MALARIA AND ITS PARASITE.

By N. Macleod, M.D.

The term "malaria" covers a multitude of diagnostic sins abroad and at home. Every feverish or other condition abroad that cannot be entitled other than malarial is apt to find a haven in that designation, while every patient in such condition who has not learnt of his malarial possession abroad is not unlikely to be informed at home that he is so blessed (or cursed). Anything that would enable us to apply the term with a clear conscience, one would think, would have been hailed with joy. Laveran's discovery of the malarial parasite, made in 1882, has not yet met with such a reception at the hands of his medical brethren, so far, at least, as its application to the examination of the blood in cases of fever is concerned. If Laveran's views are right, there cannot be a shadow of doubt that every one who is not applying them to his daily work in the shape of microscopic examination of blood is certainly guilty of a grievous sin of omission, not to speak of commission when treatment is had recourse to. I am ashamed to say that although I had read of the malarial parasite as early as 1883, I had not seen it till 1894, when I was introduced to the living, and by Thin to the dead, organism, after a perusal of the Sydenham Society's translation of Marchiafava, Bignami and Mannaberg's works. That of the latter author affords a fitting introduction to any one wishing to make a close acquaintance with the subject.

Since December, 1894, I have examined over 800 specimens of blood from a variety of cases with the aid of a Powell and Lealand's apochromatic, homogeneous immersion twelfth, compensating eye-pieces and an achromatic condenser. I have not met with any one yet who has hesitated to accept a demonstration by these means in a good specimen and with a good light, as illustrating
the appearances described by Laveran. If there be any one who is sceptical as to the relationship of the parasite to the fever, let him observe the different stages of growth of the parasite seen to occur with absolute certainty between one paroxysm and another and to recur again and again with each paroxysm in a simple tertian intermittent. If he still refuses to believe that that form of malarial fever is a parasitic disease, he must indeed be hard of conviction.

Any ordinary microscopist, following the directions usually given for preparing malarial blood films, if he does so within 12 hours of the time that a paroxysm is due, can hardly fail to make out in a good specimen the pigment-ed, endocorpuscular parasite of tertian or quartan malarial fever. To those not accustomed to this method of blood examination, the following two hints will save a good deal of time: any specimen (blood film) should be discarded as useless at once if it does not present fields where the red corpuscles are not lying flat on their sides and overlapping, and the corpuscles are not uncrenated; and, second, no appearance about which there is any doubt should be accepted as an organism. About living, pigmented parasites there never can be any doubt; these and the crescents are the bodies to be searched for by those first making their acquaintance with them. Unpigmented parasites are the most difficult to detect, and only to be accepted as such if they are seen to move and continue to do so; manifest changes of shape must be observed, and they must be endocorpuscular. These considerations apply only to the examination of the fresh blood.

(For those who cannot conveniently refer to the method of preparation of the blood films, it is as follows: Finger tip, slide, cover glass and needle being first cleansed with soap and water, then with water and finally with absolute alcohol, are allowed to dry. The finger tip is then pricked and a drop of blood of pin head size is gently squeezed out. The cover glass should then lightly touch the blood drop and be allowed to fall on to the slide. When the blood film runs out to the edge of the cover glass, too much blood has usually been taken, and the fields will not be as described above. The cover glass must never be squeezed down on the slide, else the parasites will be expressed from the corpuscles and broken up out of recognition. The film should be examined at once if possible. In the Lancet of 10th July, 1897, page 85, I have described the following method of preparing dried blood films—unstained—which is useful for preservation of specimens for demonstration purposes and where it is not convenient to examine the fresh blood. All that is necessary for doing this in addition to the foregoing materials is a strip of ordinary note paper 1½ inches by half an inch with a perfectly straight edge. This straight edge is drawn its full half inch through the blood drop on the finger tip, and the strip so charged with blood is quickly drawn across the cover glass before the blood has had time to dry. In this way is spread on the cover glass (or slide if preferred) a fine blood film which dries very
quickly, and in it many excellent fields will be found with the corpuscles lying on the flat and practically unaltered. The cover glass must not be fixed to the slide by any medium which will run between the two, as this causes the red corpuscles, etc., to disappear from view. It must be mounted dry and can be gummed to the slide by a strip of thin paper with a window cut out exposing the film, when the latter can be examined with a dry or immersion lens.

