robust and ill-developed mentally. They are truants from school, and fall into bad habits. The criminal class finds many recruits from the hyperopes. It is not appreciated how irksome, if not impossible, becomes continued use of the eyes for near work; and such children are not infrequently punished for their infirmity.

It is little short of marvelous to note the change which properly fitted lenses work in both these cases. Children possess the same qualities the world over. They are eager to learn and they rejoice in out-door sports as well. With corrected vision the myope takes his share of play with his fellows, the hyperope his share of school work without complaint, and that natural balance which should exist between brain and brawn ensues to the perfect development of a sound mind in a sound body. It is almost an axiom that a backward child is a defective, physically and not mentally. Sometimes it is his hearing, but more often his vision is at fault.

Civilization is making giant strides in progress and is daily making greater demands upon the accuracy of our faculties. Daily are the conditions for success becoming more difficult to meet, and it is not fair to the child that he should start handicapped in the race of life. School work, while it should not be, is graded for the highest intelligence. The defective lags behind and becomes discouraged. The State gives every year more and more attention to perfecting the courses of study which shall, in its judgment, best fit its students for their future lives and shall meet the demands which a progressive civilization is to entail upon them, *but* it does nothing to insure that the student shall be in the best possible condition to attain the results aimed at or to start out fully equipped with those faculties which shall render their attainment possible. There should be a State Board of Physical Examiners for the primary student, whose duties should be to inquire into the physical condition of such students, to suggest the remedy for defects and with power to compel its application. So long, however, as the State neglects this it devolves upon you and me to do missionary work along these lines. We should preach to every parent the need for the examination, under atropine, of the eyes of all children of school age. That there is need for this is shown by statistics which demonstrate that 35 per cent. of all school children have defective vision to a degree sufficient to hamper them in their work. Were these children fitted with proper lenses we would hear less of inattention to study, of headaches and poor vision, and the average of health and attainment would become markedly higher.

In the foregoing nothing has been said of astigmatism because only the immediate consequences of ametropia have so far been dealt with. The immediate consequences of astigmatism, if of high degree, may be taken, for brevity's sake, to be identical with the other forms of ametropia. While this is not wholly true it is allowed to pass in order that the remote, reflex and damaging results of ametropia may be given their due consideration. In closing this phase of the subject permit me to quote from the report of Dr. Gulick, Physical Director of the New York Public Schools. He says: "However perfect may be the arrangements of the school building in lighting, heating and ventilation, the central difficulty of school life remains. It is a difficulty which is dependent upon the fact that the treasures of civilization are stored in print, in minute black marks upon a white surface which must be held relatively close to the eyes. This involves a constant attention and strain of the ocular apparatus to which it was not adapted during the long ages when it was being developed. Even under the most favor-

able conditions the strain of civilization rests most heavily upon the child with reference not merely to the eye but also to the nerve centers back of the eye and to that very great symptom-complex which is associated, as we have recently discovered, with eye strain."

Brief space will be given to the remote results of myopia and hyperopia. Whatever may be the cause of the former condition it is certain that its remote effects are expended on the eye itself, low forms of choroiditis result and vision is damaged. Incidentally it may be remarked that the best preventive of this disease is early and accurate correction of the refractive error. Of simple hyperopia it is also true that the eye suffers. If of high degree, sustained near work is impossible; if of low, only with advancing years does trouble come.

In considering the remote and reflex disturbances due to ametropia we should take into consideration two things. The first is that our bodily mechanism has given it a certain quantity of nerve-force to energize its various organs. If one draws too largely on this supply others must suffer, and the organ of least resistance will show disturbed function. The second is that every instant of our waking existence the eyes are in constant action, that such activity calls for nervous energy in large amount even when the eyes are normal, and if these eyes be the seat of hyperopia or astigmatism the chain of nerve-force is enormous and exhausting. Bearing these things in mind it is evident that it is only a question of time when the whole economy must suffer.

Cohen, in his "System of Physiologic Therapeutics," says: "As a causative factor in the production of headache eye strain is most important. Anorexia, dyspepsia, constipation, heartburn, nausea and repeated attacks of vomiting represent *some* of the gastric reflexes. Amenorrhea, dysmenorrhea, are menstrual anomalies sometimes caused by eye-strain. Insomnia, nightmare, chorea, nocturnal enuresis and even epiletiform seizures have owed their existence and perpetuation to uncorrected eye-strain in some form." Every word of this is true and has been proved true in many instances, but it is not a strong enough statement nor is it sufficiently comprehensive. Any organ of the nervous system as a whole may suffer or may cause to ensue any of the protean disturbances, which for lack of their causal recognition are termed neurasthenia.

What is the reason these patients are not cured? The answer is easy. Simply because the remedy is not applied. Patients with symptoms which may be referable to eye-strain are sent for examination. Vision is found to be better than the average, lenses of any kind blur vision, and the patient comes back with the report that the eyes are not at fault. Let me here interpolate just one illustration. A woman forty years old—note the age—came to me some years ago in a pitiable condition with symptoms referable to eye-strain. She had 20/XV vision in each eye and the weakest cylinder or spheric blurred vision. I told her that the eyes were not the cause of her troubles. She had more sense than her oculist, for she came back insisting on a second examination. Under cycloplegis her error was found to be an hyperopia of two diopters with a half diopter of astigmatism at axas 180 in both. Glasses on that basis were ordered. She had the satisfaction of being cured. I had the mortification of admitting my mistake.

Have any of you doubts about the evil effects of eye-strain? If you have, give yourself an artificial hyperopic astigmatism by putting before your own eyes a pair of weak minus cylinders. Wear them half a day. You will certainly lose your doubts and probably your dinner. It should be set down as an axiom, that in proportion to the visual acuity are the disturbances due to eye-strain. It is the little astigmatic errors which cause trouble. The large ones cause poor vision, there can be no attainment of a sharp focus, the eye gives up the struggle and with no effort there can be no strain. For the same reason glasses which are not altogether right are altogether wrong. A patient with an astigmatic error of one diopter will suffer less with no correction than he will with an .87 or with a 1.12 cylinder.

This leads up to axiom number two, which is—nothing short of mathematically accurate correction of the ametropia will remedy the condition. Just two short illustrations of this: Patient number one got relief by changing the cylinderic lens from a .75 to an .87; number two, by shifting the axis of a .62 cylinder five degrees. This seems like splitting hairs, and a few years ago I would have thought so too. I know better now. There are those who think they are doing refraction work who rely on the ophthalmometer and the correction of the manifest error without a mydriatic. I was taught this method and it took me ten years to unlearn it. I never now refract a patient under forty without full cycloplegis, often between forty and fifty, and sometimes even later in life. Knowing and having practised both methods, I am in a position to assert without fear of successful contradiction that the man does not live, who can with accuracy determine the refraction of an eye unless that eye is under full ciliary paralysis. This does not mean that this eye shall be given its full correction as so found, but that the static refraction, under cycloplegis, shall be the basis for the final prescription of glasses.

There are post-cycloplegic conditions which modify the findings and problems which are difficult of solution and even of comprehension. One which I might mention and which passes my understanding is a static refraction, less under mydriasis than afterward, in other words, an eye which will take as a post-cycloplegic correction a stronger plus or a weaker minus spheric lens. The rule is the reverse of this. Again a cylinder

under mydriasis may be best at 90/0; afterward its best axis may be 75. I think I know the reason for this, but its discussion here would be out of place.

To group the three axioms we have : first, the better the vision the more the reflex troubles; second, only absolutely correct refraction will cure the trouble; and third, no cycloplegis, no refraction. Let us not claim everything in sight, let us be ultra-conservative and admit that there are some headaches, some gastric disturbances and some obscure nervous disorders that may be due to eye-strain. Such are some of your cases. Look to it that instead of being leaders you are led. It is becoming a matter of common opinion, and the lay press is printing articles on eye-strain and its remote consequences. Some of your patients that you have been treating for nervous headaches, biliousness, hysteria, neurasthenia and such like occult disorders, are going without your knowledge or advice to the scientific refractionist and are finding that two little oval, insignificant pieces of glass placed in front of the face cure the biliousness and headaches for which you have been drugging them for years. This does not inspire in them a calm acceptation of their years of suffering or add to your reputation. I am far from saying that all the ills that flesh is heir to are due to eye-strain. I think there are other possible cures of headache, but I do say that you have not done your whole duty to your patients until every possible causal factor has been investigated. At least give them the benefit of the doubt. Put them under homatropine for a few days. If the symptoms are due to eye-strain you will get speedy relief. I have seen a headache disappear in the office while the drops were being used.

It is admitted that the treatment of functional disorders must be more or less symptomatic and in consequence more or less disappointing, but if there be, and there are, many and far-reaching effects from eye-strain, this etiological factor should receive its due consideration. If only a small percentage of the reflex neuroses be due to this cause you owe it to your patients that this source of trouble shall be eliminated before condemning them to symptomatic treatment which many times means nothing else than lifelong dieting and drugging with, at the end, partial or total invalidism. Again would I repeat, you can not cure a disease until you apply the remedy, and in this case the remedy is accurately fitting lenses. Don't send your patients to an oculist who returns them in fifteen minutes with a report that there is perfect vision and nothing wrong with the eyes. It takes hours to do the work properly. Many are the causes of failure, and many times it lies with the oculist himself. To do *good* refraction work requires so large a mixture of brains, patience and judgment that few men possess these qualities in sufficient degree to enable them to qualify for the work. There are many oculists, there are few refractionists. As for the "graduate optician," his work would be laughable were it not pitiful. *No one,* whatever may be his qualifications, can say, with even a fair degree of probability, what is the refraction of an eye without the use of atropine or some other cycloplegic. To work without it is simply to invite failure. Perfection is a matter of trifles but perfection is no trifle, and I assure you that nothing else will do in the matter of refraction work.

Do not think that I am carried away with the enthusiasm of the specialist. I did general practice for many years. Do not think either that I hold the patient's eye so close to my own that I obscure the whole medical horizon. I admit there may be other disorders besides eye-strain; but I do assert most positively and unequivocally that there is nothing which is so productive of gastric, nervous and cephalic disturbances, and that nothing can be surer than, that when this is the cause, only can it be removed by its one remedy—accurately fitted and adjusted glasses.

COMMITMENT OF THE INSANE, PAST AND PRESENT, IN THE STATE OF NEW YORK.*

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DURING our colonial period there was no special law made relating to lunatics. Lunacy or insanity was at that time, under all forms of civilized government, a civil disqualification, and the same laws which prevailed in England came into force in her colonies. The question of insanity was one of judicial determination.

In the old English colony of New York the first mention made, so far as I am able to find, relative to this class of people was in 1665, when a law was made that "distracted persons" be provided for by contributions from each town in the riding. However, there is no doubt but that all cases of insanity at that time were cared for under the "Relief Poor Laws."

The first provision of law relating to the insane, found in the laws of New York, was in 1787, and this refers to the incapacity of idiots and any person of unsane memory, of devising real estate.

In 1788 an "Act for apprehending and punishing disorderly persons" was passed by the Legislature, and read as follows:

"Whereas, there are sometimes persons who, by lunacy or otherwise, are furiously mad, or are so far disordered in their senses that they may be dangerous to be permitted to go abroad; therefore, be it enacted that it shall and may be lawful for any two or more justices of the peace to cause such person to be appre-

*Read at the Centenary of the organization of the Medical Society of Dutchess County, January 10, 1906.

hended and kept safely locked up in some secure place, and, if such justices shall find it necessary, to be there chained . . ."

It appears that no further legislation occurred during the next twelve years. In 1800 a case arose requiring the intervention of the Legislature in behalf of an insane person convicted of murder and under sentence of death. The Governor of the State at that time not having power to grant pardons in such cases, and there being no insane asylums in the State within which the convict could be confined, the Legislature was the only tribunal to which a case could be taken for amelioration. Consequently an act to pardon John Pastano for murder was passed.

In 1801 the law of 1787 was so amended that an idiot or person of insane memory could not devise real or personal property.

In 1806 there was enacted an "Act for the better and more permanent support of the Hospital in the City of New York." This act especially referred to the erecting of additions to this hospital, "particularly to provide suitable apartments for maniacs, adapted to the various forms and degrees of insanity." This institution* was incorporated in 1771 by a Royal Charter, and was calculated for relieving the "diseases of the indigent."

The exact date of the reception of the first case of insanity into this hospital cannot now be ascertained, although two cases are reported as having been committed in May, 1797. Prior to this all the insane had been classed as disorderly persons, and were disposed of according to the pleasure of the magistrate before whom they were brought. So it appears from authentic records that the first hospital or asylum in New York, in which the insane received medical treatment, was the Hospital of the City of New York.

In 1809 the act of 1801 was so amended as to read: "It shall and may be lawful for the Overseers of the Poor of any city or town, by and with the consent of the Common Council of such city, or of two justices of the peace of the county in which such town shall be, whenever any poor person legally settled in such city or town who was, or shall become, lunatic or insane, to contract with the governors of the New York Hospital for the maintenance and care of such lunatics," etc. This was the first legislative enactment in this State making proper provision for medical treatment in any hospital for the pauper insane. But inasmuch as receiving pauper insane in this institution was optional with the governors of the same, this law was of little real benefit to this class of unfortunates.

In 1827 a law was passed providing that no lunatic should be confined in any prison, jail or house of correction, or confined in the same room with any person charged with, or convicted of, a criminal offense. The law further provided that he should be sent to the asylum in New York or to the county poorhouse, or almshouse, or other place provided for the reception of lunatics by the county superintendents.

In January, 1830, Governor Throop called the attention of the Legislature to the uncared-for condition of the pauper insane. He drew a picture of the privation and neglect to which these persons were subjected under "Poorhouse Regulations," and concluded with: "No restoration can be hoped for under such circumstances; indeed, instances are not rare of persons slightly deranged becoming incurable maniacs by these injudicious means." The Assembly soon after adopted a resolution that the standing committee on charitable institutions look into the propriety of making further provision for ameliorating the condition of the insane poor. The committee, some time later, reported that according to the last census there were 2,695 insane patients, and to accommodate these there was but one incorporated asylum—Bloomingdale—containing provision for about 200, and one private asylum —at Hudson—containing accommodations for 50 patients. These establishments were for pay patients only and were inadequate to accommodate even those whose relatives were able to pay for maintenance and treatment in a private hospital. At neither of these institutions was there proper provision for pauper lunatics.

In 1834 Governor Marcy recalled this matter to the Legislature, and made an earnest appeal in behalf of the insane poor.

In 1836 a memorial was presented to the Legislature from the State Medical Society for the erection of a suitable asylum for the insane. This memorial* seems to have accomplished the long-desired object, and in March, 1836, the official foundation of the first State lunatic asylum in New York was laid. This was the Utica State Lunatic Asylum, which was opened for patients in 1843.

The laws of 1851 gave the County Judge of each county the power to send all indigent lunatics that may be brought before him either to the County House or the State Asylum.

In 1855 there was an act passed to provide for insane criminals. The steady increase in the number of insane discovered among the criminals in all of the prisons, and the impossibility of affording proper treatment in such institutions, led to the passage of this act. This was the first effort at a systematic classification of the insane and the establishment of a distinction between criminals, and those not so, in relation to their domestication in asylums. This law made it the duty of the Inspector of State Prisons to provide for, in some one of the prisons, the safe keeping and care of insane con-

*Dr. Samuel Bard, the first President of the Medical Society of Dutchess County, was quite instrumental in founding this hospital.

*In this connection it should be mentioned that this memorial originated in a petition from the Oneida County Medical Society addressed to the Legislature, and at the meeting which adopted it a resolution was passed inviting the co-operation of the State Society.

victs and to cause their removal from the State Lunatic Asylum at Utica. Thus the State Lunatic Asylum for Insane Criminals was opened for patients at Auburn in 1858.

In 1865 there was established a State asylum for the chronic insane and for the better care of the insane poor—the Willard State Asylum. This act was intended for the purpose of removing from the county poorhouses all the chronic insane, as the State Lunatic Asylum at Utica was intended *for those who had been insane less than one year or for the acute insane.* The Willard State Hospital was opened for patients in 1869. Under the act creating this hospital it was provided that the institution should be for the chronic insane, and that only this class should be taken. All the counties of the State were under this general law with the exception of Monroe, New York and Kings.

After the establishment of the Willard Asylum and its consequent overflowing, power was given to the State Board of Charities to exempt certain counties from this general law of having to send its chronic insane to Willard. In this way there sprang up all over the State various county asylums.

In 1873 a law was passed creating the office of State Commissioner in Lunacy. Dr. John Ordronaux was the first Commissioner, and through his instrumentality the laws of 1874, relating to the commitment of the insane, were enacted. Among the new provisions introduced were: The commitment of the insane by civil process; the commitment of the insane by criminal process; the transfer of insane criminals from penitentiaries to the State Asylum at Auburn, etc. One principal feature of this law was that no person should be committed to or confined in any asylum (public or private), any institution, home or retreat for the care and treatment of the insane, except upon the certificate of two physicians under oath, setting forth the insanity of such person, and this certificate had to be approved by a judge of a court of record. One other of the very important features of this law was that no person should be held in confinement in any such asylum *for more than five days,* unless within that time such certificate be approved by a judge or justice of a court of record of the county or district in which the alleged lunatic resided. Prior to this law the insane were confined in jails, almshouses, poorhouses, or wherever cupidity or convenience prompted, except as enacted in 1809.

In 1889 the Legislature enacted that there should be a State Commission in Lunacy, and thus the position of Commissioner in Lunacy was abolished. 1893 the State Care Act, through the instrumentality of the State Commission in Lunacy and State Charities Aid Association, was consummated, and by the consummation of this act the power heretofore given to the State Board of Charities to exempt counties from the general law of sending their chronic insane to Willard was likewise abolished.

At this time all the institutions for the care and treatment of the insane were reorganized, and the name "asylum" was dropped and "State Hospital" was substituted. It also at this time was enacted that the State be divided into hospital districts and that each hospital take all the committed insane from its own district. Thus was abandoned the term Asylum or Hospital for the Chronic Insane.

Previous to 1874 the statutes in regard to the care of the insane were vague and not easy of application for the more numerous class of these unfortunates. In that year the foundation of the present system of commitment was laid and there has been little or no necessity for any material change in these laws. At that time it was made compulsory that an insane person be committed *after an examination by two physicians,* and this certificate had to be *approved by a judge of a court of record.* The statute states explicitly that the physicians shall be graduates of a legally incorporated medical college and permanent residents of the State; that they shall have had at least three years of actual practice of their profession, and that they be persons of good moral character. These facts must have been shown to a judge of a court of record, who, upon being satisfied of their existence, empowered, in his discretion, such physicians to issue certificates of insanity.

In 1890 the same laws were in effect, but with this addition: That, the physician had to file a certified copy of his *certificate of qualification in the office of the State Commission in Lunacy and had to have notice from the Commission that it had been filed in the Commissioner's office.*

No other changes were made in the laws affecting the commitment of the insane until 1896, and then there was incorporated in the law that a *personal notice* should be served upon the patient at least one day before the order of commitment was signed, or a reason stated by the judge why such service was dispensed with. This law also abolished the *five days' detention of an insane person* prior to approval by a judge of a court of record. The laws of 1896 also provided that *a petition for the commitment of an insane person be first made by:* "Any person with whom an alleged insane person may reside or at whose house he may be, or the father or mother, husband or wife, brother or sister, or the child of any such person, or any overseer of the poor of the town, or superintendent of the county in which such person may be——"

During the session of 1903 the Legislature made another addition to the law which has been of great service to certain cases of *acute insanity,* and this is known as "Emergency Commitment," which gives the physicians an opportunity to have certain cases admitted to the hos-

pital at once upon their certificate of insanity and their statement that such case is an emergency one and requires immediate hospital care. This certificate has to be sworn to by the physicians, and this sworn statement, together with the petition, has to be sent to the hospital with the patient. The law provides for *five days' detention, during which time this certificate must be properly approved by a judge of a court of record.*

The commitment of the insane since 1874 has been well safeguarded, and I do not believe there has been an instance of fraud in the commitment of the insane in this State to any of its institutions.

