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Original Communications.

GYNÆCOLOGICAL REPORT.

By E. H. TRENHOLME, M.D., Prof. Gynæcology,
Bishop's College, Montreal.

Drunkenness at the moment of conception is the theme of a book written by Dr. Lentz of Tournai, France. After careful investigation it has been found that drunkenness at the time of conception is a principal cause of those nervous affections met with in infants. The writer says he finds the intelligence and moral sense of such children tainted with the influence of the vicious habit. Children born of parents drunk at the moment of conception generally died of convulsions or some other form of nervous disease, and if they lived at all were epileptics, idiots or imbeciles, with a tendency to indecency, immorality and general depravity. Such offspring when grown up have an aspect peculiar to the diathesis: the head is small, his physiognomy hebetudinous, and his gaze stupid and expressionless.

The evil effects resulting from conception at the time of intoxication is mentioned by old writers—Diogenes speaks of it, and Aristotle believed that a drunken mother would bear drunken children; Plutarch states the same thing. It is curious to note, in connection with this, that the Greek ruler Lycurgus made laws to favor drunkenness among the conquered tribes, in order to stifle their patriotism and encourage appetites that would tend to keep them slaves. In Carthage the laws forbade the use of any fluid but water on days of intended marital co-habitation.

The subject has not received the attention that its great importance merits. That there is much truth in the views enunciated by Dr. Lentz will scarcely be doubted by those who have given attention to this subject. I have known cases where but one child of a large family had any desire for alcoholic liquor, and that child had been nursed by a mother who took her beer while doing so.

GONORRHEA IN THE FEMALE.

Dr. Martineau of Paris has stated that in the specific form of this disease the pus is always acid while in the simple form alkaline. A piece of litmus will determine this. It is of value in cases of rape to determine whether or no the guilty party was affected with gonorrhœa, for then the discharge from the inflamed vulva would be acid.

SOFT UTERINE FIBROIDS.

Dr. Thos. Keith of Edinburgh in his "Contributions to the Surgical Treatment of Tumors of the Abdomen," gives a most interesting account of the history and treatment of one of these rare forms of fibroid of the uterus. The tumor had been diagnosed as ovarian by some of the most eminent gynæcologists of Germany, Italy and London. The tumor was first noticed in 1867. In 1872 Keith saw the case, and recognised the tumor as a soft fibroid, but, as the lady was 43 years of age, he discounted any operation—trusting to the menopause for arrest of the growth. During the following three years the tumor continued to grow slowly, when she fell heavily, striking a low railing. This was rapidly followed by ascites, and five or six gallons of fluid had to be removed every three weeks. At this time Dr. Keith repeated the puncture and

found the tumor, which three years before reached to the ribs, was now as small as a cocoanut and quite fluid. Removal of the tumor was now advised, but refused by the patient, and the tappings went on till, at the 40th operation, about 250 gallons had been removed. After this no more fluid was secreted, and the patient gradually gained strength.

In 1877 Dr. K. again saw the case, when the tumor was once more as large as when he first saw the case, five years before. From this time the tumor grew till it was judged to be over 200 lbs weight, in 1878. Knowing the loose cellular structure of these œdematous fibroids Keith now proposed to break up this structure so as to form at least one large cavity in which the serum would collect, and from which it might be removed by aspiration. Carefully selecting a spot where the many and large veins could best be avoided an opening was made into the capsule, and the upper half of the tumor was broken up with a trochar and the incision closed. Some feverishness followed the operation. In two weeks' time the fluid had so accumulated that it was drawn off. The puncture was made low down and some distance from the incision; about seven lbs. clear serum was removed. The operation was repeated again in ten days; shortly after this feverishness set in, the temperature ran up to 105° and pulse was rapid. For the following seven months the mean temperature was 103°. Every twelve or fourteen days seven litres of stinking pus was removed, always with relief. After one of these punctures collapse followed, and Dr. Keith saw patient again, in April, '79, when he found the tumor an irregular flattened solid mass, about the size of two adult heads. The huge capsule was felt in the flaccid abdomen, like the thick walls of a large ovarian cyst after tapping.

Dr. K. now made an incision twelve or fourteen inches long through the capsule and split open the tumor as far as the pubis, opening a large cavity filled with putrid pus and broken-down tissue, and a blood clot of recent formation, the result of an accident at a tapping. The clot was as large as a head.

The abdominal wall and the capsule were matted together and as soon as the bleeding was controlled by forceps the walls of cyst and abdomen were brought together with sutures put in by a double needle, about one inch from the edge of wound. This effectually controlled the hemorrhage. After cleaning out the cavity it was dried, then washed with zinc chloride and again dried. The wound was left open and a dressing of oakum applied.

This operation was followed by a reduction of temperature and a slow but steady restoration of health, so that on the anniversary of the day she was able to go round with help of a stick.

In May, 1881, the patient was again poorly. It was found that the solid part of the tumor was enlarging the incision by steady pressure upon the opening. There was some irritative fever, and a quantity of pus was found in the old capsule behind the solid part. An incision to one side, through the uterine tissue, was made and about a pint of healthy pus removed. Free bleeding occurred, which had to be arrested by ligatures.

After a few weeks death ensued, the event being hastened by an injudicious diet of beef-steak and porter.

This case of Dr. Keith's is a very interesting one and has for us a plain word of admonition—viz., in any similar case to insist upon hysterectomy as the only proper thing to be done.

The treatment of the pedicle in hysterectomy.—Dr. Keith favors the intraperitoneal method where practicable. Dr. K.'s great and marvelous success in this operation makes his opinion very valuable to those who are undecided as to the best method to pursue in making this most serious operation.

The great trouble connected with the clamp is the difficulty to keep the stump thoroughly disinfected.

1402 St. Catherine St.

Progress of Science.

A CLINICAL LECTURE IN GYNÆCOLOGY,

Delivered at the College of Physicians and Surgeons,
New York,

By T. GAILLARD THOMAS, M.D.,

CLINICAL PROFESSOR OF DISEASES OF WOMEN.

The Causes and Treatment of Abortion.—PERSISTENT STERILITY.

CASE I.—GENTLEMEN: The first patient this afternoon is Mrs. E. C., twenty-two years of age, and a native of the United States. She has been married three years, and has had no children, but has had three miscarriages.

I ask her how long she has been sick, and she replies that she has never been sick; and, as you look at her, you will believe her statement, for she has a strong and healthy appearance. So I ask her next why she has come here to see us, and she answers, because she is anxious to bear children; and, though she has been pregnant three times, she has had a miscarriage every time. She passed

two years of her married life without becoming pregnant at all, and then she became so, but had miscarriage at the end of three months. She knows of no cause for this miscarriage. In her second pregnancy she miscarried a little short of three months, but without any known cause. She became pregnant a third time, and again miscarried at about the same period as before. At none of these times does she remember to have had a fall or to have made any violent effort, or any slip or misstep, or to have had any sudden fright, or anything else which she could assign as a cause of her miscarriages. All three of them have taken place within the past year. She complains now of no headache, or backache, or any other pain, and she walks easily and seems to be in perfect health.

Now, I show this case to you not because it is a remarkable one, for you will hear such a story as this over and over again, but because I like to show you here, not cases that are rare, and such as you will seldom see elsewhere, but rather cases that are types of classes of such mild conditions as you will often meet with but which will cause you much trouble.

The history you have just heard here is one that you will hear repeated by patients again and again till you get sick of hearing it, and a patient will come back to you eight, ten, or twelve or more times, perhaps, complaining of repeated miscarriages every time, and appealing to you to help her, and, if you fail in your efforts, apparently holding you responsible for her misfortune. And let me tell you here that among the nineteenth-century women there are two classes—one, those who desire, above all things, to become pregnant and bear children; and the other, those who are anxious, above all, not to bear children. Now, this woman is thoroughly unhappy because of her sterility, and she is exceedingly anxious to bear children. Now, forget for a moment where you are, and let us suppose that your patient is a lady of a great deal of wealth and the disposition of a large estate, perhaps, depends on her having a child, and you can imagine how unhappy she would be if she had only repeated miscarriages, and how important it would be for you to find out and, if possible, remove the causes of this mishap. In general, it may be said that miscarriages occurring at the third month are due to one of two causes more than to any others.

But first let me tell you, what you already know, no doubt, that out of one hundred cases of miscarriage more than seventy-five will occur at the end of the third month, and the next largest number at the end of the second month, and the next at the end of the fourth month, and the rest of the number will be scattered about in all the other months. That is to say, that over seventy-five per cent. of all cases of miscarriage occur at the end of the third month of gestation. There are two explanations of this fact. The first reason for it is, that at this time the placenta is just becoming thoroughly formed, while the chorion is

disappearing and the manner of the nutrition of the child is changing, and, instead of being localized in the chorion, which receives its blood from the whole intrauterine surface, it is becoming localized in the placenta, which draws its nutrition from a limited surface of the uterus; and, as the chorion degenerates and the placenta is forming and attaching itself more intimately to the uterine walls, the changing from the chorionic to the placental nutrition of the foetus is marked by a strong tendency to miscarriage. In the second place, you know that at the end of the third month the uterus is becoming so large that it is just beginning to rise out of the pelvis, and at this time, as the body of the uterus rises above the brim, if its supports happen to be a little weak, it is very apt to turn over on itself either to one side, or forward, or backward; and by this means the nutrition of the foetus is deranged, and hence this is a very frequent cause of miscarriage at this time.

Now, we will go back to the point at which I digressed and where I was saying that there are two great causes, not to mention the numerous possible causes, of habitual abortion in certain women. 1. A posterior displacement of the uterus which interferes with the proper development of the organ. 2. Syphilis. These are the two main causes; now I will give you some of the others, merely in order to impress these two on your memories. You will sometimes find in a woman who has previously borne children that a slight single unilateral laceration of the cervix will become very irritable during pregnancy, and the reflex irritation thus caused will set up uterine contractions and bring about the expulsion of the foetus; and this will cause, perhaps, three or four abortions in the course of a year. Again, large granules will form on the cervix of some women every time they become pregnant, and these will set up enough irritation to cause an abortion. These granules sometimes resemble an epithelioma in appearance, and they are frequently mistaken for this by inexperienced physicians; but that they are not such is shown by the fact of their disappearance after every abortion. Again, mere accidental causes will produce a miscarriage in some very nervous women, and these are commonly spoken of as women who "habitually abort." But this term is too frequently applied where the physician has overlooked the true cause, and it is therefore usually only a cloak for his ignorance. Some time ago I had my attention called to a peculiar case of abortion from purely nervous influences as a first cause. The patient was a lady near the fourth month of pregnancy, who was travelling in the railroad cars with her husband. As the engine drew the cars suddenly into a dark tunnel, the roar of the train, multiplied by the echoes of the walls of the tunnel, awoke her from a sound sleep; the noise and the darkness made her believe that an accident had happened, she became greatly frightened, very soon after labor pains came on, by the time she had reached the end of her journey

the uterus was contracting violently, and soon after arriving home she aborted. I was fortunate enough to preserve the placenta, and, upon examining it, I found that she had a small placental apoplexy, and a clot of blood of the size of a walnut had formed and separated the placenta from the uterine wall, and from this focus an irritation had spread till it brought on uterine contractions which ended in an abortion.

So, also, it may be caused by a woman's measuring the height of a chair with her eye, and then unexpectedly sitting down to find it three or four inches lower than she had supposed it to be, the sudden jerk being sufficient to bring on uterine contractions. Instances are on record where such a simple matter as blowing out, instead of snuffing out, a candle, by reason of the disagreeable odor of the smoke, has caused a miscarriage; and I do not doubt that such trivial circumstances will sometimes induce it. These are all exceptional cases, and hardly to be considered. But the rule is that, in the great majority of cases, where a woman has repeated miscarriages at the third month, you will find upon examination either a posterior displacement of the uterus, or that there is evidence of constitutional syphilis in the father or mother; or you may find both these conditions.

Now, this woman's husband is not here, so we can not examine him at present for symptoms of syphilis; but she says he is a healthy man, and has promised to bring him here to our clinic next week, so that we may inquire into his condition for ourselves. I think he will come, for he, as well as she, is anxious to have offspring. So we will have to wait till then to determine whether this cause for the repeated miscarriages exists here.