The Parasite as a Means of Diagnosis.—It is of course easy to diagnose with certainty many cases of intermittent malarial fever, but it is not always possible to do this with a first paroxysm especially when mild, nor is it advisable during hot weather to wait for a second paroxysm. The value of the blood examination was illustrated in my own practice by the following cases: Two of these occurred within four days of confinement, where the relief experienced on finding the malarial parasite in the blood was well worth the trouble of examination. In one of these cases the fever was of remittent type, there being no period of apyrexia. In only two cases of continued fever have I as yet found the parasite, and from the fact that it was there present in pigmented, unpigmented and sporulating stages at the same time, I regarded the fever as tertian with several generations of the parasite producing overlapping paroxysms of fever and therefore no period of apyrexia—tertian because of the characters presented by the organism.

On 2nd January, 1895, a man, just arrived from Hongkong, called on me complaining of cough without expectoration, night sweats, loss of appetite and weight, looking anaemic and slightly jaundiced. He said he had had no fever, had been ill for a month, and that his medical attendant in Hongkong had regarded him as suffering from some liver affection, producing his prescription which bore out the statement as to diagnosis. Both liver and spleen were slightly enlarged, the temperature at 3 p.m. was 99.7. The chest exhibited no abnormal physical signs. A blood examination furnished a crescent in at least every field (twelfth), and a few unpigmented endocorpuscular parasites were to be seen. At 6 p.m. I was sent for to find him with a temperature of 104.5 and a pulse of 96. Next day at noon the temperature was normal, and at 6.30 p.m. 105.2. Quinine was given that and the following evenings, and the only rise of temperature subsequently was on the next evening to 102. The crescents gradually decreased in number and were last seen on the 17th day, by which time he had regained his normal colour and lbs. 15 weight. Without the blood examination in this case, a provisional diagnosis of obscure hepatic suppuration or of tubercular pulmonary mischief might have been fairly made.

On two other occasions my attention has been directed to lung symptoms, where the presence of the malarial parasite in the blood and the rapid disappearance of both parasite and symptoms after administration of quinine seemed to justify a diagnosis of malarial fever as the offending condition. In one of
these I had regarded previous feverish outbreaks with lung symptoms as due to some tubercular pulmouary condition without physical signs. It is further interesting in this case to have observed on two subsequent occasions the rapid effect of quinine on both the parasite and the lung symptoms. About this I shall have more to say on a future occasion.

A point of interest in relation to this question of diagnosis is how far we are justified in drawing conclusions from negative results in examination. So far as I can judge from my own experience, it would have been safe to have inferred that my failure in demonstrating the malarial parasite meant the absence of malarial disease in all but three cases. These cases were, I believe, malarial in spite of failure in finding its parasite, but had taken quinine before they were seen and examined. This procedure, as has been noted by others, frequently introduces an obstacle in the way of detection of the organism, though in quite a number of cases so dosed, I have found the parasite usually with some difficulty. Failure to find the parasite or its products, after repeated attempts, would certainly justify hesitation in declaring a case malarial and in administering quinine, in the hands of one who feels confidence in his examinations, but would scarcely justify the conclusion that there was no malarial disease in a given case.

If there be such a condition as "malaria" both with and without the malarial parasite, the sooner parasitic and non-parasitic malaria are distinguished by other names the better for all concerned.

With the forms of malarial fever met with in the Shanghai district as compared with elsewhere I purpose to deal in the second part of this paper.

The parasite was not found in 80 cases of continued fever whose nature was unknown at the time of the blood examination but determined later. These consisted of 20 cases of typhoid fever, 1 thrombosis of the basilar artery, 8 influenza, 11 inflammations of various parts, 1 pneumonia, 1 bronchitis, 2 hepatitis, 2 hepatic abscess, 3 enteritis, 2 scarlet fever, 1 articular rheumatism, 13 cases of fever produced by overexcitement or exertion, and 15 cases of fever of unknown origin. Some of these last 15 cases, it may be said, might have been of malarial origin, but apart from the question of the parasite, I could not say that they were of that nature, and they all recovered quickly and completely without quinine or change of climate. According to some of the Italian writers on the subject, there are malarial fevers in which it is difficult to find a parasite in the peripheral blood vessels. They maintain that its occurrence in these vessels is accidental and not necessary and that the habitat of the parasite in these cases is the vessels of internal organs. These and other questions connected with this subject I reserve for the second part of this paper.
DIPHTHERIA.

By Robert Coltman, Jr., M.D.,

Professor of Medicine, Imperial Tung Wen Kuan, Peking.

Perhaps there is no more favorable spot on earth for the successful growth of the Klebs-Loeffler bacillus than the city of Peking. Anyone conversant with the condition of the streets and alleys of this city would be surprised if told that diphtheria was rare here, but unfortunately no such surprise is possible. Diphtheria is very prevalent and very fatal. After five years experimenting with various remedies having some reputation as either specifics, or valuable adjuvants, to successful treatment, the writer has discarded many, and narrowed down to a few that, seem in his judgment, to give fully as good results as the much praised anti-toxin in cases seen early. As the anti-toxin previously prepared has not kept well, no experience has been possible with that remedy. The writer admits that cases seen after forty-eight hours are rarely cured in the marvellous manner recorded by use of anti-toxin in the later stages and regrets that heretofore a stable anti-toxin has not been procurable to use in such cases. Amongst the discarded remedies may be mentioned chlorate of potassium as worse than useless internally and of little service locally. Sulphur insufflations, if applied thoroughly, though of more service, are difficult to disseminate completely over the affected area unless it be only upon the tonsils, is even then of less utility than other remedies, and is dangerous if blown into the larynx as sometimes happens. Jensen's crystal pepsin, lactic acid, tannic acid, and many other local applications have been given trial and proved of little if any value. This being the case what remedies have we left that can influence this serious disease. The writer is not fully prepared to believe that the disease is always local at first, although he is inclined to that view. But whether it is local first and constitutional afterwards or whether the local disease is but the manifestation of a constitutional disease, experience proves that the constitution should be supported from the start. Even if it is a local disease at the start, the constitutional symptoms often manifest themselves very early and should be forestalled by treatment.

In alcohol we possess a powerful remedy against this constitutional invasion. It should be given early, freely and continuously throughout the disease and well into convalescence. The writer's plan of treatment for a child of two years of age is as follows: Locally apply on a camel's hair brush with a bent handle a solution of equal parts of tinct. ferri chlor. and glycerin every six hours. Every hour spray for five minutes with a solution of equal parts of peroxide of hydrogen and water, using a rubber spray
producer, (metallic spray producers obviously will not answer, as they quickly become clogged by oxidation of the metal). Little ones soon become accustomed to the spray, and even, because of the comfort it gives, seem to like it. Internally, give eight drops of the tincture of iron in twenty drops of alcohol, diluted with syrup and water, every two hours night and day. Brandy or whiskey may be substituted for the alcohol, but double the quantity should be given. For older persons the iron and alcohol should be increased proportionately with age, and if weak or debilitated. additional alcohol should be added on that account. Nourishment should also be given at regular intervals day and night, at from two to four hours apart. Milk and raw eggs are undoubtedly the best form of nourishment, but rare meats, fish and fruits may be freely taken. Sweets and starches are to be avoided.

If this plan of treatment is instituted at the beginning, laryngeal and nasal cases will seldom occur, and when they do occur the peroxide spray must be thoroughly applied to the affected parts. In addition to this it is well both for the patient and his attendants, that a solution of a fluidrachm of creolin to the pint of water, be kept playing by means of a steam atomizer in the sick-room, if not all the time, at least every two hours.

Of five cases in foreigners, treated upon this plan during the last year, all recovered. Of sixteen native cases seen within forty-eight hours all recovered. Of ten cases seen after forty-eight hours six recovered under alcohol and iron alone without the spray. Four succumbed.

A CASE OF ATTEMPTED SUICIDE.

By Edgerton H. Hart, M.D.

An interesting case of attempted suicide was brought to the Wuhu General Hospital shortly after midnight on the night of February 21st, 1897. The victim, a man of 48 years of age, a native of Wuhu, formerly belonging to the merchant class, but reduced by constant use of opium till he has now to number himself amongst the coolies and a poor one at that, as his average daily earnings do not amount to over fifty cash, owing to his inability to work for any length of time without resort to the opium den for frequent séances with his favorite drug. His average daily consumption of opium has been about three drachms, costing in the neighborhood of two hundred and fifty cash.

Having pawned all his household goods and clothing, saving the few tattered rags with which he was covered, and having nothing wherewith to pay for more opium, credit at the dens being impossible, as he was considerably in their debt, his wife being a victim of the habit as well, he became
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desperate, concluded that the best way to rid himself of financial obligations would be to take three drachms of opium at once and gather himself unto his fathers, thus ending his unhappy existence. He took the drug early in the afternoon of the 21st. As the opium did not seem to have the desired effect he decided that the next best thing to do would be to jump off a bridge and drown his sorrows in the neighboring stream. His friends, becoming aware of his intentions, followed him to the stream with the idea of preventing him from drowning himself; they reached the stream in time to rescue him from the water. Night coming on he concluded to wait until his family should retire before making any further attempts. At ten o'clock, all in the house appearing to be asleep, he decided to make the last effort to get out of this unhappy world by drawing a razor across his throat. With one stroke of the razor's blade he laid open the larynx, exposing to view the vocal cords, the epiglottis, etc. The thyroid cartilage was badly shattered on the right side, necessitating the removal of a portion in order to repair the larynx properly.

When he was brought to the hospital he appeared to be in a dying condition; his pulse was barely perceptible at the wrist, small and very feeble, due to the loss of a large quantity of blood which had been spurting from several branches of the superior thyroid arteries which had been cut.

Upon examination I found that the patient had cut through all the muscular tissues on each side of the neck, exposing the deep vessels without injuring them in any way. The wound was three and a half inches in length. We cleaned the patient up as best we could by lamp light, stitched the larynx with catgut, the muscles were united with catgut sutures and finally the external wound was sutured, a dressing of iodoform powder, sterilized gauze, and absorbent cotton was applied. The man was breathing freely, pulse had improved, due to stimulation of whisky and strychnine; he was then put to bed.

During the night he became insane, tore off all the dressings and pulled out the sutures one by one. When we were called to see him we found that the good work of the night would have to be done over again. The man was once more placed upon the operating table, and the work of repairing the larynx, etc., was done as before with many interruptions by our patient, who was almost unmanageable. We did not administer an anesthetic, as he was in no condition to stand it. Having finished our work for the second time the patient was again put to bed, but had to be carefully watched and fed, as he did not recover from his mania for several days. His recovery was rapid and uneventful. His voice is good, but rather husky. He quit the opium habit while in the hospital and went out a cleaner and wiser man.

I might add that I have found the above method a good one for curing opium fiends of their pernicious habit, as three cases of cut throat (all frequenters of opium dens) have been cured for by me, all of whom have been cured of the injury as well as the opium habit.
POISONING BY NAPHTHALIN.

By J. A. Otte, M.D.

On May the fifth, 1897, wishing to prescribe naphthalin to one of my patients, I obtained eight grains of the drug from one of our local apothecaries. The bottle from which it was taken was clearly marked, "Naphthalin. Dose 5-15 grains." It was carefully weighed out in my presence. The drug was in the form of a white crystalline powder, and seemed pure, but having some doubts on the subject, I decided to take a dose myself before administering it to my patient, a very weak anaemic woman suffering from chronic enteritis. I took the eight grains in a wafer at about 12.15 p.m. Soon after reaching home (about one o'clock) I was seized with severe colicky pains in the abdomen, followed almost immediately by diarrhoea, tenesmus, and strangury. The motions were very numerous and small. At first they were fecal, but finally mixed with a great deal of mucus. The pain on micturation was most distressing. Thinking that I was suffering from an attack of dysentery, I took half an ounce of castor oil and washed out the rectum with water. At three o'clock the discharge from the bowel suddenly ceased. I spite of this the abdominal pains continued, gradually changing into a continuous dull ache all over the abdomen. After a short time the pain became most severe in the hypochondriac regions, and thence radiating towards the back and bladder.

At four p.m. vomiting set in and continued at short intervals until six o'clock of the following day, when it ceased after swallowing several small pieces of ice. During all this time it was impossible to retain anything, not even a mouthful of water. The vomited matters consisted simply of the contents of the stomach, towards the last slightly tinged with blood.

At five o'clock Dr. McDougall gave a hypodermic of one-third of a grain of morphia. After this the pain became somewhat less severe, but still prevented sleep.

At three a.m. of the sixth (fourteen hours after taking the drug) the pain suddenly became most agonizing. It seemed as if a red hot iron was being plunged into the kidneys with every heart beat. This severe pain lasted some twenty minutes. During the paroxysm the pulse was very slow and almost imperceptible at the wrist.

The urine passed shortly after the paroxysm was apparently normal in quantity; reddish-brown; acid; sp. gr. 1014; and contained about twenty-five vols. °/o of albumen. (Estimated after standing twelve hours). It also contained a few blood clots, and abundance of granular casts, urates and mucus. The diagnosis was now made of probable poisoning by naphthalin.
causing a temporary inflammation of the whole of the digestive tract, and followed by acute nephritis.

A hypodermic of one-third of a grain of morphia was promptly followed by considerable relief. Further relief was obtained by three leeches applied to the lumbar region, over the right kidney, which, after 3.30 a.m., was the most painful. At six a.m. the pulse was forty-five, and weak. The temperature was normal. (The temperature never rose above normal.)

May seventh.—Spent a restless night; in spite of this the improvement was marked; the pain in the kidneys nearly gone. During the afternoon suffered from severe hemicrania. The urine was apparently normal in quantity; color, brownish red; acid; sp. gr. 1016; albumen about ten vols. %; granular casts, urates, and mucus decidedly less; no blood clots. At noon the temperature was 98, and the pulse 56. Still felt very weak.

May eighth.—Spent another restless night; pain scarcely perceptible; appetite good; urine normal in color; acid, sp. gr. 1020, only a trace of albumen, no casts. The urine contained two or three fibrinous clots looking like sago granules. At noon the pulse was 46, temperature 98.2.

May ninth.—Excepting a feeling of weakness the recovery was complete. The urine was normal in color; neutral, sp. gr. 1018, no albumin, or casts. Pulse at noon 68, temperature 98.2.

I would have reported my case before, but have delayed doing so until I could also send the report of a chemist on a portion of the drug which I sent to England. Below I append the report.

"Report upon a Sample of Naphthalene received from, etc.

I have made a most critical examination of the sample both as regards its physical and chemical characters. The sample fully answers all the tests that it should do, and in my opinion is normal in every respect. It is rather above the average pharmaceutical degree of purity, it is quite free from quinoline bases, and contains the merest trace of phenols."

(Signed) W. CHATTAWAY, F.I.C.,
Chemist to the Society of Apothecaries,
Public Analyst for the Borough of Colchester and for the Parish of Hammersmith.

In a private letter received from the same gentleman occurred the following paragraph: "I am not a medical man, but I would throw out the suggestion that in certain medical circles it is recognized that bodies of this character, particularly including the terpenes and naphthalenes, are liable to produce nephritis, depending of course on the idiosyncrasy of those to whom the drug is administered."
NATIVE TREATMENT.

By H. A. Randle, M.D.

The two following cases of native "treatment," came recently under my notice:

1. A little child of two years' old is strumous, and has inflammatory enlargement of the lymphatic glands of the neck. A native medicine man advises the following: "Catch a frog, and thrust a hen's egg down its throat," (so that the egg is completely imbedded in the living frog), "put this into the fire, and burn it; by the time the frog is well charred, the egg is done. This egg must then be given to the sick child."

2. A woman has a violent attack of vomiting, and is unable to retain or take any food. Some wiseacre prescribes: "Catch a badger, cut off one foot, roast this thoroughly and pulverise, which may be given to the patient to quiet her troubled stomach."

Relatives of both came to me for some further treatment, and the answers I gave them my perhaps be open to some criticism, but I will venture to tell the Journal. To the first I said the frog was "a mistake, it is a very weak creature, you should have caught a tiger, and have thrust a goose-egg down his throat. This would have been much more effective one way or the other."

To the second I said, "Why don't you study the fitness of things, you must have made a mistake about the badger, you should remember that a female patient requires a female badger, and a young woman a forefoot; you very likely got a male badger, and a hind foot, a combination totally unfit for the purpose."

Of course I gave them some more appropriate medicine in each case.

MEDICAL EDUCATION.

By Philip B. Cousland, M.B., C.M.

The scheme of centrally situated well equipped medical schools deserves our warmest sympathy, and yet for some of us, especially those in the southern provinces, its realisation is still in the distant future; and as linguistic, economic and geographical reasons render it impossible for men to go to schools in other provinces, it will be necessary for us to train our own students for years to come.

The need for trained men and women as I take it is two-fold:

First and most important, to help in hospital and dispensary work. The better trained our assistants are the more work we can devolve on them and the more extensive our medico-evangelistic operations can become,
Second, to practice among their sorely afflicted fellow-countrymen.

The difficulties and disadvantages of busy medical missionaries teaching medical students are sufficiently obvious, and have been dwelt upon by Dr. Stuart and others in this journal. There is something, however, to be said on the other side.

1. As I have already said, it is the only plan for many of us yet.
2. It is extremely good for the teacher, who otherwise tends to get rusty in some branches of medical science.
3. It is a great help to the hospital to have the assistance of these young men in dispensary, consulting and operation rooms, and in the wards. Without them one's paid staff of assistants and nurses would be so large as to be a serious drain on the funds.
4. By admitting only well educated students and by having a course of six years or longer, (and we find here that our men, if paid a small salary the last years of their course, are very willing to stay for that time), a very fair medical education can be given and the excellent clinical opportunities in dispensary and hospital enable one to give them a very good clinical training.
5. Men so trained form very valuable assistants. They can also act as tutors to succeeding classes of students, thus saving one's time and enabling one to give a more thorough course. If they prefer to engage in private practice they will be not unworthy representatives of Western medical science.

And now as to text books. What we want is something less elaborate than those used at home. Dr. Kerr's invaluable publications have so far been on the right lines, elementary text books for elementary teaching. What we need now are more advanced works and yet not so full and detailed as are required in the medical schools.

Two separate sets would be out of the question. Perhaps we could meet the difficulty by issuing a series pretty well up to the home standard, in which the subject matter is so arranged, either by using larger and smaller type or otherwise, that the easier course for the hospital students would be distinguished from that of the school students. It is hopeless to get our men who have to help in hospital and dispensary work to get up large text books. The Chinese are much handicapped by their written language. With us the mere reading of the printed page in English is no effort; we can use all our mental energy in appreciating the meaning. With the Chinese a considerable part of the labour expended is in the mere reading of the character. I am constantly reminded of this in teaching and examining students. It is a serious handicap, and illustrates the necessity for students having a very thorough preliminary grounding in the written language and for the careful preparation of text books in easy and lucid style. I have been recently reading with my men a translation of a work on pathology, and the style is so obscure that frequently they can make neither head nor tail of it. This is due to the
slavishly literal way it has been translated, the English idiom being followed in the most confusing manner.

As there is now a good hope that the Terminology Committee will issue a dictionary of terms used in medical science before the end of the century we should proceed to at once consider our educational needs and the best way to supply them.

To promote discussion and facilitate some agreement being reached I propose as follows:—

The appointment of an Educational Committee to arrange for the preparation of an authorised series of text books.

To collect funds for their publication if necessary, as their circulation will be small and the books must be large and well illustrated.

To arrange for the translation of new terms.

To draw up a scheme of medical education in two grades.

First, in regular medical schools.

Second, for students trained in hospitals.

To appoint examiners in connection with both courses. In the second only written examinations will be practicable.

In addition I suggest that it would be an excellent plan if a suitable man could be set aside to act as translator of the text books and editor of a Medical Mission Journal in Chinese. He could be a teacher in a medical school and give half or more of his time to this work, or still better, have a man who will give his whole time to it. His support might very well be provided by the home Medical Mission Societies. He could also undertake the editorship of the China Medical Missionary Journal.
Translations.

SOME ACCOUNT OF THE APPLICATION OF THE UNDULATORY CURRENT IN GENERAL THERAPEUTICS*.

By Dr. G. Apostali, Paris.

The undulatory current, a recent addition to electro-therapeutics, has been the subject of a series of clinical and therapeutic researches made by us, of which we here give a brief account. Since 1896 we have sedulously and simultaneously compared its use both in gynecology and in general therapeutics. We have already connoted the results which we have attained in the diseases of women. At the present time we simply desire to make a synthetic statement of the contributions which the undulatory current makes to general electro-therapeutics. Our experience, although still incomplete and recent, is based on 48 observations which have been carefully made at our clinic by my assistants—M. Lacquerriere and M. Marquis. At this time we will give a résumé of the modifying action which we have been able to demonstrate in the case of nervous, painful, or trophic disturbances of various kinds in which we have used the new current.

Operative Technique and Statistics.

We have applied the undulatory current by two different methods. 1st. The Hydro-electric Bath.—The patient is placed in a bath-tub full of tepid water, the tub being made of enameled iron for the purpose of insulation. The electrodes are formed of rectangular plates of carbon, covered upon one of their faces with an insulating layer of hard rubber. These are movable, and can be easily changed according to the indications for the application of the active pole to the precise part upon which it is desired to obtain the maximum effect. The séances are usually held daily or on alternate days, and their average duration is from five to six minutes. With this method of treatment one is able to secure a sufficient degree of intensity, which may vary from fifty to one hundred and twenty milliamperes. Patients usually endure this intensity with comfort, for one can increase it without any abruptness, and one is able, moreover, to increase or diminish the density of the current by increasing or diminishing the number of plates in the free poles. This application is not generally followed by any marked reaction, except more or less fatigue which may be palliated by shortening the duration of the bath.

* From a paper presented at the International Medical Congress, Moscow, August, 1897.
2nd. Local Application.—This is similar to the ordinary application of the continuous current. The same electrodes will serve in both cases. They are the carbon electrodes covered with moist membrane. This application is equally well supported, but in regard to the intensity one is able to attain the same results with a weaker current than would be found useful under the same operative conditions in the case of the continuous current. Thus the average dosage which we have used varies between five and fifteen milliamperes. This current is at once electrolytic and oscillatory, and it produces simultaneously at the point of application two sensations, which are associated together; first, that of the continuous current at the point of contact, and afterwards that of the interrupted current; but infinitely more mild, more soft and less abrupt than in the case of the faradic current, thanks to the non-revertant electric wave and the sinusoidal curve which constitute the undulatory current according to Professor d'Arsonval.

We have given since the month of January up to the 1st of August, 1897, 330 Hydro-electric baths to 17 patients, and we have made 246 local applications to 31 patients. So in total there have been made at our clinic 576 external applications of the undulatory current. It is impossible for us with the actual state of our experiments, which are yet all but at their beginning, to state and to give proof as to which of these two methods of applications we ought to accord the precedence, and which of the two, with the same dosage, would have the greater efficacy. We ought to add, however, that we have found the bath to possess the most marked advantages from the many circumstances under which it will permit the utilization of the local action directly polar and principal, in association with a general action, supplementary and diffused throughout the whole body, which it has on account of the diffused source of the current from the water in the bath-tub.

Therapeutic Effects.

We do not claim that all of the results we may have published are positive and entirely conclusive, and we voluntarily pass over for the present, in this very abridged account, the incomplete results which as a study still require further clinical investigation. It is before all the element pain which to us seems subject to this new current, and there are also circulatory troubles, as well as trophic lesions, and the peripheral muscles, which it seems to us ought to be greatly benefited by its anodyne, sedative, and tonic action.

Pain.—This current acts altogether after the manner of a revulsive and by a sort of deep massage interstitial in character, the action of which closely approaches that of the faradic current. It is used, on the other hand, for its peculiar properties as well as that of the polar and interpolar action of the galvanic current; moreover the two associated actions produce an analgesic effect more or less lasting, which with us was rarely wanting. