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# Dominion Medical Monthly

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## ORIGINAL ARTICLES.

(No paper published or to be published elsewhere as original, will be accepted in this department.)

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### SOME OF THE USES OF SULPHUROUS ACID.\*

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BY H. ARNOTT, M.D., LONDON.

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The subject to which I invite your attention, very shortly, may be considered rather antiquated, but it sometimes pays as well to refresh our minds on old subjects as to investigate new ones. Do we not sometimes err in seeking too much for new instruments, rather than seeking to perfect ourselves in the use of those we have? For my own part, I am sure I have benefited more by learning new applications of old remedies than from all the fresh additions of this prolific therapeutic age. Who has not abandoned some old and tried remedy for some vaunted cure-all, only to find, after long and troublesome experience, that the old was better? This fault will probably continue with the profession until we adopt some concerted method of recording and comparing our results.

It has become quite common to hear men say that they have no faith in medicine. I am one of those who do believe in intelligent medication, and that when treatment fails it is often due to an imperfect understanding of the case.

I confess to the belief that if we have a clear conception of the danger to be apprehended from any given disease, we ought to be able to avert or lessen that danger by the aid of the remedial agencies at our command. Of course, if we attempt to treat the disease rather to avert the threatened danger, we must very frequently fail.

\*Read at meeting of Canadian Medical Association, London.

The day may come when we will be able to understand and treat intelligently the direct cause of most diseases. Already, through the labours of the bacteriologist, the dawn of that bright day has begun to appear, and is giving intelligence and direction to our therapeutics. Many do not believe that we can influence the course of disease by the administration of remedies whose action is to destroy the vitality of bacteria multiplying in the blood. It is the object of this paper to show that, at all events, such treatment is worthy of our careful consideration in typhoid fever and in the early stage of phthisis.

The antiseptic properties of sulphurous acid have been recognized since the earliest times. Homer speaks of its having been used to fumigate a house. In modern times, Prof. Polli, of Milan, and Dr. Dewar, of Scotland, have laboured to bring its value in the treatment of disease to the attention of the profession. Shortly after beginning the practice of my profession, I read an article in Braithwait's retrospect extolling it as almost specific in the cases of typhoid which had fallen under the care of the writer. Having used it almost ever since with what seemed to me a very small proportion of fatalities, I thought I might be allowed to refresh your minds on the subject.

In speaking of typhoid fever, I may say that I do not believe that all the cases we call by that name are the product of one cause. Dr. J. E. Graham, of Toronto, expressed the same opinion some years ago. I believe that some are due to the rapid multiplication of bacteria in the blood, others are merely cases of continued malarial fever, whilst a third class are due to the inhibition of poisonous ptomaines.

The first class may be contagious, the two latter never. The first also rapidly yields to active antiseptic measures, the two latter, while being somewhat improved, do not yield to such treatment. On one occasion I attended a lady who had been nursing her brother in typhoid fever. She presented all the symptoms of the disease, yet, under the use of large doses of sulphurous acid, she was able to sit up in a week. This I regard as an example of the first class. On another occasion I attended a family poisoned by eating canned salmon. If I had not been able definitely to discover the cause, I would have called some of these typhoid, they ran a course so similar to that disease. This I look upon as ptomaine poisoning. We have all had cases subject to repeated attacks of malaria, which finally were attacked with a continued fever in many respects similar to typhoid, which left the patient cured of his malarial attacks.

In order to get good results, sulphurous acid must be fresh and administered as freely as the patient will take it, and it must be given early in the disease.

I am in the habit of giving from  $\mathfrak{zss}$  to  $\mathfrak{zj}$  every two hours, and, in some cases, for a time at first, I give  $\mathfrak{zj}$  every hour if the patient will take it. I regret that I can give no record of the number of cases treated in this way, but I know that I am within the mark when I say that the death-rate has not been more than one per cent., and this in spite of the fact that I never administered any form of alcohol, even during the crisis. I am not, by any means, recommending the acid as a cure-all in typhoid, for I am well aware that much depends on the general management, but I do say that I am certain I have found it far superior to any other treatment I have ever used.

In the treatment of the early stage of phthisis, also, I believe that it will be found almost, if not quite, as satisfactory as in the treatment of typhoid. Here, also, it must be administered early in the disease, and in as large doses as the patient will take. It

seems to be perfectly harmless in any dose whatever, and does not interfere with the function of digestion.

A few years ago my prognosis in a marked case of phthisis, even in the earliest stage, was always very grave. At the present time, I begin the treatment of a case of phthisis, before the expectoration of much pus, with comparatively good hope. Of course, I do not rely upon medicine to the exclusion of those hygienic measures which we all recognize of so much importance. Reports of cases are usually dull reading, and are liable to mislead. I may sometime report a series of cases. At present my only desire is to induce others to give it a fair trial. Several who have used it speak highly of its value, and in a case treated by Dr. Graham, of Dorchester, the Doctor writes me: "Sulphurous acid acts like a specific in her case." I attach great importance to the hygienic management, but I very rarely prescribe cod-liver oil.

Under the use of cod-liver oil patients often gain in weight and appearance, but the physical condition of the lung frequently does not improve. Under sulphurous acid, if there is any change for the better in the symptoms, it is very soon accompanied by a corresponding change in the lung. Of course, I have not been using the remedy very long, and I may have been mistaken in some of the cases I treated for phthisis, but I think not. Intermittent fever, night-sweats, cough, and in several cases severe hæmorrhage, coupled with distinct physical signs of change in the lung structure, are pretty strong indications of tubercular phthisis. At all events, I have had several cases recover under sulphurous acid in which other standard remedies had failed to give any indication of improvement. Alcohol I never use, unless in the very latest stages, where I often find it a very useful sedative to cough and nervous irritability.

Since writing the above, I was quite interested to hear that in the sulphuric acid works in England phthisical patients often go and offer their services free in order that they may constantly inhale the sulphurous fumes, and that many recoveries have occurred, apparently from this cause.

I hope I have not conveyed the impression that all my cases of early phthisis recover. Having been using the remedy for several years in this dread disease with so much more satisfaction than any other treatment, I was anxious to hear the subject discussed. I conclude:

- (1) That sulphurous acid is useful in all cases of typhoid fever.
- (2) That, in a certain proportion of cases, it will abort the disease.
- (3) That it is the most valuable treatment known in the early stage of phthisis.
- (4) If it does not produce some improvement in ten days, it is not likely to do so at all.

In the discussion which followed, it was objected that the sulphurous acid would combine to form sulphates in the mouth or stomach. Sulphuric acid might do so, but sulphurous, in combination with a base, forms sulphites which are believed to be as strongly antiseptic as the acid. Again, allow me to warn those who may be kind enough to give this treatment a trial, that it is very difficult to procure good sulphurous acid, as it oxidizes so rapidly into sulphuric acid. Hence the necessity of personally examining the acid prescribed, and especially of making sure that it has been prepared recently. I have known a very careful man prescribe it in typhoid fever and report it no good, when it transpired that it was only sulphuric acid which he had been using.

## DIETARY IN TYPHOID FEVER.\*

BY W. H. B. AIKINS, M.D., TORONTO.

Physician to Toronto General Hospital, Toronto Dispensary, etc.

It is not my intention to discuss the views of the ancient masters in medicine on this subject—a subject upon which experienced physicians differ so widely—but to indicate briefly the general plan of treatment and dietary which I have found to be the most satisfactory for patients suffering from typhoid fever.

As I understand it, the cardinal principles of treatment in enteric fever are: (1) By free action of the bowels to remove all ptomaines and offensive materials. (2) By careful dietary to conserve the patient's strength. (3) By cautious use of antiseptics to keep the alimentary canal in as aseptic a condition as possible, and in a rational and conservative manner to treat symptoms and complications as they arise.

When the patient first comes under my care, it has been my custom to prescribe calomel in small doses in the evening and follow this up by a seidlitz powder in the morning in order to have a free alvine evacuation. If one seidlitz powder is not sufficient, a second one may be given two hours later. The patients are not purged, but it is well that there should be a free movement every second day at least, throughout the illness. I have found calomel the most satisfactory drug on account of its stimulating the flow of bile, thus assisting in making the contents of the alimentary canal aseptic; but it must be used with caution in anæmic cases.

Prior to the time of Graves and Trousseau enteric cases were sadly underfed, and though these eminent men ardently advocated a sufficient supply of nutriment, it was always nourishment in the liquid form. To quote Trousseau's words, "I am convinced that the starving system has in many cases been carried to dangerous excess, that many persons have fallen victims to prolonged abstinence in fevers," while Graves said to his pupils, "If you are at a loss to find an epitaph to inscribe on my tomb, you may use these words—'he fed fevers.'"

We find that Sir William Jenner, in an address at Birmingham, in 1879, stated that, "From the first the patients should be restricted to liquid diet with farinaceous food and bread in some form, if the appetite require it. The value of milk as an article of diet in fever, is generally admitted, but it requires to be given with caution."

Strümpell allows broth and soup thickened with sago or rice, and a role of rusk when softened by soaking. Briefly then it is seen that by rapid stages the dietary has advanced from water soup to thickened soup and a little bread.

In the journal of the American Medical Association of the 10th of February, I noticed that a gentleman reports a case of typhoid fever with a favourable termination as follows: "Diagnosis typhoid fever. Diet—ate beefsteak on the seventh and eighth days of treatment, milk diet on the ninth, and solid thereafter." And there is one prominent New York physician who is so generous as to allow when the patient so desires, a mutton chop, with potatoes and beer.

This, however, is, according to my view, carrying the matter to dangerous extremes.

The dietary which I have found most satisfactory and which has been allowed to my last thirty-five cases of enteric fever in private and hospital practice, has been almost uniformly the same, but governed by the feelings and wishes of the patient to a certain extent.

\* Read at meeting of Toronto Clinical Society, March 14th, 1894.

For breakfast, if desired by the patient, a lightly boiled, scrambled, or poached egg, with a little bread and butter, milk in quantities agreeable to the patient with broths clear or thickened, such as oyster, chicken, mutton or vegetable. At intervals during the day a choice of bread and butter, bread with meat gravy, strained rice or sago pudding, custard, junket, milk toast, oysters, or biscuit with a little wine. Patients are not given more than two eggs and eight ounces of bread in the twenty-four hours.

The thirst may be quenched with pure spring water or pure mineral waters. Various other fluids are also allowed, such as barley water, egg albumen water, lemonade, koumiss, buttermilk, cocoa, tea and coffee. Care being taken not to furnish large quantities at any one time, but moderate quantities, a few ounces at frequent intervals.

This diet has not in any of my cases unfavourably influenced the temperature or prolonged the duration of its elevation, and it may be given at any stage of the disease.

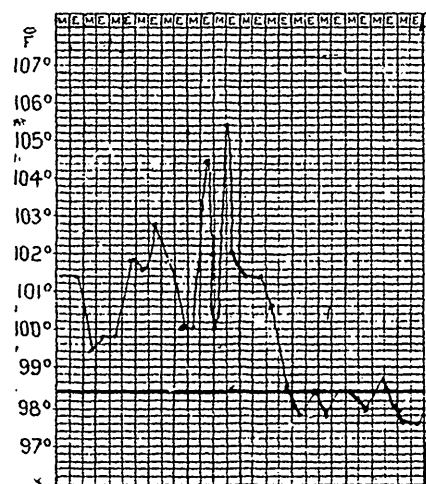
The results have been uniformly satisfactory. When on this dietary the patients appear more contented. There is less tendency to nausea and gastric disturbances, less tympanites, and the diet being mixed and somewhat the same as used in health, the bowels are much less constipated than when patients are nourished on milk alone.