But there is another cause than this which will account for the miscarriages in this case. When I make a vaginal examination with this woman standing in the erect posture, I find that the uterus is bent backward toward the hollow of the sacrum, so that the greater part of the organ lies posteriorly to a line drawn perpendicularly down through the center of her body. You may ask if I think that this slight degree of displacement backward is sufficient to account for these repeated miscarriages; and I reply that I think this is a sufficient cause. Then you may ask: "How do you suppose that this insignificant cause can produce such a result?" It would not as it is now, for that uterus is not badly displaced, but is lying only a little posterior to the central line drawn perpendicularly through her body, and, if it would keep the same position as now, it would be of no account either in a pregnant or non-pregnant woman, and no miscarriage would take place. But I will show you what occurs after pregnancy in such a case as this. At the end of the first month the uterus is slightly enlarged and its increased weight has caused it to bend over on itself still more, and so the posterior displacement is a little greater than before. At the end of two

onths the displacement is so great that the axis of the uterus forms almost a right angle with the perpendicular line drawn through the center of the pelvis; but even now there is no interference with utero-gestation, and the pregnancy goes on. At the end of the third month, however, when the body of the uterus has increased so much in size that it fills up the cavity of the pelvis as it lies displaced in the hollow of the sacrum, the uterus tries to rise up out of the pelvis, and the cervix does go up, but it can not pull the body up after it, because it is held down by the promontory of the sacrum, and only some lucky accident can release it. The rule is, however, that the cervix rises up, but nothing can get the uterine body out of the hollow of the pelvis; and yet, under certain circumstances, the organ will go on developing for four or five months, perhaps, without interference with the nutrition of the foetus. But usually at the end of the third month the uterus feels the interference with its development, and so it begins to contract, and the cervix opens and labor goes on until the foetus is expelled. Three months after, the woman goes to a doctor, perhaps, and asks him the cause of her miscarriage; and he examines her and finds the cervix all right and the uterus lying in the position I described to you as existing in this case at present, with only a slight posterior displacement, and he is at a loss to account for her misfortune. But the real cause of all was that, at the beginning of pregnancy, the uterus was lying a little posterior to a line running perpendicularly through the center of the woman's body: and you will almost invariably find that the slightest displacement posterior to this line will cause a miscarriage at the third month. Now, this exists in this woman at present, and it may possibly be the cause of her miscarriages; but before deciding I will examine her husband also. If I find that he has had constitutional syphilis, I will say that I do not know whether this displacement of the uterus is the main cause or not; but I will first remedy the condition I find already existing in the woman, and then I will treat the husband for syphilis, if I find it necessary, and I will try to keep him and the woman apart for a number of months, until I think he is entirely well and can impregnate his wife without transmitting the disease to the child. Even if I find syphilis in him, I will nevertheless treat the difficulty I find in her at the same time.

After the woman has again become pregnant I would watch her carefully as she advances, and have her come to me every four or five days or, at the longest, once a week, that I might see if every week of utero-gestation was increasing the displaced condition of the uterus. If, by the end of the second month, I should find it bent farther backward than at the end of the first month, I would place the patient on her side or in the knee-chest position, and, with my fingers, push the uterus over into its proper place, and put in a pessary to keep it in position. Supported in this way, the

uterus is able to rise up out of the pelvis as it enlarges, and pregnancy is therefore allowed to go on. If you try this plan of treatment in such cases you will often have reason to feel well satisfied with the results.

Let me tell you of a case I treated some twenty-five years ago. A lady came to me who said that she had had twelve miscarriages in succession. I examined her, and found just such a condition as we have in this case. None of the doctors who had previously examined her had discovered the presence of this displacement, because she had gone to them after each miscarriage, when the uterus had returned to its proper position. She was almost insane from these repeated disappointments. So, after she had again become pregnant, she came to me at the end of the third month of gestation, and I easily recognized a decided posterior displacement. To remedy this, I pushed the body of the uterus up above the promontory of the sacrum, and put in a pessary to keep it there, and I had her return every two or three weeks, so that I might adjust the pessary and see that every thing was progressing favorably. She was delivered of a living child at full term, and she went on from that time through four successive pregnancies without having a single miscarriage, and this plan of treatment was carried out each time. Now, I do not say that a single case proves the efficiency of this plan any more than that "one swallow makes a summer." But I have had a whole flock of just such "swallows," and they have abundantly established the effectiveness of this treatment. I am talking now, remember, only of miscarriages occurring at the end of the third month, but they will form 75 to 80 per cent. of all the cases you will meet with. The moment I see a woman who tells me that she aborts regularly at the end of the third month, I am so certain of the cause that I say to myself that she has either a slight or a great displacement of the uterus, or else there is syphilis in the family. So, in case I find no displacement of her uterus, I always look carefully for any signs of syphilis in the husband or in the woman herself. And remember, gentlemen, that syphilis sometimes creeps into the system of a perfectly virtuous woman, and no one knows how it got there. Syphilis certainly develops accidentally sometimes, and I think it is a mistake for some physicians, who ought to know better, to laugh at the statement of a man who, when asked where he got his syphilis, says that he caught it from a privy or in some other unusual way. I see nothing to laugh at in such a statement, and it seems to me that the joke is entirely out of place, for I do not see why the disease may not occur from such exposure. I have known of the case of a sewing woman in this city who became infected with a true Hunterian chancre, followed by a secondary eruption, apparently in the following way: she accidentally pricked herself in the breast with a pin which had probably retained upon it syphilitic virus from the hand of the woman in France who

had made it, and who had doubtless just been dressing her chancre previously to sticking the pin on the paper to send to this country, where it was destined to infect her innocent sister.

Now a few words in regard to another class of cases besides those which occur regularly at the end of the third month. In this class the mother passes safely through the early months of pregnancy, but at the end of the seventh month, perhaps, she notices that the movements of the child *in utero*, which have previously been vigorous enough, are now becoming more feeble, and the next day they are feebler still, and so on till in a few days they have been ceased altogether, but she goes on to full term and then brings forth a dead child. This thing may have repeated six or eight times before she comes to you to seek for the cause and its cure. If you examine the placenta at the completion of one of these labors you will almost invariably find that it has undergone a fatty degeneration. The only way of preventing this woman from constantly bringing forth still-born children is to tell her to watch carefully during the latter months of pregnancy, and to let you know as soon as she feels that the child's movements are beginning to lose their vigor, and then you shall immediately induce labor and bring on a premature delivery. If it is in the seventh month, you may be able to preserve the life of the child, and your success will be more assured if delivery can be postponed till the end of the eighth month, or for eight and a half months. But the rule should be, the moment you find the child is in danger of death by reason of the degeneration of the placenta, bring on labor.

CASE II.—The next patient is Mrs. A. E., thirty-seven years of age, a native of the United States, who has been married eighteen years, and been sterile all through her married life.

She says that she has been sick for ten years, and she complains chiefly of a tired feeling all over her body, and of general weakness and lassitude, with much pain in the back and neck. She is regular in her monthly periods, but at such times she suffers from pain in the head and breast. She also has a constant watery looking, but thick and tenacious, discharge from the vagina. She complains of nothing except a pretty severe cough.

Now, without an examination, this is a perfect enigma, gentlemen, and so you will find with many, many cases; and, when a man is so squeamish that he thinks it a crime to examine a woman unless he suspects some very serious condition, I do not see how he ever gets on in practice. At one time not long ago, you know, it was generally thought that an unmarried woman ought not to be examined except in very unusual cases; and I am sorry to say that there are still some who carry out this belief, and thereby make themselves responsible for much misery that might otherwise be relieved if the cause were discovered. I constantly am making such examinations in

young women of sixteen and upward, and I never hesitate where I am in doubt as to the cause of any serious difficulty.

This patient is healthy looking, but she has an appearance of lassitude, and she complains of great pain in the back and a sense of discomfort and weariness, which she dates back as beginning ten years ago. In addition, her sterility is a source of disturbance, together with a profuse leucorrhœa and occasional pain in the head and breast. Now, you might investigate this case, with only the rational signs to help you, for any length of time, without obtaining any light as to the true condition present; but, when you make a physical examination, a flood of light is thrown over it at once.

This is what such an examination reveals: As the woman lies on her back, on passing my finger up the vagina I find the uterus is thrown over backward, and with one finger on the cervix and the fingers of the other hand pressing down through the anterior abdominal wall, I discover a large tumor lying on the upper side of the uterus between its fundus and my hand, which appears to be three or four times as big as the uterus itself, rounded in outline, and moving with the uterine body. How could you ever have told what was there without an examination! The man who would prescribe for that woman without making an examination is one of two things. He is either an ignorant or a dishonest man.

Now that we have found out the presence of a hitherto unsuspected tumor here, the question arises, "Is that the diagnosis?" There is the mass which, when carefully examined, would leave some doubt as to its character did we not have a history to aid us which points to a uterine fibroid. But is that the whole diagnosis? By changing the position of the patient so that she lies on her side, and putting in a Sims's speculum, from the cervical orifice could be seen poured out a secretion of thick, tenacious mucus. I passed a small sponge, held in a pair of forceps, up to the cervix and twisted it about, and, on withdrawing it, I could pull this mass of mucus down to the mouth of the vagina, when it broke and sprang back like a piece of India-rubber. Then I said that is the immediate cause of the sterility, as such discharge always is when it is found habitually pouring out of the cervical canal. This was doubtless caused by the malposition of the uterus, which, from lying back in the hollow of the sacrum, was kept in a state of chronic congestion, giving rise to a chronic endometritis. Now let us return to the tumor, and inquire again what it may be. The abdominal walls are so thick that I could not map it out accurately, or tell whether there was any fluctuation in it or not. Now I ask, May this not be an ovarian tumor? As a rule, women with ovarian tumors become greatly exhausted within three years. Yet there are exceptions to this rule. Three months ago I operated at the Woman's

Hospital for a tumor which Dr. Sims had, twenty-four years ago, declared to be an ovarian tumor of the size of a cocoanut. When I removed it, it weighed sixty pounds, and the woman got perfectly well after the operation. This tumor had unquestionably been growing for at least twenty-four years. The same week I removed another ovarian tumor that had been growing fifteen years. Fourteen years ago it had been tapped for the first time, and since then this operation had been repeated sixty or seventy times, and finally I removed it after it had been growing for fifteen years. I have frequently removed such tumors after they have been growing for nine or ten years. So this *may* be an ovarian tumor, or it *may* be a fibrous tumor. I should like very much to know which it is. If I should only pass an aspirating needle into it through the vaginal or the abdominal walls, I might easily make the diagnosis; but if I did this you might, with reason, say that I was inexcusably rash, for an immediate decision of the matter is not necessary, and exposing the patient to danger to solve the problem would be unwarrantable. This woman is already thirty-seven years of age, and she will probably stop menstruating in three or four years, and then the tumor may cease growing, and she may live till seventy years of age without suffering any harm from its presence.

I talk about this so fully because I have seen so many bad results come from aspirating merely for the purpose of diagnosis. Even the smallest hypodermic needle has its dangers when used in this way. In case there was any necessity for making an accurate diagnosis, I would not hesitate to use the aspirator; but, where nothing is to be gained by the knowledge thus derived, I would avoid the risk.

Now I will tell this patient that the best thing for her is to go home and let herself alone. I will prescribe a bitter tonic, to improve her appetite and increase her strength, for she looks quite bloodless, and she has a small, feeble pulse; and besides, I will put her on the syrup of the hypophosphites. Then I will tell her to wash out her vagina twice a day, so as to remove this secretion which keeps up a constant irritation in the vaginal canal; and that is all she needs. I would do nothing to favor the occurrence of pregnancy, because I think it is a highly desirable thing that she should not become pregnant, on account of the size and situation of this tumor, which would interfere with the proper development of the uterus.

It is a good rule to guide you always, when you are in doubt as to whether you had better risk any doubtful proceeding, to suppose your mother, or sister, or wife in the same position as the patient and then do for her just what you would for one of them under corresponding circumstances. Now I don't think, if this patient were a valued relative, you would plunge an aspirator into that tumor

just to determine its character, when you could do nothing more to help her if you knew its true nature. I think there would be fewer accidents if men would remember and follow the rule I have just given you.—*N.Y. Medical Journal.*

A CLINICAL LECTURE IN GYNÆCOLOGY.

Delivered at Bellevue Hospital.

By WILLIAM M. POLK, M.D.

Professor of Obstetrics and Diseases of Women and Children
in the Medical Department of the University of the
City of New York.

VAGINAL CYSTOTOMY IN A CASE OF PARALYSIS OF THE BLADDER, WITH REMARKS ON CATHETER- IZATION OF THE URETERS.

This case, gentlemen, is that of a woman, about twenty-eight years old, who a year ago fell from a third-story window, sustaining injuries to the spine which resulted in paraplegia. She was admitted to the hospital two months ago. As is usual in such cases, there was paralysis of the bladder and rectum. An additional feature of interest is the fact that menstruation was also suspended. The paralysis of the limbs has now been cured four months, and the rectum, though performing its functions somewhat sluggishly, has greatly improved. The paralysis of the bladder and the suppression of menstruation continue.

First, as to the bladder. There is a constant dribbling of urine, with all the annoyances arising from it, such as the discomfort of the wet state, the excoriation resulting from the action of the urine, and the ever-present offensive odor. In addition, there is constant pain in the region of the base of the bladder. The urine is loaded with pus and mucus, contains myriads of vibriones, and is highly alkaline.