When the State Commission was reorganized in 1889 it made a careful examination of this subject and has stated that in no instance did an investigation show that any person had been wrongfully committed or that any person had been improperly detained in any institution for the insane.

In order for fraud to have been committed it was necessary for collusion between the examining physicians, the judge committing the patient, and the superintendent of the hospital to which the patient was committed. At the present time in order to perpetrate a fraud in illegally committing a person as insane it is necessary that there be collusion between the petitioner, the two examining physicians, the committing judge, the superintendent of the hospital to which the patient is committed and the State Commission in Lunacy, inasmuch as the Commission, at regular visits, examine all cases admitted to the institutions. Besides this, a copy of the medical certificate in every case committed to an institution for the insane in this State is sent to the office of the Commission in Lunacy at Albany and is there closely scrutinized before being filed. There is also in the office of the Commission a file containing all of the certificates of qualification of examiners in lunacy, and if any physician not properly certified or who has failed to follow out the provisions of the law in properly registering, the Commission is in a position to detect this wrong and order a re-examination or the discharge of such patient from the institution to which he, or she, has been committed.

Within the past year or so there has been appointed by the Commission in Lunacy a Medical Inspector whose duty it is to visit all of the institutions—public and private—in the State for the care and treatment of the insane and to personally examine all cases admitted. Thus it will be seen how improbable, under the present régime, it would be to have confined in any of our institutions a patient who should not be there, and we believe that the consummation of the State Care Act was New York's greatest achievement in caring for the insane.

To recapitulate, the essential features in the commitment of the insane at present are:

First. A petition which must be sworn to before a notary.

Second. A joint examination by two qualified examiners in lunacy.

Third. A personal service upon the patient one day before being committed.

Fourth. The approval of the certificate of insanity by a judge of a court of record.

Fifth. The physicians' certificate of insanity must be approved by a judge of a court of record within ten days of the joint examination.

Sixth. The patient must be admitted to the hospital *within five days of the judge's order.*

Unless the above six essentials are fully complied with no hospital has any right to take an insane person except as provided for by the "Emergency Order."

Each person shall be sent to the State Hospital within the district embracing the county from which commitment is made, unless otherwise ordered by the State Commission in Lunacy. There are two exceptions:

First. Private patients may be admitted to any State hospital from any county in the State, provided there is room in such hospital, and provided proper arrangements are made with the superintendent thereof.

Second. Any person in any county desiring homeopathic treatment may be sent to the Middletown State Homeopathic Hospital or the Gowanda State Homeopathic Hospital.

When a patient has been properly committed the hospital authorities should be notified and it is then the duty of the superintendent of the hospital to send a trained nurse or attendant for the patient. A female nurse or attendant must always accompany a female patient, and no woman, under any circumstances, is to be brought to a hospital for the care and treatment of the insane by a man alone unless that man be the father, husband, brother or son.

It is also necessary that the patient be properly clothed. In this respect the following law must be observed:

1. Patients must be in a condition of bodily cleanliness.

2. Patients must be provided with:

(*a*) One full suit of underclothing.

(*b*) One full suit of outer clothing, including head wear, boots or shoes.

Between the last day of October and the last day of March, there shall be provided in addition to the foregoing, a suitable overcoat for men patients and a suitable shawl or cloak for women patients, also gloves or mittens. Considering the danger always present of the introduction of contagious or infectious diseases by means of wearing apparel, the clothing referred to above must in all cases be new.

3. Patients must not under any circumstances be taken from their residences to a poorhouse for the purpose of examination as to their sanity.

In conclusion I would state that the general

practitioner is in a position to be of the very greatest assistance in the care and treatment of the insane, from the fact that most all cases of insanity come to his attention first. He sees the initial symptoms long before the hospital physician has an opportunity to observe them, and it behooves him to urge the early commitment of this class of unfortunates to some institution for their care and treatment. It matters not how competent the general practitioner may be, he is handicapped in his attempts to treat these cases at home simply because he lacks proper facilities, and it is almost always to the advantage of the patient to be away from his over-sympathetic friends and relatives.

RACE SUICIDE.*

By CHAS. E. LOW, M.D.,
PULASKI, N. Y.

THERE is no class of people so abundantly able to appreciate the blessing of a family of children as that great class who already have them; and yet all these may not readily agree with our strenuous Mr. Roosevelt concerning the danger of race suicide in its effect on the ultimate condition of our body politic.

It is no doubt true that a large percentage of our parentage is more and more made up of a class of people who are the least assimilable in our form of free government, and that their children will, as a result of such parentage, be less likely to appreciate the spirit of our institutions. This is particularly so as the influence of our native stock becomes less and less felt, on account of the decreasing number of children in our typically American families. Nevertheless, these factors may be compensated for by making the quality of our small truly American families make up for the quantity of the larger ones, thus affording leaders of thought and action to maintain our ideals.

The great pity is, that those persons who are bound together by the ties of holy matrimony without enjoying the blessings of fatherhood and motherhood cannot appreciate the loss of that full measure of happiness to be realized in the mutual affection of parents and children, nor do they realize the cohesive power of parental and filial affection which offers such a bulwark against domestic infelicity and divorce. How many parents have been, aye, how many parents will be, led to overlook frailties in one or the other through mutual love for, and interest in, their offspring, and how many of these offenders would have drifted wider and wider apart had it not been for this bond of mutual love? From the time of the prattling child on one's knee to that of the self-reliant adult ready to share his strength with that of our declining years, there has been continually an altar of devotion at which misapprehensions and doubts could be forgotten in the instinctive love for offspring. What a host of half-orphans have inspired in the surviving parents lives of sublime heroism in their devotion to their children, and this, too, when no other motive could have made life tolerable.

And yet, despite the cogency of these facts, there is a constantly increasing class of people who thrust aside parenthood as a calamity to be dreaded like a plague; and, although it is not the purpose of this paper to try to completely analyze the various causes which lead up to this condition, we must review some of them in order to reach an intelligent understanding of why it exists.

However much the existence of such a condition is to be deprecated, there is no evading it as a fact, and if there is to be a class of married people who will not accept the pleasure and responsibility of parenthood, let us inquire if there is anything ethically wrong in its prevention, and if not, instruct them as to the best scientific means of avoiding it and as to the danger incurred in the current practices used for that purpose.

To do this the matter must be spoken of in plain terms, and we will premise our further argument by the old adage that "an ounce of prevention is worth a pound of cure," wishing thereby to call attention to the fearful results of interrupting pregnancy, as evidenced by the current reports in the daily press detailing the death of the victim and the criminal prosecution of the operator, a combination of disaster and crime only equalled in its awfulness by the moral perversion which prompted the act of unnecessarily destroying a potential human life. The term potential is used advisedly, for as soon as conception has taken place there begins the growth of an organism which from the start exists as a multicellular entity having more or less independent functions of its own, and barring accidents or intended interference causing death, becomes at birth the living human being.

The gratification of sexual desire is a normal instinct of all the higher orders of animal life directed towards the perpetuation of species, and so long as it is kept within reasonable bounds is as salutary as any other organic function. In man the practice must be governed by the individual reason, and like the well-nigh universal demand for some form of stimulant, it can in a measure be regulated, but not prohibited.

With the sexual desire incorporated as a part of man's existence, its gratification follows as surely as taking food follows hunger; but as nature evidently has not designed that every act of copulation should be followed by

*Read before the Semi-Annual Meeting of the Oswego County Medical Society, May 21, 1907.

conception, is it unreasonable to suppose that man is sometimes warranted in applying both his reason and art to prevent it? If man's mind was given him to raise him above the brute creation, is there any offense against law or morals in letting him exercise his faculty of reason in controlling his procreative function any more than in regulating his sleeping or eating? and is there any greater crime against nature involved in the prevention of conception than in remedying the overloaded stomach of some gourmand with a digestant, or the sleepless night of some debauchee with an hypnotic?

There is no denying the fact that up to the present time the medical profession as a body has evaded the issue, while some of its individual members have in certain instances advised in a half-hearted way methods of unknown or doubtful efficiency. The prevention of conception is either right or wrong, and should be recommended or denounced on a basis of scientific fact, rather than on one of sentimental tradition.

It may be argued that the fear of conception prevents the ruin of many a young woman, but, if chastity is promoted solely by the fear of conception, it loses the major part of its ethical value, because such fear eliminates the doing of right for right's sake; and if chastity is once violated it would seem infinitely better that conception should be prevented rather than that woman and abortionist should be involved in a moral and legal crime by destroying a possible life.

I apprehend that there is a relatively small proportion of married people who avoid the responsibilities of parenthood because of any antipathy to children as such; and I assume, on the other hand, that there is a relatively large proportion who do so on account of the desire to shirk the annoyance and responsibility of bringing up children under the strenuous conditions of modern society, not so much because it will restrict or prohibit their participation in social functions, for after all most parents are not what may be called society people, as because they fear that they can not maintain themselves and clothe and educate their children in accordance with the demands of modern social conditions. This also leads many young people to avoid matrimony and to resort to illicit sexual intercourse, resulting perhaps in bastardy or the contraction of contagious veneral diseases, while others contract various habits of personal sexual irregularity from the effects of either of which they suffer through life. Any influence which operates to prevent the organization of even small families should not be lost sight of in its effect on the body politic, for it is through the lack of family ties that men and women are more and more coming into fierce industrial competition. Nor will any amount of argument induce these young people to embark in matrimony with the possibility of a large family, for we all realize the practical necessity of conforming to instituted standards of living, and logic cannot make the bare feet and calico dresses of two generations ago take the place of the shoes and silks of to-day, even though they served their purpose quite as well, because present standards of civilization are governing forces which will not permit the old customs.

If sexual intercourse cannot be prohibited what is to be said in defence of allowing parenthood to occur as a menace to society among those who will transmit hereditary temperamental or physical defects which will woefully handicap or perhaps utterly destroy their progeny. Nor should we overlook the baneful effects often seen by the medical man in large families where the mother's physical forces have become so exhausted by frequent child-bearing that she has fallen an easy victim to septic or tubercular infections, ending in death or worse, and whose children pass through life handicapped with the physical infirmities inherited from a mother unfit for producing offspring, and with that great lack of parental care which must be determined by the mother's physique and the demands of the rest of the family.

Who can demonstrate by any argument based upon reason that in certain cases, and under the advice of the physician, one or all of these conditions before alluded to are not sufficient reason for the prevention of conception? Nor can I see that such prevention offers any crime against ethics or the State, for it must be conceded that the destruction of either the unfecundated ovum of the female, or the spermatozoon of the male, before coalescence or conception has occurred, cannot be construed as depriving a fœtus of existence, else it would be a crime for every continent male to have a seminal emission or for every virtuous female to discharge an unfecundated ovum during the process of menstruation, because some human agency did not supervene to place the two living cells under proper conditions to reproduce a human entity.

No amount of theorizing on the evils of race suicide will destroy current practices for the prevention of conception, and despite the statute forbidding it condoms continue to be sold, even though they often lend but a sense of false security. Perhaps a more modern method is the use of the so-called "whirling spray" syringe, which attempts to cleanse the vaginal tract of all spermatozoa by aqueous irrigation, but this must have its percentage of failures, because the semen is not readily soluable in water, and portions containing live spermatozoa may remain in the vagina. Probably the most current practice used is that of onanism, or withdrawal of the male organ of generation before coitus is completed.

It would seem that any method which was equally certain in its results, and which would obviate this pernicious practice, should have the endorsement of both law and morals, for I think that the consensus of medical opinion will bear me out in the statement that this practice has resulted in more nervous, mental and physical wrecks, and that in its ultimate results has disrupted more families than almost any other factor pertaining to sexual congress. On account of the intimate relation through reflex nervous centers, the whole organism is more profoundly affected by irregularities in the operation of the sexual apparatus than by those of any other portion of the body, and there is little doubt but that the continuance of this practice unknowingly renders the female averse to cohabitation through failure of complete gratification, and the male, after experiencing the same failure and also meeting marital rebuffs or indifference, is perhaps directed to illicit intercourse where he contracts venereal disease, or learns to his mortification and sorrow that he has acquired a habit of premature ejaculation which is drifting rapidly towards absolute impotence. It is barely possible too that the female drifts into the realm of a man more fortunate in his sexual functions, and there learns the complete gratification of nature's instituted desire, with the result of a wrecked home and a social scandal.

If we are right in the conclusion that the prevention of a conception is justified by the preponderance of good over evil which will result from the scientific practice under the direction of the medical profession, then let us devote our attention to some efficient means of accomplishing this end, which it would seem might be done by finding a solvent for the viscid seminal fluid, thus allowing the destruction of the spermatozoa by contact with some substance inimical to their life; both solvent and destroyer to be susceptible of aqueous solution so that the solution could be readily prepared and used in some efficient form of vaginal irrigator directly after sexual intercourse.

Let us also encourage the spread of a belief that is justly becoming more and more prevalent, which is that the responsibility as between parent and child is rather of the parent to the child than the reverse. In days gone by we only heard of the child's responsibility to the parent, without any seeming acknowledgment of what it meant to bring children into the world or regard for the qualities they inherited or the necessity of provision for their future. Less attention was paid to parent stock, prenatal influences or other conditions affecting the well-being of the child than was given to the breeding of our domestic animals. The main idea of the mutual relation was that the child should obey ironclad rules as made by the parent, and quite overlooked the fact that there is no animal organism born into the world that is so late in reaching maturity or so dependent on its progenitors until reaching that state.

The population of the globe is no doubt increasing fast enough, and it would seem in accord with the principle of evolution involved in "the survival of the fittest" that on the average the small family of high standard is the best fitted for present environment. If we must procreate let us do so when we want to, and as we want to, but above all let us do so intelligently.

THE PRESENT STATUS OF THE ROENTGEN RAYS.*

By ARTHUR HOLDING, M.D.,

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THE X-rays have been in use long enough for us to be able to draw some definite conclusions and state some demonstrated clinical facts; in contradistinction to making theoretical estimates of their value, as has been frequently done in the past.

Gone are the days of expensive experimenting as regards the type of machine to use; the days of dispute between the champions of the coil and the static machine; the days when we were content to listen to the seductive assurances of the electrical salesman followed by the failure of the machine to make good in our hands. Gone are the days of an X-ray room crowded with cumbersome apparatus; the days of fluoroscopic examinations; the days of X-ray burns; the days of 15-20 minute exposures.

To-day the electrical representative can deliver a small powerful coil, X-ray tubes, a compression blende, at the point of your electrical supply, load his plates, make an exposure lasting 15-30 seconds, and give you a radiograph of your patient's hip or kidney region, even though your patient weighs over 200 pounds. The coil that yields a flame, the electrolytic interrupter, the improved Crookes tubes and the compression blende, coupled with experience, have brought the X-rays from a visionary to a practical basis.

The surgeon who to-day says that the X-rays are unnecessary, that his "tactus eruditus" can tell him all that the X-rays could "and more too," has taken his place with those who prefer to judge temperature by the hand rather than by the clinical thermometer, the blood by the pulse, rather than by the microscopical examination; and with the devotees of "*laudable pus.*" The older methods have their value—long may they live—but the newer methods also have their value. To admit the value of one is not to deny

*Paper read at the Centennial Meeting of the Columbia County Medical Society, 1907.

the value of the other; long may they live together in the armamentarium of the progressive medical profession.

Radiography bears all the ear marks of a clinical laboratory method, i. e., the required instruments are costly and delicate, they require an operator with technique to get satisfactory results, X-ray observations are of clinical value to the general profession; their therapeutic value is occasional rather than general, and should not be magnified. Clinical pathology and clinical bacteriology, especially the examination of throat cultures for diphtheria, have been conducted most practically in the public laboratory, accessible to all members of the profession, conducted by competent men, its processes available for student instruction; and so also will radiography yield more scientific results under similar surroundings.

The Rœntgen rays are still the X- or unknown rays, although the generally accepted theory is that the wave lengths of this light are far shorter and their rate of vibration far more rapid than those of ordinary light. These short waves of light are destructive to the human organism, as witnessed by the development of carcinomata, and azoospermia among the X-ray operators. Therefore, to-day, the radiographer avoids all exposure to the rays. This has led to the passing of direct fluoroscopic examination. The injurious effect of these rays on the patient are of little moment when he is only exposed a few times for skiagraphic purposes, but nevertheless he should be given every possible protection.

When we remember that the truest of all passions is blind, it is not to be wondered at that "enthusiasm" has sometimes reported a recession of symptoms as a cure, or mayhap, has reported an improved case as cured. I have known of such instances among specialists other than electro-therapeutists. But it is to-day generally known that:

(1) The X-ray causes degeneration of epithelial tissues, especially those of the skin and its appendages;

(2) The X-rays cause endarteritis;

(3) The X-rays cause destruction of lymphatic tissue.

Furthermore the X-rays have proved curative in intractible or inoperable cases of tubercular adenitis, pruritus, acne, sycosis, lupus vulgaris, lupus erythematosis, spleno-myelogenous leukæmia, pseudo-leukæmia, and eczema. The rays are a specific cure for epidermoid cancers. While we are not willing to say that the X-rays are a specific cure for all cases of cancer and sarcoma, we must admit that they do have a beneficial effect in cases of malignancy to which the rays can be applied directly. It is our duty to increase this action rather than to deny its presence.

NOVOCAIN IN LOCAL ANESTHESIA.

By W. S. SCHLEY, M.D.,

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SINCE the introduction of cocaine and the realization of its potential toxicity, clinicians and chemists have striven to find the ideal local anesthetic; a non-toxic, non-irritating substance whose only action would be to paralyze the peripheral sensory nerves. Anesthesin, the eucains, hemacaine, tropacocaine, alypin, stovain and many others followed, and lastly we have novocain.

Anesthesin was not sufficiently soluble, the eucains were weak, alypin and stovain were better, but not entirely free from irritation, were still about a third as toxic as cocaine and not sufficiently potent. Novocain, the latest synthetic product of Einhorn and Uhfelder, appears to be the best substitute so far produced. It is a white crystalline synthetic salt soluble in one to one part of water, and can be boiled repeatedly without decomposition. It is incompatible with alkalies.

Biberfeld, in a study of its physiological action, found novocain exerted the same action on the peripheral nerves as cocaine, and a ¼% solution rendered the sciatic of the rabbit insensitive in ten minutes. In the cornea much stronger solutions were required and the action was not so prompt or powerful as cocaine. The internal muscles of the eye were not affected by a 5% solution. Circulation and respiration were unaffected except in excessive high dosage (2-3 grains injected into rabbits resulted in only slight kymographic alterations). Intravenous injections of the same amounts showed temporary slowing of pulse and respiration. He found the fatal doses per kilo of body weight to be as follows:

	Cocaine.	Stovain.	Novocain.
Rabbits	.05-.1 gm.	.15-.17	.35-.4
Dogs	.05-.07	.15	.25

(Novocain did not kill.)

Spinal injections:

	Cocaine.	Stovain.	Novocain.
Cats	.018	.025-.05	.15

Showing novocain to be about 1-6 as toxic as cocaine and 1-2 to 1-3 as toxic as stovain.

Among the most important results noted by Biberfeld was the absence of effect of novocain on the peripheral blood vessels.

Braun and Bier have shown a rather remarkable action of novocain when combined with suprarenin; the wide diffusion and resulting anesthesia from the point of injection, suprarenalin appearing to greatly enhance the action of the novocain both in area of anesthesia and duration.

Very dilute solutions of novocain do not compare with equally dilute solutions of cocaine, but after 2% strength the difference is

much less marked hypodermically. Braun and Heinze experimented with dilute solutions of cocaine and novocain, as did Heinecke and Läwen at Trendelenburg's Clinic in confirming Biberfeld's work. They found the same enhancing action of suprarenalin even in dilute novocain solutions, and that a ¼% novocain solution with suprarenalin was twice as powerful as the 1-500 Schleich cocaine solution. From ½% up the solutions with adrenalin added was of the same potency practically as cocaine. Isotonic solutions worked best, and dilute solutions are best made up in .9% sodium chloride solution. The osmotic tension of novocain solutions agrees with cocaine solutions; a 5.8% solution novocain is isotonic with human fluids and a 5.8% cocaine solution. The anesthetic potency of novocain solutions alone (without adrenalin) is not as great as with cocaine solutions of the same strength and the duration not so long. The results of Heinecke and Läwen in forty cases of conduction anesthesia on the fingers and toes are instructive. Experimentally the first phalanx of the left middle finger was injected around with 2 c.c. of a 1% novocain suprarenalin solution and the whole finger to the tip became anesthetic in eight minutes and remained so for two hours. In injection and ligation with ½% solution the anesthesia persisted during ligation and sensation returned sixteen minutes after removal of ligature. Anesthetization of localized portions of skin by Hackenbruchs' method is easily done with the novocain suprarenalin solutions. In spinal anesthesia .1 to .15 gm., preferably in 10% aqueous solution, gave anesthesia with considerable certainty. With the larger amount and Trendelenburg position they were able to secure anesthesia to the costal arch. There were, however, constitutional symptoms in several cases. There was also some paresis of the muscles of the lower extremities.