There appears to be less tissue waste, consequently the muscular power is not so greatly impaired.

I have not seen any unfavourable results from this dietary, on the contrary, the period of convalescence is shortened, and the general repair of the system is more rapid.

At different times during my practice, I have prescribed various antiseptics, carbolic acid, iodine, boracic acid, etc., but cannot report favourably of them; of late, however, I have been using salol freely in doses of ten grains repeated every four to six hours. In some cases it appears to have had a very decided influence in cutting short the attack, as illustrated by the following three well marked cases of enteric fever which were under my care in the Toronto General Hospital reported by members of the resident staff:

I. J. B., aged twenty; medical student. Admitted, November 13; discharged cured, December 4. Diagnosis, enteric fever. Under the care of Dr. W. H. B. Aikins.



TEMPERATURE CHART.—CASE I.

The patient had been under Dr. Aikins' care four days before admission to the hospital.

*Symptoms of admission.*—Had been sick for several days, headache frontal, pains in the back and limbs, pains in right iliac and over the abdomen, constipation, gurgling in the right iliac fossa, spots on the abdomen and chest, tongue furred, red at the tip and edge. On the third day after admission, had epistaxis; the spleen was found to be enlarged.

*Treatment.*—Salol, gr. x. every four hours at the commencement, and discontinued on the ninth day. Calomel and seidlitz powder as purgative and simple enema when necessary. Milk, *ad lib.* Eggs, two a day if desired; bread and butter in small quanti-

ties, oysters and broths of all kinds, gruel, jellies, custards, etc., and the juice of oranges.

Throughout the attack it was necessary to use a catheter to draw off the urine.

The patient sat up on the eighth day for twenty minutes in bed, and on the twelfth day, was out of bed for a time.

II. A. W. B., aged twenty-three; Arts student. Admitted, January 20; discharged cured. Diagnosis, typhoid fever.

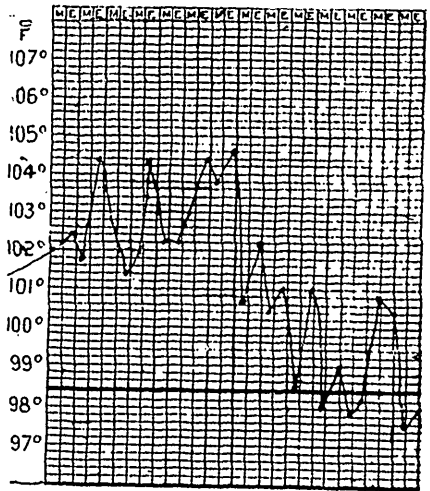
Patient was admitted to the General Hospital on January 20, complaining of frontal headache, pain in the back and limbs, loss of appetite, constipation and general malaise. Had not been feeling well for about two weeks prior to admission. Had chilly feelings followed by feverishness, headache, obscure pains in the back and limbs. Had no abdominal pain; was constipated.

On admission his temperature was 102°, respiration 28°, pulse 120°, tongue slightly coated in the centre, no abdominal distension or pain, slight tenderness in right iliac region, no rash to be found on the body, lungs and heart normal, examination of urine showed slight albumen.

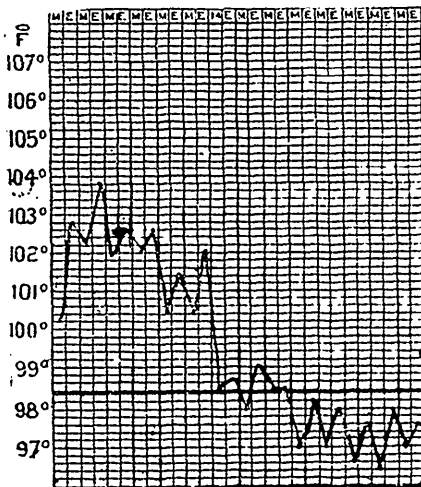
*Subsequent history.*—Temperature varied between 104° and 101° for a period of six days and then fell gradually to normal, but rose again to 102°, reaching normal again on the twelfth day and continuing so; pulse varied from 90° to 55°. A rash, formed of rose-colored spots, appeared on the abdomen on the second day after admission and continued for about a week. Had no abdominal distension throughout the attack. One week after admission the right testicle became swollen, painful and tender, lasting, however, for only four days.

*Treatment.*—The patient was given salol, in doses of ten grains, every four hours, and at the end of the second week, some stimulant was administered. He was sponged whenever temperature ranged above 103°. This never failed to lower the temperature considerably. Small doses of calomel, followed by a saline, were given when necessary to produce a movement of the bowels.

Patient was allowed throughout the attack to have, besides milk, small quantities of bread and butter daily, chicken broth, beef-tea, strained porridge, cocoa, oyster broth and custards.



TEMPERATURE CHART.—CASE II.



TEMPERATURE CHART.—CASE III.

III. L. G., female aged 27, admitted to hospital, January 16, with usual symptoms of typhoid. A characteristic rash appeared, shortly after admission, on chest and

abdomen, and was still present when the temperature fell to normal. This was on the seventh day after admission to the hospital. Treatment and dietary the same as in the former cases.

This concisely outlines the course of treatment employed. While it is rather at variance with the general practice which obtains in these cases, it is, in my opinion, rational, and in the thirty-five consecutive cases which I have thus treated, the illnesses terminated in recovery. On another occasion I hope to deal with this subject more in detail.

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## CLINICAL NOTES.

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### CLINICAL NOTES ON TWO CASES OF FISSURE OF THE NECK OF THE BLADDER.\*

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BY GEO. A. BINGHAM, M.B., TORONTO.

Prof. of Applied Anatomy, Trinity Medical College; Lecturer on Clinical Surgery, Toronto General Hospital; Surgeon to the Victoria Hospital for Sick Children.

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Case 1.—Mrs. M., *æ*t. 31, multipara, gave birth to a large still-born child on September 3rd, 1893, after a tedious labour lasting, she says, quite twenty-four hours. Previous to her labour had been a strong healthy woman; had experienced no trouble during her other confinements. While convalescing in September last she noticed that she was obliged to pass water more frequently than she had been accustomed to and that the act of micturition was preceded and immediately followed by sharp lancinating pain in the bladder region. The pain and frequency of micturition increased until she was never free from the former except when in the recumbent position, and was obliged to rise half-a-dozen times in the night to void urine. She lost flesh and strength steadily, and owing to loss of sleep and constant brooding upon her sufferings, became melancholy and morose. The attending physician had found flakes of bladder epithelium in the urine, but so far as he knew, no blood or pus had appeared. He diagnosed acute cystitis, which he attributed to too early rising and exposure to cold, with, perhaps, an antiflexed uterus as a causative factor. I saw her in consultation on November 19th. Her condition was pitiable. She was pale, emaciated, and her features bore the stamp of much suffering. She was querulous and complaining, and demanded that something be done to “cure or kill her at once.”

Examination revealed a uterus normal in dimensions and appearance, with slight antiflexion. Tenderness over the whole course of the urethra, which was extreme at one point close to the neck of the bladder. An attempt to pass a catheter caused such agony when the point reached the neck that it was postponed. From all the symptoms, I suggested the probability of a fissure at the neck being the cause of the difficulty, and as general cystitis was no doubt present, I advised vaginal cystotomy, in order to secure the amplest drainage and rest to the organ.

This was consented to and a fistulous opening, one inch in length, was made in the posterior wall of the bladder on November 21st, the patient being under chloroform. Just to the left of the median line on the posterior surface of the neck, I found

\* Read at meeting of Toronto Clinical Society, February 14th, 1894.



an irregular elevation half an inch in length, and upon scraping this gently with the finger-nail I was able to remove considerable unhealthy granulations. After removing these thoroughly we washed out the bladder, applied the solid stick nitrate of silver to the base of the ulcer and introduced a vaginal anodyne suppository. The pain was controlled during the first fortnight by belladonna and opium suppositories after which it was unnecessary to use them.

December 27th.—Patient free from the old pain, but constant dribbling has caused severe vaginal irritation. Fistula has closed to quarter of an inch. It was decided to close this by operation, which was done on same day. As the bladder has become very much contracted, the attending physician began to carry out systematic dilatation by the gravitation syringe, using warm boiled water. At first bladder would retain only about one ounce, but improved steadily, if slowly.

February 1st.—Patient only occasionally has to rise once at night to void urine and bladder can retain one pint. Her health is much improved; she says she has gained twenty pounds since the operation.

I was not entirely satisfied with the results of this procedure, (1) because of the exceedingly disagreeable vulvo-vaginal irritation set up; (2) because of the contraction of the bladder which requires considerable time and much patience to overcome. (This contraction was of course partially due to the tenesmus prior to the operation; but the fistulous draining of the bladder undoubtedly contributed largely.)

Case 2.—Mrs. D., æt. 26. She is a decidedly intelligent woman, under the medium height, and says she weighed at time of confinement, 136 pounds. She was confined on June 23rd, 1892, at Detroit. The attendant, a lady physician, diagnosed ordinary head presentation. After about twelve hours unavailing suffering, a consultant was called in, who diagnosed breech presentation, and considerable difficulty was experienced in the removal of the child. She was confined to her bed for between two and three weeks. When convalescence was established, and patient began to go about, she noticed difficulty with the urine, viz., pain and frequency of micturition. These became rapidly worse, and she finally became bedridden; and she says that for a period of three months she was unable to move herself in bed, experiencing the greatest agony at each act of micturition. She noticed that a small drop of blood succeeded the passage of the urine. Her physician who had been treating the local condition as well as a subinvolution uteri, finally persuaded her to go to the home of her sister in Toronto, where she could be built up preparatory to an operation which he thought necessary for the relief of the bladder trouble. She was brought to this city where I first saw her on December 30th, over six months from time of confinement.

Present condition.—She appears much emaciated, weighing about ninety pounds. She is very hysterical, and it is only with much difficulty that I could make an imperfect vaginal examination. I found an exceedingly tender spot at the neck of the bladder, and under cocaine anæsthesia passed a sound through the urethra with some resistance, and much pain at the neck. A diagnosis of fissure at this point was made. Anodyne suppositories were used for the next few days for the relief of the pain which was very severe. On January 4th, 1894, chloroform was given by Dr. Milner, and a long pair of dressing forceps were introduced into the bladder. The urethra was quickly dilated, laterally and antero posteriorly, until the little finger could be carefully bored through the passage. Thorough dilatation was carried out by this means, and the resulting hæmorrhage was limited. The bladder was washed out, a belladonna and opium suppository introduced into the vagina, and hot applications made over

the bladder. There was complete incontinence during the next four days. On January 5th she could retain the urine for a short time, although she was not encouraged to do so. The bladder recovered its tone rapidly, and on January 15th, I paid my last visit. On that date she was stronger and cheerful. She was taking a short, daily walk, and did not void urine during the night unless she had forgotten to do so before retiring. There was an entire absence of pain, and patient was gaining flesh steadily.

These two cases constitute the whole of my recent experience of fissure at the neck of the bladder. I have been unable to lay my hands on any extended literature of the subject, and I am anxious to know if this lesion has come frequently under the notice of others, and what their experience has been in reference to treatment. The diagnostic points upon which I relied were, (1) local tender spot with stabbing pain on pressure; (2) the drop or two of blood following the urine; (3) the history of a prolonged labour preceding the onset of the trouble.