Passing the finger into the vagina, we find the uterus and ovaries normal, but between the anterior vaginal wall and the symphysis there is a rounded, sensitive tumor, in size about equal to an egg. Passing the catheter through the urethra, we find this tumor to be the bladder, and, as you see from the absence of any flow of urine, the empty bladder.

With the instrument in the organ and my finger in the vagina, I can carefully explore its base and sides, and, by placing the hand thus above the pubes, I submit its upper parts to the same process. By this means I prove that there is no tumor or foreign body in the bladder, and that the mass between the anterior vaginal wall and the symphysis is nothing more than the organ itself, made prominent by its greatly thickened walls. Extensive hypertrophy of the walls of the bladder has been the result of the spinal injury.

Let me say here that, in making a vaginal examination, if a normal bladder is empty you will

find no prominence between the anterior vaginal wall and the symphysis pubis; the two surfaces can be brought into close relation, and the wall moved freely in all directions over the face of the bone.

Going back a little, we know from analogy that what has taken place in the bladder and its connections is the following:

The injury inflicted upon the cord by the fall expended itself mainly upon the lumbar enlargement, arresting for a time not only all action originating there, but all that might have been sent from the upper portions of the cord and the brain. Gradually this lesion has been repaired for all the centres save those presiding over the bladder reflex and the function of menstruation. Paralysis of the bladder was not accompanied by paralysis of the urethra, for, as you see, this canal is tightly closed. Soon after the injury there was prolonged retention of urine, requiring the use of the catheter; after the patient left the hospital this gave place to dribbling of the urine, for, as she had no means of relieving herself, the urine accumulated, distending the bladder, and finally forcing itself, by mere weight, through the resisting urethra.

As you may imagine, the vesical walls began to suffer from this constant distention; but, granting that they might not resent it, they surely would find it difficult to submit to the irritant action of the now decomposed urine. As a matter of fact, the combined influence of the over distention and the irritation is shown in the hypertrophic thickening of the muscular and mucous walls of the bladder. Not only have the walls been thickened but the capacity of the organ is much diminished. Whereas, at first a quart of urine or more would be retained before dribbling set in, now four ounces represent its capacity. Does the mischief stop in the bladder? We know to the contrary; the resistance of the urethra extends beyond the bladder. If it is sufficient to cause the amount of hypertrophy and thickening witnessed here, it is sufficient to dam back urine through the ureters to the pelves of the kidneys, and set up double pyelitis with all its attendant dangers. The histories of these cases prove that such is the termination of this condition of the bladder, and, though our patient does not as yet give active evidences of implication of the pelves of the kidneys, that occurrence is a mere question of time.

Naturally we ask ourselves if this evil cannot be averted. If this patient were under constant supervision, so that the urine could be drawn every two hours and the bladder washed out twice a day and fully distended, a great deal could be accomplished; but even this would not meet the difficulty so well as another procedure—viz., *opening the base of the bladder*. Make such an opening, and you relieve the bladder from its embarrassment. The urine flows off as fast as it is received from the ureters; the bladder, relieved of pressure and the decomposed urine, will grow no worse, but improve. And more than all—the pressure being taken from the ureters and pelves of the kid-

neys, the urine flowing off through the ureters as fast as it is formed, and decomposition and its results to the pelves being avoided—not only are the pressing dangers relieved, but we put the patient in the best position to escape those that lie directly in her way.

The cure that has taken place in the lower extremities—for the patient has entire restoration of their motor and sensory functions—and the great improvement she recognizes as having occurred in the rectum, justify us in believing that in time improvement may occur in the action of the bladder; but, if she were to be left as heretofore, there is reason to believe that long before such improvement came the state of the kidneys would make it serve a short career of usefulness. The same general treatment employed since her admission will be continued—tonics, galvanism, and faradization from the region of the bladder to the lower part of the cord, coupled with the occasional use of the actual cautery over the lower dorsal and upper lumbar regions.

While the patient is being anæsthetized I will occupy you with some suggestions touching the second morbid condition—the suppressed menstrual function. Until the injury, this function had never suffered arrest; from that time till now it has been suspended. What is the cause? Unquestionably the injury to the spine, and the injury must have been low down, so as to sever the connection between the lumbar enlargement and the internal genitals, for we know that even after division of the cord in the dorsal region, *above the lumbar enlargement*, the processes of ovulation, of development of the pregnant uterus and the lacteal glands and of parturition, may go on. If we may be allowed a conjuncture, we will say that the lesion which has affected the centres presiding over the action of the bladder has likewise interfered with those presiding over the function of menstruation, and perhaps ovulation. It would be a most interesting study, that of the condition of this woman's ovaries. Is the development of the ova interfered with? Could we determine it in conjunction with a careful study of the cord, much light might be thrown upon the vexed question as to the independence of ovulation and menstruation. The two processes are so intimately associated, however, that it is probable any lesion of the cord affecting one would most likely affect both. But, whether ovulation is involved or not, menstruation assuredly is, for never since the injury has she given symptom or sign of such an occurrence. An just here let me again call your attention to the fact that we have no other cause of this cessation present. Supposing ovulation to continue, the question of pregnancy in this case must still be answered in the negative, for, in the absence of every evidence of uterine activity, even at the periods at which menstruation would fall due, we must conclude that here, at all events, the trophic changes in the uterus are so seriously impaired as to make the formation of a decidua im-

possible. Without such a membrane the implantation and development of an ovum are highly improbable.

But the patient is now ready for the operation, so, with your permission, we will cease commenting upon these interesting but obscure topics, and turn our attention to a matter of more immediate and practical importance to her and us. The point at which to make the opening is in the median line, half an inch above the vesical end of the urethra. We must bear in mind the relation of the ureters to this line, else injury may be done their openings. The injury itself would hardly cause much inconvenience, but subsequent contraction at the seat of injury might end in constriction or even closure of the tube—a matter of great moment. These openings are situated from half to three quarters of an inch from the anterior median line of the vagina, one on either side, and are about an inch and a half from the vesical end of the urethra. Our opening will, then, be so placed as to avoid injuring not only the ureters but the vesical end of the urethra as well—a matter of less importance than lesion of the kidney outlets, but one bearing strongly upon the action of the urethra as an outlet—a question that may come up should the paralysis of the bladder be cured. The position of our patient is that upon the back, with the thighs well flexed on the abdomen.

This blunt wire curette, having a large loop, will admirably serve our purpose as a guide. Introducing it into the bladder, I place the loop at the point selected for incision and press the vesical and vaginal walls down and out on a line with the ostium vaginae. You can easily feel the loop as I thrust this knife through the walls directly into it. Taking next this probe-pointed bistoury, I enlarge the opening toward the uterus so as easily to admit my index finger. Owing to the condition of the walls, the bleeding is somewhat more than is usual with these cases, but even here it requires no special effort at arrest.

Carrying my finger well over the vesical wall, I appreciate the condition of the diseased mucous membrane. As intimated in the earlier remarks, it is thick, and thrown into folds; and off to the patient's right is a distinct pocket in the wall, free, however, of anything like stone formation.

As a matter of some importance to determine the condition of the pelves of the kidneys, and as the urine in the bladder is so infected with the products of vesical inflammation as to furnish us with no satisfactory evidence upon this point, I will collect some directly from the ureters, by catheterizing them, and at our next meeting will give you the result of the inquiry.

We next wash out the interior of the bladder, with a warm, saturated solution of borax, introduce this glass button, having a hole through it, into the opening, and return the patient to the ward. Should we leave the opening without the button, it would speedily close. To insure a permanent opening and give free drainage to the bladder, we must

keep this perforated button in place for several weeks—perhaps as long as the paralysis lasts.

Our confident expectation is that this patient will improve greatly. Certainly she will be relieved from the drain and tension incident to a chronic cystitis, and possibly pyelitis, to say nothing of the relief given the kidneys by the free escape of the fresh urine.

We will keep the vagina clean, and for the present distend the bladder once a day with a warm solution of bichloride of mercury, 1 to 2,000 and chloride of sodium.

Before closing, permit me, gentlemen, to say a few words upon catheterization of the ureter. You have seen me do it upon this patient, after making the opening into the bladder, using a No. 5 instrument. Can it be done without such an opening? Yes. Simon did it by forcing the finger through the urethra, passing the catheter alongside and guiding its point with the finger-tip into the canal. The great objection to this procedure is that it usually results in permanent incontinence of urine—a very serious mishap.

Pawlick maintains that it can be done by following with the point of the catheter—the instrument being introduced through the urethra—certain lines on the anterior vaginal wall which indicate the course of the ureters as they enter the bladder. He states that these lines can be made evident in all cases by carrying out the following directions:—

The bladder must be empty, the abdomen free, the woman to be put in the knee-chest posture, and the perineum raised so as to distend the vagina with air. The lines are then seen starting from about the points at which we know the ureteric orifices to be situated, and running upward and outward, the course of each corresponding to that of the ureter.

There is no doubt that in cases of relaxed and distended vagina these lines can be brought out, but in such as present contrary conditions you will as often fail to find them.

But, granting that they may be recognized in all cases, the great defect in the method is the difficulty attending the determination of the question as to the actual entrance into the ureter. The depth to which you may carry the instrument is but a poor guide. Many bladders are so elastic as to be carried before it, even so far as the synchondroses. Given a case in which catheterization of the ureter is demanded as a means of diagnosis—and every renal tumor requiring extirpation is such a case—Pawlick's method is too uncertain. Should the patient be a woman, open the base of the bladder, pass your catheter through the urethra, and, by means of your finger passed through the artificial opening, you can always insert the instrument into the canals. You collect urine first from one kidney, then from the other, and are in the only sure position to determine the state of the two organs. Should both be diseased, you spare your patient a fatal operation. Should one be sound, by operating you prolong life.—*New York Medical Journal, September 13, 1884.*

CONSTIPATION HABIT.

The subject of constipation is so extensive, involving the discussion of so many diseases and remedies, and with its diarrhea of literature covering so much ground, that I forbear, for want of time, if nothing more, from entering into a full consideration of the subject.

That it is often a symptom of disease or a disturbance arising from disease, I need not discuss; but I wish, at this time, to call brief attention to it as a disease in and of itself, in order to elicit discussion, and thereby enlarge our ideas.

The constipation habit is certainly a perversion of an important function, and is often productive of great harm and suffering. The normal act of defecation, as a rule, occurs regularly once every twenty-four hours, and with a majority in the early part of the day, before or soon after breakfast. In health the call to evacuate the bowels is a peculiar sensation that cannot be misunderstood. If not heeded it may soon cease, and the call not return for an indefinite length of time. Immediately preceding this sensation is the peristaltic contraction of the sigmoid flexure which ejects its contents into the rectum, from which arises the warning and call for voluntary muscular assistance, that is so often unheeded or put off to a more convenient season. But the rectum must be relieved, and if not in the natural way then anti-peristaltic action takes place, and the load is sent back whence it came, a burden and clog, blunting that delicate sense of the bowels.

Women, I think, neglect the function more than men. This is often from a false sense of modesty, their natural delicacy leading them to endure while away from home travelling or in society, rather than to withdraw with eyes upon them to a strange shrine devoted to *Cloacina*. Even at their own homes, where there is a lacking of modern conveniences, the inclemency of the weather, the exposure to cold, and the foul breath of the private vault cause so much dread of the simple act of defecation, as to lead them to procrastinate, to the utter demoralization of the normal defecative act. I have no doubt that the trammels of fashionable clothing also interfere to some extent. The considerable straining which is sometimes required to complete the act, may be unattainable from the clothing limiting too much the action of the diaphragm and abdominal muscles.

Sedentary habits which deprive the bowels of the gentle stimulus of exercise, is one cause of constipation; and when to the sedentary habits is added position of posture which cramps and crowds the bowels, as is this case with the shoemaker, habitual constipation is almost sure to follow.

The abuse of cathartics is a fruitful cause to induce and confirm this habit. What with the anti-constipation pill, wafers and pellets flooding the land to dredge the *primæ viæ* on the first indication of its filling up, or to be used from the fear

that it will fill up, it is a wonder that nature's *cloaca* is maintained at all.

Errors of diet, thought not mentioned first, are not least in causing this habit, which is perhaps, more prevalent in this country than in any other; and some one has said that it is because we eat too little soup. Water as a solvent and a diluent acts in the alimentary canal a very important part, and soup-eating should certainly be encouraged in order to counteract the tendency to take our food too solid, and to favor the fecal current.

Whatever line of diet we are in the habit of taking, and the bowels are normal, if we make a sudden or marked change in our diet, it is often attended by bowel disturbances in one way or the other. I have been in a position to observe a great many persons who have made sudden changes, particularly from a mixed, generous diet, to a vegetarian diet, which from its bulky nature imposes more work on the bowels than they are used to, often beyond their working capacity, and the result would often be acute constipation. The next step then, was to use the much-abused water enema, which to the overworked bowels, seemed a God-send, but by frequent repetition proved a blight to their work, making them a sluggard in the human economy.