Sonnenburg reports three hundred cases of spinal anesthesia, and considers the novocain suprarenalin combination the ideal one for this work. Hermes from Sonnenburg's clinic reports 367 cases of spinal anesthesia, 162 with novocain and 150 of these successful.

Lucke reports good results in urethral and bladder work with novocain—results that I have not been able to get on mucous surfaces. In tissue injections the novocain suprarenalin solution excelled all other local anesthetics.

Gebb in ophthalmological work found the only advantages of novocain were its negative action on accommodation, sterilizability and lesser toxicity. Much stronger solutions than cocaine were required, and it was decidedly inferior in eye work.

Opitz reports twenty-five cases of spinal anesthesia in gynecological work with seventeen laparotomies.

It was my privilege last year and the year before to see in such representative European clinics as those of Kocher, Sonnenburg, Israel, Hildebrandt, the late Mosetig-Moorhoof and others many cases of anesthesia with various of these drugs used both hypodermically and

Fig. 1.—Pig to left (400 Gm.) injected with 5m. of 4% Cocaine Sol. Pig to right (360 Gm.) injected with 15 m. of 4% Novocain Sol.

by subdural method for all classes of operations. Being somewhat impressed by the comparative low toxicity of novocain and the apparent excellent anesthesia in subcutaneous use, I determined before trying this agent in large doses to undertake some animal experiments in the pathological department of St. Luke's Hospital, to determine for myself the

Fig. 2.—Pig (520 Gm.) injected with 45 m. of 4% Novocain Sol. in divided doses (3) over space of 30 minutes.

toxicity as compared with cocaine. A number of animals were used.

Its toxicity appears to be almost exactly 1-6 that of cocaine (given hypodermically). A paralyzing dose of novocain when given with adrenalin chloride solution (1-1000), 5 or 10

parts to 1, has but slight effect on the animal. The toxic action of novocain (produced by a large dose) seems more prolonged than that due to cocaine, but slower in production. Concentration of the drug showed no influence in

FIG. 3.—Pig to left (515 Gm.) injected with 50m. 4% Novocain Sol. in single dose. Pig to right (515 Gm.) injected with 50 m. 4% Novocain Sol. and 6 m. Sol. Adrenalin Chloride Sol. (1-1000).

toxic action, and maximum toxicity can be produced by 1% solutions.

Five minims (5 m.) of a 4% solution of cocaine hydrochlorate produced in a 400 gm. guinea-pig paralysis of voluntary muscles and partial respiratory paralysis.

FIG. 4.—Pig to left (500 Gm.) injected with 50 m. 4% Novocain Sol. and 5 m. Adrenalin Chloride Sol. (1-1000). Pig to right not injected.

Fifteen minims (15 m.) of a 4% solution of novocain produced in another 360 gm. pig no appreciable effect beyond moderate quieting of the animal.

Forty-five minims (45 m.) of a 4% novocain solution injected subcutaneously in divided doses in 520 gm. pig (over space of thirty minutes) produced only very slight weakness in hind legs.

Fifty minims (50 m.) of 4% novocain solution with six minims (6 m.) of adrenalin chloride 1-1000 solution added and injected in one dose in 515 gm. pig produced only moderate quieting of the animal and very slight loss of power in the hind legs.

I have now used novocain subcutaneously and usually in 4% solution in over sixty cases for both major and minor operations, and have used as much as eighty minims of the plain 4% solution at one time without observing any appreciable ill effect, and with seemingly as satisfactory anesthesia as with cocaine. With adrenalin added the diffusion is great from the site of injection, the anesthesia prolonged beyond the limit of cocaine of equal strengths, the field of operation comparatively dry and capable of much greater extension.

The following conclusions, I believe, are warranted:

In novocain we have a local anesthetic of low toxicity and of potency nearly the equal of cocaine in the higher strengths (2-4%) when used *subcutaneously*.

In these strengths, when combined with adrenalin solution, 1-1000 in the proportion of 5 to 10 of novocain to 1 of adrenalin, we have a very safe local anesthetic of rather remarkable power and diffusion. Subsequent hemorrhage is not nearly so apt to occur as with cocaine or cocaine suprarenalin, as novocain has no action on the blood vessels. The wounds have remained dry and primary union has not been interfered with through secondary hemorrhage.

Upon mucous surfaces novocain does not appear to compare with cocaine, being slow and imperfect, and I have not been able to duplicate the reported results of Lucke and Freeman. This peculiarity of novocain is rather unfortunate, as a local anesthetic of low toxic power would here prove of great value, as we are most apt to see poisoning after applications to the nasal mucosa or urethra and bladder, the small ½ and 1% solutions of cocaine now usually used hypodermically rarely causing toxic action.

The chief advantages of novocain are the perfect sterilizability of the solutions by boiling, the excellent keeping qualities of the solutions, the very low toxicity of the drug (of value in using larger amounts), and the remarkable diffusive action of the combination of novocain and active suprarenalin solution. This combination had best be made up just before use by adding sufficient of the 1-1000 solution to the novocain solution.

No spinal anesthetization with novocain was attempted.

Fifty minims (50 m.) of 4% solution novocain injected subcutaneously in one dose in 515 gm. pig produced the symptoms of five minims of cocaine, but did not kill.

WHOOPING COUGH.

By RUSSELL J. SMITH, M.D.,

SCHENECTADY, N. Y.

WHOOPING cough, of itself one of the most fatal of the communicable diseases, is looked upon by most practicians with complaisance, not to say indifference, and to this attitude of the medical profession is certainly due the carelessness of the public in the matter of exposure, and the resulting high rate of mortality. A little well-directed effort on the part of the general practitioner would change all this, for his advice is generally accepted with respect and usually followed if tactfully given. The spread of knowledge among the laity of the seriousness of this disease and the necessity of isolation of each individual case, the development of public sentiment against the careless exposure of those in health to infection, thus making easy enforcement of laws protecting the public from such risk, and the recognition of the fact that our neighbor has rights in this respect, will make it possible to limit its prevalence and rob it of some of its dangers.

One other point which makes the public less amenable to restraint is the acknowledged inability of the medical profession to properly treat it.

Being a highly contagious disease for which at present there is no specific, and usually running a prolonged course, even under the most advanced orthodox treatment, pertussis has become the *bête noir* of physicians, and we permit it to "cough itself out."

Pertussis is amenable to treatment, as are all the acute exanthematous and communicable diseases. The cause of the disease is a micro-organism developing its greatest effect on the mucous membrane of the larynx and trachea, which is under the influence of the superior laryngeal nerve. This region is easily reached by local medication in the form of sprays, and alkaline antiseptic solutions should prove useful. The inhalation of steam impregnated with volatile antiseptic oils is beneficial. The dominant agent in the treatment, however, is the much maligned drug, calx sulphurata, calcium sulphide. This is an internal systematic antiseptic of the greatest value in the treatment of all the communicable diseases. It attacks the cause of the disease at its source, it antagonizes the toxines in the blood, it prevents the development of the micro-organism, and the course of the disease is thus materially shortened. This drug attacks the morbific agent.

For the pneumogastric irritability we possess a drug that controls the spasmodic element with a wonderful ease. Atropine sulphate relaxes spasm, checks the distressing cough, and reduces irritation. It is of use only during the spasmodic stage. It produces flushing of the face and dilation of the pupils when given to physiological effect. Children bear atropine proportionately better than adults, but the effect must be watched. Slight flushing of the face must be produced to obtain any remedial effect in this disease. The paroxysms of coughing are markedly lessened.

In the catarrhal stage, calcium sulphide gr. 1-6, one or two granules every hour until the breath smells strongly of the sulphanated hydrogen, with infants anodyne granules or small doses of codein sulph. to control cough, both to be combined in varying dose for days, will usually be sufficient to shorten the attack and make the spasmodic stage milder.

Hyoscyamin (amorphous) may be substituted for atropine and is equally efficient. For the nervous element, cicutine hydrobromide in small doses may be added to the treatment. It acts on the motor end organs, preventing the involuntary spasmodic contractions of the laryngeal muscles. It is safe and less depressing than the bromides, possessing all the advantages of the latter.

To liquefy secretion, emetin, lobelin, apomorphine hydrochlorat, helenin, singly or in combination, are reliable and pleasant expectorants.

Quinine hydroferrocyanide and brucin will counteract the adynamia present in this disease, and nuclein may be used in ten-drop doses twice daily as a reconstructive in asthenic cases.

Aconitin (amorphous) should be given for febril disturbance in small oft-repeated doses until effect.

The calcium sulphide must be combined during the course of the disease in sufficient dose to saturate the patient.

If bronchopneumonia develop, apomorphine is our sheet-anchor. It may be given in gr. 1-67 dose every hour or two until secretion is free and easily raised. Later sanguinarin nitrate gr. 1-67 is to be substituted.

Antitussin has been recommended by Rahner (*Progressive Medicine,* March, 1906), who has used it in two hundred cases with only 10 per cent. of failures. Antitussin consists of five parts of difluorphenyl, ten parts of vaseline and eighty-five parts of lanolin, and is used freely as an inunction upon the neck, breast and interscapular region.

The general family physician must have sufficient learning to know when the time approaches to consult a specialist, and the specialist must have a broad enough general medical education not to become narrow, but to be able to appreciate conditions just a little beyond his own horizon. After all, the art of medicine is diagnosis. Diagnosis cannot be taught in four or five years in a medical course. It includes an appreciation of physiognomy and psychology. The classic dictum, *"Qui bene diagnoscit, bene curat,"* still holds true.—*S. MacCuen Smith,* on Specialism in its Relation to General Medicine.

DIET IN TYPHOID FEVER.

By HORACE GREELEY, M.D.,

BROOKLYN, N. Y.

OUR modern conception of fever is that it is a manifestation of the reaction of the body with foreign substances usually produced by invading micro-organisms, and it is fast becoming recognized to be a salutary symptom that hastens the development of immunity and conditions fatal to the invading host.

Besides this reaction between the tissues and the toxins, the increased oxidation present is a necessary accompaniment of the exaggerated vital activity, and we can understand how the tissue-wasting in fever can so be accounted for, and as the rise in the body's temperature is usually entirely due to increased heat production, it also can be explained upon the same basis. In fact it is probable that the additional heat is a very important factor, and that it saves body elements that would otherwise be seized upon and destroyed, substituting for them oxidizing molecules, best able to react with the poisons at the higher temperature. It is even possible that the final determination of the case rests upon a balancing of accounts between the fire kindled with the body's reserve material and the invaders and their products, the greatest endurance giving victory.

During this battle, which extends wherever the blood serum reaches, the normal assimilative powers of the body are greatly depreciated, both from the actual damage to the digestive cells and from their inability to work properly upon an abnormal diet of vitiated plasma. However, whatever they can take up should be supplied, as it will spare the consumption of a definite amount of the said reserve.

Typhoid fever being a body infection in which the bacilli tend to accumulate farthest from the reach of the blood plasma, into the lymph-glands (and even the skin), these naturally suffer most, and as those glands lining the gastro-intestinal tract are most exposed to other injury, as from poisonous intestinal products, it is here that we find the chief lesions of the disease, which are to be taken into, perhaps primary, consideration in determining a proper diet.

That I may add fact to reason in deciding upon the cause operative in making the intestinal lymphatic glands the chief seat of typhoid lesions, I will note that it is stated that in all cases of typhoid acquired in utero there is no such selection of these glands, but that the disease remains general. After birth, however, when food and its possibilities reach the intestines, a typical local susceptibility appears.

Thus we see that above all other organs the gastro-intestinal tract is most disorganized, and it is therefore important that the greatest care should be exercised to supply it with no more work to do than is absolutely necessary, and that all food administered should be such as with the least effort upon the part of the digestive organs will supply most to the system beyond. And of all foods those of the proteid class, and of animal origin, fulfil best these requirements, as for their digestion the necessary pepsin is always present, or may be supplied together with the required hydrochloric acid, as this is always deficient—the lack of this acid, the only anti-bacterial substance produced by digestive tract, probably being a primary predisposing cause of the infection's development.

Animal proteids are less fermentable than any other food, they are less bulky, they contain in greatest quantity those elements of which the tissues are in greatest need, and they are, as stated, the most easily digested in the shortest time, and, when necessary, their artificial digestion within the body is most easily and certainly managed in that part of the digestive tract (the stomach) least affected by the malady.

Fats are not necessary, as they supply principally material to produce heat, which in this case as a by-product is plentifully furnished by the catabolism of the proteids. They also mechanically interfere with proteid digestion.

Sugars and starches may be dispensed with for the same reason, and all vegetable food should be avoided, as its great amount of contained waste materials, mechanically, prone to irritate the inflamed intestine, and its prolonged process of digestion, gives opportunity for fermentation products to form. It also encourages an alkaline intestine, a typical typhoid condition shown by the marked alkalinity of the pea-soup discharges, which is a most favorable reaction for the typhoid germ, a producer of acid and by it inhibited and destroyed.

The exclusive proteid diet, on the contrary, maintains an acid condition of the entire gastro-intestinal tract, which at least may be supposed not to encourage the bacillus of Eberth, and with it gaseous distention and its possibilities are reduced to a minimum.

It is even conceivable that the products of the disintegration of ingested proteids are prejudicial to the typhoid bacillus, somewhat as is the case with those from the tissues, if for no other reason than that the animals furnishing this class of food to man are naturally immune to the disease, and their tissues, consequently, probably inhibitory of its development.

For the foregoing reasons it is urged that this class of food be used exclusively for the typhoid dietary, and that its administration begin as soon as the malady is recognized and be continued through its various stages, with

the following particularizations and modifications.

At the onset, after clearing out the gastro-intestinal tract with a calomel and saline purge, feeding should be begun, after a preliminary morning glass of water, by the administration, at about 8 A. M., of a glass of fresh milk and one to two raw eggs, after which ten to fifteen drops of diluted hydrochloric acid are to be given in a wine glass of water. Again, at 10 A. M., the patient should drink a glass of milk, followed by five drops of diluted hydrochloric acid in half a wineglass of water. At noon, from two to three ounces of lean steak or roast beef, cooked rare, a glass of milk, and a dose of acid as in the morning.

At 3 P. M. another glass of milk, followed by acid as at 10 A. M.

At 6 P. M. either a glass of milk and a raw egg, or a piece of cold rare meat instead of the egg, the meal to be followed by acid as at noon.

As the plateau stage is reached it may be necessary to somewhat reduce the quantity, but I have conducted a patient through a three weeks' fastigium on very little less, and apart from a temperature vacillating from 102 to 104 Fahrenheit met no untoward symptoms. In some cases, finely chopped raw beef seems to be taken better than the cooked article, and when self-administration and mastication become difficult, is altogether the best. Meat juice, that pressed from raw beef, is always in order, and may alternate with raw eggs advantageously. It is best taken iced, flavored only with salt, but if desired lemon juice is unobjectionable.

Even should stupor supervene the diet should be followed, the solids, however, giving place to liquids, as raw eggs, milk, and meat juice, always accompanied or followed by the appropriate amount of hydrochloric acid. The worst case may be given in the morning a raw egg mixed in a glass of water with ten drops of the dilute acid, followed by a glass of half milk and half water. At 10 A. M. another glass of milk and water with five drops of the acid, and at noon four to five ounces of meat juice, with an equal amount of water and about fifteen drops of the acid, and then a glass of half milk and half water. At 3 P. M. an egg in a glass of water with ten drops of the acid digestant may advantageously be given, and the evening feeding at 6 P. M. may altogether be abandoned, or the diluted milk drink may be repeated.

The well recognized necessity of the administration of an ample amount of water should never be overlooked, as by washing the detritus from the system we allow active processes better play.

During an active hemorrhage feeding had better be suspended, as it encourages peristalsis, but so soon as one may feel certain of firm occlusion of the bleeding point it should be resumed.

Perforation demands stoppage of all foods till its appropriate treatment has been secured and recovery therefrom assured.

With local peritonitis, if free action of the bowels is present, a cautious administration of the diet, as last itemized, is considered wise.

With this system of feeding in the rare possibility of the occurrence of constipation, saline laxatives should be employed to an extent sufficient to secure at least one passage daily.

The dosage of hydrochloric acid as given above is of course minimal, and may be doubled at least should the digestion indicate the need of so much assistance. This acid is of great assistance as a vehicle for the administration of that excellent preventive of hemorrhage, calcium chloride, and to avoid any gastric disturbance from a five to ten grain dose of it may be given three times a day.

Should trial indicate that the hydrochloric acid was inefficient alone, or the practitioner prefer, good preparation of pepsin may be added to the acid, but this rarely is necessary, as pepsin in the amount required usually persists in the gastric secretion.

Generally, from experience, slight as it may have been, I am convinced that this system of feeding gives the greatest satisfaction, that in many cases it even seems to modify the course of the malady, but that in all events it certainly maintains best the patient's strength and renders less frequent, perhaps even improbable, the accidents of hemorrhage and perforation.

HISTORY OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK.

The History of the Medical Society of the State of New York, by James J. Walsh, M.D., has been revised and corrected and is now published in a neat volume. It brings the history of the Society up to the amalgamation of the two State organizations. The agreements and articles of amalgamation are to be found in the NEW YORK STATE JOURNAL OF MEDICINE, Vol. VI, 1906.

But a limited edition of the History will be printed. It may be ordered from the Secretary of the Society, Dr. W. R. Townsend, 64 Madison Avenue, New York. The cost of the book, bound in cloth, is one dollar.

In this progressive age of civilization he who obstructs the progress of science, medicine, and surgery in the prevention and cure of disease and the prolongation of life, is committing an offense against the State, humanity, morals, and religion, for which the ethics of his environment should cause the people to hold him to a rigid accountability.—*W. H. Wathen, M.D.*

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Editorials.

THE ANNUAL MEETING OF THE STATE SOCIETY.

The Annual Meeting of the Medical Society of the State of New York will be held at Albany beginning January 28, next. This will be the one hundred and first annual meeting of this organization. In 1808 the annual meeting was presided over by the talented William McClelland of Albany. One hundred years later the same city should be justly proud that another of her distinguished medical men occupies the chair.

The meeting in 1808 was characterized by the offer of prizes for the best dissertations on "the topography, geology, and mineralogy of any county in the State, together with an account of the prevalent diseases in such county," and on "the causes, and best method of preventing and of curing the typhus mitior, or low, nervous fever, which prevails in the different counties." The intimate relation of localities, and of the air and earth, to diseases had much stress laid upon it a hundred years ago. Miasms and the other vague origins of disease received much attention. A century of searching after truths has wrought some great changes in medical knowledge, but medical men remain much the same. We have revised our attitude towards diseases; but the same zeal for helpful knowledge which characterized the organizers of our profession is awake in our organizations to-day. The physician can not do much by himself alone. He learns his art with others, and practices it to the best advantage if he have the counsel and support of colleagues.

If we take up the Transactions of our State Society we find that the men who have been interested and active in its affairs have been the men who have served their profession to the best advantage. They have been the public-spirited men and those who have reflected the most luster upon their profession. Physicians who "can read their titles clear" are not afraid of organization. A medical organization where men's views and notions are so freely exposed to scrutiny is not apt to harbor the "undesirable citizens" of medicine.

Now, for more than a hundred years this Society has been an index of the medical progress of this State. Its meetings have been attended by the leaders of our profession and, still better, by the unheralded rank and file. It is now more closely affiliated than ever before with the whole profession of the State and Country, and there is every reason why a very general interest should be shown in its meetings. It is to be hoped that this coming meeting will be well attended. An attractive program has been arranged, and much profit may be expected by every member who registers at the annual meeting of 1908.