The method of cystic exploration through the urethral speculum adopted and carried out by Howard Kelly would appear to be the proper diagnostic method in these cases.

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#### SEPARATION OF THE PUBIC-BONES DURING PARTURITION.\*

BY J. ALFRED CARBERT, M.D., C.M., GRAND RAPIDS, MICH.

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Mrs. R— H—, aged thirty-four years, of good physical development, was taken in her fourth confinement early on the morning of March 7, 1893. On digital examination, found her in the first stage of labour. The membranes were ruptured before my arrival, and large quantities of liquor amnii had escaped.

The vertex was presenting; the capacity of the pelvis was ample; the external os was patulous and open.

The internal os was closed and very rigid.

The rigidity was seemingly functional and was thought to have been produced by premature escape of liquor amnii.

The pains were quite severe and regular but did not seem to have any effect on dilatatory of the internal os.

Patient complained of severe pain at the level of the symphysis. Chloral g. xv. every hour was given but proved of no avail; over-stretching was also tried. An endeavour made to insert index and middle fingers into the internal os, was repeatedly tried with negative results. Enemata of hot water against the cervix also failed.

The pains continued with regularity. About midnight, the case presenting some *unusual difficulty*, requested counsel.

Dr. Devore was sent for, and on arrival, made a careful vaginal examination, concurring in my diagnosis, and recommended a large dose of acetanilid gr. xx. to be given, followed by chloral hyd. and sulphate of morphia to produce sleep and rest. About 1.30 a.m., patient fell asleep and rested well until 5.30 a.m. On making a vaginal examination at this hour, we found the internal os closed and as rigid as ever, patient feeling rested and entirely free from pain. About 8.30 a.m., the pains returned with increased severity, and the child was delivered in less than twenty minutes. The child was alive and weighed about eight pounds.

\* Read before the Grand Rapids Academy of Medicine, Feb. 19, 1894.

The placenta was removed as in normal labour, the patient dressed and a bandage applied.

On examination, no laceration of the perineum or cervix could be found. Immediately following labour, patient was seized with a severe and prolonged chill, which lasted three-quarters of an hour, followed by high fever and profuse perspirations.

Although patient had an abundance of milk in her former labours, there was no secretion of any amount in this labour.

Patient apparently seemed to be getting along as well as in ordinary labour until about the fourth day, when there was noticed a swelling over the pubic symphysis. This apparently subsided in a few days by means of hot applications. About the eighth day, a swelling was noticed extending above the pubes, covering the region of the bladder, which caused patient to feel great pressure and fulness upon assuming an upright position. She was also unable to move her lower limbs, the nurse having to move them frequently to rest the patient. This inability to move her lower limbs was noticed as early as the third day after labour.

There was no interference with the functions of the bladder or the bowels; no tympanitic condition whatever.

This last mentioned swelling remained in spite of hot applications and the usual treatment, and was thought to be a cellulitis.

The patient having frequent chills and fever, followed by profuse perspirations, temperature  $105\frac{1}{2}$ , and pulse as high as 150, the uterine cavity was irrigated with sterilized water. The solution returning clear and not showing any evidence of a putrefactive change taking place, the injection was not repeated.

*Treatment.*—The treatment consisted of daily antiseptic vaginal injections, bold stimulation, good, nourishing, liquid diet, acetanilia to reduce fever, together with tonic doses of quinine; also tepid sponging of entire body with alcohol daily.

On March 27th, nearly three weeks after confinement, acute symptoms of septicæmia developing, a consultation was held with Drs. Perry, Schurtz and J. A. Devore. Dr. Schurtz having diagnosed the swelling as a pus cavity and *extra peritoneal*, the aspirator was used, which revealed the presence of pus and confirmed the diagnosis. An incision was then made in the median line above the pubes and about three pints of pus of a greenish colour evacuated. On further examination, the pubic bones were found to be separated to the extent of nearly an inch. The articular surface of right pubic bone was partially denuded of fibro-cartilage and the bony surface exposed. The pus cavity contained several pockets which extended upwards and inwards. These were well irrigated daily and packed with iodoform gauze and the abdomen bandaged. The temperature and pulse both fell to normal after the operation. The urine was examined microscopically, but did not show any signs of pus.

Patient seemed apparently relieved for a few days, when in spite of bold stimulation and treatment, the chills returned and occurred regularly every day, sometimes two or three chills occurring during the twenty-four hours.

The pus cavity under daily antiseptic irrigation and dressing, continued to heal, granulation and cicatrization being nearly completed, when patient was, on April 27 (over seven weeks after confinement), seized with an acute attack of pneumonia and succumbed after two days' illness, there not being any vitality left to resist the inflammatory process.

# Dominion Medical Monthly.

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TORONTO, MARCH, 1894.

## THE ABORTIVE TREATMENT OF SYPHILIS.

All competent authorities now agree that the more carefully and thoroughly a syphilitic patient has been treated, the fewer will be the after osseous and cerebral lesions. It is also agreed that treatment is most effective when it is commenced at an early stage of the disease, and followed out in a scientific and painstaking manner. The expectant plan of treatment has led to unfortunate results. No conclusion can be drawn from the fact that the secondary manifestations are mild as to what the later results may be.

Everyone who has had much experience with venereal sores must admit the difficulty of making a positive diagnosis, in the first period of this disease. With this in view, Jonathan Hutchinson recommends that mercurial treatment ought not to be commenced until there is evidence of induration in the chancre. But such experts as Fournier have admitted being wrong in their diagnosis when they relied upon this induration in the chancre as the test for syphilis. It is this difficulty that has induced J. William White to come to the conclusion that it is sound

practice to delay treatment until absolute proof is present. It seems to be the opinion of many experienced teachers that it is better to wait until the diagnosis is quite clear, rather than to subject the patient to a prolonged course of mercury for a disease which he has not. Any advantages to be gained by very early treatment, is counter-balanced by errors in diagnosis. In some cases, as during pregnancy, or the appearance of suspected sores on the lips, eyes, or nose, immediate treatment is necessary. With such exceptions, it is the proper course to follow to wait until there can be no doubt about the nature of the case.

Cauterization has been strongly urged by some good authorities. Keyes, however, emphatically rejects it. The results have not been very encouraging. The value of cauterization is still surrounded by much speculation as to when the disease ceases to be local and when it becomes general.

The method of abortion by the excision of the chancre has received more support. If the case be seen early, and the chancre thoroughly removed, and the wound then cauterized, a cure may be effected. Some cases thus treated have never developed the disease. But, here again we are faced with the uncertainty of diagnosis. Some cases have been diagnosed as true chancre, and regarded as suitable for excision. Under observation for some time, the local sore healed up and no further trouble made its appearance. Had these cases been operated upon, they would have been taken into account to swell the statistics of good results from this plan of treatment.

This plan of treatment is quite different, however, to the attempt to abort by the early use of mercury. Should the disease appear after excision or cauterization, constitutional treatment can then be instituted. But, in the event of the attempt to abort

by the use of mercury, and no further symptoms appear, it is not so easy a matter to determine when the drug should be set aside, without fear of an active development of the disease. It may therefore be said that mercurials should not be employed till the first appearance of constitutional infection; that the excision and cauterization sometimes succeed, and are worthy of further trial; and that local antiseptic measures are of no abortive value.

#### THE SANITARY CONFERENCE OF PARIS.

On February 13th a sanitary conference was opened at the foreign office of the French Government, Paris. The delegates, who represented the principal countries of Europe and the United States, were assembled at the invitation of the French Government for the purpose of reviewing the acts of the preceding conferences of Venice and Dresden, and also to devise and determine the best means of stamping out cholera, and of preventing its recurring visitations to Europe and America. After Mr. Casimir Perier, President of the Council of the French Ministry, had welcomed the delegates and the Austrian delegate had replied, M. Barrere, Minister of France at Munich, took the chair, and secretaries were appointed for the different countries represented. Prof. Proust then gave a complete historical review of the measures heretofore taken for the defence of Europe against cholera, and afterwards enumerated the precise points which ought particularly to engage the attention of the new conference.

Owing to the fact that, beyond the few particulars which have just been stated, the proceedings of the conference were kept secret, the points discussed can only be conjectured. It seems natural to

suppose, however, that the regulation of the pilgrim traffic being of the first importance, the countries which annually send the pilgrims forth, viz.: Turkey, Egypt, Persia and India, should receive a good deal of attention. Many thousands of Mahomedan devotees leave these countries annually to visit the holy cities of Mecca and Medina in Arabia, and as cholera is always epidemic in India, the comma bacilli are pretty certain to be communicated to pilgrims from other oriental countries by the Mahomedans from India.

Is it possible for sanitary science to prevent this state of affairs? Mr. Ernest Hart, editor of the *British Medical Journal*, thinks that it can be done, and he shows how this desirable result has been accomplished at the Hardwar Fair in India. In April, 1891, when the last fair was held, 800,000 to 1,000,000 Hindu pilgrims assembled in Hardwar. Warned by previous epidemics of cholera which spread from Hardwar, as a centre, careful precautions were taken by the British sanitary authorities to prevent, if possible, a recurrence of the plague.

The key to the sanitary arrangements of the fair lay in the searching out and rapid removal of all cases of suspicious disease, in the maintenance of perfect cleanliness in the camp, and in the measures taken to prevent all possibility of contamination. Various improvements were made in the conduct of the bathing festival, which were of great importance. The sacred pool, to bathe in which the pilgrims gather in multitudes, becomes very foul; the water collected from any part of it smelt in a few hours offensively, and the micro-organisms developed from it were legion. To remedy this condition of affairs an engineer arranged for a stream of fresh water to traverse the pool.

Another improvement was the purification of the Bhim Goda tank, about half

a mile from Hardwar. In this tank the pilgrims bathe, present offerings, and drink of the water. The tank, which had a mud bottom, was deepened, paved, and a siphon constructed so as to bring a constant supply of fresh water to it from the Ganges. As a result of these precautions, although two cases of cholera occurred during the fair, yet the disease did not become epidemic.

It seems reasonable enough to think that similar sanitary measures enforced at Mecca, on shipboard, and along the routes of travel visited by the pilgrims would produce equally happy results.

It is earnestly to be hoped that the representatives of European and American Governments may convince the Sublime Porte that it is quite possible to be reverential to the religious lessons of the past without countenancing and helping on a useless destruction of life. But more remains to be done. The light of science is strong enough to penetrate the gloom of Turkish ignorance, and the energy of European industry active enough to cleanse the Augean stables of oriental filth. If cholera, however, is to be stamped out in the East, the conference must not be so pliant as to suit the exigencies of politics, but firm enough to demand as a right what science and experience have proved to be true and necessary.

#### MEDICAL COUNCIL.

Medical Council Legislation is likely to again take up the time of our local legislators. We understand a bill will be brought before the House for re-arranging the constituencies and also a provision to bring on the council elections immediately. As regards the first part, since Dr. Meacham is sponsor for it, it will no doubt be fully discussed in the House.

In regard to the second (which there

appears to be an endeavour to burke), the provision to hold council elections immediately, there can be no two opinions from a professional point of view. A large section of the profession demanded certain changes in the council regulations, the council, if it pretended to represent the profession, should have given them an opportunity of voicing their sentiments at the polls. We do not propose at present to discuss the wisdom or unwisdom of recent legislation, what we do say is that the verdict of the profession is the only true guide, and that no electioneering interests on the part of the legislators should prevent them from allowing the physicians to decide their own questions in a constitutional way for themselves.

#### ONTARIO MEDICAL ASSOCIATION.

The Fourteenth Annual Meeting of this Association will be held in the city of Toronto, on Wednesday and Thursday, the 6th and 7th of June, and it is expected that, under the presidency of Dr. McFarlane, the meeting will be a conspicuous success. Papers are invited. Gentlemen desirous of reading papers or presenting cases before the Association are requested to notify the Secretary, by the 1st of May, of the title of the paper or character of the case, for submission to the Committee on Papers and Business.

Officers for 1894: President, Dr. L. McFarlane; Treasurer, Dr. J. H. Burns; Secretary, Dr. D. J. G. Wishart; Assistant Secretary, Dr. J. N. E. Brown.

DYSMENORRHOEA.—Electra B. Whipple, A.M., M.D. (*Buffalo Medical and Surgical Journal*, March, 1894), discusses this question under the headings of etiology, prophylaxis and treatment.

Etiology: Dysmenorrhœa may be (a)

ovarian. An inflamed condition of ovaries, or if they are displaced, have caused severe attacks. (b) Uterine in origin and due to displacements, congestions and stenosis of the cervix. (c) Constitutional causes, as anæmia, chlorosis, sedentary habits, overworked systems, neurasthenic and neuralgic states, play an important part in this condition.

Prophylaxis: The great secret in preventing dysmenorrhœa is to make the girls hearty. Active habits must be encouraged, and sedentary and pampered ones avoided. Physical culture during school years must be carefully attended to. By such means the health and hygienic conditions of young girls are improved, and the generative organs become better developed. Well developed generative organs are not likely to become subject to this painful affection.

Treatment: First of all, correct any displacements, flexions, polypi, stenosis, or congestions that may exist. In many cases of uterine and ovarian congestion, galvanism is of much service. Anæmia, chlorosis, etc., must be treated by a course of tonics. The habit that some of these sufferers have acquired of using some narcotics cannot be too strongly condemned. Hysterical and neurotic cases require attention to the general conditions at fault. When these are overcome, the dysmenorrhœa usually disappears.

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#### CONSOLING TO PHTHISICAL PATIENTS.

—The *Medical Summary*, for March, '94, in commenting on the work of the directors of the Society for the Prevention of Tuberculosis, remarks that the disease must be regarded as contagious. Careful sterilization of the sputum and discharges renders the most intimate social relations possible. Isolation of patients is not necessary to prevent the spread of the disease. With proper care, the *Summary* thinks the disease quite preventable. In the *Maryland Medical Journal*, March 3,

1894, the action of the Philadelphia County Medical Society and that of the College of Physicians are reviewed. The former held that the disease should be placed on the contagious list, the latter body thought it should not. Drs. DaCosta, Osler and Tyson thought that the prevention of marriage in tuberculous families was one of the most important questions before the public on the prevention of this disease.

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THE TREATMENT OF BILIARY CALCULI.—M. A. F. Plicque (*Gazette des Hôpitaux*, February 1, 1894) gives the treatment of this condition as follows:

1. With regard to the pain it may be regarded as of two forms: (a) Violent attacks of pain. In this form, apply very hot poultices with laudanum in them. Internally, grt. xx. to xxx. laudanum, ext. opii and belladonnæ in gr.  $\frac{1}{6}$ , every half hour till relieved. Sometimes inhalations of chloroform have been resorted to. (b) There is another form of pain that recurs from day to day, but is not so violent as the above type. This form is best treated by the use of narcotics, prolonged hot baths, revulsion over the liver by leeches in strong subjects, and a milk diet.

2. The means for the expulsion of the calculi are numerous. Some have tried and vaunted the use of ether; others glycerine; some again have found benefit from salicylate of soda. This is specially useful in angiocholitis. The best agent for the expulsion of these calculi is olive oil. This is usually well borne. When there is much revulsion to its use, the stomach tube should be employed.

3. The treatment in the interval. The best agent still is the olive oil. Alkaline waters are useful. Durande's mixture of essence of turpentine 10 parts, and ether 15 parts, in quantities of 2 to 4 grams daily. Chloroform water relieves the flatulent dyspepsia in these cases. If

there is any evidence of angiocholitis, salol ought to be administered. This is the best biliary antiseptic we possess.

4. The hygienic treatment must be kept in mind. Proper exercise is of value in restoring the balance of health.

5. Dietary. This should be plain. Abundance of water is indicated. Light, white wines are the only forms permissible. No heavy or indigestible food should be taken. Fresh fruits and vegetables are proper elements of the diet.

6. Medicines. Alkaline waters, as vichy, etc. Laxatives should be used, but strong purgatives should not be employed.

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ESSENTIAL PAROXYSMAL TACHYCARDIA.—Joseph Eichberg, of Cincinnati (*Cincinnati Lancet-Clinic*, February 24, 1894), in speaking of this affection, calls attention to the following points :

1. The affection is paroxysmal. The most careful examination fails to discover any cardiac derangement in these cases. Exertion does not cause an attack.

2. The earliest age at which a case has occurred was the ninth year.

3. Sex does not influence the disease in any way.

4. There may be slight rise in temperature during an attack, though it is unusual.

5. Auscultation, during an attack, shows that the heart is regular, though very frequent.

6. The main feature of the heart sounds is the resumption of the foetal character.

7. The pupils are perfectly normal and active during an attack, showing absence of irritation of the cervical sympathetic.

8. The attacks occur without premonition or exciting cause, often during sleep.

9. The attack reaches its maximum immediately. The cessation is equally sudden.

10. The disease is a serious one, though seldom fatal. It is impossible to foresee a fatal termination in any case.

11. Some persons suffer for many years from these attacks. In severe cases it certainly tends to shorten life.

12. The secondary results of these attacks are very important. There is disturbance of the respiration; and acute dilatation of the heart. This latter disappears with the cessation of the attack.

The most frequent cause is mental and physical overwork. In pathology, it is primarily a neurosis. Of medicinal agents, bromides and morphia in small doses, with proper rest, do most good. Digitalis is useless. No time should be wasted in trying the cardiac tonics. A rigid regulation of the mode of life is imperative. Tobacco must be abandoned.

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TREATMENT OF DISEASES OF THE NAILS.—Dr. John V. Shoemaker (*New England Medical Monthly*, Feb., 1894) goes very fully into this topic. In his able hands the question becomes quite interesting. He speaks highly of the good effects of sulphur in five-grain doses three times a day in cases where the nutrition of the nail is not normal. In such cases he regards this drug as almost a specific.

There are cases where the disease affecting the growth of the nail is of tubercular origin. In these cases, such as onychia maligna, give cod liver oil, hypophosphites, and attend well to the general health.

Nails sometimes are diseased, because the person has syphilis. Specific treatment here is called for, with the alteratives, like syrup of iodide of iron, cod liver oil and tonics, and an ointment of mercury oleate.

Nails sometimes are affected with tinea. An ointment of the oleate of copper or tin, 10 or 20 per cent., is very useful.



EYE TREATMENT OF EPILEPTICS.—Ambrose L. Ranney (*New York Med. Jour.*, Feb. 17th, '94) tabulates his results in twenty-five cases of epilepsy treated by graduated tenotomies. A study of his table shows that nearly all his cases suffered from hypermetropia. Esophoria existed in twenty-one of the twenty-five cases, ranging from 2° to 5°. Astigmatism was present in four cases. Emmetropia was found in four cases, and absolute in amount in three of these. The graduated tenotomies had a very decided influence on the attacks. Nineteen cases have been greatly benefited or cured of the fits since the performance of the tenotomies. In two cases the results were negative. In some of these cases sufficient time has not yet elapsed to permit of a definite opinion as to the permanency of the good effects. In one of the negative cases the patient was withdrawn from treatment too soon. Several important nervous features, such as hysteria, were also benefited by the operations. From one to four graduated tenotomies were performed in each case.

CONVULSIONS IN YOUNG CHILDREN.—M. Simon (*Gazette des Hopitaux*, 22nd February, 1894), in a clinical lecture on this subject, remarks that the following indications should be followed:

1. Empty the digestive canal. Very many cases of convulsions are due to some condition of indigestion. For this purpose give a large enema and dose of some laxative, as castor oil, epsom salts, etc.
2. Calm the nervous system. For this he recommends a mixture of chloral, musk, and water.
3. Active treatment of the skin, as by hot baths, mustard baths, or sinapisms.
4. The treatment of the case after the attack, so as to regulate the health and prevent a recurrence. This is mainly a question of the treatment of the digestive

organs. Sometimes the convulsions are due to derangements of the kidneys. This requires treatment directed to these organs, such as hot air baths, proper diet, diuretics, and warm water baths.

THE CAUSES AND TREATMENT OF MIGRAINE.—Dr. H. Gradle, of Chicago (*Chicago Medical Recorder*, Feb., 1894), disputes the gouty and neurotic origin of nervous sick headaches. He contends that the most frequent etiological factor in migraine is astigmatism. The degree met with in most cases that are well marked is three dioptrics. High degrees of astigmatism often cause only poor sight. Hypermetropia sometimes gives rise to it. Nasal diseases may also cause migraine. Intestinal catarrh also may be a cause.

The treatment consists in the correction of these conditions. When properly carried out, the results are usually very good. The only drug that seems to have any permanent influence on this disorder is *cannabis indica*. This cures about one-third of all the cases. It must be continued for a long time, however. This drug often aborts an attack. When it does not, antipyrine usually does.

A CERTAIN SIGN OF DEATH.—Mons. W. Necati (*La France Médicale*, Feb. 2nd, 1894) reports to the Academie des Sciences the results of his experiments with a new instrument he has had constructed for the purpose of testing the ocular tensions. He has found that during life, tension varies from 14 gram. to 25 gram. Within half an hour after death, this tension has fallen from 1 gram. to 3 gram., and in two hours after death, has become complete. As soon as the pulse ceases, the ocular tension falls, and steadily declines for two hours. An eye that has been enucleated and replaced in the orbit acts in the same way. By the time the loss of tension is complete, the body must have been dead at least two hours.

## SANITARY NOTES.

The following is a summary of Dr. Bryce's report on tuberculosis in man and cattle, which was mentioned in our last issue under the report of the proceedings of the Provincial Board of Health. Referring to the work which the Board had already done with regard to tuberculosis in cattle, Dr. Bryce pointed out that, in the diagnostic uses of tuberculin, an impetus had been given to the investigation of the disease in cattle which promised the most important results.

The statistical study of the prevalence of tuberculosis was first taken up. While in Ontario for years tuberculosis has been shown to cause from 1.0 to 2.5 deaths per 1,000 population in different municipalities, relatively as high as in older and more populous countries, post-mortem examinations have shown that the tuberculized at all ages greatly exceed the number returned as dying from tubercular disease. In cattle the percentage of the tuberculized, until recently believed to be small, is now by post mortem and the tuberculin test found to run from 2 per cent. to as high as 75 per cent. in some herds, whether in Europe, the United States or in Canada. The way in which the microbe of the disease obtains entrance to the body was studied from the anatomical and physiological standpoints; while its localization in different organs, as seen in inoculation experiments and post-mortem examinations, was entered into very fully. While the two avenues, *i.e.*, the respiratory and the digestive tracts, were found to be ways of entrance, yet the rarity of the disease in the man or animal at birth, the continued relative freedom up to the sixth month, the steady increase thereafter in both man and cattle, and the high proportion of cases even in children in which the lungs and bronchial glands are found affected as compared with abdominal

organs, and the steady increase of tuberculosis in housed cattle, as milch cattle, with increasing age, were all set forth statistically as proofs that aerial infection is by far the commoner source of tuberculosis. For instance, from statistics by eight observers of post mortems on men and cattle, including over 12,000 individuals the lungs were affected in over 80 per cent. of the whole, the bronchial and mediastinal glands in 70 per cent., and the mesentery in only 28 per cent. of cases.