I give one case to illustrate:

Mr. S. had been a vegetarian for five years or more, and had adopted two meals a day. He was in fair general health for one of such habits, but his great difficulty was no natural action of the bowels, which had existed for the last five years. His sole reliance for a movement was the coarse food and water enemata, which he had come to take regularly.

He consulted me, ostensibly for hemorrhoids, which he said the doctor who had treated him, told him he had had, and who had expected to operate on him. On making a thorough exploration of the rectum, I was not surprised to find no hemorrhoids, for he gave no symptoms of any. I found, however, a very large, pouch shaped rectum, with flabby, relaxed and attenuated walls, which I attributed to the protracted use of the water enemata.

I changed his diet, stopped the enemata, gave him three meals a day, had him drink four or five goblets of water per day, and had him inject on retiring one-third of a cup of cold water, to be retained. Ordered daily massage and kneading of the bowels, with a mild faradisation of the same; also ten drops of *fld ext. casc. sag.* four times a day. In four weeks' time he had natural stools, without the use of medicine or treatment of any kind.

A too concentrated diet may cause this habit, but I have observed no danger in this direction. A variable appetite, which makes extremes in quantity and quality of food, is sometimes a cause, but as this would lead us to discussion not intended at this time, we desist. I have often observed that a long journey by rail will produce a severe

constipation, and have wondered if the constant jarring of the cars has any thing to do with it.

The more difficult a disease is to treat successfully the longer the list of remedies employed; and, judging from the length of the list in this case, one would be almost discouraged from attempting a cure.

Yet with clear ideas of causes, the indications for treatment are simple, and with the hearty co-operation of the patient the physician may feel quite certain of gaining, sooner or later, the desired result.

The following I give as a general outline of the treatment, which of course must be varied somewhat according to the special indications of each case:

Regulate the diet, having three meals per day of palatable, nutritious food, not too bulky or too concentrated. Have soup at at least one meal each day.

On rising, at least an hour before breakfast, drink one or two large goblets of water. If the stomach is weak and inclined to chronic gastritis, I order the water to be drunk hot. Twenty or thirty minutes following the water, give the bowels a thorough kneading for ten minutes. Then assume erect position, with arms above the head and left foot on a line with the right and placed in front of it, bend forward till the knuckles of the closed hands touch the floor, then back to the first position, repeating this five or six times; then, reversing the position of the feet, repeat the movements. This is an excellent exercise for the abdominal muscles and an inactive liver.

At night, also, before retiring, drink a goblet of water, and if there are indications of dryness of lower bowels I use an enema of one-third to one-half cup of water, to be retained.

Flushing the sewer may be a good practice with some, making the stomach the flooding tank; but we must use great care not to interfere with digestion.

When it is available, I often order a fifteen minutes' daily application of electricity to the abdomen, using the Faradic current.

If any medicine is demanded, the first on the list is *cascara sagrada*. I think it is an excellent "peristaltic persuader." It renders in my hands the most efficient service in small and repeated doses.

I impress it upon my patients to make it a daily practice to go to stool at a regular hour, to induce if possible, by voluntary muscular effort, a movement, remembering that this measure alone, if persisted in, will oftentimes overcome this deplorable habit. Perhaps the best time of the day for this is soon after breakfast. Patient continuation in this line of treatment will do a great deal to dispel this *bête noir* of medical practice.—
Detroit Lancet.

HEMORRHOIDS.

Dr. T. W. Poole gives vent as follows in the *Canadian Practitioner*:

The Piles! Aha! I knew them well, each feature, though I may not see 'em; Old foes, which fume, and fret, and swell, And vex and plague my perineum. You blush at mention of a "pile," and would, perhaps, the theme avoid; well, then, suppose, to put on style, We call the thing a hemorrhoid. Though bearing an ill-omened name, It seemed as if they might not pain us, When first, as visitors, they came, And took up lodgings in the anus. But now, at each succeeding bout, The pelvic pains appear distincter, And there can be no longer doubt Of their relations with the sphincter. You ask me, by what obvious signs, One may with certainty detect 'em. Well, I can only say that mine Are like a hornet in the rectum, Which, having wandered from the way, And angry at the situation, Stings right and left while yet it may, And tortures one in defecation. "Avaunt! it is a vulgar rhyme." Yet stay, there must be means to cure 'em: Oh, yes, if you but give them time, And meantime patiently endure 'em, There are a thousand cures, you know, All certain sure, as dead shot candy; 'Tis well to buy a score or so, And lay them by to have them handy; And when the hornet's rage is spent, And things assume their wonted quiet, The cure,—though it may not prevent, Will quickly quell the painful riot.—
Medical Age.

SUB-ACUTE PARENCHYMATOUS NEPHRITIS.

A Clinical Lecture delivered at the Philadelphia Hospital.

By JAMES TYSON, M. D.,

Physician to the Hospital and Professor of General Pathology and Morbid Anatomy in the University of Pennsylvania.

Gentlemen, at our last lecture I presented a case which we recognized as an example of acute inflammation of the kidney, or acute nephritis, or, still more strictly, as acute parenchymatous nephritis. I shall to-day ask attention to a more advanced stage of this affection. The patient is nineteen years of age, and for a year past has lived in the eastern part of this city, working on the docks as a stevedore, from 7 o'clock in the morning until 6 o'clock at night. In August last, he was taken with intermittent fever of the quotidian type. This continued for about two weeks, at the end of which he noticed swelling of the feet, later of the abdomen and finally of the face. Just here let me call attention to the relations which exist between swelling of different parts of the body and diseases of different organs. In the majority of instances, abdominal dropsy is the result of hepatic disease, dropsy of the feet indicates cardiac disease and edema of the face suggests renal disease. This is the general rule, but it is not absolutely without exception. In this case, it is stated that the swelling appeared first in the feet. In this connection I wish also to call attention to the fact that the statements of

patients as to the seat of the first appearance of swelling are not always to be relied upon. A man's face may be swollen and the swelling escape notice, but when the feet swell it at once causes difficulty in wearing shoes, and thus attracts attention. Abdominal dropsy may occur in kidney disease, but as a rule only in very serious cases, whether acute or chronic. If there is abdominal dropsy with edema of no other part, I think that it may be laid down, as a rule, that the effusion is due to disease of some other organ than the kidney.

When this man was admitted, nine weeks after the swelling was first noticed, there was still much edema of the face, abdomen and legs. Examination of the urine at this time revealed numerous tube casts, mainly granular and blood casts.

A few words may here be said in regard to the significance of tube casts. A diagnosis can seldom be made from casts alone, but much assistance is often rendered by their study, so that the use of the microscope becomes of the greatest importance in the recognition of these affections. If there is one kind of cast which is more valuable in diagnosis than any other, it is the blood-cast. Given a typical blood-cast with blood corpuscles in a highly albuminous urine, it can indicate scarcely anything except an attack of acute Bright's disease or an acute exacerbation supervening on one of the chronic forms. There is another cast valuable in diagnosis, and that is the waxy cast. This is a cast which appears as a solid cylinder as though formed of molten wax, but with a yellowish tinge. When this is found, it indicates with great certainty a case of chronic Bright's disease. Epithelial casts with the epithelium slightly altered, or it may be granular but not fatty, are also found in acute nephritis. Granular casts, which are so full of granular matter that when they are viewed with transmitted light under the microscope they appear black, may be found in acute or chronic Bright's disease. So, too, hyaline casts may be found in acute or chronic disease and in simple congestion of the kidney, as in that from heart disease. On admission, as has been said, blood-casts were found in this man's urine, and we therefore know that at that time he had acute Bright's disease.

Let us now study his condition at the present time, which is not less than three months after the beginning of the trouble, nor, if the disease began at the time the symptoms were noted, not over four months after its inception. Examining the lower extremities, we find the barest noticeable pitting on pressure, in the feet; but there is no edema of the legs or thighs. The same is true of the abdominal walls. There is no edema in the upper extremities or face. The circulation is good and the pulse is 84 per minute. The man states that he feels very comfortable and complains of nothing. Examination of the urine is, therefore, practically the only means by which we are able to arrive at a diagnosis. It constantly happens that in chronic Bright's disease there are no indications

of disease except those derived from examination of the urine.

Let us then examine this man's urine, a specimen of which I show to you. As you see, it is pale and evidently of low specific gravity. The urinometer shows that it is 1012, but I expected from its paleness to have found it still lower, even as low as 1005. Urine of low specific gravity associated with swelling of this kind is of more or less significance and means that the disease is of the sub-acute or chronic form. Of course urine of a low specific gravity may be found in other conditions, particularly functional nervous derangements, but in Bright's disease a low specific gravity indicates that the inflammation has passed beyond the acute stage. The application of the ordinary heat and nitric acid test for albumen reveals its presence in considerable quantity. For practical purposes it is sufficient to indicate the quantity of albumen, when small, by the term faint opalescence; when the quantity is larger, by the term milkiness, and when the quantity is still larger by stating the proportion which the bulk of the precipitate bears to the bulk of urine tested, and for this purpose it is desirable to have a graduated test tube and to set the urine aside for a few hours in order that all the albumen may settle. The albumen will then be said to equal one-eighth, one-sixth, one-fourth, and so on, of the bulk of urine. Let me caution you against a commoner error. Not infrequently urine which contains one-fourth of its bulk of albumen is put down as containing 25 per cent. of albumen. The expression 25 per cent. means 25 per cent. by weight, but the absurdity of such a statement will be seen when it is remembered that the blood contains but little over 5 per cent. albumen. Urine which contains 5 per cent. of albumen becomes solid on the application of heat. Urine which contains one-fourth its bulk of albumen probably contains about 5 per cent. of albumen. In the present case the urine contains perhaps about one per cent. of albumen. Examination of this urine with the microscope shows that it contains hyaline-casts to which are attached a number of leucocytes, granular casts which are both moderately and highly granular and compound granule cells. I do not find on the one hand any blood-casts, and on the other hand I fail to find a single fat cast. The casts which are particularly valuable in distinguishing any variety of disease are wanting. We cannot therefore rely much on the urine in making the diagnosis. I think that acute Bright's disease may however be excluded by the urine examination alone, and independently of the history. There is, however, nothing to show that the disease has passed to the chronic stage. What conclusion therefore is justifiable? This is important, because both the treatment and the prognosis depend on it. From the evidence at our disposal, I should say that this was a case of sub-acute Bright's disease. It is, however, a nice question to decide where to draw the line between acute, sub-acute and chronic

Bright's disease. The advance made by some cases toward the anatomical characters of chronic disease is more rapid than in others.

If this man's kidneys could be seen, it would probably be found that they were enlarged, that the cortex was widened and that the uriniferous tubules were filled with desquamated, degenerated epithelium. The kidneys would be pale, because the dilated tubules, taking up more space than in health, squeeze the blood out of the capillaries and because the cells have undergone this degeneration. At the same time, this is not the typical large white kidney in which there are large areas of fatty degeneration. In such cases, the tubules contain not only granular matter, but also large oil drops. In the typical large white kidney numerous white spots, whiter than the rest of the region, are found both in the cortex and on the surface after the capsule has been removed. If these are picked out with a needle and examined with the microscope, they will be found to consist of tubules filled with oil drops. I think that this stage has not yet been reached in the present case.

Even in this stage, the prognosis is comparatively favorable. In the acute stage of Bright's disease it is well-known that the prognosis is quite favorable, for a large majority of such cases, if taken in time and properly treated, will recover. As the case becomes sub-acute the difficulties of treatment increase. In chronic cases the probabilities of recovery are very much diminished. In this case, we may hope that the improvement which has begun will continue.

Before speaking of the treatment I shall refer to the etiology of this particular case. This boy has not had scarlet fever. This is important for by far the greater majority of cases of acute Bright's disease are the result of scarlet fever, and many cases of chronic Bright's disease are due to the same cause. Are there other causes of this affection on which we can lay our fingers? There are a few, and one of these, although perhaps not worthy of the second place, is malarial poison. There seems reasons for believing that the long-continued irritation of malaria is a cause of chronic Bright's disease. At least chronic Bright's disease is more common in intensely malarial districts. I, however, think that it is only in districts where the poison is more than usually intense. This may be said to be the case along the river banks where the patient has worked. Another cause of chronic inflammation of the kidneys is long-continued exposure with frequently recurring wetting of the feet and chilling of the body. Still another cause of this affection is the use of alcohol, but in such cases it is difficult to say how much is due to the direct action of the alcohol and how much to the exposure which necessarily accompanies such indulgence. There are other poisons which, when introduced into the blood are capable of producing this condition. Among these may be mentioned the long-continued use of arsenic and the inhalation of phosphorus to which workers in

match factories are subjected. Cantharides in repeated overdoses may act similarly.