ON THE TEACHING OF PATHOLOGICAL PHYSIOLOGY.

AMONG the many advances made in the teaching of medical students which have characterized the last decade, one of the most important is the addition of the teaching of pathological physiology. There are many disturbances of the physiological processes in which the anatomical basis of the trouble is so slight as to escape detection or in which we may properly say that the disturbance is purely a functional one. Moreover, we usually have had to resort to the study of the tissues after the death of the patient by the method of pathological anatomy; but with the aid of pathological physiology the morbid processes are reproduced and studied in the living animal.

MacCallum,* who has applied this method of teaching with great success at the Johns Hopkins Hospital for the past two years, speaks very strongly of its advantages. It has seemed to him imperative that we teach the disturbances of function in such a way as to bring the disordered process before the eyes of the student just as he might watch the working of a laboring engine with a broken cog. The idea of this method is to bring the student closer to the lesion than the stethoscope or finger upon the pulse can bring him. The method has proved very successful in giving the student an impressive idea of the disease of the circulatory system, for these lesions could be reproduced in animals and studied in every detail.

The study of the internal secretions by this method is most satisfactory. The adrenals can be destroyed in part of removed, and the constitutional disturbances incident to such lesions observed. A condition resembling Addison's disease can be reproduced thus before the eyes of the student. The relation of the pancras to diabetes proves an instructive study. The pancreas may be removed or inflammatory processes induced, and the effects of these operations observd with much profit.

The rôle of the corpora lutea is discussed in the light of Fraenkel's work on the subject; and in one illustrative case of early pregnancy in a dog, a corpus luteum was excised from each or any, the dog recovered perfectly, and no further signs of the pregnancy were to be observed.

MacCallum feels much encouraged as to the value of thus teaching functional pathology along with anatomical pathology. This is a field of work which has been employed in the laboratory as a part of the modern system of research, but if the research can be combined with teaching, just so much more benefit will accrue from it.

Bulletin of the Johns Hopkins Hospital, September, 1907.

THE TREATMENT OF CHRONIC ALCOHOLIC INEBRIETY.

THE treatment of poisoning with ptomains and drugs is well within the hands of the profession, but the treatment of alcohol poisoning and addiction still receives most of its attention from the mercenary exploiters of "cures." As the insane were until recently regarded as outside of the pale of medical attention, the unfortunate alcoholic is now. Still it is one of the commonest diseases, and except among the most enlightened the victim is regarded as being possessed of a vice just as the insane man was once regarded as possessed of a devil. If a man is found on the street suffering with opium poisoning he is conveyed to the hospital and receives scientific and humane treatment. If a man is found in the same place, suffering with alcoholic poisoning, he is taken in charge by the police, his ambulance is a patrol wagon, the treatment consists of a rap on the soles of the feet with a club and some supraorbital pressure, his hospital bed is the floor of a cell at the police station upon which he is tossed, and in the morning he appears before a judge and (not the police but the patient) is fined for committing a crime. Alcohol poisoning is a bad thing in the eye of the law.

It is much to be regretted that the treatment of this disease should be so largely in the hands of the quacks, who with their "institutes" and "cures" really do accomplish much in the treatment. It is surely a legitimate field for medical development; and, while some few regular physicians have given attention to the subject, it has by no means received the general attention which its importance merits. We have sufficient knowledge of the subject, surely more than the charlatans have, but it is possessed by too few practitioners. A good understanding of the nature and therapeutics of alcoholic inebriety should be possessed by every practitioner. Much can be done for these patients, many can be cured, and the honest doctor is the man for the work.

Mason,* who has made a careful study of the subject, attributes the good results which are attained by the charlatans to psychotherapy. The confidence of the patient is first won. Here comes in the value of the long list of clergymen and honorable citizens. Hope is aroused, a business transaction is consummated, money is paid, and an agreement to cure is given. No drug has any specific action against the disease, but the quack impresses his patient that the drugs are very expensive and very mysterious. It makes little difference what they are. A nauseating drug or something to dim the vision or create anorexia, such as atropine, serves but a temporary purpose. The drugs employed act along the lines of mental suggestion, and are in no sense specific.

Jour. A. M. A., Feb. 23, 1907.

THE LOCAL STATUS OF THE PURE FOOD LAW.

THERE is one feature of the federal pure food law which seems not to be generally appreciated. That is that, the law is of the so-called "interstate" class of laws. It does not prevent the manufacturer from misrepresenting his product and selling it. It only prevents him from sending misrepresented goods across State lines. Adulterated food stuffs may be put up in one State and sold in that State. Their shipment and sale in another State, however, constitute a violation of the act.

This feature of the law enables manufacturers to send their better goods out of the State, and to supply dealers within the State with old stock and falsified products. For this reason the pure food law ultimately resolves itself into a matter of local option. Each State must enact a pure food law of its own or suffer at the hands of its own mercenaries. The Federal Government protects it from the sins committed in other States, but not from its own sins.

THE PRIVILEGED COMMUNICATION FROM A MEDICO-LEGAL POINT.

FEW people are penalized for telling the truth. Among those who are, are little children and physicians.

The laws seem to be so construed that in the matter of professional confidences, that is in information secured as the result of questioning or examining a voluntary patient, the physician is not well protected, and it behooves him to employ a high degree of circumspection in these matters. When a patient sues his physician for malpractice, it is held that he waives the protection of privileged communications; but when the physician sues the patient to recover fees and the patient imposes a general denial, the burden of proving the services rendered is placed upon the physician, and he is not granted the privilege of introducing as evidence anything concerning the patient's condition or ailment or whatsoever that might be regarded as a privileged communication (83 Hun, 379). This law operates a hardship upon the physician.

A recent English case brought up an interesting point. The chauffeur of a physician was taken ill and went to the hospital. It happened that the physician under whose care he came was his employer. The examination showed that the man was suffering from aortic disease which would at best make him an undesirable chauffeur. The physician, his employer, thereupon paid him two weeks' salary in advance and discharged him from his employ. Here was a case in which a privileged communication, from patient to doctor, was used to the business disadvantage of the patient. Had the practicing physician a right to betray this professional secret to his automobile-riding and chauffeur-employing self? The chauffeur asked the Court to decide. The verdict was for the defendant, and the common sense side of the question was vindicated.

A most striking case has recently developed in Germany. A young married woman consulted a physician who was an intimate friend of her family. In making a vaginal examination he discovered a loose condom, which he removed without comment. Meeting the patient's husband a few days later he jokingly reproached him for his carelessness. Shortly after this he learned to his surprise that the husband was securing a divorce upon the strength of the information which the physician had inadvertently given him. The husband having secured his divorce, the wife proceeded to sue the physician for breach of professional confidence, and secured a judgment of ten thousand marks.

Thus we see the manifold dangers by which the physician is threatened, and how incumbent upon him it is to keep before his mind the principles of the privileged communication.

EATING AND TALKING.

WE are becoming convinced that thorough mastication is highly desirable. Many confirmed dyspeptics are curing themselves of their ailments by giving more attention to the chewing of their food. In fact, of late, this particular physiological function has received much serious attention, to the great advantage of all—to say nothing of the dentists. But as we contemplate this new masticatory era we harken back and encounter the long-accepted and time-honored dictum, which has never been disputed, that good company and conversation aid digestion. We believe that this ancient decision, born of the round table, the ale house and the "merrie companie," must be reversed in the court of the new gastronomy. When one is engaged with a mouthful of food he should be unmolested until it is resolved into solution.

Mastication as a physiological function has

been too much disturbed by the ancient dictum above referred to. Here is the eater, conveying a loaded fork of nourishment to his mouth; at the same moment his table companion propounds a question or utters a statement which demands a response. Witness the gulping down of the unmasticated mass, and the responsive sputterings of reply. This is no unusual scene. Of course there is no objection to talking in the intervals of mastication, but this is practically impossible in the atmosphere of so-called table good-fellowship. It is hardly to be expected that your company shall time the working of his mind and conversation to the working, so to speak, of your jaw. Antiphonal mouthing in table intercourse is an utopian dream. It would be straining antiphonal possibilities. The oft-heard invitation, "Let's go to the Waldorf and hear the newly-rich eat!" bears witness to these contentions. Talking and eating mean often munching and champing, but not mastication.

The company of those who understand us, the company of healthy children, and the company of those who do not demand entertainment from us, are surely not undesirable at mealtime; but society which is pestiferous and which demands talk is subversive to the best interests of the table. The old dining-hall legend, that conversation aids digestion, is presumably false. The notion that a lull at the table means that the dinner is not a success at that moment, will not bear the scrutiny of modern physiology any more than it will when two or more, gathered together, are engaged in any other physiological function. The most important thing should have precedence. An ideal conversation at the table would be simple voluntary contributions of pleasant thought which excite no immediate reply from any one engaged in eating. To ask a chewing guest a question is as rude as snatching his glass from his hand. An appropriate and modern dining-room motto would be, Let the full mouth be undisturbed.

"It is not well for man to eat alone" is true only provided his society is agreeable, intelligent and familiar with the physiological proprieties. Otherwise he will do better to order himself like the lion, and, while he gnaws his bone, devote himself to that function exclusively and alone. When we eat let us eat as simple men who are nourished by their food.

Observations.

ON KNOWLEDGE VERSUS MANNERS.

THERE is no substitute for knowledge. There is no imitation knowledge. Knowledge is either the real thing or it is not knowledge.

I should like to see this proposition impressed upon every student early in his career. Commencement orators are prone to exalt the manners of the physician. Cultivate an elegant, hopeful and gracious sick-room manner, it will do more than all your medicine, they say. Maybe it will, but if that is the case, the patient either does not need a doctor or the doctor is giving the patient the wrong medicine.

* * *

I have heard this so often and seen so much of the pernicious effects of this teaching that I am convinced that a voice should be raised in the defense of sick-room knowledge against sick-room manners. There are two things which the doctor should take with him to the sick room: the spirit of the scientist and the spirit of the gentleman, relatively important in the order named. The art of medicine is a combination of these two. If a man is truly imbued with the former, the latter follows as a necessary result. The physician who applies his science to the best purpose, to the end of curing his patient, cannot deport himself in any manner derogatory to the interests of his patient. It is not a scientific application of medicine for the physician to be brusque and unmannerly in the presence of a sensitive sick person whom he essays to help. The scientific spirit in therapeutics, knowledge of the effects of external influence upon the disease, is what the physician should take with him into the chamber of the sick. These are the essentials.

* * *

I have endeavored to define the essentials of our art, as contrasted with the outward graces which certain practitioners exalt above them. Happily among regular practitioners the cultivation of the manner is rarely at the expense of the essentials, but among certain physicians it is carried, unfortunately, to an extreme degree. The clanking, silver-trimmed harness, or the limousine, the rose in the button-hole, the patent leather ties, the elegant and imposing manner in the sick room, with the well-turned and flattering allusions, may be all delightful and helpful and good, but God help the patient if they be at the expense of the scientific medical essentials if the patient be really sick.

* * *

Many a young man, after admonitions on manners from some wise head, is prompted to have his trousers pressed, invest in an orchid, and cultivate a pink-tea smirk to carry with him into the sick room, when it would be better for his patient did he but render his trousers baggy

with his knees under his microscope, and wear upon his face into the sick room the simple expression of intelligent interest and hope born of knowledge and confidence.

* * *

"There," said the doctor, as he flicked the powder upon the patient's tongue. It was the "there" that did the patient more good than the powder, was it? So much the worse for the powder, so much the better for the patient; the powder was not much good or the patient was not much sick, one or the other or both. This matter of manners is countenanced because most patients would get along very well without medical attention, and the beneficent manners of which we hear so much would become any one better than they do the doctor. It is because his work is to so large an extent among those who do not need him for his medical attainments that the notion has become current. Its positive harm comes when habit has prompted him to cultivate manners and when he permits them to interfere with the essentials in a case which needs the best his brains and his science can give. Then we realize the meaning of the true doctor. Then we appreciate the man who has piled up as much knowledge as he can, who brings it to the bedside, who applies the scrutiny of the well-trained mind, who goes at his case with method, whose aim is first to discover the nature of the disease and then apply the treatment with recovery as the goal, and who adds to these qualities the simple attributes of an honest and gentle man.

Items.

VENERABLE PHYSICIANS.—Dr. Thomas D. Strong, of Westfield, N. Y., was entertained at a birthday party given by the physicians of Chautauqua County, on November 22, the celebration of his eighty-fifth birthday. Dr. Strong has practiced medicine since 1851. Physicians and their wives from all parts of the county assembled at his house on this day, but had difficulty in locating him because he was so busily occupied with his professional work.

On behalf of the visitors and other members of the medical profession in the county Dr. E. M. Scofield presented to Dr. Strong an anniversary clock, in language which is well worth reproduction. He said:

"Dr. Strong—We have assembled here to-day to assist you and your worthy wife in celebrating this anniversary of your birth, and to congratulate you upon the results of a long life of usefulness. I find it difficult to express in words the high esteem in which your friends in the medical profession in Chautauqua county hold you. You have always stood for that which is best and most noble in the practice of medicine. We recognize in you the dean of our profession.

"In token of the friendship and high regard in which they hold you and in their behalf I present you with this time-piece. As we look upon this work of art and consider the qualities of the materials of which it is made we are thoroughly impressed with the similarity it bears to the sterling qualities of yourself, both as a man and as a physician. The solid onyx, the unyielding metal are symbolic of the firm foundation and stable principles that must have been yours at the beginning of your career.

"While the fixed lines and compactness of the whole structure resemble that steadfastness of purpose, that uprightness of character that are so conspicuous in your make-up. It has no bell, but with untiring diligence it marks the fleeting time in perfect silence. Again so like yourself. You were never known to advertise your calling or to exploit your deeds before the public, but always content to do your work with energy and good judgment, with an eye single to the honor of our noble calling. It is our sincere wish that you may live to see many happy returns of this anniversary of your natal day."

Following the presentation and Dr. Strong's brief response, Dr. and Mrs. Strong were carried off to a banquet as the final event in the day's honors to this well-esteemed physician. Without any formality following the dinner the visitors separated and returned to their various homes with a kindlier feeling toward their brethren in the profession and with a feeling of just pride in having honored one who was worthy of such honor.

We have frequently called attention to the venerable men of our profession and whom we have taken pleasure in honoring. The list is not yet completed. But recently, seventy years after Dr. William Bayard, of St. John, N. B., graduated in medicine from the University of Edinburgh, a large number of physicians met at his house to congratulate him and to express their gratification that his Alma Mater had honered him with the degree of Doctor of Laws. Dr. William Dashword Kingdon, of Exter, on congratulating Dr. Bayard upon his longevity and good health, disputed his title to "patriarch." While they both graduated in 1837, Dr. Kingdon was born in 1813, and is eight months older than his compatriarch. Another physician has recently died in Indianapolis, Dr. Melitus Bell, at the age of 94. Probably the oldest physician in Great Britain is Sir Henry Alford Pitman, who has entered his hundredth year and who took his doctor's degree in 1840, having graduated from Cambridge in 1831. Sir Henry, it is seen, began his medical work rather late in life, being thirty-two years old when he graduated. He was registrar of the Royal College of Physicians for thirty-one years, from 1858 to 1889. He is still active and in good health, and at present is senior consulting physician to St. George's Hospital, on whose staff he has been for the past fifty years. Dr. William M. Star, of Washington, D. C., on October 14, celebrated the one hundredth anniversary of his birth.

ROCKFELLER ENDOWMENT.—John D. Rockefeller has given $2,600,000 to form the endowment of the Rockefeller Institute for Medical Research, which he founded in New York six years ago. This gift will insure the continuance and enlargement of the institution itself and provide support for scientists engaged for it in medical research in all parts of the world. It is be-

lieved that Mr. Rockefeller does not intend this to be his final gift, but will add to it as the institution expands and finds wider scope for its usefulness.

No restriction has been put upon the Board of Directors. Dr. William H. Welch of Johns Hopkins University, President of the Institute; Dr. Simon Flexner, the Superintendent, and their associates, Dr. Luther Emmett Holt, Dr. T. Mitchell Prudden, Dr. Christian A. Herter of Columbia, Dr. Hermann M. Biggs of Bellevue, and Dr. Theobald Smith of Harvard, will be permitted to spend the income of $200,000 which will be derived from the endowment upon any matter which seems to them worthy of investigation.

A considerable part of the endowment will be taken up with the expenses of management and the salaries of the staff of twenty now at work in the institute. At present there seems no need to enlarge the present buildings at Sixty-sixth Street and the East River. There is plenty of room still vacant for additions to the laboratories. But it is hoped that before long a hospital may be built on the vacant lots near the institute, where patients may be kept under observation and the effect of the remedies discovered by the research workers carefully noted. At the Pasteur Institute in Paris and other institutions of the same nature in Europe, such a hospital is considered as an indispensable annex to the scientific laboratories.

Charities Conference.—Among the subjects discussed at the New York State Conference of Charities and Correction at Albany, November 12-14, were "Industrial Accidents in New York State" and "The Need of a State Commission of Investigation." More than half of the industrial accidents occur to men under 40 years of age and in unskilled laborers. In Manhattan and Brooklyn alone the committee found 756 cases of accident, in 57 per cent. of which the injuries were permanent. The advantages of a state commission of investigation were urged and the appointment of a special committee to agitate for the passage of the necessary legislation. Dr. Adolph Meyer, pathologist for the New York State Hospital for the Insane, Ward's Island, New York City, said that many insane patients are still taken to jail. The number of insane under the care of the New York State Commission in Lunacy has reached the total of 27,102, or 745 more than last year. Of these more than 1,000 had committed criminal offenses before their commission to the insane asylum. The state still lacks accommodation for more than 2,000 of its insane. The metropolitan district has 12,328 patients and a capacity of less than 9,500. An additional institution is needed. Dr. Meyer said also that an institution for defective children was much needed in the neighborhood of New York. Dr. Edward B. Angell of Rochester, chairman of the committee on the care of the sick, said that so great had been the decrease in the number of people suffering from disease that it had actually affected the income of the average practitioner. He gave full credit for this to the health departments and sanitarians. He thought that far more time had been spent in the last twenty-five years in the effort to prevent disease than in the study of remedies for their cure. Among the officers elected were Dr. Edward B. Angell as one of the vice-presidents, and Dr. Orlando T. Lewis, secretary.

Work for Convalescent Consumptives.—Much attention has recently been directed to providing for convalescent consumptives. The New York Charity Organization Society has made an investigation of the question of placing consumptives in the country as help on farms, etc., and publishes its conclusions as follows:

> Occasionally indigent consumptives can be placed in suitable country employment with exceedingly good results. Comparatively few such patients desire work sufficiently to apply for it, and the great majority applying for it are absolutely unsuitable, either from medical or social reasons; or from both. Patients with incipient tuberculosis only can with difficulty be persuaded to give up their city employment for the uncertainties of work in the country. Moreover, if willing to give up their work they should be sent immediately to a sanitarium. Although labor is scarce, there is little demand among farmers for men who can not do a hard day's work, and the physical makeup of the ordinary tenement dweller is ill-suited to farm life. In the small towns and villages there are somewhat better opportunities for tradesmen and artisans. The unreasonable dread of tuberculosis is present among country people, though not so marked as had been anticipated. Even with the strictest preliminary medical examination, many patients with pulmonary tuberculosis apparently able to work, did badly under the strain of work in the country when away from medical supervision. The society strongly advises physicians and others not to send consumptives to the country to shift for themselves, for the reason that any scheme for the employment of consumptives should offer facilities for the adjustment of work to the physical ability of each patient. This should be under medical supervision and should include instruction in the rudiments of farm work. A farm school in connection with a sanatorium would perhaps be an ideal arrangement.

Medicine Among Remote Peoples.—Dr. Preuss, of the Berlin Anthropological Museum, has again proved the value of medical science as a means of opening the way to the most friendly and confidential relations with primitive peoples. He went to Mexico to make a scientific study of some of the Indian tribes, and fortunately arrived at a time when his medical skill enabled him to render important services to the Cora and Huichol tribes, with the result that he won their complete confidence. They permitted him to witness their festivals and ceremonies and to learn all their significance. He used the camera everywhere and took home with him a large collection of folk lore, prayers and songs, which he is now translating into German.

It was medical skill that helped Livingston on his way in the sixteen years he wandered up and down in unknown Africa before he

came home to tell the wonderful story. It was his skilful treatment of the sick and suffering that carried Arnot safely, though without any trade goods to pay his way, more than a thousand miles to Garanganze, in the upper Congo basin, of which he was the pioneer explorer.

Missionary societies to-day are using the medical branch of their service more and more as convincing proof of their helpfulness and humanity and as a practical foundation upon which to develop their special work. The world is conferring no greater boon upon the peoples of elementary culture than to make medical skill available for their need.—*The Sun*, August 23, 1907.

INOCULATION AGAINST TYPHOID IN THE ARMY.—The British Army reports favorable results from antityphoid vaccination. Vaccine is prepared after the method of Wright. A nonvirulent strain of typhoid bacilli is used. The bacilli are grown in broth at a temperature of 37° C. for 24 to 48 hours and then sterilized at a temperature of 53° C. An injection of 500,000,000 bacilli is administered and ten days later a dose of 1,000,000,000. Blood of vaccinated persons shows evidence of higher bactericidal activity than normal and of the presence of agglutinins as long as six years after inoculation. Whether this is sufficient to prevent typhoid fever is not known. In August and September, 1905, 150 men of a single regiment were inoculated; of these 23 refused to accept a second dose. The regiment reached India September 28. A month later typhoid fever broke out, and in the few months following 63 cases were observed. With two exceptions they occurred in the uninoculated portion of the regiment, and both these exceptions were men who refused the second inoculation. These experiments have been going on steadily and every evidence shows that this preventive measure promises to be of much value.

THE QUALIFICATIONS FOR RESEARCH.—Teachers and observers complain that few research students are properly equipped. In science it is necessary, not so much that one should have taken this or that course or received this or that degree, but that he should have a genuine desire to find out about some particular thing. Professor W. E. Ayrton has said that there is a need for some better method for discovering men and women with this hunger for inquiry. He deprecates the wasting of the endowments that exist for this purpose on those whose only hunger is for the funds with which they are supplied. He says that the notion that scientific research can only be undertaken after years of preliminary study is disproved by the inventions of Gramme and Tesla; yet it is still sustained by the University of London, who require notice that one is going to make a research, for the university has never realized that ideas flash on one at strange moments. That the truth can only be reached through mathematical gymnastics is still believed in, in spite of the splendid results obtained through experiments alone by Faraday, Darwin and Huxley. Edison congratulated himself that he was not a mathematician. No particular university training is necessary for conducting research, no letters after one's name. Faraday had neither one nor the other, although somebody out of compliment addressed a letter to him as "Professor Faraday, A to Z."

THE PROSTITUTION OF MEDICAL LITERATURE.—The German Association of Medical Editors have prepared a list of authors, who furnish, for pay, articles recommending new remedies and the preparations of chemical manufacturers. They have agreed that these articles are neither to be published nor abstracted in the journals of the members of the association. After a thorough sifting of the evidence, made possible by the co-operation of the large chemical manufacturers, a list of this character has now been completed. The association hopes to eliminate this wrong from which the German medical journals and through them, the physicians, have suffered. We have the same unfortunate condition in this country. The doctor who introduces the name of some special preparation into his paper for a consideration is well known. Often he occupies a position of importance and honor in his medical community, which he thus trades in for cash.

PSYCHIATRICAL CLINIC.—Dr. O. M. Dewing, Superintendent of the Long Island State Hospital, desires to announce to the medical profession that a psychiatrical clinic will be held at the hospital, corner of Clarkson Street and Albany Avenue, Borough of Brooklyn, at 9 A. M. every Friday. At this clinic, interesting cases will be presented by members of the medical staff and an opportunity given for the personal examination of these cases, and for general discussion of them. All physicians are cordially invited to attend.

DR. WALTER BENSEL.—Mayor McClellan, in accepting the resignation of Dr. Walter Bensel as Street Cleaning Commissioner, paid a tribute such as has been accorded to no incumbent of that important office since the time of Col. Waring: "I have never been obliged to comment upon your work except in praise. You have reorganized the Department of Street Cleaning, contented your men, satisfied the public, and—cleaned the streets."

Dr. Bensel found the department disorganized, the men disgruntled and mutinous, the public holding its nose, and the streets piled with filth. He now returns to his work as Sanitary Superintendent under Health Commissioner Darlington.

PERSONAL.—Dr. Robert M. Elliott, of Willard State Hospital, has been appointed adjunct professor of mental diseases at the Long Island College Hospital.

Medical Society of the State of New York.

FIRST DISTRICT BRANCH.

The postponed meeting of the delegates of the First District Branch of the Medical Society of the State of New York was held at the office of the State Society, 64 Madison Avenue, New York City, Friday, November 8, 1907, at 4 P. M. The following officers were elected for the ensuing year: President, J. W. Atwood, Fishkill-on-Hudson; Vice-President, S. W. S. Toms, Nyack; Secretary, C. E. Denison, New York City; Treasurer, N. F. Curtis, White Plains.

Amendments to the By-Laws were proposed, in order to do away with the delegate system, and have the election of officers conducted by the general body. The time and place of the next meeting was left to the Executive Committee.

SEVENTH DISTRICT BRANCH.

The first annual meeting of the Seventh District Branch was held in the ball-room of the Genesee Valley Club, in Rochester, November 13, 1907. An excellent program had been arranged, and the attendance of out-of-town members was particularly gratifying. The President, Dr. J. F. W. Whitbeck, gave a very interesting address on the Benefits of Medical Society Meetings, and a salutatory on the First Annual Meeting, saying that he thought that at this time, such an address was more appropriate than one of a scientific character.

Some of the papers caused considerable discussion, and a Committee of Five, with privilege to add to their number one member from each County Society in the Branch, was elected to make a report at the next annual meeting on the subject of the "Origin and Distribution of Cancer, in the Seventh District Branch." The appointment of this Committee was due to the reading of the paper of Dr. Chas. W. Goler, Health Officer of Rochester, who read on the "Distribution of Cancer in Rochester," illustrating his remarks by means of a large chart of the City, on which the location of every death from cancer for the last ten years was shown by a large pin with colored head. He also spoke of the difficulty of securing accurate data, owing to the lack of care in the preparation of vital statistics, and urged upon the profession greater care in future, not only in the reports on cancer, but on all other diseases.

An excellent buffet luncheon was served in the ball-room at the mid-day hour, for which each member present paid a small amount. This plan would seem to be a particularly good one, as those who did not care to partake of the luncheon were privileged to go to their hotel, or elsewhere, and the local profession were not placed under any financial obligations for the meeting. While it is desirable that the local profession, where meetings are held, shall do all in their power to make the stay of those present agreeable, yet it does not seem proper that they should be taxed for entertainment each year, nor would it be proper for the State Society to pay the luncheon fees.

In the Executive Session Amendments to the By-laws were proposed, which cannot be acted upon until the ensuing year. These Amendments are to do away with delegates, and make the Branch a popular body, and elect officers, etc., in the General Session.

The following officers were elected: President, J. P. Creveling, Auburn; Vice-President, W. E. Palmer, Hornell; Secretary, J. F. Myers, Sodus; Treasurer, J. H. Pratt, Manchester. Auburn was chosen for the next meeting place, the time to be selected by the Executive Committee.

Progress of Medicine.

PRACTICE OF MEDICINE.

EDITED BY

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DE LANCEY ROCHESTER, M.D.,

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EDWIN H. SHEPARD, M.D.,

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COPEMAN ON CANCER.

Copeman, of London, in his Guthrie lecture, reviews some of the recent research work in cancer. His conclusions are as follows:

1. That cancer is to some extent preventable.

2. That cancer is not, in the ordinary sense, an infection, there being no evidence that its onset and continued growth is due to any recognizable micro-organism.

3. That cancer constitutes the local manifestation of perverted body metabolism, an indication of which is afforded by the failure of the normal HCl secreting function in the mucous-membrane of the stomach.

4. That temporary amelioration of symptoms, with or without obvious retardation of growth, has been obtained in a certain number of instances, as the result of treatment of one and another kind; but

5. That in the present state of our knowledge early and complete operative measures, where possible, afford the only satisfactory method of treatment at our command.

6. That, nevertheless, cancer occasionally disappears spontaneously, the tumor ceasing to grow and eventually becoming absorbed.

7. That, consequently, there is reasonable hope that continued investigation and research may afford accurate knowledge of the conditions favorable to such spontaneous cure, and further that the indications thus afforded may eventuate in the discovery of a method of treatment specific for this disease.—*The Practitioner,* August, 1907.

POSTERIOR APPENDICITIS.

"The posterior forms of appendicitis," as they are called by the author, are discussed in a practically interesting way by Vignard in the *Province Médicale.* As the author states, those forms of appendicitis in which suppuration takes place behind the cecum have a special interest from a clinical as well as an anatomic standpoint. While it is commonly accepted that a post-cecal suppuration usually leads directly to abscesses in the psoas or in the pelvis, or to subhepatic or subphrenic empyema, the author calls attention to the statement of Ancel and Cavillon, who have found behind the cecum a leaf or a fold of the peritoneum. Suppurations arising there

were therefore originally intraperitoneal. Only after rupture of the peritoneum did they lead secondarily to the above-noted complications. If such complications are not present the symptoms of the retrocecal appendicitis are of an indefinite nature and hard to recognize. Many cases of this kind end fatally because they are diagnosed too late, or not at all.

In fifty-six cases of appendicitis Vignard diagnosed the retrocecal form anatomically, and in eight further cases from the clinical symptoms. Most of his patients were children from 5 to 15 years of age. Fifteen histories are given, all the cases being treated operatively, seven with fatal results, and the rest with more or less favorable outcome.

MYOTONIA CONGENITA.

Thomsen's disease, or myotonia congenita, is such an unusual and peculiar condition that much fresh interest attaches itself to each new case presented. This disease took its name from its first exact description by Dr. Thomsen, in whose own family twenty cases had appeared during four generations. The condition, which is usually congenital and hereditary, is characterized by a retardation of voluntary movements with sudden tonic rigidity, when attempts are made to use the muscles after a period of rest. During a period of from five to thirty seconds the patient cannot by any exercise of will move the muscles involved. By repetition of the movement it becomes easier and easier until finally it can be accomplished without difficulty. The musculature of these patients is often greatly developed in size.

Such a case was recently seen by the reviewer in the clinic of Oppenheim in Berlin. The patient was a man about 40, whose father had also been afflicted with the disease. This man would grasp the hand of another forcibly, and though endeavoring then to take his own hand away would hold the stranger's hand like a vise until after a few seconds the spasm subsided. He was unable to jump on moving cars or omnibuses, as the first muscular effort locked his arms in their first position for a period of ten to twenty seconds.

Eiselt, in the *Casopis Lekaru Ceskych*, 1907, p. 515, reports an atypical case of this disease. The patient was a laborer, 32 years old, with good family history. The condition made itself manifest after a severe burn. The symptoms first appeared in the feet, gradually spreading into the lower and upper extremities, and the head. The mechanical muscular excitability was increased. At the place of excitation a tonic contraction took place which spread along the muscle bundle; then came fibrillary twitching and gradual relaxation; and finally at the close there was a muscular protuberance at the point of excitation, which gradually disappeared. With intention movements a tonic spasm took place in the innervated muscle, and with stronger innervation it occurred also in the antagonistic muscles. This spasm lasted 30 seconds. By repetition the movements were accomplished more easily. The patellar reflexes were increased, and there was no ataxia. The sensibility was disturbed, the analgesia and anesthesia predominating in general over the hyper-anesthesia. There was no muscular atrophy. Frequently there was a condition of polydipsia and polyuria, but without glycosuria. An excised portion of the deltoid muscle showed the usual pathological conditions, one of the chief of which is a marked hypertrophy of the primitive fibres. The atypical features of this case rest in the facts that there was no hereditary element, and that the disease had a late onset, reaching its maximum after an injury.

PIGMENTATIONS OF THE SKIN.

The features of the several varieties of pigmentation, as especially differentiated from Addison's disease, are discussed by Grünbaum, of London, as follows:

The pigmentation associated with pregnancy is usually of but recent date, but may, of course, be accompanied by vomiting and languor, which makes definite exclusion of Addison's disease far from easy.

The increase of pigment, occurring in advanced chronic tuberculosis, may be due in a certain number of cases to the adrenal glands becoming affected, and in those it may be impossible to distinguish it from the ordinary typical disease, but in the majority, without suprarenal destruction, the pigmentation is much more uniform.

Vagabond's disease usually permits of ocular demonstration of the cause of irritation, and on removal of the cause the pigmentation gradually fades.

Von Recklinghausen's disease, or multiple neurofibromata, presents very varying aspects, occasionally the pigmentation is marked, while the other skin alterations and the neurofibromata can only be detected upon minute examination.

Hemochromotosis is a rare disease; the pigmentation is often, but not invariably, associated with glycosuria and cirrhosis of the liver.

Exophthalmic goitre is usually associated with increased sweating, and this is said to cause pigmentation through irritation. The nature of the pigmentation is very similar to that of Addison's disease, but the other symptoms permit of the different diagnosis.

Pigmentation due to arsenic, in my experience, simulates most closely that of suprarenal disease, and cannot be distinguished from it merely by inspection.

Argyria presents a very different color to the pigmentation in Addison's disease. The parts exposed to light are of the deepest color, and this color is slate gray, not brown.

Melanasma, due to melanotic sarcoma, is usually uniform and in the majority of cases the

primary lesion can be found. When this is not possible the differential diagnosis is often difficult.

Kaposi's disease, or xeroderma pigmentosum, in its typical form leads to the development of epitheliomata, but there seems to be a number of varieties of different malignancy. The author has seen such a close crop of freckles that a face of a dark-brown color seemed to betoken an advanced case of Addison's disease, while the pigmentation of the mouth resembled that of melanotic sarcoma, being intensely black and extremely patchy.—*The Practitioner,* August, 1907.

NARCOLEPSY.

An unusual and as yet unexplained condition is that of narcolepsy, of which Rogers reports an interesting case. Sudden recurrences of profound sleep characterize this affection. The author's case was a very intelligent man belonging to a family of a marked psycho-neuropathic type. The patient at first experienced the attacks of narcolepsy after a period of severe occipital headaches. In the midst of talking, or during business, or at a meal, he would suddenly fall asleep, and after a few minutes would awake and continue his occupation, scarcely realizing that he had been interrupted. Sometimes this happened often in a forenoon. Meanwhile the patient slept well nights and two hours in the afternoon. After some months the tendency to sudden sleep passed away, but returned again for a time two years later after a narcosis, and once more for a short time after a severe mental excitement. There are a few of such cases reported, and these are of special interest because of the speculation concerning the underlying etiologic and pathologic conditions.—*Bristol Med.-Chir. Journal,* 1907. No. 96.

ETIOLOGY OF TUBERCULOSIS.

Though the conclusions of Mazyck P. Ravenal concerning the etiology of tuberculosis contain no information that is entirely new, his statements are sufficiently positive, especially with regard to the alimentary origin, to be profitable for consideration. He says that—

1. The alimentary tract is a frequent portal of entry for the tubercle bacillus.

2. The tubercle bacillus is able to pass through the intact mucous membrane of the alimentary tract without producing a lesion at the point of entrance. This takes place most readily during the digestion of fats.

3. The bacilli pass with the chyle through the lacteals and thoracic duct into the blood, which conveys them to the lungs, where they are retained largely by the filtering action of the tissues.

4. Infection through the alimentary tract is especially frequent in children.

5. Milk from tuberculous cows is the source of infection in many cases. Our present knowledge does not enable us to state the exact proportion of cases of tuberculosis due to this cause, but it is probably considerable.

6. Tuberculosis can be communicated by contact, such as kissing, soiled hands, accidental injuries in postmortem work, or during the cleansing of vessels used by consumptives. These modes of infection play a comparatively small part in the dissemination of disease.—*American Journal of the Medical Sciences,* October, 1907.

TREATMENT OF ACUTE NEURITIS.

In discussing the treatment of acute neuritis Rockwell speaks of the unsatisfactory and often even detrimental results obtained by the static spark, the faradic, galvanic and high frequency currents, and vibration. He reports ten cases of neuritis treated by phototherapy, with exposure to incandescent light of 500 candle powder. The majority of these cases were materially benefited by this treatment where other means had failed. —*Medical Record,* November 9, 1907.

THE INTERNAL FUNCTION OF THE PANCREAS, ESPECIALLY CONCERNING FAT-METABOLISM.

Lombroso conducted an elaborate series of experiments on animals in order to learn further concerning the functions of the pancreas, and his conclusions are interesting to review. The pancreas possesses an internal function, the presence of which is necessary in order to make use even to a reasonable degree of the fat which is either deposited in the tissues of the body or introduced from without. The lack of this internal secretion changes the metabolism in the following manner: After extirpation of the pancreas a very great amount of fat occurs in the stools; this does not happen if only the external secretion of the pancreas is lacking in the digestive canal, as is shown by ligating the duct, creating a fistula or transplanting the pancreas under the skin of the abdomen. When pancreatic juice is introduced into the duodenum of animals from which the pancreas has been extirpated, even though the juice be greater in amount than normally, it has little effect upon the amount of fat in the stools. The effect on tissue fats of a lack of internal pancreatic secretion is shown in animals dying some time after extirpation of the pancreas, in which the subcutaneous fat and fatty deposits on the great omentum are found practically normal although the animal had almost wholly rejected food.—*Archiv für experim. Path. und Pharm.,* Bd. LVI, p. 357.

Harmony in feeling and co-ordination in action mean a united profession, mean power, mean life, mean success, mean the elevation of the physician to the place where it was ever meant he should stand, the first and highest place among the sons of men.—*Dr. C. B. Stockwell.*

SURGERY.

EDITED BY

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A NEW METHOD OF AFTER TREATMENT OF INJURIES BASED UPON X-RAY STUDY OF CALLUS FORMATION.

E. Sommer (Zürich) discusses the processes that take place in the repair of fractures. He reviews the history of the teaching of callus formation in order to explain why, in cases which give no clinical reason for imperfect consolidation, there is formed at times abundant callus, at other times a moderate amount or none at all. For this purpose he has used the abundant material of the X-ray Institute of the Imperial and Royal General Hospital of Vienna. Among the material he found 162 cases useful, of which 129 were examined three months after injury. He found that almost all impacted fractures showed little or no callus, while abundant callus was found in those breaks that had healed with more marked dislocation of the fragments. It was evident from these cases that the amount of callus increased in proportion with the difficulties that the consolidation has to overcome. These difficulties would be dislocation of fragments, interposition of splinters of bone or of soft parts and unfavorable form of the fragments (oblique fractures). From all this it is possible to conclude when the amount of callus is large that there is an invisible reason (interposition of soft parts) when visible causes are absent (mal-position of fragments). Also it explains why there is so much callus formation in fractures of the lower extremity and so little in fractures of upper one. The fragments in fractures of metatarsal bones are not so prone to dislocation as are those of the metacarpal. And yet the callus formation is greater in the former than in the latter, due to the earlier use which brings about conditions favoring exuberant callus.

If Sommer's conception of repair of bone is correct then he thinks that after bringing fragments into proper position the callus formation must be left undisturbed, and of methods employed to overcome secondary disturbances (atrophy) only those can be considered which allow repair to go on without disturbance. Massage and gymnastics do not meet the requirements, Bier's hyperemia being more useful, but best of all is faradism in a fixed (plaster) dressing into which electrodes have been placed at the time of application. This method disturbs repair least of all and approaches more in its powerful toning of the muscles the natural motor impulses than any other method; such dressings permit one to energetically combat the post traumatic atrophy so that the old doubt as to the time of mobilization is less troublesome. It further permits us to allow rigid dressings to remain in place longer than needed for consolidation and allows one to apply them in doubtful cases of fracture and also in dislocations. In those cases in which electrodes cannot be employed in the dressing they can be slipped under the distal end, the second pole being applied beyond the bandage.—*Centralblatt f. Chir.*, No. 24, 1907.