While it is quite certain that where the bacilli (when obtaining an entrance to the system) have entered directly into the blood current, they naturally create foci in lung tissue; yet, when the almost equally high percentage of cases of tubercular bronchial glands is remembered, and the fact that abdominal organs, as liver, spleen, mesentery, etc., are notably less frequently affected than those of the thorax, the conclusion seems inevitable that by far the greatest proportion of tubercular infection takes place by way of the respiratory tract.

When, therefore, we learn that over 5 per cent. of the 12,000 patients in the hospitals of this province are tubercular, that 7 per cent. of all who die in our asylums in the first year, and more than 50 per cent. of all who die between five and ten years are tuberculous; and that, as Lehmann, of Copenhagen, has remarked, one woman of every three dies of tuberculosis, it is manifest that—the contagiousness of the disease being granted—more efficient preventive measures are urgently required.

A number of deductions based upon the statistics were made, after which a series of recommendations, as measures likely in some degree, to limit the spread of the disease, were offered. Amongst these, referring to cattle, were the following: (1) abattoirs to be built in all towns of 3,000 or over, and no

meat be sold in such towns without veterinary inspection ; (2) isolation of suspected cattle, with disinfection of their stables ; (3) inspection of dairies and a minimum air space insisted upon ; (4) care of the food and water of cattle so as to prevent infection ; (5) veterinary inspection of herds ; and (6) where the tuberculin test proves infection, to have the cattle removed, the test continued, and the cattle fattened in the early stages of the disease ; (7) inspection and disinfection of cattle ships.

In man : (1) Notification of cases to health officers in order that literature might be disseminated with a view to the protection of healthy persons living with the sick in the same house or rooms ; (2) insistence by inspectors on cleanliness and sufficient air-space in factories and all other places where people are crowded together for work, pleasure, or travel ; (3) the establishment of homes for consumptives in proper situations, and with a view to their treatment, climatically and medically, as well as to give them employment, and thereby make the homes self-sustaining.

With a view of placing these matters fully before the people and legislature, it was thought that a royal commission of experts in the various departments interested should be appointed.

The Third International Congress of Hydrology and Climatology opens at Rome on the 29th of the current month, at the same time as the International Congress of Medicine. Scientists interested in hydrology and meteorology are requested to send in their communications to the congress, and meteorological and hydrological institutions to forward exhibits to the exposition which will accompany the congress.

At the meeting of the Society of Biology of Paris (Feb. 17), Mr. Sanson reported on the introduction of phosphates into cows' milk by feeding. He had a

cow of the Grignon farm put on a uniform diet for several days and analysed the milk taken from the animal each day. Then he added to her diet increasing doses of phosphate of soda, ranging from 2 to 30 grammes. An increase of phosphoric acid in the milk was observed after the phosphate of soda had been given to the cow. On the other hand, however, the fact that the quantity of phosphoric acid observed in the milk was not in proportion to the amount of acid absorbed, shows that there is a limit to absorption. Mr. Sanson concluded that mineral phosphates added to the diet are partly found in the lacteal secretion.

At the same meeting Mr. Richet presented two dogs, which had received several inoculations of human tuberculosis without their general health appearing to be at all affected. These dogs had previously received an inoculation of avian tuberculosis. While all the other dogs, which had not been previously inoculated, succumbed to the inoculations of human tuberculosis, animals inoculated in this manner resist the infection. This method, however, has its dangers, as a good many dogs succumb to the inoculations of avian tuberculosis. It could not be argued, however, that the animals which were exhibited possessed natural immunity to tuberculosis, for all animals succumb to inoculations with human tuberculosis, and those dogs only which had previously been inoculated with avian tuberculosis remained immune.

Mr. Richet also presented a third dog, which he had succeeded in rendering refractory to human tuberculosis by repeated inoculations with weak doses of tubercular cultures.

Mr. Richet concludes, from these data, that tuberculosis may be prevented by inoculation.

Mr. Chauveau observed that all forms of disease virus do not behave in the same fashion. For instance, he had not suc-

ceeded in conferring immunity to charbon by inoculating animals with weak doses of charbon.

Mr. Gilbert stated that he and Mr. Roger had endeavoured to immunize Guinea pigs against human tuberculosis by inoculation with avian tuberculosis, but without success.

What has been recorded of the dog may therefore be exceptional, and may not apply to other animals. (*Le Tribune Médicale*.)

Statistics of tuberculosis in 662 French cities and towns prove that this disease increases with density of population.

Ninety-three towns of less than 5,000 inhabitants show a mortality of 1.81 per 1,000 inhabitants from tuberculosis. The mortality in larger towns being as follows:

No. of Towns.	Inhabitants.	Per 1,000 Inhabitants.
332	5,000 . . . .	2.16
127	10,000 to 20,000	2.71
50	20,000 to 30,000	2.88
46	38,000 to 100,000	3.05
11	100,000 to 430,000	3.63
Paris . . . .	2,421,705 . . . .	4.90

Although statisticians are not yet acquainted with the mortality from tuberculosis of the French rural population, it certainly is singular to be able to show that an increase in tuberculosis manifests itself *pari passu* with an increase of population in cities and towns. (*La Tribune Médicale*.)

At a meeting (Feb. 20th) of the Parisian Academy of Medicine, Mr. Hervieux stated that in France the mortality from small-pox had increased progressively since 1852, and especially in the last half of 1893.

He hoped that owing to revaccinations, practised every day in Paris on a large scale, in hospitals, and in public institutions, through the intervention of the domiciliary municipal vaccination service, the disease would die out.

The epidemic is not confined to Paris. Twenty-one departments are affected. Mr. Hervieux thought the epidemic was caused by insufficient vaccination and proximity to England, where small-pox has been raging for two years. (*La Tribune Médicale*) J. J. C.

## Book Notices.

*Manual of Anatomy.* By D. J. CUNNINGHAM, M.D., D.Sc., LL.D. Professor of Anatomy and Chirurgery, University of Dublin. Vol. II. Thorax: Head and Neck. Illustrated. Edinburgh and London: Young J. Pentland. 1894.

A short time ago we had the opportunity of reviewing Vol. I. of this manual. The opinion then expressed regarding the first volume, we see no reason to change regarding the second volume. For the use of students in the dissecting room, we think that this is undoubtedly the best work on the subject of practical anatomy in the market at the present moment. The cuts are clear and the reading matter is brief, intelligible and up to date. Too much attention cannot be given to the regional study of anatomy. To the general practitioner who wishes to keep himself up with the times, this work will be read with pleasure. The book is really a readable one. As a specimen of the printers' art, nothing better could be desired.

*Antiseptic Therapeutics.* By Dr. E. L. TROUËSSART, Paris, France. Translated by E. P. HURD, M.D. Vols. I. and II., Physicians' Leisure Library. Paper covers. Price, 25 cents a vol. Geo. S. Davis: Detroit, Mich. 1893.

In Vol. I. the author deals with antiseptics in a general way. The question of sepsis is discussed in its relation to microbes. Then the antiseptics obtained from inorganic and organic sources. The concluding chapter gives a *resumé* of external and internal antiseptics. In Vol.

II. we have the application of antiseptics to special conditions, such as diseases of the respiratory organs, the digestive canal, the circulatory system, the urinary apparatus, the management of contagious diseases, the management of accouchements, etc. Thus, it will be seen, that the ground is well covered. The advice under these heads is good; and has the advantage of collecting much information into small compass for the ready convenience of the busy physician. They ought to meet with a very favourable reception. The volumes are in the usual neat form of this well-known series, and reliable publishing firm.

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*A Treatise on Medical Diagnosis for Students and Physicians.* By JOHN H. MUSSER, M.D., Assistant Professor of Clinical Medicine in the University of Pennsylvania; Physician to the Philadelphia and Presbyterian Hospitals, etc., etc. Illustrated with 163 wood cuts and two coloured plates. Philadelphia: Lea Bros. & Co. 1894.

The firm of Lea & Co. has long been known to medical men of this continent, and indeed of the world, as one of the oldest and most reliable publishers of medical books and periodicals. It has generally come to be recognized that any medical work issued to the medical profession by this firm will prove satisfactory on perusal. We think this high reputation will not suffer by the appearance of this work on diagnosis from the pen of Dr. Musser.

Part one deals with general diagnosis. It is very full and gives clear and explicit directions for the examination of the patient, fluids, bacteria, etc. The information in this section of the book is of a most valuable character; and, if it had no other effect than to inculcate accurate habits in making examinations, the time spent in its study would be amply repaid.

Part two deals with special diagnosis. In this section diseases are divided into

groups, very full details being given under each. The methods of conducting the examination of the various organs are well described. Differential diagnosis receives its full share of attention. These directions will prove of great value to the student or young practitioner. Of the 881 pages which this work contains, it cannot be said that there is one that would not be seriously missed if removed from its place. The illustrations throughout are good. For the purpose of reference, a very full index is supplied. For a new work, it is remarkably free from typographical errors. To any one who wishes to study, in a consecutive manner, the signs and symptoms of disease, we can heartily recommend this work.

The mechanical make up of the book is equal to anything Lea Brothers & Co., have given to the public.

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*The Year-Book of Treatment for 1894.*

A comprehensive and critical review for practitioners of medicine and surgery. In a series of twenty-four chapters, by eminent specialists. In one 12mo. volume of 497 pages. Cloth, \$1.50. Philadelphia: Lea Brothers & Co. 1894.

In the ten years of its publication, "The Year-Book of Treatment" has firmly established itself as an invaluable aid for all those who desire to keep posted on the current additions to the world's knowledge of the management of disease. The word "treatment" is construed in its broadest sense, including medicine, surgery, gynecology, obstetrics, pædiatrics, and all the specialties, in a series of twenty-four chapters, each contributed by a gentleman eminent in his assigned subject. Bacteriology and hygiene are compendiously dealt with, and the summary of therapeutics for the year presents this most important subject in the most available form for use. The various articles are sufficiently detailed for all practical purposes, but references to original papers

are given for the convenience of those desiring to make extended research.

The volume contains a "selected list of new books, new editions and translations," which will give the reader a knowledge of the latest and best literature under each head. The index of authors quoted, and index of subjects, complete and close a volume which is authoritative, well arranged, serviceable for every medical man, and universally available owing to its very moderate price.

*Common Neuroses.* By J. F. GOODHART, M.D., F.R.C.P.; Physician to Guy's Hospital. Three Lectures delivered before the Harveian Society of London, 1891. London: H. K. Lewis, 136 Gower Street, W. C. 1894.

If any of our readers are looking for a readable book on an interesting subject, we can commend to their notice the above lectures.

They are replete with useful hints, and will afford to the busy practitioner about as much good, sensible entertainment in attractive form, with good type, etc., as he will find anywhere on the shelves of the medical bookseller.

Such works are invaluable, dealing as they do with subjects of every-day interest.

The name of Dr. Goodhart will be a sufficient guarantee of the soundness of the facts contained in this work.

ICE IN ACUTE PNEUMONIA.—Professor Mays urges the value of this treatment: He has the chest on the front side and back of the area affected surrounded with rubber bags filled with ice. The number of these depends on the size of the area involved. They are allowed to remain until the temperature becomes nearly normal. If a new portion of the lung is involved, the ice bags are removed to this spot, and this is continued until the tendency to extension ceases — *Philadelphia Polyclinic*.

## Progress of Medical Science.

### AMERICAN GOUT.

Lithæmia is so preëminently the form in which gout shows itself in this country that Da Costa has characterized it as "American Gout." As he has, by his former contributions to the subject, done very much towards giving us clearer views upon the pathology and therapeutics of this hydra-headed morbid state, a brief abstract of an unpublished address which he recently delivered, by request, before the students at the University of Pennsylvania, will prove especially interesting at this time.

By the term lithæmia is understood the morbid condition closely allied to gout, in which lithic or uric acid and other waste products accumulate in the blood, and cause certain toxic effects, as well as interfere with normal metabolism. Symptoms, like those of lithæmia, have been found where the urine shows neither uric acid nor urates in excess, nor oxalates. They might be accounted for, perhaps, by the presence of waste products in the urine, such as acetones and peptones; though, as yet, no accurate chemical researches have been made on this point. It is convenient to retain the term lithæmia as broadly covering the state of the system associated with waste products, even though not specifically uric acid until we find a better name for the whole malady. The title "uricæmia," or even "uric-acidæmia," which has been suggested as a synonym for the older term, is not an improvement, since it implies that the symptoms are due entirely to excess of uric acid, which is taking quite too limited a view of its pathology. In fact, after referring to the theories of Murchison, Roberts, Haig and others with regard to the pathology of the lithæmic or gouty diathesis, Professor Da Costa

declared that we must return to neuro-humoral views like those of Sydenham, which are more in consonance with the clinical phenomena than any of those recently proposed. The suggestion of Roberts, that a less soluble form of uric acid salts is formed in gouty states (that is, bi-urates instead of normal quadrurates), is highly plausible, and may well account for the tendency to uric acid deposits, which, however, are very much less liable to be encountered in lithæmia than in typical gout. The urine of lithæmic patients, moreover, does not present exactly the same characters which it does in typical gout. It is, as a rule, dense, high-coloured, and of higher specific gravity than normal urine. After over-indulgence at the table, the urine may deposit lithates and oxalates, and become darker in color and of higher specific gravity. It may become less abundant than normal, and, by concentration, cause albumen and even casts to appear for a time. This does not, however, indicate the presence of the well-known form of gouty, or contracted, kidney; on the contrary, the kidney is remarkably free from inflammation in lithæmia, and both albumen and casts rapidly disappear under appropriate treatment. The heart may be irregular and palpitation be complained of. It is apt to have a weak or muffled first sound; and this is followed by an accentuated, valvular second sound, due to increased arterial tension, which is also indicated by the sphygmograph. In lithæmia, however, cardiac degeneration and valvular disease, such as is common in gout, are remarkably rare, and cannot be said to belong to the clinical history.

The nervous and cerebral symptoms of lithæmia commonly found, are gloom, depression of spirits, irritability of temper, restlessness at night, drowsiness during the day, with disinclination to intellectual effort, jerking of muscles, myalgia, pains in tendons and neuralgia. There is also

indisposition to muscular exercise, and the patient is quickly tired; flying pains may appear in various portions of the body, or actual cramps occur. Dyspeptic symptoms are common, though not constant, and there is a tendency to excess of acid in the stomach. Functional derangements of the liver are of frequent occurrence. Vertigo and migraine are prominent symptoms; and the vertigo, like that of stomach disorder, usually appears early in the day; while to increase of acid in the system the attacks of migraine may be ascribed; and the lecturer stated that, for prompt relief of the latter symptom, nothing could excel the effects of administration of hydro-chloric acid. This, however, might be like applying ice-water to a gouty inflamed joint, which would promptly relieve the pain, but was attended by some risk of further injury to the patient.

The most prominent causes of lithæmia and gout are excessive eating and drinking, the body is burdened by an undue amount of nitrogen and carbo-hydrates, which the excretory organs cannot remove as fast as supplied, and waste material accumulates in the blood. This is less apt to occur when active open-air exercise is kept up than when the life is sedentary or inactive and oxidation is imperfect. The gastronomic achievements of the Emperor Charles V., as detailed by Roger Ascham, were quoted; and the gloom, depression of spirits and increasing melancholy, which finally led to his abdication and retirement to a monastery, were shown to be directly due to lithæmia and gout from excessive eating. Here, gluttony and consequent disease had an important influence upon history. If the emperor had not been lithæmic and gouty, he would not have been so gloomy and melancholic, and he would not have retired to a monastery; if he had not thus retired, the Netherlands would not have been given up, and there would have been

no Armada. And so great results may be traced to a monarch's self-indulgence.

Lithæmia may be inherited as well as acquired. It may be manifested early in life, and among adults is as frequent among women as men. Exceptionally the symptoms become those of ordinary gout, but joint inflammation does not, as a rule, occur, though there may be some painless enlargement of a distal joint of the little fingers of slow development, possibly several joints may be affected, or the finger-ends may become clubbed.

In the treatment, diet occupies the first place. In many cases restricting the diet to vegetables, especially the green vegetables, will be sufficient to dissipate all the symptoms. In most cases it will not be advisable or necessary to adhere strictly to a vegetable diet, and a moderate allowance of meat, if exercise be taken, is permissible, especially the white meat of poultry and fish may be indulged in without harm. Fats are to be restricted in amount, and carbohydrates are to be excluded as much as possible, allowing patients to take only a small quantity of stale bread or biscuit. Most lithæmics declare that sugar does them harm. It is advisable to use especial caution against all articles which the patient finds by experience readily undergo fermentation in the stomach, as the acid aggravates the condition. The drink of the lithæmic should be water only, and enough water should be drunk to keep the kidneys flushed. All forms of alcoholic drink are bad; but in elderly subjects accustomed to their use, a very moderate quantity of old whiskey, or of a good claret, may be allowed with the meals. Champagne is particularly bad, because it is generally acid in reaction, besides containing much sugar. The importance of fresh air exercise has been already insisted upon, as the means of increasing metabolism and oxidizing waste. The skin should be kept in good condition, and the sweat-

glands rather active. Woollen clothing is advantageous.

In conclusion, the medical treatment may be summoned up in a few words. Laxatives, especially salines, are highly useful. Mineral waters are important adjuncts, these waters being better diuretics for these cases than drugs, which irritate or increase still further the blood tension in the kidneys. To neutralize waste matters in the blood, carbonate of lithia (gr. ii) in capsules, with extract of nux vomica (gr.  $\frac{1}{6}$ ), given several times a day, had been found very efficient; the nux acting as a general tonic, as well as affecting the heart. Piperazin is still under trial; it has been found of some service in lithæmic conditions.

As regards prognosis, a very favourable view can be taken. Living in accordance with the regimen above indicated, reducing the quantity of the food to the actual demands of the system, so that the income shall not be greater than the out-go, restricting the nitrogenized food, carbohydrates and fats; drinking only water, avoiding alcohol, and taking daily outdoor exercise. This is the road to health for lithæmic sufferers, by pursuing which they will escape their threatened ills, and may in time feel themselves entirely cured of their malady.—*Boston Med. and Surg. Journal.*

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#### ECLAMPSIA.

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Alphonse Hergott\* has conducted a further series of experiments with the blood and urine of women suffering from eclampsia. His investigations lead him to believe that the convulsions of parturient women may be produced by either of two different causes. The first class he considers due to lesions of the kidneys; and the renal lesion may, he thinks, be produced by pregnancy. The second variety of eclampsia he considers due to the

\* Annales de Gynecologie.



activity of a special pathogenic microbe which finds a suitable field for its development only when the organism has been modified by pregnancy. The first is an auto-intoxication, the second is a bactero-intoxication. He thinks it likely, though not yet proved, that eclampsia of the second variety is not caused directly by this microbe, but by the action of the toxic products of its activity upon the nervous system, when modified by pregnancy.

A. Charpentier† writes upon the treatment of eclampsia from the basis of a clinical experience, which he has divided into three classes: The first treated by blood-letting; the second with sedatives, that is, chloroform or chloral; and the third by the prompt termination of labour. He is an advocate of active interference when labour is already under way, but refuses to induce labour unless in very exceptional cases. He bases this refusal upon the following theoretical considerations: He believes emptying the uterus may ameliorate the condition of albuminuria and eclampsia, but cannot cure it, as it depends on a renal lesion, which may not disappear with the delivery of the child; the induction of labour requires a longer time than is consumed in an eclamptic attack; any excitation of the uterus is sufficient to cause a convulsion; the manœuvres necessary to the induction of labour necessarily furnish such excitation. He mentions forced labour only to condemn it. He recommends the administration of chloral by enema in doses of one drachm of the drug every five or six hours, and uses chloroform at the time of each seizure, advising conservative treatment till labour appears. If labour is fairly rapid, he deprecates interference, but, in case of delay, permits the use of forceps.

Charpentier believes that venesection may be of value in cases where congestive symptoms are permanent, and espe-

cially where there is reason to believe in the existence of congestion of the lungs or brain. He thinks that, though not in itself a cure, it can be counted upon to diminish the frequency and force of the eclamptic seizures. His conclusions are as follows:

(1) Whenever a trace of albumen is found in the urine of a pregnant woman, she should be put at once on a rigid milk diet.

(2) When the convulsion occurs in a strong woman of full habit and is accompanied by marked cyanosis, bleed and administer chloral as described.

(3) If the patient is delicate and the cyanosis is not extreme, the treatment should be limited to the use of chloral.

(4) Let labour appear spontaneously, and be concluded by the efforts of nature whenever this is possible.

(5) Should interference be necessary, deliver as rapidly and with as little manipulation of the uterus as possible.

(6) Interference should never be resorted to till the os is fully dilated.

(7) Labour should be induced only in the very exceptional cases in which all other methods fail to check the attacks.

(8) Never resort to forced labour.

One is struck by his entire neglect of the active treatment of the skin and kidneys, upon which American obstetricians have been accustomed to place the first reliance; and we cannot but believe that his objection to forced labour, that is, gentle but rapid dilatation of the os and subsequent immediate extraction of the child, under full surgical anaesthesia, is due to the fact that he has reserved it for desperate cases, and for them only, instead of resorting to it, as is the practice here, whenever the convulsions are so frequent and severe as to make the prognosis for the mother really grave, or whenever in milder cases the patient's condition fails to improve under conservative methods. — *Boston Medical and Surgical Journal*.

† Nouvelle Arch. d'Obst. et de Gyn.