I now come to speak of the treatment. The man has improved much since admission. The dropsy has disappeared and the albumen is diminishing in quantity. Probably the most important lesson which I can impress on you this morning is the fact that there is no direct and specific remedy for this form of Bright's disease. There is no remedy which can be given with the view of acting directly on the condition of the kidney. The treatment must consist therefore essentially, first in placing the patient under such favorable conditions that nature has an opportunity of re-asserting herself and working a cure, and, secondly, in combating the symptoms as they arise.

The patient should be put to bed, protected from the operation of cold, and should have absolute freedom from work. Next to the bed, the best protection against taking cold is afforded by the using of woolen garments next to the skin. The regulation of the diet is important. It is desirable to use food which contains but little nitrogen, for an important danger depends upon the accumulation of urea in the blood. The urea which it is the office of the kidney to eliminate is comparable to the ashes of the fuel by the combustion of which a steam engine is run. It is not, as was formerly supposed, all derived from the wear and tear of the muscular system. Only a trifling portion of the urea arises thus, the greater part being derived from the food. It is evident that if a food which produces little ash is introduced into the system, the labor of the kidney will be diminished. The very best article of food under these circumstances is milk, because there is less ash, so to speak, after the consumption of milk than after the use of any other article of food. After milk come the vegetables. The greatest liberty may be allowed a patient of this kind in the use of vegetable food, provided the vegetables are digestible. Indigestible food must be avoided, for the nervous system of these patients is excitable, and just as a raisin in the stomach of a child may cause a convulsion, so an irritant in the stomach of a patient with Bright's disease may induce the same phenomena.

Meat contains a large quantity of nitrogen. Will you, therefore, take the patient off a meat diet? The answer to this question will depend on circumstances. If the symptoms are as urgent as in chronically contracted kidney, meat should be entirely excluded. A case like the present one need not be entirely deprived of meat, but may be allowed once a day. Oysters, fish, and the white meat of poultry which contains less blood and less urea than the dark meat, are suitable. Eggs, the white of which is pure albumen, should be used cautiously. It has been experimentally determined that if sufficient albumen be introduced into the blood, as by ingesting a number of eggs, albuminuria will be induced, and the amount of albumen excreted will exceed that ingested, showing

that it acts as an irritant. I should permit only the most moderate use of eggs in a case like the one before us, and in a case of chronic contracted kidney I should prohibit their use.

We next come to the treatment of the symptoms. If there is no dropsy or retention there is no occasion for diuretics. There is a popular idea that diuretics must be given as soon Bright's disease is diagnosed. A proper secretion is necessary for the elimination of effete matter, and therefore if the urine is scanty, diuretics may be used, but diuretics seldom act unless there is a free action of the bowels. It is therefore more important at first to secure free opening of the bowels than it is to administer diuretics. Such action being secured, we may use to increase the secretion of urine and to prevent the accumulation of urea in the blood, digitalis, acetate of potassium, bicarbonate of potassium or citrate of potassium.

I have already stated that there are no drugs, which by their internal administration can be expected to act curatively on such a kidney. This is correct, but at the same time there is a rational measure which I have sometimes found decidedly useful in acute and sub-acute parenchymatous nephritis, and that is counter-irritation over the region of the kidney. This may be done by means of plasters containing pitch and very little cantharides, the warming plaster of the shops; or, better, by a mustard plaster made by using equal parts of white of egg and glycerine as the menstrua for mixing, instead of water. The objection to the mustard plaster made in the ordinary manner is that it becomes painful too soon, while the object is to produce gentle but continued counter-irritation. A mustard plaster made with one part of mustard to flour of flour and mixed with the equal parts of white of egg and glycerine can be worn almost constantly. And so it should be worn. If at times it causes too much irritation, it may be removed at night and re-applied the following morning.

Cases of parenchymatous nephritis are less subject to uremia than are those of interstitial nephritis. If this should supervene, the treatment recommended in a previous lecture should be adopted. Jaborandi, or its active principle pilocarpin, may be employed. In extreme cases of convulsions, I do not hesitate to bleed. It does no harm to the patient to remove sixteen to twenty ounces of blood, while by so doing you remove a large quantity of the urea-loaded blood which is irritating the nerve centres.

INFANT DIGESTION.

By HORATIO B. BIGELOW, M.D., WASHINGTON, D.C.

The question of infant growth is one of assimilation. Assimilation of food will depend upon the integrity of the digestive function. The digestive system of the new-born is not formulated at once, but develops in logical ratio with the expansion of

other parts of the body. Its measure is the requirement necessitated by the elaboration of tissue. Tissue growth is a slow process, demanding especial nourishment, and varied at each advance in age. The necessities of the child, both chemical and physiological, are not those of the adult, because each is adjusted with great exactness to the immediate environment. The excess of non-nitrogenous matter, which is an essential to adult life, is pernicious to the well-being of the infant. Muscles, when at work, consume principally hydrocarbonaceous aliments, and not albuminoid substances. In the infant there is no muscular exertion, and hence it draws more largely for its development upon the nitrogenous substances than upon the hydrocarbons. At birth the alimentary tract is short, the cæcum being very small, and the masticatory organs are absent. Bidder says that the ptyaline appears only with the cutting of the first tooth. Reasoning from analogy, it is not improbable that the pancreatic and intestinal ferments are also inoperative until about the eighth month. Nature is not a spendthrift, and she would not call into useless action any function not demanded by the necessities of her own handiwork. With the eruption of the teeth a new era begins. Mastication presupposes increased development. Increase of development calls for increase of nourishment, and increase with variety in nourishment sets up new digestive processes, in which the ptyaline and the other ferments play an important part.

The alimentary tract of the infant is exceedingly susceptible, so that nursing women have to be very careful in their diet. Now if this tract is so impressionable as to feel any departure from a standard diet in the mother, how much more seriously will it suffer in the administration directly of unwholesome cow's milk—not unwholesome, perhaps in the light of general use, but unwholesome for the limited infantile digestion. It may have an *acid* reaction, or it may have come from a cow in *heat*, or it may be tainted with certain vegetable substances obnoxious to the child. The natural food of the baby is its mother's milk.

An intelligent study of human milk will lead up to a more just comprehension of the demands of infant digestion, and to a more perfect knowledge of a physician's duty in prescribing for such cases as are, unfortunately, deprived of a mother's breast. It would be a valueless encumbering of space, and an expenditure of time without profit, to cite one-half the analyses that are matters of record. It best subserves the present purpose to view the main constituents of human milk in their relation to certain physiological principles. It is to be noticed first, that woman's milk has an *alkaline* reaction, which persists for an indefinite period, and a specific gravity of about 1.0317. It contains water largely in excess (89.20 in 100 parts), milk-sugar, nitrogenous matter, fat, and salines. The albuminoids will vary in different women so largely that we cannot affirm that any

analysis is infallible. A fair average percentage would probably be about 4.84. The milk-sugar (6.997) is much greater than in cow's milk (4.92). These figures are only approximately correct. No two samples yielded the same results. This variability in the composition of woman's milk, if not pathological, is a wise dispensation of nature to provide for the exigencies of each month of advancing age. Thus the function of the milk-sugar as a heat-producer is kept constantly in mind, while the absolute rate of nutrition may vary within wide limits, because the bodily heat must be preserved at all hazard. In fat, woman's milk exceeds that of the cow, but falls far below it in albuminoids. The ash, or mineral constituent of milk, is chiefly concerned in metamorphosis. The basic phosphate of soda is invariably found in the blood, while the acid phosphate of potash is the chief constituent of the juice of the flesh. Phosphate of lime is intimately incorporated with the nitrogenous constituent principles. It is very generally admitted that the carbohydrates lead on to fat-production, through the co-operation of the nitrogenous and saline elements. Nitrogenous elements themselves, when in excess, may also serve as a source of fat. Nitrogenous matters do not, probably, undergo complete oxidation within the body; a portion of them is eliminated as urea. Fatty compounds are of higher value as force-producers, because they contain a quantity of hydrogen as well as of carbon free of oxidation. Pavy says that the value of nitrogenous compounds as force-producers depends upon the amount of unoxidized oxidizable elementary matter they contain. In human milk the percentage of nitrogenous matter to carbohydrates is about 1.45. About one-fourth part of its casein is coagulable by acid. The *alkaline reaction is highly valuable*, since it serves to convert the *casein* into *soluble albuminoids* and soluble carbohydrates, which are great heat-producers. Writing upon this subject, Kuss says: "It is generally admitted (Moleschott, Voit) that an adult consumes 320 grams of carbon and 21 grams of nitrogen, or, in other words, 130 grams of albuminoid elements, and 488 grams of hydrocarbons and fats (fats 84, hydrocarbons 404); it follows that, in this case, the normal proportion in a mixed diet, of nitrogenous to non-nitrogenous aliments, is 1 to 3.7, while in milk, as well as in the egg, the proportion is 1 to 3, or even 1 to 2; in other words, the quantity of albuminates (nitrogen) is much larger, and of hydrocarbons (carbon) much smaller. This fact may be easily explained by referring to the part played by the hydrocarbons in regard to the production of force, muscular force especially. The adult draws his forces from the combustion of non-nitrogenous substances, the albuminates scarcely serving for this purpose. On the other hand, when the organism is in course of development, the nitrogenous substances are indispensable to the growth of the different tissues. It is therefore easy to see how mistaken is the common practice of condemning

children to a diet containing a large quantity of starch and scarcely any nitrogen."

Woman's milk contains no starch. It may be conceded that, in the adult, the ptyaline may continue its action in the stomach; that particles of unconverted starch may be transformed by the pancreatic and intestinal juices. In the infant this rule cannot apply. The baby does not secrete ptyaline until the sixth or eighth month, *neither do the other juices, of pancreas and intestine, have any transforming power whatever before that period.* It is sheer ignorance to assert that small particles of starch can do no harm since they undergo transformation in the intestine, when the truth is that they are not only act as irritants, but pass out of the bowels unchanged. The attenuant of woman's milk is an important factor, of which we have little absolute knowledge. It is chiefly in consideration of this point, that *cow's milk cannot ever be safely substituted for that of the mother.* Before it can satisfactorily approximate to this great food of nature, it must be radically transformed by some chemical process, which science has not yet developed. The addition of water to cow's milk will reduce the percentage of albuminoids into harmonious relationship with human milk, but it does not suffice to change the characteristics of the clot. To use starch as an attenuant is, of course, radically wrong.

In view of these facts, it becomes a matter of the utmost interest to establish some definite principles of treatment, in cases where the mother is unable for any reason to nourish her child properly and sufficiently. There is no known process, chemical or mechanical, by which cow's milk alone can subserve this purposes. Up to six months of age, at least, the baby needs just those equivalents found within the mother's breast—nothing more and nothing less. The compound must be *alkaline* in reaction; it must contain no *cane sugar* (because cane-sugar must be first converted into grape-sugar before it can be assimilated; cane-sugar is frequently subjected to a kind of acetous fermentation, producing excess of acids in the infant stomach, so that bodily heat will diminish and disorders of respiration and circulation will follow), and no starch. It must be rich in heat-producers, although, as I have said before, the amount of albuminoids may vary greatly. Position has something to do with digestion. In some bad cases it will be found that, if the infant be placed in the usual position of a nursing child in its mother's arms, that it will assimilate its food, when artificially fed, much more readily. In the nursing child, a by no means inconsiderable amount of heat is derived from the mother's body. An artificially-fed infant is deprived of this, so that there should be some compensatory action in its food. There have been many attempts made to overcome this difficulty, and our journals have been full of discussions upon the matter. It may be said that no artificially-prepared food that does not meet all these requirements will be of perma-

nent value in infantile therapeutics. What is needed is something rich in carbohydrates, with a proper admixture of albuminoids, salts, and moisture, free from starch and sugar, and alkaline in reaction.

In common with many others, I have often been puzzled as to the best way of meeting the emergency. I beg leave to append a few cases from my note-book, as bearing upon this matter:

CASE I.—K. S., colored, five months old, apparently dying of marasmus; vomits frequently; diarrhœa, with inability to retain nourishment. Was nursed by mother until two months old; then was fed by bottle on diluted cow's milk. Ordered appropriate remedies, with the formula of infant food as advised by Meigs, in very small quantities. On second day the child was no better. Gave small doses of brandy, burned, with sugar; spice poultice to abdomen. Child continues to fail; entire inability to retain nourishment. At the suggestion of a professional friend, I bought a bottle of Mellin's food and subjected it to a very careful analysis. It seemed to be a close imitation of mother's milk—so that I commenced using it at once. The change was immediate and permanent, and the patient is now a thriving girl of four years. The effect was due to the principle in the food which acted upon the curd and albuminoids, and brought the cow's milk into a harmonious relationship with human milk. The whole system of the child was poisoned by unwholesome food, which it not only could not digest, but which was irritating the whole alimentary track. It wanted heat, and it wanted nitrogenous food. I satisfied myself by personal analysis of the constituents of the preparation, and found that it contained the principles which it seemed to me nature demanded, in exact combination, and more satisfactorily and more cheaply prepared than I could compound upon my own prescription.

CASE II.—The particulars of this case were furnished me by a friend. A physician was called to see a case where the child had convulsions after each feeding. He questioned the mother in regard to the milk used. She persisted that it was one cow's milk from a fine Jersey on her own farm, and was quite unwilling to make any change. She was finally persuaded to try the milk from another source, and use it with Mellin's food. The child began to improve at once.

CASE III.—Enterocolitis. H. D., the infant son of well-to-do parents, in the summer of 1882, had been allowed from time to time small quantities of starchy food in his milk. One night he became restless and irritable, slept but little, and when sleeping moaned frequently. Rejected his food. These symptoms continued for a day or two, when diarrhœa set in. With the increase of inflammation the discharges became more frequent, consisting of small portions of feculent matter, undigested starch, casein, mucus, etc. The abdomen was tender to the touch, and somewhat swelled. Vomiting was troublesome; pulse 148. Ordered

warm baths, poultices to abdomen, with one dose of spiced syrup of rhubarb and paregoric. Then gave a simple refrigerant mixture, with gradually-increasing quantities of Mellin's food. As the child grew better its abdomen was enveloped in flannel, and it was kept in the open air for as long a time as circumstances would permit. It thrived upon this artificial food, and soon was perfectly well.

These cases, which might easily be multiplied, are of interest only as showing that the nearer we approach to the essential principles of normal human milk in any substitution that we may make use of the better will the results be. The general cause of these summer complaints is one of unwholesome or insufficient food. Nature never offers such to her new-born, and we may well pin our faith to her example. Feed the child upon that preparation which assimilates the closest to mother's milk, and little medicine will be required in our cases of so-called cholera infantum.—*Archives of Pediatrics*.

DISEASES OF THE EYE AND EAR.

COLD, HOT AND WARM APPLICATIONS IN DISEASES OF THE EYE.

By DR. J. MORRISON RAY.

In the first stage of granular conjunctivitis, where there is much inflammation, iced cloths are useful, checking inflammation to some extent and allaying irritation. Later on, when this condition becomes chronic with its characteristic hard trachoma granule, there being very little inflammatory action present, hot water is often beneficial, and may even be curative. By frequent applications a certain amount of irritation is aroused, accompanied by a swelling of the conjunctiva and a softening of the trachomatous masses, which tend to hasten their absorption. This can be so regulated as to keep up a continuous slight irritation, and thus often a rapid disappearance of the granulations, without even the use of caustics, which have a tendency to cause cicatricial contraction of the conjunctiva, followed by all the bad symptoms incident to this condition, trichiasis, eutropion, etc.

In acute inflammations of the cornea, especially when due to traumatism, iced cloths often give great relief by allaying the pain and limiting the inflammation. In phlyctenular keratitis accompanied by photophobia, which is often seen in badly nourished children, the dropping of iced water on the exposed cornea has been recommended. I have recently seen a case which demonstrates the efficacy of this treatment to a marked degree. The child has been treated by other methods for some time without any apparent benefit. Under the use of iced water, dropped on the forcibly exposed cornea, the improvement was remarkable.

In necrosis of the cornea, occurring in strumous children, non-inflammatory in origin, and without any conjunctival irritation, our chief reliance is in the persistent use of fomentations made of chamomile flowers or poppy-heads.

In abscess of the cornea, accompanied by hypopyon, or the formation and deposit of pus in the anterior chamber, fomentations allay the pain and promote the absorption of the pus. In that form of ulcer of the cornea called serpiginous, occurring at its margin as an ulcerated band with irregular edges with a tendency to spread circumferentially (a condition often seen in old, feeble, and debilitated subjects), and accompanied by considerable conjunctival irritation and a decapillary injection, with often excessive degree of photophobia, rapid improvement sometimes follows the application of heat, moist or dry. The latter is to be preferred as the former produces much swelling of the lids or endema of conjunctiva. The hot applications may be supplemented by a sol. of sulph. eserine (gr. $\frac{1}{4}$ —gr. j— $\bar{3}$ j) dropped in eye several times a day. This is often used with marked benefit. Careful attention must be given to hygienic surroundings. Exercise in open air several times a day should be enjoyed, during which the eyes must be protected from bright light by means of colored glasses.

The above treatment, if carried out properly, has often succeeded in cases where incision of the base of the ulcer (Soemiesch's incision) has failed. In interstitial keratitis hot fomentations assiduously applied, their effect being carefully watched, together with frequent instillations of atropine, are sufficient to allay the pain and ciliary irritation. In suppuration of the cornea after cataract extraction, especially if it be in a weak and debilitated subject, heat in some form is always serviceable. There is generally considerable chemosis of the conjunctiva and swelling of lids, and in this condition dry heat would seem to be indicated. These eyes are, however, usually doomed, and iced cloths often tend to limit the inflammatory condition; but if this be once fully established, the hot water will promote the suppurative process which ultimately terminates in phthisis bulbi.

In iritis, atropine to dilate the pupil preventing adhesions and putting the eye at rest, and the frequent application of hot water to allay the pain and ciliary neuralgia make an excellent treatment.

Frequently a Turkish bath has a marked effect on these cases. I have often seen a pupil dilate under atropine just after a Turkish bath, which before would give no response to the drug, no matter how persistently applied. Traumatic iritis is the only form which will bear the application of cold, and in this the patients often prefer heat, especially if there is a suppurative process going on in the part.

In inflammation of the deeper tunics of the eye, if accompanied by much ciliary irritation or neuralgia, hot water will be agreeable and often beneficial. In sympathetic inflammations hot poultices

of flaxseed or bread and milk continuously applied for some time has been said to be followed by good effects. Ayers reports a case in which poultices were used almost continuously for four months and with marked improvement in the condition of the eye. In inflammation of the circumocular fibrous and cellular tissue, cold continuously applied for hours at a time will tend to diminish the heat and swelling of the part and relieve the pain. If it be desired to expedite the suppurative process, which often can not be prevented, hot water would be in order. It can be seen from what has been said that no strict rules or rigid laws can be laid down as to the use of these agents. Potent for good in one case, they may produce the opposite effect in another suffering from a similar condition. It would seem that the following would be indications for their use in general:—In acute inflammations, followed by much elevation of temperature or swelling of the part, or in any condition where a lessening of the vascular action is required, cold in some form, dry or moist, intermittent or continuous, is indicated, and generally gives the required relief. Where an increase in the blood-supply of a part is desired, or when the vitality is threatened by a slow necrotic rather than an inflammatory process, heat in some one of its modes of application is clearly indicated.—New York.—*Louisville Med. Times.*

A MENTION OF TWO FORMS OF EYE DISEASE FREQUENTLY MET WITH IN CHILDREN.

BY H. F. HANSELL, A.M., M.D.

In a dispensary service in a large city a considerable portion of the patients are children from two to six years of age. Philadelphia, from the comparatively good sanitary surroundings of the poor, with the advantage of separate homes, furnishes fewer examples of filth-bred diseases than some of her sister cities, but we "have the poor always with us," and meet with a class of diseases which appertain almost exclusively to them. The causes of the diseases and their *raison d'être* are apparent and require only the briefest mention. The food of the poorer classes is of the simplest kind, consisting chiefly of bread and potatoes, very little meat and as little good milk. The kitchen is the living-room; fresh air is regarded as an un-mixed evil and a bath a sure means of catching cold. Clean linen is reserved for Sundays and holidays. Several children are compelled to sleep in the same bed. They eat of the food provided for their elders. Their pennies are spent for candies. The ordinary diseases of childhood are treated by administering five cents' worth of castor-oil and confining the patient to the kitchen, there to breathe the fumes from the father's tobacco pipe and the flavors of boiling cabbage. Simple fevers, colds, etc., sometimes recover with this treatment and occasionally a mild inflammation of the eye gets

well, but the tendency is to grow worse, and a simple conjunctivitis passes into a chronic form and other tissues become affected.

The two forms of eye diseases to which I wish to call attention, both on account of their frequency and their destruction of function, are Phlyctenular Keratitis and Superficial Vascular Keratitis. The diagnosis between them is sufficiently easy. The former is characterized by the development on the cornea of one or more blebs *with vessels running directly to them*. These blebs have their seat in the anterior layers of the cornea, and consist of a circumscribed minute collection of serum underneath the epithelium and elevating it. The conjunctival vessels involved are the superficial and episcleral and on the surface of the cornea are new vascular formations running directly to the phlyctenulæ. In a few days the vesicle ruptures leaving an ulcer which gradually entirely heals without a persisting scar.

Superficial vascular keratitis, however, is a much more important and disastrous affection, and from the very outset demands skillful attention and patient nursing. It is characterized by an irregular superficial inflammation of the cornea, which either in the very beginning or later is accompanied by the formation of new blood vessels. The symptoms common to all the forms of inflammation of the cornea are prominent. The photophobia is especially conspicuous. The patient buries his head in his mother's lap or in a pillow. Lachrymation is less than in conjunctivitis. The cornea, overhung by the swollen upper lid, is in great part opaque. There may be several patches of opacity or one large irregular patch, the result of the merging of smaller ones; the epithelium is lost, hence the surface is rough, and it is inlaid with vessels. These vessels spring from the pericorneal ring, are new formations, and lie directly on the surface; they have no particular direction or stopping place, but traverse the entire cornea. Children affected with this form of keratitis are said to be scrofulous, and many show the external marks of that diathesis—flat-nose, large pouting lips, decayed teeth—but many others show no such signs. They are simply ill-nourished and ill-cared for. Their digestive organs being abused refuse to properly carry on their functions, and the lower part of the alimentary tract becomes the abiding place for worms, the existence of which should be inquired into, because of its therapeutic importance. Cases of keratitis which have persisted for months and years, going the rounds of the dispensaries, begin to recover only after the effective administration of an anthelmintic. The possibility of the reflex nature of this disease is too often overlooked. We are inclined to fall into routine practice and order iron, quinine and cod-liver oil, without a thought of digestion and assimilation. "Scrofulous" and "malarial" are convenient terms, and are often used to cover our ignorance and want of thoroughness. The patient is thin, pale, fretful, restless, and a disease once

manifesting itself hangs on a long time, but there is seldom positive evidence of scrofulous, phthisical or syphilitic taint. Superficial vascular keratitis is essentially different from the syphilitic form known as "keratitis ex lue" (Arlt.)

Treatment.—Phlyctenular keratitis Among the first remedies is a purge, unless the bowels are regular and symptoms of worms are wanting. One of the best is calomel in quarter-grain doses, repeated every three hours, until twelve doses are taken, and if an anthelmintic is needed the following combination is frequently prescribed at the Polyclinic :—

℞ Hydrarg. Chlor. Mit.,	gr. iv.	
Santonin,	gr. j.	
Sacch. Lac.,	q. s.	M.
Ft. in Chart. No. iv.		

SIG.—One every hour.

The first powder is to be taken at 10 a.m., and no food allowed until all are taken. If the bowels are not freely opened the last powder is to be followed by a dose of castor oil. Then the patient is put upon the following mixture :—

℞ Syr. Ferri Iod.,	f ̄ ss	
Ol. Morrhuæ,	f ̄ iiss.	M.

SIG.—Teaspoonful t. d.

Locally. Atrop., Sulph., gr. j-f ̄ ss, to be instilled once daily, and Pagenstecher's ointment at night—

℞ Hydrarg. Ox. Flav.,	gr. j.	
Vaselini,	ʒ j.	M.

Superficial vascular keratitis. The constitutional treatment is the same as above.

Locally. Atropine solution three times daily, after bathing the eyes with *very hot water*. Pagenstecher's ointment at night, and a daily application to the upper and lower lid of—

℞ Acid. Tannic.,	ʒ j	
Glycerini,	f ̄ j.	

The more frequent use of atropia is here advised on account of the hyperæmia of the iris, which might readily pass into a chronic iritis.

Duration of phlyctenular keratitis, one to two weeks—of superficial vascular keratitis, one month to a year.

The prognosis is good in both.—*Phil. Polyclinic.*

THE TREATMENT OF TYPHOID FEVER.

Dr. S. K. Jackson (*Med. Times*): The author contended that the discussion of this subject, though trite and hackneyed, could not be considered as finished until there was a better agreement among physicians as to the treatment of this disease, or until the mortality occasioned by it was much reduced.

The object of the paper was to point out a line of treatment suggested by a recognition of some pathological conditions long since known to exist, but which had been ignored in looking for indi-

cations for treatment. That these conditions have been overlooked is evidenced by the many and conflicting modes of treatment that have at different times been proposed, means not only not called for, but actually injurious. Some of these were enumerated to show that the pathology of the disease could never have suggested them. While all this conflict was being urged, the doctor declared that he had been pursuing one plan of treatment for 35 years, from which he had no reason to deviate, and that it did not contain one of the long list of means to which he had previously referred, and which are generally employed in the treatment of this disease. He was reluctant to state the result of that treatment, but left each one to determine its value for himself.

Among the first and most prominent pathological conditions which had attracted the attention of the author was the nitrogenous waste, the diminution of fibrine, the deficiency of urea and of all the nitrogenous excretions. The fact that they are not excreted is no proof that they are retained in the system, for if they were there would be signs of uræmic poisoning, which no one claims to have seen. They are not excreted, because there are none to be thrown off. One cause of the nitrogenous deficiency is the inability to digest nitrogenous food, which is owing to the absence of the digestive fluid, and this cannot be secreted because of the congested and inflamed condition of the glands and glandular follicles whose duty it is to secrete these juices. Another possible but not probable cause is the consumption of nitrogen by the parasitic organism, which is the acknowledged etiological factor in the production of enteric fever. That the parasite is a nitrogen-feeder is proved by the fact that it lives and thrives in nitrogenous matters, in urea and all nitrogenous excreta. Old logs, rotten wood, and leaf-mould, saturated with these excretions, have been known to be fruitful sources of this fever. If further proof be needed, it is found in the ammoniacal exhalation from a typhoid fever patient from his breath, his skin and his urine. These exhalations are undoubtedly due to the decomposition of the nitrogenous constituents caused by this micro-organism.

This pathological condition furnishes the most important indication in the treatment of this disease. As this nitrogenous waste cannot be supplied by nitrogenous food, the author knew no way of accomplishing this object but by the free administration of ammonia, even to saturation. Fortunately this nitrogenous base furnishes us with salts of such different therapeutical powers as to enable us to select any one suited to any stage of the disease and to any condition of the system. We have in the nitrate of that base the most sedative salt that we possess, and in the carbonate the most stimulating salt of the *materia medica*. The nitrate of ammonia is capable of reducing the typhoid fever heat down to 102° F., and of keeping it there. As this is not a dangerous de-

gree, the patient is safe, so long as it can be maintained. Ten or twelve grains of the salt every two hours is sufficient for this purpose.

As the disease progresses, and there is less need for a sedative, or if diarrhœa supervenes, the acetate of ammonia is substituted for the nitrate, and acetate of lead and opium are at the same time administered.

If nervous symptoms show themselves with a failure of the vital powers, the carbonate of ammonia in combination with potassium chlorate is resorted to; but if coma develops, recourse is had to the hydrochlorate of ammonia, generally in five grain doses, every two hours. The effect of this is magical. The doctor stated that he had never seen a coma in a case which had been treated from the beginning with this ammoniacal course, and had only seen it in badly-nursed cases, or in those treated by other means.

He considered the delirium of typhoid fever to be due to deficient nourishment, a delirium of starvation. It never fails to become quieted in a few hours after the free administration of ammonia. Wandering sometimes occurs if the dose is too small or the intervals between are too long. Patients sometimes ask to have the intervals shortened on account of a confusion of intellect, which appears when the dose has been postponed too long.

For tympanites, turpentine is used by enema or by the mouth.

The pathological condition contended by some to exist in, and be the cause of coma, is a thickened condition of the envelopes of the blood corpuscles, on account of which the brain fails to be nourished, even though the blood contains the normal amount of nourishment. This condition suggested the hydrochlorate of ammonia as a solvent for the thickened envelope; but whether this be its *modus operandi* or not, its effect is almost miraculous. Thus it will be seen that there is no stage of the disease in which one or other salt of ammonia is not used.

Why should cold baths and affusion be used when the temperature can be reduced by simpler and safer means and without the danger of reaction? The author long since abandoned quinine as not being the proper germicide for the typhoid-fever parasite. It is, however, the antidote *par excellence* for the malarial poison, but, as the typhoid fever producing organism differs so essentially from that of malarial fever, it could not be expected that the same agent would destroy both. The parasite of malarial fever is a carbon-feeder, and that highly carbonaceous medicament, quinine, might be expected to be the best agent for destroying it, in accordance with the law (for which the doctor has been contending), viz., "that no organism can live in its own excreta, in the results of its life processes." If carbonic acid gas be thrown off as the excretory product of a life process, a saturation of that gas will check the process and destroy the life. If alcohol be the result, then alcohol is the proper agent to destroy

the organism causing it. If sulphuretted hydrogen be evolved, then the compounds of sulphur are the most efficient means of checking the process. So, then, when ammonia is the excretory product, as in typhoid fever, ammonia, as has been shown, is the most efficient germicide. This furnishes us with an additional reason for employing the salts of ammonia, for this nitrogenous base not only supplies the nitrogenous waste but also destroys the vitality of the organism which causes it.

If this be a law, instead of accounting for the protection of the system against a second attack of contagious zymotic diseases by supposing that it is due to exhaustion of the pabulum necessary for the support of the parasite, why not attribute it to the infusion into the system of some excretory product which forever acts as a poison to the parasitic organism? This is the most probable explanation.

With regard to the period of this fever. If it is recognized as early as the third day, it may subside at the end of the first septenary, but if not recognized before the fourth or fifth day it cannot break before the end of the second septenary, but may at that time. If the treatment has not been inaugurated before the beginning of the second septenary the fever cannot be made to yield before the end of the third septenary (the 21st day). That it will yield on that day is almost an absolute certainty.

With regard to the diet, nothing is allowed but milk. Farinaceous preparations are never admissible. They cannot be digested for want of the fluids containing diastase. There cannot be any conversion of amylaceous food into dextrine or grape sugar, so then starchy food cannot be assimilated. If administered, they undergo a fermentation which adds to the gaseous distention and greatly complicates the case.

Animal broths are never allowed until the later stages of the disease, or until there are signs of the secretion of the digestive fluids.

In conclusion the doctor said, "The limited time allowed for this paper has compelled merely an outline of a subject which deserves full discussion. It is left to the profession to test the value of the treatment which has been detailed.—*Maryland Med. Jour.*

NEW HEMOSTATIC AGENT.

Dr. Spaak employs two parts of chloroform to 200 parts of water as a hemostatic in operations on the mouth and throat, and claims that patients thus treated suffer but slight hemorrhage.

He also uses the chloroform water as a spray after excision of the tonsils. This chloroform water seems to close the open mouths of all small blood-vessels instantly.—*Journal de Medicine, Brussels, Belgium.*

THE CANADA MEDICAL RECORD

A Monthly Journal of Medicine and Surgery.

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MONTREAL, SEPTEMBER, 1885.

LOCAL AND GENERAL.

In a recent magazine story an overworked literary hack tells how the "demon of unrest" pursued him day and night like the monster in "Frankenstein." Many a worried doctor has doubtless a similar experience; when he has got to the end of his tether he goes about as in a dream, conscious that he is awake, but only partially awake. Our hot summers probably contribute to this effect; and the victim of insomnia and irritable nerves longs for the country and rest. The absolute necessity for a change and rest is the reason why the matter under the above heading has been wanting for some months past. Now that cooler weather goes along with a quieter brain I hope to do a little more writing.

The topic that, above all others, occupies our local medical world is the variola epidemic.

Starting from the Hotel Dieu as a centre it has gradually spread all over this fair city of ours until we are generally regarded by outsiders as a pest-house on an extended scale. Whether there is as much cause for outside alarm as the Boston and New York papers would have us believe is a question, but there can be no doubt but that the city trade is seriously and decidedly affected by it, travel has greatly fallen off, the hotels are almost deserted, and nobody comes near the place who can possibly help it.

I do not propose here to raise the old question as to whether the responsibility for this unfortunate state of things properly lies with the attending

physicians at the Hotel Dieu who first saw it there or with the authorities whose duty it was to isolate and disinfect the first fruits of somebody's blunder, but I consider it only right to point out that the present state of things is just what might have been expected from the half-hearted and entirely inadequate measures resorted to throughout the battle with the disease. There is no use now as far as the *speedy* elimination of the disease is concerned, to isolate, vaccinate, and clean up.

The colt is escaped from the stable, and it matters little whether we close the doors or not.

The time for accomplishing *that* object is gone by forever.

That the weekly number of deaths may be lessened, and the disease confined to the unvaccinated and imperfectly protected is quite true,—that, may be done,—but those of us who have watched the progress of previous epidemics know perfectly well that when the number of small-pox patients exceeds $\frac{1}{10}$ per cent. of the population and the area of the disease is the area of the city that the pestilence will not be stayed until all the inhabitants capable of being infected will have been infected.

Those who feel inclined to question that statement would do well to inform themselves regarding the epidemic of 1876-78, and they will find an almost exact parallel in the present one. They will find that the measures, precautionary and other, taken at that time followed leisurely behind that out-break, just as they now do. They talked about opening the civic hospital when it should have been in active operation; they began to vaccinate in a feeble, doubtful sort of way when vaccination should have been in full blast in every city, ward, and in every outlying municipality.

In a half-hearted style they attempted to isolate patients when they should have insisted upon it as if their very lives depended upon its success. They, after weary months of talking, decided that a Board of Health was a good thing for a city, and they conceived the novel notion that this Board should have power sufficient to overcome the prejudices, cupidity and ignorance of the unclean, whether living in high places or not, when such a Board should have been instituted at the very outset. In short, they went tiger-hunting with pop-guns and the wild animal, *more tigri*, turned and feasted on their flesh and blood until he slept from repletion.

But is this suffering all for nothing? Are we to go on in this way, having the usual quinquennial visitation of small-pox, or is there, I ask, balm in Gilead? Regarding measles and scarlet fever and whooping cough a decided answer is possible—we know that we shall have periodic visitations of these maladies; we know that with the fresh renewals of our population will come, for a time at least, fresh crops of morbilli, scarlatina and pertussis, but of variola is this also true? Not necessarily so; with the proper machinery ever ready to be set in motion, a vigilant Health office, a decently intelligent and thoroughly vaccinated population, small-pox can be kept under as surely as fire or dead cats or murder. Whether we shall have during the years 1891-92 another epidemic of small-pox depends as much upon the factors mentioned above as the probability of fire depends upon the existence of an efficient fire department.

Those optimists who see the likelihood of such a radical and sudden change occurring in the habits of the unvaccinated and dominant portion of our population may look forward to the extinction of variola epidemics in this city. Those who regard such a change as possible only as a part of a movement which shall greatly modify the social, political and religious life of this element may not be as sanguine. Personally, I am not sanguine.

All eyes are now turned towards the newly-created Provincial Medical Board. Having at its head the man who, above all others, has preached the benefits of vaccination it is confidently expected that compulsory vaccination will form one of its first projects. Composed of practical hygienists we expect all those schemes to be at once set in operation whereby the baneful effect of the epidemic can be largely neutralized. These things we have a right to anticipate, and, if the outside localities are not immediately *compelled*, at their own expense, to do what they ought long ago to have done voluntarily, the public, lay and professional, will hold them to a strict account. They have the power to do the proper thing, and their failure to do it can only be regarded as, in the highest degree, culpable.

My experience of vaccine has been large. I have used, I believe, samples of every kind that has yet been brought into Montreal, and some that I trust never will be sold here, and I think my successes and my failures have made it possible for

me to say with positiveness that vaccinating in hot weather with vaccine brought from a distance is a delusion and a snare. I will never do it again, for I believe that it has done the cause (it is a "cause" in this city) a great deal of harm. It is difficult to persuade people of the utility of being vaccinated after the third or fourth failure, when they have been taught that two or three failures is sufficient to insure immunity from the disease. During the cold months I hope to vaccinate all but a small fraction of my patients that shall require it. We ought to have a properly conducted vaccine farm here, and I believe it would pay. During the next year or two (while King Variola holds sway) not less than 1,000,000 points will be required for Montreal and its surrounding country, and probably \$75,000 will be paid for vaccine. Might not some enterprising Canadian have this money as well as the establishments of our American cousins? Surely its greater reliability would give such lymph an immediate sale, to the exclusion of outside competitors.

The dreary fight over the International Medical Congress still goes on. The new Committee met in New York Sept 3rd, and filled the large number of vacancies occasioned by those who declined to co-operate with them. It is a great pity that something was not done at the meeting to heal the breach that widely separates them from so large and influential a section of the profession in America. It will also be a matter of much regret if the American Medical association at its next meeting in St. Louis cannot persuade its members to sink their differences in an united effort to welcome their transatlantic brethren who are not concerned in the Medical politics of the United States.

P. A. LAVER, M.D.

MONTREAL, Sept. 18, 1885.

A young woman named Carmen Rodriguez from Pachuca (Mexico) is on exhibition in this city (Mexico); her height is two metres and eight centimetres, or six feet nine inches. Age 26. Weight twenty *arrobas* or five hundred pounds. Her colossal stature is a sight to see.

A well-known surgeon of ability, who was famed for his brusque and brutal manner, was called to see a rich, but miserly patient, suffering from cancer in the stomach. The patient's condition was

very serious, but the idea of a large fee troubled him sorely.

"Doctor, how much will you charge me?"

"Not a cent."

"Ha, ah! thank you, Doctor."

"Your heirs will pay me," said the Doctor.

The Military Journal of Saint Petersburg publishes a Ministerial decree, ordering that the 2nd, 3rd, 5th and 8th Battalions of Siberian Chasseurs, shall have a midwife on the staff. Their salary will be three hundred roubles, with an additional allowance of one hundred roubles for messing.

In the *Bulletin Generale de Therapeutique* Dr. Pecholier points out the remarkable fact that the half-dozen drugs generally regarded by physicians as "specifics" are all of them no more nor no less than germicides. Such a conclusion, if fully demonstrated, would be considered strong confirmatory evidence in favor of the germ theory of disease. The specifics named by Pecholier are iodine, mercury, quinine, sulphur and arsenic.

The *Gazette Hebdomadaire des Sciences Medicales* of Bordeaux publishes a remarkable article from the celebrated Dr. Picot, in which, after a thorough investigation of the experiments and discoveries of Dr. Ferran, he declares himself a convert, and warmly eulogizes him.

THE MARSEILLAISE.

The following has been composed by an idle Frenchman, to be sung to the well-known air as above:

Allons, enfants, de la patrie,
Le petit microbe est arrivé,
Contre nous de la bacterie
L'étendard sanglant est levé [bis.]
Au phenol, citoyens!
Vive les fumigations!
Désinfectons! Désinfectons!
Que laudanum abreuve nos sillons.

PERSONAL.

Dr. Wolfred Nelson left the Isthmus by the *Aca-pulco* for New York. The doctor has been a resident of the Isthmus for five years, and has devoted much attention to diseases of the climate, and particularly to yellow fever, that scourge of the Tropics. Dr. Nelson goes to New York to accept the position of Medical Inspector of the New York Life Insurance Company for the West Indies and Spanish America.

REVIEWS.

Index-Catalogue of the Library of the Surgeon-General's Office, United States Army. Authors and Subjects, Vol. VI. Heastie-Insfeldt. Washington, Government Printing-Office, 1885. Pp. 1051.

The sixth volume of this handsomely-printed catalogue completes the work to and beyond the ninth letter of the alphabet, and includes 7900 author-titles, representing 2543 volumes and 7250 pamphlets. It also includes 14,590 subject-titles of separate books and pamphlets, and 35,290 titles of articles in periodicals. The total number of book-titles contained in the six volumes which have appeared is 64,142, and of the journal articles 219,154. In arrangement of matter and general appearance the volume corresponds with former issues of the series, which reflects honor upon American medicine.

A Complete Pronouncing Medical Dictionary, Embracing the Terminology of Medicine and the Kindred Sciences, with their Signification, Etymology and Pronunciation. By JOSEPH THOMAS, M.D., LL.D., etc., 1 vol. large 8 vo. pp. 884. Philadelphia: J. B. Lippincott Company, 1885.

There has been real need of a work of this kind, and after a careful examination of the manner in which the author has performed his laborious task we have no hesitation in saying that he has succeeded in presenting a medical dictionary, which, for the daily use of the student or the practitioner, is superior to any other in the language. He is especially careful in assigning the derivation of the words, their accents and pronunciation, and their exact meaning according to the usage of the best modern writers. In the preface he explains how extremely difficult at times this is, owing to the absence of any recognized standard of Latin pronunciation or of English spelling, and every editor and lecturer will be prepared to appreciate what he says on these points. Through the assistance of specialists in various branches of medicine and pharmacy he has been able to add all the recent introductions to the phraseology and nomenclature of medicine, surgery, pharmacy, chemistry, and the allied sciences, and in this respect the work stands a long way ahead of any that has yet been issued.

The typographical display of the words and their definitions is exceedingly judicious, and the paper and sizes of type leave nothing to be desired on these heads.

An appendix is added to the volume, giving the most essential elements of Latin grammar, the most usual Latin terms found in medical writings, abbreviations employed, scales of weights and measures, doses of medicines, etc. These are conveniently and clearly arranged, and enhance the value of the volume.

Asiatic Cholera:—A Sketch of its History, Nature, and Preventive Management, is the title of a little pamphlet by OSCAR C. DEWOLFE, A.M., M.D., Commissioner of Health, Chicago, Prof. of State Medicine, Chicago Medical College.

The author would seem to be behind the times when he states that the poison in a dry state may be preserved indefinitely, and few will agree with him that the discharges are not infectious immediately after their ejection from the patient.

Some useful hints are given in relation to the prevention of the cholera and the care of the sick.

A Hand-book of Pathological Anatomy and Histology, with an Introductory Section on Post-Mortem Examinations and the Methods of Preserving and Examining Diseased Tissues. By FRANCIS DELAFIELD, M.D., Professor of Pathology and Practical Medicine, College of Physicians and Surgeons, New York; and T. MITCHELL PRUDDEN, M.D., Director of the Physiological and Pathological Laboratory of the Alumni Association of the College of Physicians and Surgeons, New York, etc. New York: William Wood & Co., 1885. Pp. xvi-575.

Although this is a second edition it is essentially a new work, as its scope has been very much extended by the many valuable additions made to it, and is intended to supply all the needs of students and practitioners who wish to add a knowledge of the lesions of disease to that of its clinical symptoms.

Part I. Gives directions for making post-mortems and how to prepare and prescribe pathological specimens.

Part II. Embraces a wide range of subjects:—Changes in the blood—Degenerations—Animal Parasites and Bacteria—Inflammations—Tumors.

Part III. Morbid anatomy of the organs, including bones and muscles.

Part IV. Lesions found in general diseases; in poisoning and in violent deaths.

The matter of the work is excellently arranged, and, although somewhat concise, yet nothing im-

portant is omitted. The drawings by the authors are well executed and the general appearance of the volume attractive. This book will be found extremely useful to the practitioner as well as to the student and is of more real value than many of the numerous text books now published.

Clinical Charts: Designed for the Convenient, Accurate and Permanent Daily Recording of Cases in Hospital and Private Practice. By J. C. WILSON, M.D., Physician Philadelphia Hospital, etc. Published by J. P. Lippincott Company, Philadelphia. These charts are very convenient to the busy practitioner, as he can enter at once at the bedside important clinical facts and memoranda, thus preserving in sufficient detail, and with little trouble, valuable records of each case. They are put up in blocks of 50 charts, for fifty cents.

Urinary and Renal Derangements and Calculous Disorders. Hints on Diagnosis and Treatment. By LIONEL S. BEALE, M.D., Prof. of the Principles and Practice of Medicine, King's College, London, England. Philadelphia, P. Blakiston, Son & Co., 1012 Walnut St., 1885. Price, \$2.00. Montreal, Dawson Bros.

Like all of Beale's writings the book is valuable for the amount of solid information which it contains and makes it a necessary addition to the physician's library. Commencing with the therapeutical indications of the use of acids and alkalies sound advice is given concerning their administration.

In the division relating to urinary deposits, to which too little attention is given by the students, we have all those facts which daily come under the notice of the painstaking physician, and which, with the other clinical conditions, aid in the diagnosis of disease; of substances not found in healthy urine, such as albumen and sugar, a complete resume is given, with very full directions regarding diet, treatment, etc. The concluding division, on calculi and calculous disorders, concludes this interesting and practical volume.

The undermentioned works have been sent to the RECORD for review, owing to circumstances this could not be done in the present number, but due notice of them will be given in our next.

Minor Surgical Gynecology. By P. F. Mundé, M.D.

The Climate of Canada. By W. H. Hingston, M.D.

Wood's Library—Six volumes, including, Human Osteology, by Haldane. Kirk's Handbook of Physiology, Vol. I and II. Asiatic Cholera, by Wendt. Wasting Disease of Children, by Smith. Poisons. Vol. I, by Blyth.

Hay Fever and its Successful Treatment. By C. E. Sajous, M.D.

Nasal Catarrh and allied Diseases. By Beverly Robinson, A.M., M.D.

PAMPHLETS RECEIVED.

Tabular Statistics of 100 Cases of Urethral Stricture Treated by Electrolysis. By Robert Newman, M.D.

Illustrated Catalogue of Surgical Instruments. Caswell, Hazard & Co.

Vaginal Hysterectomy for Cancer. By A. Reeves Jackson, A.M., M.D.

Duty of the State towards the Medical Profession. By Conrad George, M.D., Ann Arbor, Michigan.

Cholera Infantum. By W. P. Watson, M.D., reprinted from the "Archives of Pediatrics," Aug., 1885.

Cholera—Its Nature, Symptoms, etc., with an Outline Review of the Germ Theory of Disease. By J. B. McConnell, M.D.

Supplement Kansas Law Journal, containing Prohibitory Law, Pharmacy Law and Dentistry Law.

THE THIRD ANNUAL MEETING OF THE AMERICAN RHINOLOGICAL ASSOCIATION

Will be held at Lexington, Ky., October 6th, 1885. Papers and Discussion will be devoted exclusively to the Diseases of the Nasal Passages and their sequences.

OFFICERS FOR 1885.

President, P. W. Logan, M.D., Knoxville, Tenn.; *1st Vice-President*, A. DeVilbiss, M.D., Toledo, Ohio; *2nd Vice-President*, J. A. Stucky, M.D., Lexington, Ky.; *Recording Secretary*, C. A. Sims, M.D., St. Joseph, Mo.; *Librarian*, N. R. Gordon, M.D., Springfield, Ill.

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J. G. Carpenter, M.D., Stanford, Ky.; H. Jerard, M.D., East Lynne, Mo.; H. Christopher, M.D., St. Joseph, Mo.; E. F. Henderson, M.D.; Los Angeles, Cal.

Information concerning the full Programme, Membership, Papers, Attendance, etc., may be learned from any of the above Officers of the Association.

C. A. S. SIMS, M.D.

AMERICAN RHINOLOGICAL ASSOCIATION.

The following are the subjects of some of the papers (with the authors' names and addresses) to be read at the 3rd meeting of the AMERICAN RHINOLOGICAL ASSOCIATION, to be held at Lexington, Ky., Oct. 6th, 1885:

Address to the Association on Rhinology. By the President, P. W. LOGAN, M.D., of Knoxville, Tenn.

Chronic Otitis Media, its Treatment in Connection with Nasal Disease. By HIRAM CHRISTOPHER, M.D., of St Joseph, Mo.

Self-Deception. By the same Author.

Hypertrophic Rhinitis; its Sequelæ and Treatment. By J. A. STUCKY, M.D., of Lexington, Ky.

Treatment of Catarrh, Acute and Chronic. By A. DEVILBISS, M.D., of Toledo, Ohio.

Treatment of Neoplasms of the Naso-pharyngeal Cavity. A New Snare. By J. G. CARPENTER, M.D., of Stanford, Ky.

Aural Catarrh and Treatment by Different Methods, with the Theory of each System. By Chas. A. S. SIMS, M.D., of St. Joseph, Mo.

Chronic Conjunctivitis Dependent upon Intra-Nasal Disease. By N. R. GORDON, M.D., of Springfield, Ill.

Demonstrations (on the Cadaver) of the Nasal and Pharyngo-nasal Cavities, the Pharynx and Larynx. The Sections of the Cadaver will show all the Cavities, Canals and Sinuses connected with the Nasal and Pharyngo-Nasal Cavities. By THOS. F. RUMBOLD, M.D., of St. Louis, Mo.

Demonstrations of the Manner of Making Applications by means of the Spray Producers; the age of the patients being, respectively, 1, 3, 8, 15 and 20 years and older. By the same Author.

Removal of Foreign Bodies and Tumors from the Upper Air Passages, with Demonstrations on a Phantom Head. By the same Author.

Treatment of Pruritic Rhinitis [Hay-fever], by Spray Producers alone; Cases. By the same Author.

On the Treatment of Secondary and Tertiary Syphilis of the Larynx, Pharynx and Mouth. By Jos. B. PAYNE, M.D., of Hot Springs, Ark.

A few Suggestions on Hypertrophy of the Turbinated Processes. By E. F. HENDERSON, M.D., of Los Angeles, Cal.

Seven other Papers are promised, but the subjects have not yet been given to the Secretary.

The full Programme will be ready to mail to any address on and after the 23rd of Sept., on application to any of the above members, or to CHAS. A. S. SIMS, M.D., *Secretary, St. Joseph, Mo.*