THE TREATMENT OF PSEUDARTHROSIS AND DELAYED CALLUS FORMATION BY INJECTION OF BLOOD.

V. Schmieden reports that since the first publication by Bier on injections of blood in delayed union of fractures and in pseudarthrosis, he has so treated seven cases in four of which the treatment has not yet been concluded. He discusses Bier's views of his method. The extravasation of blood and in a more marked degree the presence of blood from different human beings or animals is, after the trauma itself one of the most potent stimulants for the formation of callus. The blood is used without any changes. Direct nutrition of the callus by the blood has not been finally proved. This stimulation can only be successful where bone formation is possible. The older pseudarthroses responded only very slowly. The technic is difficult and the injection needs to be repeated many times. The periosteal callus formation leads to success where there is no union possible between the ends of the fragments themselves. Perhaps the connective tissue in the neighborhood of the bones has some power of callus formation. (In myoritis ossificans there is no pereosteum present). The injections are to be repeated again and again in rapid succession if no result is at once shown. Unfavorable symptoms have not been observed. High pressure is needed for these injections for which a special syringe has been constructed.—*Centralblatt f. chir.*, No. 24, 1907.

PNEUMOCOCCUS PERITONITIS.

At a meeting of the Medical Society of Greifswald, Peiper reported a case of pneumococcus peritonitis. The patient, a girl of four years was attacked suddenly with vomiting, diarrhœa, pain in the epigastrium and high fever. The physician believed that a pneumonia was impending but the most careful examination revealed no physical signs of such a condition. The high temperature soon subsided. About ten days later the abdomen began to swell, a considerable effusion could be determined, and 1½ liters of odorless pus containing flakes of fibrin were drawn off. In this pus only pneumococci of very high virulence could be found. After several

days an encapsulated abscess was opened by laparotomy. In spite of the relatively favorable prognosis the patient died soon after. At autopsy the appendix was found intact. The process originated in an old pleuro-pneumonia which had given rise to a subphrenic abscess from which the pneumococcus peritonitis had developed.—*Deutsch med. Wochenschrift,* No. 38, September 19, 1906.

VACCINE THERAPY IN SURGERY.

McArthur and Hollister in a long and important article on Vaccine Therapy in Surgery first emphasize the difficulty of the work. They require the assistance of five laboratory workers in the series of cases reported and conclude that this class of work can never be done by the individual. Their general clinical conclusions are as follows: (a) Vaccine therapy is of distinct value in the treatment of chronic localized tuberculosis of the bones, joints, glands and urinary tract, acting not only as a general tonic but as a local stimulant to repair of tissues. (b) It is of marked value in the treatment of staphylococcus affections such as acne, furunculosis, etc. (c) It seems to be of definite value in the treatment of urinary tract infections by the colon bacillus.

The laboratory findings are as follows: After skill has been acquired and like conditions governing findings (like fields on the film, etc.) followed, that the final results of different observers grow more and more accurate and agree with but very slight variations. The belief is also expressed that there is a definite normal index to the different opsonins and that if a serum is found that has a persistently varying index after three or four examinations from this normal, this individual serum is abnormal, due to infection by the specific germ.—*Surgery, Gynecology and Obstet.,* Oct., 1907.

CHRONIC SUPPURATIVE PROCESSES IN THE HAND.

Necrosis of the distal phalanx ordinarily ends in sloughing of the diaphysis alone. Incision should be made laterally instead of upon the volar surface. The proximal inter-phalangeal point is most commonly involved. The proximal phalanx escapes while the epiphysis and part of the diaphysis of the middle phalanx are destroyed. Conservative operations may be done with some success. Isolated involvement of the tendon sheaths may be present. Incision of the sheath should expose all involved parts. Chronic palmar abscesses frequently point on the dorsum passing along the lumbrical canals. Palmar abscesses may be opened along these canals. Chronic dorsal abscesses may point at a distance from the focus owing to the dorsal aponeurotic sheath.

The carpal joints are frequently invaded from the radial bursa, abscesses and sinuses appearing upon the dorsum. Every effort should be made to preserve the integrity of the tissue between the first and second row of metacarpals.

Serious forearm abscesses lie below the flexor profundus and may be opened either in front in connection with an incision in the palm or in isolated cases by lateral drainage.—*Surg. Gynec. and Obstet.,* Nov., 1907.

THERAPEUTICS.

EDITED BY
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FIBROLYSIN TREATMENT.

In the *Deutsche Medizin. Woch.* of Oct. 24th. Dr. Becker reports results of treatment with fibrolysin* in several cases.

1. A case of Dupuytren's contraction of the fingers in an engineer, aged 60, was treated by means of 19 injections within four weeks. The little and ring fingers were almost completely flexed by the palmer contraction. In order to secure a fair test, no other manipulations, that could stretch the fascia or extend the fingers, was permitted. Only when the palmar nodule became softer and the fascia permitted better spontaneous movement of the fingers, were extension exercises permitted and later garden work. After the four weeks' treatment, comparison with the unaffected hand, as to appearance and function, showed scarcely any difference between the two. After five months the excellent result still remained without change. The injections into the gluteal muscles were almost painless. Untoward effects were not noticed, except that toward the end of treatment the patient complained of decided fatigue.

2. In a second case of the same affection, but of lesser degree, in an elderly man, satisfactory improvement had occurred with eight injections.

3. The fibrolysin was then tried in the after treatment of injury of the hand from explosion of a gun. Healing of the badly tattered hand left it in a claw-like position. Massage, hot salt water and mud baths were in turn employed without special result. But with fibrolysin a very striking improvement began. Within three weeks ten injections were given. The patient was charmed with the startling effect of the drug, but, feeling tired and weak during the treatment, did not wish to continue it. There was no objective evidence of deterioration of his general health; on the other hand, the good effect of the treatment on the form and function of the hand was unmistakable.

4. In a case of stiff knee, gradually developing as the result of an injury six years before, and causing almost complete immobility of the joint, perceptible improvement was secured by fourteen days' treatment, using 7 injections. While the patient at first could touch the floor with the toes only, he could later place the entire foot upon the floor. Previously hot water and hot air baths

*A 15 per cent. sterilized solution of a double salt of thiosinamine and sodium salicylate (Merck).

had been employed without any influence upon the condition. The surroundings did not permit of continuance of the treatment, so that a complete result of the same could not be attained.

5. The final case, that of woman 54 years old, with chronic, deforming articular rheumatism (a hopeless case), did not show any change in the condition by the fibrolysin treatment. Here also no untoward effects occurred.

The conclusion from experience with these five cases would be as follows: Good success may be expected in Dupuytren's contracture, and striking improvement in stiffness of joints when the latter follows injuries to the soft parts; but when the joint is fixed as a result of chronic joint inflammation, no mobilizing effect can be looked for. As regards stretching of cicatricial, fibrous tissue, fibrolysin may here be employed with confidence, and even in cases where baths, massage and gymnastics have failed, success is likely to be attained.

THE ACTION OF STIMULANTS.

With our advance in the knowledge of the action of drugs, the term stimulation needs qualification. We have become better able to discriminate as to the action and place of various agents that tend to increase functional activity, so that direction to "stimulate" no longer carries the idea of giving large quantities of alcohol or the use of any other single drug. In fact, hypodermoclysis, which easily takes first place, is not medication in the ordinary sense, and its effect is to restore functional integrity rather than to stimulate activity. Again, the application of heat, so valuable, is a non-medicinal modifier of circulatory and nervous activity. With these excellent means, so easy of application and prompt of effect, the future will see less use of stimulant drugs for direct general action, and such use will be more exact, based upon a better knowledge of drug action. But drugs that increase the activity of special organs or the efficiency of their functions will always hold a large place in therapeutics; but they will be used with greater discrimination as to action and indications, and none the less will their secondary or indirect effects benefit the general bodily condition.

It is important not to confound action and effect of so-called stimulant drugs. For in some cases we see the paradox of a depressant drug causing stimulant effects or of a stimulant drug causing depressant effects. We have learned this in the use of nitro-glycerin, whose action is to depress decidedly the vagus center and likewise the muscular coats of the arterioles, by which there follows more rapid heart action and freer capillary circulation. While these are desirable stimulant effects the essentially depressant action of the drug, by which they are caused, has led to greater discrimination as to its continuous use. Again, aconite is a drug whose depressant effects give it a prominent place among arterial sedatives, though the slowing of the heart, with general depressing of the circulation, is brought about by its stimulant action upon the vagus center, which increases cardiac inhibition.

It is important also to remember that the more a drug stimulates activity of an organ the greater is the danger of exhaustion from the increased discharge of energy. Hence we note a distinction between drugs which enforce a greater activity and those which simply increase the irritability of nerve or muscular tissue. The latter, which may be called potential stimulants, are preferable when their action will suffice, while the former, or kinetic stimulants, are needed in emergencies, but their use is not to be continued longer than necessary. Strychnine is probably the best example of a potential stimulant. It does not whip any organ into greater activity, therefore its action tends less to exhaustion; but by its action upon the spinal centers, either through increasing the irritability of nerve cells or increasing the ease of transmission of impulses, it permits a readier response to the usual physiologic stimuli throughout the field of spinal reflex functions. Caffeine has a mixed action, stimulating respiratory and vaso-motor centers and muscle potentially and the heart kinetically. Digitalis is quite selective in action, stimulating the heart muscle powerfully to increased activity and the vaso-motor apparatus as well; but in addition it has the same action as aconite upon the vagus center, whereby the heart action is slowed and its expenditure of energy, which, under the powerful direct stimulation, would otherwise be exhausting, is much lessened and the organ is allowed longer periods of rest. Atropine, whose action is very complex, is best characterized as a central stimulant and peripheral depressant, because of which mixed action it cannot rank as a first-class stimulant, but is more often used as a depressant.

The reputation of opium as a stimulant to the heart must rest chiefly upon the fact that certain of its alkaloids possess an action similar to that of strychnine and, at the same time, no cardiac depression is caused by it. There is still another class of stimulants whose primary action is irritating and whose consequent stimulant effect may be called reflex. The aromatic spirit of ammonia is a good example of this class. They are sometimes called diffusible stimulants, but it is to be noted that the effect rather than the action is diffusible. Alcohol to-day holds an uncertain position as a stimulant, since experimental pharmacology gives so little evidence of any essential stimulant action. As far as its action can be followed it probably belongs to the irritant or reflex class, any improvement in circulation being the result of local irritation at the point of administration. Active stimulation should always take into consideration the bodily resources and the reserve energy of the organs to be acted upon.

E. H. L.

OBSTETRICS.

EDITED BY

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FATTY DEGENERATION OF THE UTERUS DURING PREGNANCY.

Ciulla, in a study of this subject, finds that a true fatty degeneration of the uterus takes place during the last two months of pregnancy. This degenerative process involves the hyperplastic muscular fibres of the pregnant organ, destroys them and afterwards effects fatty infiltration within the hypertrophic fibers which are thereby reduced to their normal form and dimensions.

At the termination of pregnancy and during delivery, the fatty degeneration exerts a restraining influence over the unusual irritability of the uterine musculature. Thus an excessive fatty degeneration would explain the inactivity of the uterus in some cases, whereas insufficient degeneration or absence of degeneration would account for the excessive and spasmodic contractions during the puerperal period. Subinvolution and hyperinvolution of the uterus during the puerperium are explained in like manner.

Ciulla recognizes excessive and premature fatty degeneration as the main etiologic factor in delayed delivery, and an absolute absence of the degenerative process is the cause of premature delivery. The fat derived from the fatty metamorphosis of the unstriped muscle fibres of the pregnant uterus may participate in the further development of the fetus during the last two months of pregnancy and may serve to form the first reserve in preparation for the function of the mammary glands. The fat derived from the active processes of involution during the puerperium, too, is utilized in the lacteal secretion.—*Centralbl. f. Gyn.*, v. 31, No. 37, 1907.

HEART DISEASE IN PREGNANCY AND LABOR.

v. Wenczel reports eight cases of heart disease observed during gestation and labor. He believes that although the rôle played in heart disease by pregnancy, labor and the puerperium is not yet fully determined they probably predispose to pathologic changes of the heart. Organic heart disease existing before pregnancy may be most unfavorably affected by gravidity, labor and the puerperium.

It is only when induced during the first two months of gestation that artificial abortion is, strictly speaking, a safe procedure in cases of cardiac disease. After the formation of the placenta—from the third month on—there is much greater danger of hemorrhage, especially during the third and fourth months, since the placenta adheres more firmly to the uterus, and the hemostatic action of the uterine contraction and retraction is less complete. From the fifth month the hemorrhage is not so great and toward the end of pregnancy it assumes a normal character.

In the eight cases reported by v. Wenczel the women came under observation with all the symptoms of marked failure of compensation. In four the disturbances of compensation had been present for years before pregnancy occurred; all of the latter died. In three cases the disturbances appeared in the first half, in one case in the second half of pregnancy. Six of the women were primiparæ, three of these ranging in age from 37 to 42 years; two were 3-para. Artificial abortion was done in one case; podalic version in one complicated with placenta prævia; there was one case each of dilation of the os, internal podalic version, extraction and removal of placenta, two forceps operations, and two spontaneous births. Six of the women died; in two of these the child lived; two women left the clinic in good health, and their children also survived. Of the eight births three occurred at term, three were premature, two ended in abortion; three suffered from insufficiency of the bicuspid valve (one of these died); three from stenosis of the left venous orifice, one from aortic valvular insufficiency and one from parenchymatous degeneration of the myocardium.

v. Wenczel says that among the 10,998 births occurring at the First University Female clinic at Budapest during the past eight years there were seven cases of non-compensated heart disease; the eighth case reported was treated in the policlinic. He is led to conclude that disease of the ostia and valves of the mitral orifice is commoner than stenosis or insufficiency of the aorta, mitral insufficiency and mitral stenosis each being found in three cases. Most observers agree that mitral stenosis is most dangerous, and in this series all three of these cases died.—*Monatsschr. f. Geb. u. Gyn.*, V. 26, No. 4, 1907.

INTERNAL AUTO-INTOXICATION OCCURRING TEN DAYS AFTER AN APYRETIC ABORTION: MANIFESTED BY VIOLENT CHILL AND A TEMPERATURE OF 40° C.

Ozonne and Josephson report the following case: On May 22, J. G., aged 20 years, was admitted at Saint Lazare, for syphilitic mucous placques and deep ulcers of the vulva. Examination revealed a four months' pregnancy. Rapid improvement followed injections of benzoate of mercury two centigrammes daily for 12 days. The woman aborted April 14th. It appeared that portions of the placenta remained and daily vaginal irrigations were employed. April 17th, an intra-uterine injection was given of five liters of a 1-4000 solution of sublimate for the removal of remaining débris. The temperature ranged from 36.6 to 37.2 degrees C. This treatment was kept up for two days more during which time the temperature returned to normal. On April 24th, the patient was seized

with a violent chill followed by a temperature of 39 degrees C.; the pulse was 130. During the day two intra-uterine injections were given, each of 1,000 grammes of artificial serum. Cold baths were ordered. The next day the temperature rose to 40.3 degrees C.; the pulse to 110. The abdomen became slightly distended but there was no pain and no evidence of uterine or periuterine complications. Injections and baths continued. During the day there were a number of fetid discharges from the bowel. In the evening the temperature had fallen to 39.8 degrees C.; pulse to 100. The next morning, April 26th, the temperature was 37.3 degrees C.; the pulse 80. The patient had a number of bowel movements and was entirely well at the end of 48 hours. She left the hospital May 10th. The case was believed to be one of auto-intoxication due to coprostasis.—*Rev. prat. d'obst. et de gynéc.*, Par., No. 8, 1907.

PEDIATRICS.

EDITED BY

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INFANTILE SCORBUTUS.

Dr. John Lovett Morse, of Boston, read at a meeting of Medical Society of Kings County, June 18, 1907, a paper in which he said that, although physicians had come to recognize fairly well the typical picture of Leury, the milder cases were often overlooked and the diagnosis was often mistaken for difficult dentition. Of thirty cases seen by the speaker, besides the latter, diagnosis of rickets, Pott's disease, hip disease and syphilis had been made. He spoke of three groups of cases. In one group the cases were characterized by tenderness on handling, usually in the legs, gradually increasing until child ceased to use legs. This class was often confounded with rheumatism, paralysis and hip disease. In some cases swelling of the gums appeared before appearance of the teeth and in other cases after their eruption.

In some cases hematuria persisted for weeks and months with the diagnosis made of acute nephritis, tumor of bladder, etc. If not treated the cases went from bad to worse. The classic picture that most physicians had in mind was of a pale infant, ill-nourished, with spongy, bleeding gums and swellings in extremities. It was commonly supposed that scurvy was not accompanied by fever. There were, likewise, marked exceptions to this rule; there were cases which showed a temperature of 103 degrees to 105 degrees, without complications. Most cases occurred during the second six months of life; the patient's surroundings had no direct influence on the disease; there was no relation between it and rickets. The main causative factors were artificial feeding, overheated milk, too weak milk mixtures and stale milk. The direct or primary causes seemed to have to do with the destruction of ferments in the milk and to disturbances of absorption of calcium; certain authors maintained that it was a manifestation of auto-intoxication associated with chronic dyspepsia (this seemed highly improbable).

The therapeutic test for scurvy was the administration of fresh orange juice; the latter was taken better by infants than lemon juice. It should be given at least one hour before each feeding in definite amounts; about two tablespoonfuls daily. Fresh beef juice was less rapid in its effects than fresh fruit juice. It was frequently necessary to change the food. Some modification of cow's milk was necessary, but it was never to be sterilized. Drugs were not necessary. It was sometimes necessary to immobilize a limb. The pain and tenderness were first to yield; the gums later. The disappearance of swelling about the bones was slow. Improvement was noticed in a week. Some cases were entirely well in five days. Recovery nearly always occurred by the end of three weeks.

NEPHRITIS IN INFANTS.

George Carpenter says that albuminuria in healthy infants during the first few days, and sometimes weeks, of life, is said to be not an uncommon occurrence. The author reviews the literature on this subject and thinks it relatively rare. In 62 cases of infants coming under his notice, ranging in age from 3 weeks to 8 months, both breast and bottle fed, and brought to the out-patient department for a variety of ailments, albumen was only found in two.

The dropsy of infants is discussed. This differs in no sense from that met with in nephritis. It may be slight and confined to the back of one hand or foot or may be general. If it is slight, the skin readily pits, but if the cutaneous skin is shiny, pitting is obtained with difficulty. In these edemas of infantile gastro-enteritis, albuminuria is rare.

Hutinel attributes the dropsy to retention of chlorides in the system. Potter states that the edema can be cured by increasing the percentage of proteid in the milk. The author cites some of his cases of nephritis in infants in which the microscopic examination did not show any kidney disease, but where the microscope showed obvious fibrous and catarrhal changes.

In conclusion he states that it would appear in the present state of our knowledge that interstitial nephritis may be produced by toxins other than those of congenital syphilis. This is of interest from two points of view. First, the suggestion that the cirrhotic kidney is a syphilitic manifestation, and, second, the possibility of the seeds of this disorder being sown in infantile life, and of the cirrhotic kidney being produced by intestinal toxins.—*British Jour. of Children's Diseases*, October, 1907.

SOME NEEDS OF INSTITUTION CHILDREN.

John Ruhräh says that the two chief causes of failure in institution work, are a lack of funds, and the actual management of the institution through large boards of laymen. The amount of money required to raise a baby under twelve months of age in an institution varies considerably, but it cannot be done on less than one dollar a day if the best care is given and all expenses included. If older children are cared for in the same institution, the cost per capita will be greatly reduced. The medical staff should have absolute control over all matters which properly belong to it and should be free from the care and worry of any other part of the work.

The greatest fault in most asylums is lack of air space. Each child under one year of age should have one thousand cubic feet of air space. When possible there should be separate rooms for the day and night. In addition, ample and protected porch space, surrounding gardens and lawns should be provided. Ample provision should be made for separating the sick and the well. The nursing and attendance of the institution are of equal importance with the air space. The author urges that the nurses be of a better class and should be cared for in such a way that self-respecting young women will enter hospitals for infants as a vocation.

He urges "mothering" the babies—that is, giving them affectionate care, giving the bottle in the arms, etc. When the above requirements are supplied, the feeding becomes a comparatively easy problem. To succeed with institution babies individual feeding is necessary.—*Jour. Am. Med. Assoc.* Nov. 9, 1907.

RELAPSES IN DIPHTHERIA.

J. D. Rolleston says that the consensus of opinion since the introduction of anti-toxins is that relapses of diphtheria are as a rule milder than the primary attack. The present study is based on 1,300 consecutive cases of diphtheria which have been under the care of its author during the past five years.

The term "relapse" is applied to a fresh occurrence of membrane in the throat or nose, associated with constitutional disturbance and occurring in convalescence from the primary attack, but before the discharge of the patient from the hospital. A distinction is thus made between a relapse and a second attack of diphtheria. Of the author's series, 22 or 16 per cent. had relapses and two of these had two relapses each. All of these were in children under 10 years of age. These relapses occurred after the third week of convalescence and were found to be much more frequent after mild attacks of diphtheria.

In no case was the relapse severe and in none was the larynx involved. With few exceptions the location of the two attacks was the same. All these cases had received anti-toxin and were all reinjected. The serum rash was more frequent and intense in these reinjected cases and it appeared sooner. The author believes that smaller doses of anti-toxin should be used in the treatment of relapses. He does not recommend the prophylactic treatment of Marfan and others, which consists in the administration of a fresh dose of anti-toxin to every child who remains in the diphtheria ward longer than a month.

In the differential diagnosis the author discusses Angina "redux," scarlet fever and late tonsilitis. The cause is obscure. It is probably a fresh inoculation and individual idiosyncrasy probably accounts for most cases.—*British Journal of Children's Diseases,* Aug., 1907.

DERMATOLOGY.

EDITED BY

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SYPHILITIC ALOPECIA.

H. G. Klotz summarizes his conceptions of this variety of Alopecia as follows: Loss of the hair is not a common symptom of the early stages of syphilis; the physiological loss of hair must be taken into consideration before attributing it to syphilis, the same rule applies to seborhea which is common in many scalps; in a certain number of cases loss of the hair may be very profuse, similar to that observed after infective diseases, and if there is no local change in the skin the alopecia is probably the result of malnutrition of the hair from the syphilitic infection, therefore this alopecia is not strictly a symptom of syphilis directly due to the virus, but rather a complication.

This loss of hair is directly dependent upon and proportionate to the general symptoms which accompany the second stage, and usually makes its appearance several weeks after the beginning of the disease.

Although the loss of hair may be very extensive it is not permanent unless the person is advanced in age.

There is another variety of alopecia that occasionally ocurs in the form of ill-defined, irregular, small patches of baldness, distributed over the back and upper portions of the scalp. This small patch alopecia is observed almost exclusively in syphilitics and is so characteristic that it is diagnostic of syphilis, and it almost always occurs at a period more or less remote from the time of the infection, usually not before the end of the first year and up to the end of the second year. It runs a tedious course, although it terminates in the restoration of the hair. It is very difficult to explain the origin of this alopecia.—*Jour. of Cut. Diseases,* March, 1907.

RADIO-THERAPY.

In introducing the subject Dr. Joseph Zeisler stated that he had long ago abandoned the plan of relying solely upon the action of the ray in the treatment of acne, and that when he did use it he did so very gently. He emphasized the necessity for general and surgical remedies; he stated that in his experience the ray did not prevent recurrences.

In speaking of the use of X-ray in epithelioma he emphatically declared that in some forms, especially epithelioma of the tongue and lips, its employment was paramount to malpractise, to lose time by using anything but surgical measures.

His present plan is to commence treatment by a through curetting of the epitheliomatous growth followed by a short series of X-ray exposures.

The choice of the ray in the treatment of psoriasis is on account of its elegance and cleanliness, not because its effects are either curative or lasting.

He is still of the opinion that the ray is of extreme value in the treatment of soft corns.

In concluding he voiced the opinion of all trained dermatologists when he said that a great many physicians without dermatological training and with stupendous ignorance in the differential diagnosis of skin diseases have the boldness to undertake the treatment of these diseases simply because they happen to have an X-ray outfit. This is a deplorable fact and, the doctor might have added, is attended with disastrous results in many instances.

This late summing up of the effect of the X-ray in dermatology by one who was formerly an enthusiast is of more than passing interest to those working in radio-therapy.—*Jour. of Cutaneous Diseases,* Aug., 1907.

INTRAVENOUS TREATMENT OF SYPHILIS.

G. Frank Lidston gives his experience and deductions in the intra venous treatment of syphilis. His studies were made upon ten cases which are reported in the article. He concludes that it is a safe procedure, but does not claim that this method should be employed in all cases of syphilis, but considers it valuable when one wishes rapid medication, as in malignant syphilis. He says he is convinced that where the entire dosage is accurately placed within the lumen of the vein no reaction whatever will occur, and accidents should be infrequent, the tourniquet should be moved from the arm after the insertion of the needle into the vein and before the discharge of the mercurial solution has begun. By this method one gets speedy mecurialization of the blood, prompt systemic effect of the drug, relatively large doses can be given, freedom from painful effects of subcutaneous and intramuscular injections, and in general, the absence of gastro-intestinal disturbances.—*Jour. of Am. Med. Assoc.,* Nov. 16, 1907.

THE OPSONINS IN BACTERIAL CUTANEOUS DISEASES.

Harry E. Alderson, after reviewing the subject of opsonins concludes as follows:

1. It has not been proven that opsonic therapy produces good results in acne, furunculosis, sycosis, lupus vulgaris, etc., any more expeditiously than the usual approved methods.

2. Most of the dermatological cases were 'much improved,' relatively few were 'entirely well.' These results were accomplished only after prolonged opsonic treatment.

3. So far none of these cases have been reported by dermatologists but have come from the records of surgeons and general practitioners who might easily misinterpret the clinical picture presented by certain skin diseases in their different phases.

4. Opsonic treatment is of undoubted assistance in certain chronic bacterial skin diseases. To produce the best results much auxiliary treatment is necessary.

The abstracter wishes to add that since the above article was published a number of trained dermatologists have reported on the opsonin treatment of various skin diseases, and their conclusions are practically the same as Dr. Alderson's.—*Jour. of Cutaneous Diseases,* July, 1907.

RESORPTION THROUGH THE SKIN.

Sutton experimented with various substances on the shaved skin of guinea pigs and rabbits—scharlach-red and fuchsin dissolved in various vehicles such as glycerine, ether, cedar oil, xylol, sandal oil, olive oil, goose grease, vaseline, etc.

The skin was excised and examined microscopically after the stain had been applied for a varying length of time from 15 minutes to 16 hours. He found that the coloring matter had been absorped only through the follicles and their appendages; the medulary substance of the hair was stained if the pigment had been dissolved in cedar oil.

The experimenter proved that goose grease was the most absorbable, olive oil and sandal oil stood next; vaseline did not penetrate to the sebaceous glands and lanoline was found only just within the follicular openings.—*Monatshefte für Prakt. Derm.,* Oct. 15, 1906.

SPIROCHETA PALLIDA.

Kraus in recent investigations states that he found the organism in smears from condylomata lata twenty-three times out of thirty-one cases. He also observed the spirochete in semen of men affected with secondary syphilis. He was unable to find the organism in gummata. He found the organism in the bullous contents, lungs, liver, kidney, pancreas, testicle, and thymus of hereditary syphilitics.

Forty-eight examinations of non-syphilitic diseases revealed the presence of spirocheta refrangens but no spirocheta pallida.—*Archiv. für Derm. und Syph.,* vol. 3, p. 89.

ANATOMICAL-CLINICAL STUDIES OF SCLERODERMA.

Fouchard in a Thesis (*Thèse de Paris,* 1906) concludes from his studies of the subject the following:

1. The changes of diffused scleroderm have their point of origin in the vessels.

2. The changes are made up of newly formed cells which are arranged in concentric layers around the vessels.

3. These cells are not leucocytes, but are developed from the connective tissue.

4. The vascular endothelial cells are swollen.

5. The vascular atrophy affects the small blood vessels, the nerve vessels simultaneously with those of the cuticle and connective tissue.

6. This vascular atrophy is the result and not the cause of the scleroderma.

7. Pigmentation is a common symptom in the course of this disease.

8. Changes of the glands are frequently observed in the course of the disease, and it is possible that diffused and progressive scleroderma is caused by a disturbance of a number of the glands.

ABORTIVE TREATMENT OF BOILS.

Vikentive claims to be able to absolutely abort the formation of a boil by thoroughly scrubbing the lesion with soap and water, then washed off by fifty per cent. alcohol, then a compress soaked in alcohol allowed to remain on the part until all the alcohol has evaporated. The lesion is again washed with soap and water and the suds allowed to dry on; no other dressing is applied.

If there is no pus a single treatment will suffice to abort the furunculous outbreak.—*Annal. de Therap., Derm. et Syph.,* VI. 20.

DIAGNOSIS AND TREATMENT OF TUBERCULOSIS.

F. Nagleschmidt states that if a tubercular lesion of the skin is inoculated with tuberculine the skin ulcerates, but if the healthy skin is inoculated a papule will form but there will be no ulceration. He has taken advantage of this fact to determine if a lupus patch is cured, especially after the action of the Finsen light. In addition to its diagnostic value this procedure is curative, for if the nodule ulcerates it is followed by a definite cure.

He recommends the local injections of tuberculine in minute doses, directly into the lupus or other nodule, where the Finsen treatment is not available, or if the foci of disease are isolated.

The only objections to its use are the loss of substance from the ulceration and the general systemic reaction, if too much tuberculine is absorbed or too great a quantity used—*Deutsche Medicinische Wochenschrift,* Berlin, Oct. 3, XXXIII, No. 40.

TERTIARY SYPHILIS.

Von Zeisal states that after twenty years of study and experience he is convinced that post syphilis as well as primary and secondary forms is transmissible; and is as amenable to mercurial treatment as the other forms. He further states that mercury is more efficacious in tertiary syphilis than the iodides; and that gumma is now seldom seen in Austria, where it was formerly very common. This, he claims, is due to the early and energetic treatment that the Austrian received.

Hence the gummatous process appears to be modified by early treatment. But on the other hand, syphilis of the nervous system is very common in this kingdom, while in Constantinople it is almost altogether absent, but gummata are constantly found.—*Medical Press and Circular,* London, Oct. 6, 1907.

MEDICAL ECONOMICS.

EFFICIENCY IN MAKING BEQUESTS.

In every community are scores of instances which show that giving may be sadly inefficient. Whether or not it is efficient depends upon what is done with the gift, rather than upon the motive and the confidence of the giving or the worthiness of the recipient. A few instances will show the importance of a testator's desiring to know what will in all probability be done with his bequest.

A banker had heard so much from his family physician of the struggles and economies of a certain hospital that he determined to leave it $50,000 for a memorial wing. When the wing was finished it bore the tablet, "In Memoriam, Mrs. Grateful Patient," and added $55,000 to the hospital's annual burdens. No corresponding addition was made to the number of friends willing to support it—in fact, several large donations were reduced because it was imagined that the relatives of Mrs. Grateful Patient would give handsomely. The friend in need who had patiently met all former deficits announced that he could not carry the larger load, and after the first year would give $2,000 and no more. There was nothing for the managers to do but to face about and solicit the public subsidy that they believed inimical to private hospitals. The contributing public gradually fell off, mistakenly believing that the city supported the hospital. For ten years every legacy received has gone to meet deficits; wards are repeatedly closed for months for lack of funds; to increase revenue private patients are given all choice windows; a large floating debt is carried—a veritable Minotaur ready to swallow the next legacy and the next forever. For fear of losing its subsidy the hos-

pital managers have declined to take any part in the fight against preventable epidemics due to official neglect.

Three other instances illustrate the method that leads to efficient giving. Four years ago a retired manufacturer asked the president of his State Board of Health what kind of help the very poor needed most. Numerous suggestions were made, including the need for leadership in a popular crusade against consumption. Without disclosing his own identity, the possible giver communicated for over one year with a physician thought to be eminently qualified to organize such a crusade. A hundred units of inquiry were found—extent of the need, various methods of fighting tuberculosis, world evidence of successful treatment, a detailed plan of procedure, with estimates as to expense of publication, laboratories, dispensaries, administration. Had a steel mill been involved instead of a health crusade, the procedure could not have been more business-like than that which gave the world the Phipps Institute for the Study and Prevention of Tuberculosis.

In May, 1906, Mr. Rockefeller sought from several social workers suggestions as to the use of certain vacant property overlooking the East River, adjoining the Rockefeller Institute, for Medical Research. Playgrounds were the first thought of several. Another mentioned three needs: 1. Farm gardens for crippled children, river breezes on the bluff for those not able to move about; 2. Day nursery; 3. Out-of-door fresh-air camp for very sick "summer complaint" babies and their mothers. Which will have the greatest educational results? The camp demonstrated that mothers can save their own babies in their own tenement homes if they will give them clean milk, clean air and clean bodies. An itemized estimate was required of cost, method of treating, teaching, and results to be expected. Inside of six weeks Junior Sea Breeze was opened, and throughout the summer led the fight against preventable infant mortality, giving 2,050 days' care to 1566 babies, 14,389 days' entertainment and instruction to an average of 232 tenement mothers and children, and suggestions for application elsewhere for 274 babies. It was visited by 1,025 social workers and physicians.

The widow who wanted to establish a $100 memorial considered a score of means before finally purchasing two strong invalid chairs. Forty mothers every summer will have ten days at the seashore, moving about among the hundreds of guests who are the living memorial of her husband's interest in Sea Breeze. Her method was as commendable as that of the two millionaires, not because she had a mite, but because she spent it efficiently.

It was a wise public benefactor who added this to his benefaction: "Whenever the need herein provided for shall have disappeared, or when responsibility for meeting it may be placed on some other agency better equipped to meet it, the annuity may be used for educational purposes in connection with the work conducted at that time by the beneficiary."

Because true affection for a society's name and work accounts for most bequests for public purposes, testators will continue to leave the spending of both interest and principal to the judgment of benficiaries. Men and women who have themselves as trustees suffered the torments of uncertain income will continue to feel that they qualify their generosity by restricting a legacy—too much like inviting a private detective to oversee a lunch party. Such loyal friends may safeguard their bequests and the traditions they love against the aggressive, money-spending minority known to be on every board, by asking that for ten, twenty-five, or fifty years the disposition of the capital be explained to friends of the society in successive annual reports. For example: Mary J. Walker Legacy, $152,500—1903; $100,000 remaining in General Endowment. $50,000 consumed in spreading broadcast the knowledge that home tuberculosis is due to consumption; that it can be prevented; that it can be cured by out-of-door salt-air treatment. Fund of $250,000 raised for the first American Seaside Hospital presented to New York City in 1907. In Memoriam N. D., $100,000; half consumed to erect laboratory; $50,000 invested; interest used in publishing facts as to preventable infant mortality.

Accustomed to apply the effectiveness test to investments during life, they come to believe sincerely with Professor Sumner that "the next most pernicious thing to vice is charity in its broad sense." If one cares, let him make sure that his gift will relieve, not increase, a burden. Do not give an elephant to a peasant, or an automobile to a push-cart merchant.

Here are some wise suggestions:

To specify of a legacy that its income shall not be used for salaries or other expenses of management may invite waste and inefficiency. It requires money to spend money efficiently.

To give specifically for salaries and management will often convert an inefficient into an efficient society, and enable it to increase the community's interest in its work; many societies fail for want of a hearing.

One bequest recently received by a hospital that is known to have a large surplus income might have established a fund for loans on personal credit or wages, or the after-treatment of hospital patients, or financed the national crusades against tuberculosis and child labor or child neglect for a whole year. One thousand dollars spent in proving the need for official attention to the physical welfare of school children will pay larger dividends than $1,000,000 spent in a child's hospital.—"Efficiency in Making Bequests," by William H. Allen, *Atlantic Monthly*, March, 1907.

Correspondence.

THE DOCTOR IN POLITICS.

To the Editor of the New York State Journal of Medicine.

Dear Doctor: There are two sides to every issue and, at the risk of seeming discourteous, the writer begs leave to present the opposite of the contention that medical men should take an active part in politics. To save space, brief propositions will be submitted, their form suggesting an autocratic frame of mind which does not exist.

1. Political conditions preceding and immediately following the Revolution, were entirely different from the present ones, there being a general patriotism and homogeneity of population which have disappeared.

2. The idea that the average citizen really desires to govern himself has not been borne out by experience. We fought against being governed by superiors and have been ruled by inferiors most of the time since. The novelty of self-government appeals to the people for about two generations, when their interest becomes perfunctory, unless they are aroused by actual danger or an unusual degree of corruption.

3. Considering the chance of defeat and the uncertainty of tenure of an elective office, it cannot be economically held by the average man who must support himself, and who has a reasonable degree of ability.

4. The man who enters active politics for the sake of purifying it and who is dependent on political life for his living, usually is forced into dishonorable or, at least, undignified practices, or is forced out of office.

5. The whole trend of political life, unless there is a strenuous and general effort to counteract it, is toward methods and associations incompatible with the high standards of a profession or the natural life of a gentleman.

6. Coroners, health officers, etc., should, of course, be physicians, and the corresponding offices should, just as far as possible, be appointive, permanent and out of politics.

7. While a physician, as a man, should perform the ordinary duties of citizenship, it is just as rational to excuse him from the "duty" of active politics as from jury duty, and for precisely the same reasons.

8. It is practically impossible for a physician to conduct his practice and hold a political office or take an active part in political management. Success in either requires close attention to business and a disregard of other engagements. Thus, while a man with a medical degree may go into politics, he virtually ceases to be a physician if he amounts to anything as a politician (excepting, of course, certain advisory and executive positions, mainly in small communities) and his influence, in behalf of the medical profession or in behalf of the community, on account of his special medical training, is no better than can be exerted by an intelligent layman with competent advice from medical bodies.

9. It is exceptional, under present conditions, for any medical man who has any weight as a physician, to seek political office, with the exception made in the last paragraph. Advice for the profession to take an active part in politics is an additional incentive for doctors of small calibre to make nuisances of themselves soliciting support of their professional brethren.

Very truly yours,

A. L. Benedict.

Buffalo, N. Y.

From the remotest past which science can fathom, up to the novelties of yesterday, an essential trait of evolution has been the transformation of the homogeneous into the heterogeneous.—*Herbert Spencer.*

New Books.

Gynecology and Abdominal Surgery. Edited by Howard A. Kelly, M.D., F.R.C.S., and Charles P. Noble, M.D. Illustrated by Herman Becker, Max Brödel and Others. Volume I. Philadelphia, London. W. B. Saunders Co. 1907.

The first volume of Kelly and Noble's work is likely to prove a valuable addition not only to the gynecologist and general surgeon but to the general practitioner as well. Like all systems, however, in which the different chapters owe their origin to different authors the work is characterized by a certain amount of unevenness. This is less obvious than in some similar works and does not forbid a high order of excellence which is evident throughout the volume. There is an excellent chapter on Medical Gynecology by Noble and Anspach which will be of great service to the family practitioner. Included in the same chapter is an excellent treatise on the use of pessaries and their availability. The chapter on plastic operations on the perineum, vagina and cervix is written by Noble and is well and clearly illustrated. As most of these operations are frequently done by the general practitioner it is fortunate that the illustrations are so clear and not merely diagrammatic or in such a form as to resemble the geometrical drawings in a work on conic sections. The methods of immediate and intermediate repair are clearly described and the advantages of operating during puerperal convalescence set forth in such a manner that it will be strange if the family doctor does not successfully repair these injuries himself more often than he has done in the past. Thus the patient will be saved much inconvenience, the bank account of the family doctor will be increased and the gynecologist—must philosophize.

The technique of catheterization as set forth in this chapter seems to be impractical and calculated to cause cold chills to run down the back of the doctor who endeavors to imitate the proceeding in a family practice. Frankly it is a technique which has been carried to a *reductio ad absurdum*. Noble details twenty-four different proceedings which the nurse is to carry out before she takes the catheter in hand to draw the urine. This includes the preparation of the hands twice, once before she places the patient in position and afterward. These maneuvres cannot be completed in much less than twenty minutes. We do not wish to minimize the dangers of infection due to careless use of a dirty catheter. At the same time it ought to be remembered that a technique may be so elaborate as to defeat its own purpose, and the elaborate precautions detailed in this chapter really require a second attendant and a stop watch. While it is possible no doubt to carry them out, not only in hospital but in the private house and the tenement, their elaboration will render them impracticable. We have to consider not the possibility but the practicability of a surgical procedure. There are four essentials to proper catheterization: 1. The catheter should be sterile; 2. The vulvar and urethral orifices should be well cleansed as Hunner directs in his chapter in the same work; 3. That part of the catheter which enters the urethra should on no account by touched by the nurse, no matter how long she has scrubbed; 4. The point of the catheter should not touch any surface save the urethra. These precautions may be observed without the use of twenty-four maxims.

Kelly has a chapter on vesico-vaginal fistula in which he gives an interesting historical account of the operation and describes the methods of to-day which have descended to us from Sims and Emmet. The illustrations of the round ligament in the article on Alexander's operation are grossly misleading. The young surgeon who expects to find a structure of the size the illustrations lead him to expect when he opens the inguinal canal will be sadly disappointed. An illustration ought to be clear but not misleading. Volume I

as a whole treats of the diseases of the external and internal organs of generation in the woman. It is beautifully illustrated and printed—well clothed—and will be welcomed both by the general practitioner and the specialist. A. T. BRISTOW.

THE PRINCIPLES AND PRACTICES OF MODERN SURGERY. By ROSWELL PARK, A.M., M.D., LL.D., Philadelphia. New York. Lea Brothers & Co. 1907.

Dr. Park in his introductory remarks makes the statement that this work is intended as a framework rather than a complete structure. To continue the simile, we may say that it resembles our modern skyscraper, in which the framework is the only essential part of the building, since the stonework is nothing but a veneer and adds nothing to the strength of the structure. This volume is much more than an epitome. It is characterized by clearness of thought, facility of expression and a condensation which does not save space at the expense of lucidity. It will be invaluable as a textbook for the medical student and equally useful to the general practitioner who may have neither the inclination nor the means to crowd his shelves with the more expensive systems.

The work is divided into six parts. Part I treats of surgical pathology. As this is the foundation of modern surgical practice and therapy, Dr. Park has happily chosen it for his initial chapter. The colored plates, especially that which illustrates normal and pathological blood conditions, are beautifully executed. Part II is an exposition of the surgical diseases, all of which are of course examples of the various infections which require surgical treatment in some of their phases. Part III is a treatise on the broad principles of our art. It also contains an account of minor surgical procedures, including anesthesia. Part IV treats of injury and repair; Part V of surgical affections of tissues and tissue systems. Chapter one of this part treats of cysts and tumors, including the malignant growths. There are some really exquisite reproductions in color of micophotographs containing representations of Gaylord's parasites. A temperate and conservative statement of the work of the Buffalo Cancer Laboratory forms the groundwork of the author's statements as to the probable origin of malignancy. Two excellent chapters on fractures and dislocations are contained in this part. Part VI treats of regional surgery and concludes the volume. It is a difficult acomplishment to-day to write a work on surgery which the result proves to have been worth while. Dr. Park seems to have accomplished this feat. A. T. BRISTOW.

SURGICAL DIAGNOSIS. By Daniel N. EISENDRATH, A.B., M.D. Phil., Lond., W. B. Saunders Co., 1907.

This work is clearly written and profusely illustrated. The author has been fortunate in securing many original photographs of somewhat rare conditions, which have been admirably reproduced by half-tone plates. The author has treated the subject from the clinical standpoint purely, and has therefore described the symptoms of diseases grouped regionally, rather than pathologically. Thus all affections of the head are discussed in one chapter, following which in regular order occur the chapters on affections of the neck, thorax, abdomen, and so forth. The subject of differential diagnosis is given special consideration, and the book cannot fail to be of great service both to the young and the old practitioner. A. T. B.

DISEASES OF THE RECTUM: Their Consequences and Non-Surgical Treatment. W. C. BRINKERHOFF, M.D., Author. Chic., Orban Pub. Co., 1907.

From a perusal of the above volume, one at all conversant with the present approved methods of the management of rectal disease, can gain nothing. On the other hand, one not versed in the subject, but seeking information, will find himself almost within the border line of quackery and sensational medicine, provided he follows the precepts herein laid down.

Beyond a eulogy of the "Brinkerhoff Injection Method" in the treatment of hemorrhoids, and the Brinckerhoff instruments to be used therefor, there is nothing to the book. It fails to state the ingredients of the "hemorrhoidal compound," which it is to be presumed is the material injected into each hemorrhoid.

In conclusion, it seems to the reviewer that criticism of such men as Andrews, Mathews and Kelsey, by a book of the calibre of the above shows, to put it very mildly, bad taste. H. W. LINCOLN.

A TEXT-BOOK OF PHARMACOLOGY and Some Allied Sciences (Therapeutics, Materia Medica, Pharmacy, Prescription-Writing, Toxicology, etc.) Together with Outlines for Laboratory Work; Solubility and Dose Tables, etc. By TORALD SOLLMANN, M.D. Second Edition: Thoroughly Revised and Greatly Enlarged. Phil., Lond., W. B. Saunders Co., 1906.

This is an elegant example of a model text-book. The arrangement is admirable and the text clear and concise. It supplies exactly the information the student needs, and avoids extended discussion of uncertain and disputed points.

Furthermore, this work may well serve as a reference book for the general practitioner. It contains an enormous amount of valuable information in condensed form in regard to drugs, their relationships, indications for use, toxicology, etc., and also considers other therapeutic measures, hydrotherapy, antitoxins, the use of substances derived from organic tissues, as suprarenalin, thyroid extract, etc.

Part I deals with the preparation of medicines and their combinations in prescriptions. The remarks on how to make prescriptions palatable and presentable will be appreciated, especially by the younger practitioners. Part II deals with material medica proper, pharmacology and therapeutics. Under this are included the action of ferments, toxins, antitoxins, organ and serum therapy, etc. Part III deals with laboratory exercises in pharmacology, the appearances of drugs, tests for purity, directions for animal experimentation, etc. Part IV contains reference tables, dose tables, and bibliography.

The book has been revised, largely rewritten, and brought down to date. An excellent index worthily completes this well designed and finely executed work. J. EDDY BLAKE.

A MANUAL OF THE DIAGNOSIS AND TREATMENT OF THE DISEASES OF THE EYE. By EDWARD JACKSON, A.M., M.D. *Second Edition Thoroughly Revised.* Phil., Lond., W. B. Saunders Co., 1907.

As its name "Manual" would indicate, this is not an exhaustive treatise, but a very "handy" book, and one which cannot fail of its object as a text and reference book for the student and general practitioner, containing the meat of the nut well brought into view, and so prepared that it is quickly and readily digested.

The arrangement of the chapters is good, and the absence of long and extended paragraphs makes the book easy reading, and this, together with a liberal use of display type and italics, add much toward making the work extremely "quick" from the standpoint of reference.

The frequent reference to other chapters in the text is an excellent idea, as it stimulates the student to further research, as he knows just where to turn to find more extended reading on the subject casually mentioned.

The treatment suggested for the various diseases bears the stamp of thorough knowledge of the subject, combined with a common sense use of hygienic, therapeutic and surgical measures.

A careful perusal of the work cannot fail to convince one that the volume is sure to find a place on our shelves, and like an abridged dictionary, will be found most useful both for its brevity, and also as a stimulation to more thorough investigation of the subjects therein treated. NELSON L. NORTH.

A Manual of Pathology. By Guthrie McConnell, M.D. Phil., Lond., W. B. Saunders Co., 1906.

This is a volume of far greater merit than the modest preface would lead one to expect. Part first includes, under the head of General Pathology, the usual classifications of that subject. In addition there are chapters devoted to Post-mortem Examination, Laboratory Technique and Bacteriological Methods. These chapters—three in number—give to the student and interne pathologist a guide that is clear, concise and accurate. No such indefinite terms as "a weak solution," "a few drops," and "a short time" are to be found.

Part second treats of Special Pathology, the affections of the various systems being classed under appropriate heads.

The book treats the subject of pathology with a thoroughness lacking in many works of greater pretension. The illustrations—many of them original—are profuse and of exceptional excellence. T. H. Dexter.

A Laboratory Manual of Invertebrate Zoology. By Gilman A. Drew, Ph.D. With the Aid of Members of the Zoological Staff of Instructors of the Marine Biological Laboratory, Woods Hole, Mass. Philadelphia and London. W. B. Saunders Co. 1907.

The author of this book, Dr. Gilman A. Drew, is in charge of zoological instruction at the Marine Biological Laboratory at Woods Hole, Mass., and his close contact with students, engaged in practical studies of invertebrate zoology, in a teching capacity, has rendered him particularly competent to produce a laboratory manual for their use. Dr. Drew's systematic manner of work is reflected in this book. The type method of laboratory study is followed, but the student is cautioned against adhering too closely to types lest he miss the multitude of variations which adapt animals to peculiar conditions.

This is a students' work book, classifying, describing and giving methods of studying the invertebrate forms of animal life. It is particularly suggestive. The student is advised what to look for and where to find it. Many practical hints in methods of examination are given. Many of the suggestions are put in the form of questions in such a way as to prove most stimulating to research.

The book adds a short chapter on the making of permanent preparations and a glossary. It is difficult in this little work to find a superfluous word. It should be of much value to the student.

J. P. W.

A Manual of Hygiene and Sanitation. By Seneca Egbert, A.M., M.D. *Fourth Edition Enlarged and Thoroughly Revised.* Philadelphia and New York: Lea Brothers & Co., 1907.

A Manual of Personal Hygiene. Proper Living upon a Physiologic Basis. By American Authors. Edited by Walter L. Pyle, A.M., M.D. Contributors: D. H. Bergey, M.D., J. W. Courtney, M.D., George Howard Fox, M.D., E. Fletcher Ingals, M.D., Walter L. Pyle, M.D., B. Alexander Randall, M.D., G. N. Stewart, M.D. (Edin.), Charles G. Stockton, M.D. *Third Edition, Revised and Enlarged.* Philadelphia and London: W. B. Saunders Company, 1907.

The most neglected of all of the departments of medicine and the most important is that of sanitation and hygiene. This is partly the fault of the public, because of its meagreness of education in the vital things, and partly the fault of the medical profession because of its exaggerated notions of the importance of pills and potions. These little books contain more useful information than any work on theraputics or practice that has ever been written, and yet they are destined to win but a very limited place in the sphere of medical practice and public utility.

The manual of Hygiene and Sanitation has chapters on bacteriology, the atmosphere, ventilating and heating, water, food, stimulants and beverages, personal hygiene, school hygiene, disinfection, quarantine, sewage, military hygiene, vital statistics, and the examination of air, water and food. These subjects are all well treated in the light of the most recent knowledge. It is a valuable book.

The Manual of Personal Hygiene is another well thought of work. It is written by some eight different authors who deal respectively with the hygiene of the digestive apparatus, the skin, the respiratory organs, the ear, the eye, the nervous system, physical exercise and domestic hygiene. The book also contains an appendix devoted to the pulse, temperature, respiration, baths, massage, accidents and emergencies and poisons. The introduction to this book written by Dr. Pyle should be read by every physician, and we wish that it might also be read by every layman. It clearly sets forth the meaning and importance of hygiene. Mr. Spencer is quoted concerning the popular desire of university patrons for so-called classic instruction, who, "while anxious that their sons should be well up in the superstitions of two thousand years ago care naught that they should be taught anything about the structures and functions of their own bodies."

We wish that these two books might be widely circulated. They fill a great want and cover a field of incalculable importance. N. J.

Text-Book of Pathology. By Alfred Stengel, M.D. *Fifth Edition. Thoroughly Revised.* Phil., Lond., W. B. Saunders Co., 1906.

In this edition the author has added somewhat to the text. He has revised several of the chapters, notably those on Inflammation, Diseases Due to Bacteria and Animal Parasites. The book maintains its character as a guide to the clinician rather than for the laboratory man. Methods of pathologic and bacteriologic technique are relegated to an appendix. Post-mortem examinations are not considered. The departments both of general and special pathology are systematically arranged and the illustrations are good.

T. H. Dexter.

County Societies

MEDICAL SOCIETY OF THE COUNTY OF DUTCHESS.

The following Provisional Program has been arranged for the Annual Meeting for January 8, 1908, to be held at Poughkeepsie, N. Y.

Dr. MacKenzie, President's Address.

Dr. Wm. B. Coley, New York City, "Hernia."

Dr. Willis G. McDonald, Albany (to be announced).

Dr. Jas. P. Tuttle, New York City, "Sigmoiditis and Peri Sigmoiditis."

Dr. Chas. E. Quimby, New York City, "Toxemia and Arterial Tension."

Dr. McPeck, Dr. R. H. Breed, Dr. M. M. Lown, "Lobar Pneumonia: Bacteriology, Pathology, Symptoms and Treatment."

Dr. J. E. Ladlier, "Consistency in Aseptic Technique."

Dr. J. W. Poucher (to be announced).

Dr. A. L. Peckham, "The Milk Situation."

Dr. F. R. Mann, "Ophthalmic Neonatorum."

MEDICAL SOCIETY OF THE COUNTY OF ERIE.

The Eighty-sixth annual meeting was held in Buffalo, N. Y., October 14, 1907.

In the absence of President Briggs, the First Vice-President, Edward Clark, presided. The minutes of the previous meeting, and those of the Council, were approved. The following officers were elected by bal-

lot: President, Dr. Edward Clark; First Vice-President, Dr. Charles A. Wall; Second Vice-President, Dr. Grover Wende; Secretary, Dr. Franklin C. Gram; Treasurer, Dr. Albert T. Lytle; Board of Censors, Dr. Henry R. Hopkins, Chairman, and Drs. DeLancey Rochester, Francis E. Fronczak, Walter D. Greene and John H. Grant; Committee on Legislation, Dr. A. A. Hubbell, Chairman; Committee on Public Health, Dr. Ernest Wende, Chairman; Committee on Membership, Dr. Thomas H. McKee, Chairman; Delegates to the Medical Society of the State of New York for the years 1908 and 1909, Drs. Geo. L. Brown, Arthur W. Hurd, William H. Thornton, Francis M. O'Gorman; Delegates to the Eighth District Branch of the Medical Society of the State of New York for the years 1908 and 1909, Drs. Walter D. Greene, J. F. Rice, Charles A. Wall, Francis E. Fronczak, and S. A. Dunham.

The following physicians were elected to membership: Dr. Arthur P. Squire, Dr. W. Warren Britt, and Dr. John A. Ragone.

The Society adopted a resolution thanking the Board of Censors for their splendid work in securing the conviction of several noted criminal practitioners, and directing the Board to take the necessary steps to revoke the license of one who had been recently sentenced to a term in the Erie County Penitentiary.

Communications from the Medical Society of the County of Genesee relative to an amendment to the garnishee law whereby physicians can collect in a similar manner to others who are favored under that law was received and referred to the Committee on Legislation with power. Later, a similar communication was received from the Niagara County Medical Society. Dr. John P. Sawyer of Cleveland, Ohio, was the guest of this Society, and read a very instructive and interesting paper on Diabetes.

MEDICAL SOCIETY OF THE COUNTY OF KINGS.

STATED MEETING, NOVEMBER 19, 1907.

Scientific Program.

1. "The Construction of a Successful Medical Paper and Its Proper Discussion," by LeGrand Kerr, M.D.

2. "Opsonins and Bacterial Vaccine Therapy." (a) Theory and Literature, By George B. White, M.D., Ph.D. (b) The Technic (with lantern slides), by William H. Woglom, M.D. (c) The Practice and Therapeutic Value, by Nathaniel Bowditch Potter, M.D.

Discussion by Algernon T. Bristow, Charles Jewett, Joshua M. Van Cott, J. Bion Bogart, Frank H. Clark, Frederick Tilney, Clarence H. Hulse.

Section on Pediatrics.

Nov. 20. "Orthodontia as a Factor in Child Development," by F. A. Gough, D.D.S.; illustrated by Lantern Slides.

Section on Ophthalmology.

November 26.

1. Review of Howe's "The Muscles of the Eye," vol 1, by L. A. W. Alleman, M.D. 2. Presentation of Cases: (a) A Dermoid Tumor of the Conjunctiva, by Marcus J. Levitt, M.D. (b) Intraocular Tumor, by E. W. Wright, M.D. (c) Retinal Atrophy, by James Cole Hancock, M.D.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

ONE HUNDRED AND SECOND ANNUAL MEETING WAS HELD NOVEMBER 25, 1907.

Scientific Program.

"The Legal Work of the County Medical Society, with Special Reference to the Principles which Guide its Conduct," by Floyd M. Crandall, M.D.

"The Relation of The Medical Society of the County of New York to the District Attorney of New York County," by Robert C. Taylor, Esq., Assistant District Attorney.

Report of Special Committee on the Examination of School Children, by Coleman W. Cutler, M.D., Secretary.

Deaths.

HOSEA JOHN BABIN, M.D., Medical Director United States Navy, retired; was President of the Examining Board of the Brooklyn Navy Yard during the Spanish-American war; later, in charge of the Naval Hospital, N. Y., and was retired December 15, 1904, as Medical Examiner with the rank of Rear Admiral; died at his home in Brooklyn, October 25; aged 64 years.

WILLIAM NATHAN BELCHER, M.D. died at his home in Brooklyn, New York, November 20, 1907, after an illness of four days of acute lobar pneumonia. He had interested himself especially in pathology during all of his professional career, and had been pathologist and physician to a number of hospitals. His death removes from medical circles a man who was much esteemed, both for his professional worth and for his qualities as a gentleman.

PANTALEON CANDIDUS, M.D., of Brooklyn, N. Y., died on September 25; aged 76 years. He was born in Germany, but came to this country while a young man, and was graduated from the College of Physicians and Surgeons, in 1872.

SETH D. CLOSE, M.D., of New York City, died suddenly on October 29; aged 56 years. He was born in Geneva, N. Y.; was graduated from the College of Physicians and Surgeons in the class of 1876.

THOMAS P. CORBALLY, M.D., died in New York, on November 4; aged 84. He had been connected with St. Peter's Hospital, Brooklyn, N. Y., for many years.

FRANK HEUEL, M.D., son of the late Dr. Frank Heuel, of New York City, died on October 28; aged 52 years. He was a member of the faculty of the University of New York and had held many hospital positions.

THOS. H. HOLGATE, M.D., of New York City, died on November 14 of lobar pneumonia, in the seventy-seventh year of his age. Dr. Holgate was born in Leeds, England, in 1831, and came to the United States fifty-two years ago. He began the practice of Medicine in Cairo, Greene County, N. Y., where he remained for several years, having built up a large country practice. He was licensed by the Greene County Medical Society in 1867. In 1869 he graduated from Bellevue Hospital Medical College, and since that time practiced his profession in New York City. He was physician to the Out-patient Department of Bellevue Hospital in children's diseases for twenty-three years. He had an extensive practice. At the time of his death he was a member of the Academy of Medicine, and of the State and County (N. Y.) Medical Societies. One daughter survives him.

JOHN F. MACETTRICK, M.D., died at his home in South Boston, Mass., October 22, after an illness of more than a year.

JAMES J. MCMANUS, M.D., of Brooklyn, New York, died on October 2; aged 49 years.

EDMUND HOWARD MARTIN, M.D., died in New York City on November 3; aged 82 years.

HENRY CLAY MONROE, M.D., died in Sandy Hill, N. Y., on November 3; aged 62 years.

CHRISTOPHER PATTERSON, M.D., after an illness of several months, died in Avoca, N. Y., on October 10; at the age of 89 years. He was graduated, in 1848, from the Geneva, N. Y., Medical College, and was the oldest living member of the Steuben County Medical Society.

CHARLES M. PURDY, M.D., for many years a practitioner of Chenango County, N. Y., died October 13, aged 83 years.

THOMAS A. YORK, M.D., of Brooklyn, New York, died on October 17, of heart disease, at the age of 38 years.

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