## ANTISEPTIC MIDWIFERY.

The application of antiseptic methods to all the various details and events of obstetric work is a large subject, and one worthy of more minute treatment than it usually receives in the text-books in common use by students. On this we cannot touch, but there are certain things which are so essential in every case, and are, we fear, so frequently neglected, that even at the risk of appearing elementary, we formulate them as a rule to be followed in every lying-in chamber, both by doctor and nurse: (1) The hands and wrists should be thoroughly cleansed with hot water, soap, and nail brush, and then soaked in some antiseptic solution, of which perchloride of mercury 1 in 1,000 is the best, whenever the patient's genitals have to be touched; and no lubricant should be employed which is not antiseptic; (2) in an early stage of the labour the external genitals should be thoroughly cleansed with warm water and soap, and then swabbed with the same antiseptic solution; pledgets of cotton wool being used and no sponge allowed; (3) during the progress of the labour the external parts should be occasionally wiped with pledgets of wool moistened with the antiseptic; (4) the washing and disinfection of the external parts with soap and water, followed by perchloride, should be repeated after the labour is over and once a day afterwards; (5) each time a diaper requires to be changed during the after-progress of the case, the outer parts should be wiped with a pledget moistened with perchloride solution; (6) all instruments should be thoroughly cleansed by boiling, and be disinfected immediately before use either by perchloride, 1 in 1,000, or by carbolic lotion, 1 in 20; (7) whenever either the finger or an instrument has to be introduced, the vulvar fissure should be previously cleaned with

pledgets of wool soaked in perchloride solution, 1 in 2,000; (8) the diapers should be clean, preferably either the "wood wool" or "sanitary" pads sold for the purpose; but if the ordinary diapers are used, care should be taken that they are boiled in the washing.

All these are perfectly simple proceedings, and from their very simplicity absolutely harmless, although they doubtless involve a little trouble. If surgeons and nurses did not pass from case to case, possibly some even of these details, especially the use of chemical antiseptics, might be omitted; but as things are, and according to present ideas regarding antiseptic methods, they seem to represent the irreducible minimum of antiseptics which can safely be recommended.  
—*Editorial, British Medical Journal.*

THE PRINCIPLES OF THE TREATMENT OF GONORRHŒA. (Principien der Gonorrhœ-Behandlung) By Professor Neisser, of Breslau.

The distinguished discoverer of the gonococcus considers that all rational treatment directed towards the cure of gonorrhœa should be based upon the recognition of that micro-organism as the pathogenic principle of the disease. The greatest difficulties encountered in its eradication are that it does not remain localized in the urethra, but spreads to the cord, epididymis, prostate, and bladder in the male; to the uterus, tubes, ovaries, and peritoneum in the female; and that the virus in the later stages is situated deep beneath the epithelial layers, extending thence to the surface or deeper tissues, thus forming a chronic source of infection. It can only be easily reached in the first stages. The aim should be to prevent an invasion of the deep urethra and not to allow the disease to become chronic.

Treatment should be begun as soon as

possible. The substances used must be (a) such as will kill gonococci (b) which increase the inflammation as little as possible, (c) which do not injure the mucous membrane. Such are nitrate of silver 1-4000 to 1-2000; ammon. sulpho-ichthyol., 1-100; weak Rotter's pastilles, free from carbolic acid and mercury, 1 pastil to 250 of water; bichloride of mercury, 1-30,000 to 1-20,000. Pure astringents in the early stage are unsuitable, as they may serve to spread the infection. Cauterizing solutions of great strength, which may cause stricture, are dangerous, as are also most mechanical methods, such as the endoscope, bougies, etc. The best treatment is the early and frequent antiseptic irrigation of the urethra. For practical reasons, viz., the wide spread of the disease, injections with large syringes must generally be used instead of irrigations.

In the female the treatment should consist of thorough mechanical cleaning of the urethra and cervix, also using douches and injections.

The general dietetic, hygienic, and antiphlogistic measures are useful, and should be employed as far as possible. In all cases not very acute the presence of a posterior urethritis should be recognized and treated locally if an examination discloses the presence of gonococci. The treatment should not be limited in duration, as the aim should be not rapidity, but certainty. In chronic cases it should be determined if the discharge is infectious, and if it is so it should be treated by irrigations or instillations. If it is simple we must be guided by the pathological and anatomical changes in the mucous and submucous membrane as to the line of treatment it is best to employ. For the most part these cases require no treatment at all. When the deeper tissues are affected, sounds, instillations, the endoscope, and massage should be used.

The successful treatment of gonorrhoea in the female is attended with much more difficulty than in the male, and without frequent microscopical examinations judgment as regards the therapeutic result is impossible. Treatment should be begun as soon as possible and followed up most energetically, as the tubes, uterus, ovaries, or peritoneum, once infected, are very difficult to cure, frequently necessitating grave surgical operations.—*International Medical Magazine*.

THE TREATMENT OF TONSILLITIS BY MEANS OF INJECTIONS INTO THE SUBSTANCE OF THE GLAND. — Prof. V. Ziemssen read a paper on this subject at the Congress of Medicine held at Weisbaden, April, 1893. Injections of a solution of carbolic acid were first recommended by Traube and Heubner in scarlatina. V. Ziemssen had found them useful in the various forms of tonsillitis, catarrhal, follicular, and phlegmonous. He was induced to try this treatment by the consideration that most cases of tonsillitis are caused by some infective virus. All recent investigations into the pathological anatomy of the tonsils have shown that in the follicles there are colonies of micro-organisms of all kinds; indeed, they are found in the follicles of healthy tonsils, but it appears that, as long as the epithelium is healthy, they do no harm. When, however, the epithelium is in any way injured, they make their way into the substance of the tonsil and set up inflammation there. In the sore throat of scarlatina, in severe cases, there are nearly always small abscesses in the centres of the tonsils, from which foci inflammation spreads to the cervical lymph glands, and may cause general septicemia.

Von Ziemssen's treatment in cases of catarrhal tonsillitis consists in injection of seven minims of a two-per-cent. solution of carbolic acid into the middle of each

tonsil. He uses for this purpose a specially constructed syringe. Soon after the injection pain and difficulty in swallowing diminish, and the temperature becomes normal. Usually only one injection into each tonsil is necessary. Sometimes a second is required in order to check inflammation. It might be said that the fall in temperature was due to the natural termination of the attack. From the constancy, however, with which this fall followed the injections, and the immediate improvement of the symptoms, Von Ziemssen believes the injections check the activity of the active microbes which are causing the inflammation. The injections are easy to carry out, and do not irritate the throat.

Sahli (Berne), in the discussion which followed, stated his agreement with V. Ziemssen as to the beneficial effect of this treatment both in tonsillitis and in scarlatinal sore throat. He said that latterly, instead of carbolic acid, he had been using iodine trichloride, a strong antiseptic, yet not a very poisonous body. He uses a two-per-cent. solution of this body in water, and injects one or two minims of this into the tissues in different places once or twice daily. He uses this method in diphtheria with surprisingly good results. He strongly recommends this treatment for general adoption, and adds that he uses an ordinary hypodermic syringe, and that the procedure is extremely simple and easy to carry out.—*Centralblatt f. innere Med. and Dublin Journal Medical Sciences.*

A COMPARISON BETWEEN CHLOROFORM AND ETHER AS ANÆSTHETICS.—At a meeting of the Berlin Medical Society, as reported in the *Mercure médicale* for February 14th, Dr. W. Koerte presented a comparative study of these two anæsthetics. In the course of his researches concerning accidents from the use of chlo-

roform, he had found one death in about three thousand cases of its administration. He called attention, moreover, to albuminuria or fatty degeneration of the kidney observed in animals after the prolonged use of chloroform in experiments. Etherization, which he had experimented with in many cases, appeared to him preferable, chiefly by reason of its not producing feebleness of the pulse. In addition, he had found that it hardly ever produced either vomiting or intestinal derangement, so that often on the very day of the operation the patient had been able to take solid food. The author thought that sleep was favoured by the previous use of morphine hypodermically, and to that he attributed the fact that the awakening from ether anæsthesia was less disagreeable than that from chloroform anæsthesia. This impression he founded upon what he had been told by patients who had been subjected sometimes to the one and sometimes to the other. Some persons, however, described their sensations at the outset as being more disagreeable when ether was used; it produced a manifest irritation of the respiratory mucous membrane, and it was contraindicated in serious diseases of the respiratory apparatus. On the other hand, it exerted no injurious action upon the kidney or upon the heart. Although fatal accidents might be observed in the course of etherization, they seemed to be more easily avoided than those due to chloroform. In fourteen thousand cases of etherization, Gurlt had not witnessed a single fatal accident imputable to this method of anæsthetization. In administering ether Koerte uses Julliard's mask, with which the air breathed contains always less than five per cent. of ether, less than two per cent. of carbonic acid, and more than sixteen per cent. of oxygen. Anæsthesia is usually produced in about seven minutes and for this purpose from an ounce to an ounce and a half of ether is required; it

can be maintained after that with every appearance of natural sleep by means of a very small quantity ether, so that generally the total amount consumed in an operation lasting half an hour is not more than three ounces. In the rare instances in which anæsthetization with ether is retarded, the addition of about twenty drops of chloroform is sufficient.—*New York Medical Journal*.

#### THE USE OF SULPHUR IN SURGERY.

In diseases of bones and joints, especially of tubercular character, W. Arbuthnot Laner, F.R.C.S., removes the diseased bone and synovial membranes, and then rubs in sterilized sulphur. With regard to the action of sulphur he concludes :

1. It appears to exert no deleterious influence upon the health of the individual.

2. It gives rise to products which are powerfully caustic in their action, and must consequently be used in small quantities and with discretion.

3. It destroys all organisms, whether free in a cavity or growing in the surrounding tissues.

4. It acts much more powerfully upon recently incised structures than upon granulating surfaces.

5. Its action is rendered more uniform and general and less violent by mixing it with glycerine.

6. If it be necessary to use a considerable quantity of the drug it must be removed within a few days. Irrigation with dilute perchloride of mercury lotion has proved very useful in the removal of small sloughs, etc., after the sulphur has been evacuated and the structures scraped.

—*Med. Week.*

THE EFFECTS OF LIGATURE OF THE CORONARY ARTERIES.—Michaelis (*Zeitschr. für klin. Med.*), has confirmed the observation that ligature of the coronary arteries of the dog is, as a rule, followed in the

course of two minutes by irreparable cessation of the action of the heart. The loss of blood or the reduction of temperature consequent upon the operation, does not suffice to bring about this result ; but these, on the contrary, render the animal more resistant, and defer the cessation of cardiac action. There is a difference in reaction to ligature of the coronary arteries between rabbits and dogs ; in the former, *restitutio ad integrum* may be brought about after the heart has ceased beating by massage of the heart, while in the latter this seems impossible. The coronary arteries of the dog anastomose with one another. The explanation of the much slighter influence exercised upon the action of the heart by complete ligature of the veins (in the sequence of which irregularity of cardiac action does not appear before an hour), as compared with the effects of ligature of the arteries, is to be found in the considerable flow of venous blood through the foramina Thebesii directly into the cavities of the heart, and the consequent entrance of fresh blood through the coronary arteries. Ligature of the coronary arteries is followed by pulmonary œdema.—*Medical News*.

HÆMORRHAGIC EMISSIONS.—Dr. G. Frank Lydston reports five cases illustrating various types of this affection. With regard to the indications for treatment he states that they vary somewhat in the several cases : In the case of stricture of the urethra, which is producing hæmorrhage at the time of emission, the treatment should be the same as in cases of stricture which are free from such hæmorrhagic manifestations. Some cases will yield very readily to dilatation ; urethrotomy, however, being required in quite a considerable proportion of cases. Where there exists seminal vesiculitis, the cases are very stubborn to handle when the urethral inflammation settles down, so to

speak, to a condition of chronicity. Even in these, however, cure of the ejaculatory hæmorrhage usually results. Careful attention to sexual hygiene, the irrigation of the rectum by hot water, and the internal administration of ergot and bromides, have appeared of some value in these cases. It is well to remember the practical point, that in any case of urethritis which is followed and attended by painful and hæmorrhagic emissions, seminal vesiculitis with or without posterior urethritis is likely to exist. It is obviously a very difficult matter to apply any topical remedy whatsoever to the seat of the hæmorrhage-producing disease. It is impossible to apply antiseptics or astringents to the posterior urethra in such a manner that the prostate will be anything more than superficially affected. Personally, Dr. Lydston inclines toward irrigations of the deep urethra by means of the short urethral nozzle, as being the most effective plan of medicating the posterior urethra.—*Jour. of Cutan. and Vener. Diseases.*

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 STREPTOCOCCUS IN PERNICIOUS ANÆMIA.—An interesting case of pernicious anæmia and its causes is reported by Fischel and Adler (*Zeitschrift f. Heilkunde*). A patient who had contracted a slight wound in the left heel some months previous to the examination was admitted to treatment on account of anæmia. The blood corpuscles were abnormal in number, and other symptoms were present which led to the diagnosis of pernicious anæmia which resulted in death. An hour before death the blood, for the first time, was examined for bacteria and chains of streptococcus were discovered. A few minutes after death cultures were made from the blood. The *post-mortem* examination confirmed the original diagnosis. The cultures developed streptococci which resembled *streptococcus pyogenes* very closely. It was pathogenic for mice. The authors think that the anæmia was the result of the streptococcus which gained

entrance at the time of injury of the foot, and which had developed a chronic case of septicæmia. The argument is that the toxic products of the germ causes a deterioration of the blood which enables the streptococcus to enter the circulation and produce the somewhat rapid fatal results. To support this view they experimented with sterilized cultures of the streptococcus on rabbits which resulted in the diminished red and white corpuscles and, finally death, of the animals. The authors lay much stress upon the importance of bacteriological examination of the blood early in the course of such troubles. They also point out the difference in the nature of the diseases which they studied, the deterioration of the blood corpuscles, and the septicæmia usually produced by these bacteria.—*Med. and Surg. Reporter.*

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 PULMONARY PHTHISIS.—Dr. Carasso (*Deutsche med. Wochenschrift*) publishes a new method of treating consumption, with which he claims to have obtained brilliant results. It consists in the continuous inhalation of peppermint, together with the internal administration of an alcoholic solution of creosote with glycerine and chloroform, to which 1 per cent. of peppermint oil is added. The results were remarkable, for not only were cases in the first stage cured, but also those where there were numerous and extensive cavities, and with numerous bacilli in the expectoration. The cough and expectoration diminished, the night-sweats disappeared, and the appetite re-awakened, with a considerable increase in body weight with the ever-increasing appetite. Gradually the attacked portions of the lungs assumed a normal state, and vesicular breathing reappeared. Hence a complete restoration of the diseased tissue to the normal may be assumed. If the pulmonary affection were associated with fever, it disappeared after a few days. These results were obtained

in not less than thirty-nine cases of consumption in every stage, yet only when it was limited to the lungs and not when other organs were involved. Peppermint has been demonstrated by Braddon to exercise a bactericidal action on the bacilli of phthisis, and this same writer has gotten favourable results with inhalations in phthisis.—*Lancet-Clinic*.

#### ALBUMINURIA AND PHOSPHATURIA.—

In a communication to the Académie de Médecine, M. Robin gave the following outline of treatment for cases of phosphatic albuminuria: The first point, in importance, is to combat the nutritive disturbances, and the batabolism which leads to an undue elimination of phosphorus. Following this the attention should be given to preventing the destruction of the blood globules and to controlling the albuminuria. The hygienic treatment consists in moderate exercise, massage and complete intellectual rest. The diet should contain, above all else, vegetables rich in phosphorus and potassium, as beans and lentils; white flour and sugars which retard oxidation are contraindicated. Beef, mutton and shell fish are allowable, but meats rich in gelatine, and fish are to be forbidden. As medical treatment the following are especially commended for the nutritive troubles: arseniate of soda, cod liver oil, the glycerophosphates, hypophosphites, sulphate of quinine. Iron, arsenic and strychnine combat the destruction of the blood globules; while gallic acid, and the iodo-tannic preparations give good results in controlling the albuminuria.—*Boston Medical and Surgical Journal*.

THREE CORYZA PRESCRIPTIONS.—In a recent discussion before one of the Parisian medical societies, the three following prescriptions were given, as having been found of value. M. Grellety advised the

free use of this powder, especially in the early stages:

℞ Betol . . . . . 2.5 grs.  
Menthol . . . . . 0.25 grs.  
Cocaine . . . . . 0.50 grs.  
Powdered burnt coffee. 1.5 grs. M.

M. Huchard recommended a snuff containing less cocaine:

℞ Bismuthii subnitrat. 15 grs.  
Camphoræ . . . . . 5 grs.  
Cocainæ hydrochloratis . . . . . 0.05 grs. M.

M. Julien preferred an ointment to a dry powder:

℞ Vaseline . . . . . 30 grs.  
Acidi. borai . . . . . 5 grs.  
Menthol . . . . . .05 to 20 grs. M.

—*Boston Medical and Surgical Journal*.

ŒDEMATOUS SWELLING OF THE PREPUCE ACCOMPANYING THE USE OF ANTI-PYRINE.—(*Centralblatt für Klinische Medicin.*) Dr. Freudenburg reports: Male, thirty years old, took seven-and-a-half grains of antipyrine for headache. No relief; an hour later felt a burning sensation in the urethra and considerable itching of the prepuce, and behind the scrotum. Considerable swelling of the prepuce and the glands was noticeable.

Freudenburg administered the same patient some four weeks later and again gave seven-and-a-half grains antipyrine to verify the supposed effect of this drug. Two hours later, the same symptoms as stated were observed.—*Med. and Surg. Reporter*.

#### THEODORE BILLROTH.

A SHORT CHARACTER SKETCH OF GERMAN Y'S FAMOUS SURGEON.

The modern surgical amphitheatre of a great hospital is the arena where is fought the battle with death and disease, with pain, misfortune and deformity. An impressive spectacle it is; tier upon tier of

benches rising sharply one above the other, a sea of intelligent faces watching eagerly or indifferently the busy scene below, the glistening instruments in their antiseptic baths, the jars, basins and sponges, the assistants going swiftly and silently about their preparations, and in the centre of all, the moving spirit, the nineteenth century gladiator, bare-armed and white-aproned, the operator himself.

#### BILLROTH'S CLINIC.

Perhaps the most famous clinic in the world was the late Dr. Theodore Billroth's in the University of Vienna. To it came students from every civilised land to learn the methods and listen to the teachings of the great professor.

The discipline in his clinic was that of an army, the result, possibly, of his long military service. A martinet, of few words, cold in manner, though sympathetic and tender with his patients, he gave himself little concern as to details, exacting from every one of his ten assistants the perfect performance of the duties assigned to him, seldom troubling himself to bestow a word of praise, while a rebuke from him, usually couched in the words, "But, Doctor," came to be considered almost a disgrace. In operating he was cool and almost cold blooded, swift, alert and dexterous. His methods were often unique, so much so his name occurs in modern works on surgery continually, perfecting or improving some operation. His greatest fame was reached in 1881, when he performed for the first time successfully, excision of the pyloric end of the stomach for cancer. This achievement made his reputation world-wide, and easily placed him in a commanding position as a bold and successful operator. He soon came to be considered the first surgeon in Europe, and his clinic became renowned for the number and character of the operations performed by him.\*

Billroth cared little for money-getting,

the utmost difficulty often being encountered in persuading him to take charge of a case which gave no promise of interest or importance. As a consultant he was in demand in every continental capital of Europe, from St. Petersburg to Rome, occasionally journeying as far as Western Asia or even Egypt to give the benefit of his vast knowledge and experience. Honours had as few temptations for him as pecuniary reward, though many were thrust upon him in the shape of decorations, Russian, Austrian, Turkish, German, Roumanian, and the Emperor Francis Joseph, in recognition of his eminence, made him a member of the Austrian legislature.

#### HIS PERSONALITY.

In personal appearance Billroth was a little above the medium height, with a broad, intellectual face half hidden by a thick, flowing beard, blue eyes, small but sharp and piercing, and shoulders bent from long years of study. He was not, strictly speaking, a great teacher. His sentences were terse, delivered without raising his voice, and interesting more from the subject matter contained in them than from any peculiar charm in their delivery. The respectful attention with which his lectures were received, and the absolute silence which reigned while he was speaking, he commanded without an effort. His success lay chiefly with his more advanced students and with the doctors who were pursuing special courses under his guidance, rather than with the beginners. His generosity and open-handedness, aside from the personal fascination of the man and the glamour of his name, increased his popularity among both his assistants and students. It is said that he was in the habit of aiding the needy students whose pinched faces attracted his attention, by throwing profitable work in their way. It is at least certain that the assistants profited largely by his un-



willingness to undertake a case with little promise of interest. "Oh, go to Dr. So-and-so," he would say, when pressed to treat such a patient.

#### EARLY LIFE.

Christian Albert Theodor Billroth was born April 26th, 1829, at Bergen, on the island of Rügen. His father was a Lutheran minister, and from his earliest youth both parents' efforts were directed towards guiding his steps into a professional career. His own inclinations, perhaps, would have led him to enter upon a life devoted to music, for which he showed very early a passionate fondness, but the remote possibility of the stage was enough to excite the pastor's family to violent opposition, and in 1848 he began his studies at the University of Greifswald. From there he went first to Göttingen and afterward to Berlin where he received his degree of M.D. in 1852, on a thesis describing a pulmonary affection resulting from section of the vagus nerve. He decided to complete and round out his education by visits to other centres, and accordingly we find him journeying to Vienna and Paris. Shortly after he returned to Berlin, and became the assistant of Von Laugendbeck, the greatest German surgeon of his time.

Billroth began to fit himself for teaching, and in 1856 his labours were rewarded by the position of *privat-docent* in the university. Other opportunities presented themselves, notably at Zurich, where he was installed as full professor and chief of clinic. There he remained until 1867, since when he has occupied a similar position in the famous Vienna University. His life in the Austrian capital was not unbroken, for the outbreak of the Franco-Prussian war recalled him to the Fatherland to assume charge of the military hospitals on the Rhine, at Weissenburg and Mannheim. After

the siege of Paris and the close of the struggle he lost no time in returning to his chair at Vienna, where he continued until his death. His health had not been good for eight or nine years past, since an alarming attack of pneumonia, and he went to Abbazia, a well-known Austrian winter resort, to recruit his failing powers, where he died suddenly and peacefully on February 6th, of debility due to heart trouble.

#### IN HIS VIENNA HOME.

A wife and three daughters, of whom only the second is married, survive him. The eldest daughter was the favourite, their friends often remarking that the relation between them seemed more that of brother and sister than parent and child. They kept open house, entertained lavishly and made their home a salon where all the musical celebrities of Vienna, notably Brahms, Henschel and Saint-Saëns, were accustomed to assemble. Billroth himself was an excellent pianist, though he seldom appeared as a performer. Still he was a charming host and an attentive listener, and the concerts he gave attracted the best artists in the city. Brahms and the doctor were fast friends, the composer often treating his friends to a first performance of his compositions in his house. This style of entertainment and the expensive mode of living prevented any appreciable saving, so that when his illness awoke Dr. Billroth to a realizing sense of the possibility of his own death and the financial straits in which his family would be left, he determined on retrenchment and moved immediately into a flat, giving up his home and extravagance in living. Although so famous and so widely consulted, his practice was not large, owing to the peculiarities we have mentioned, and it is unlikely the change was made in time to permit him to accumulate even a competency.—*Review of Reviews.*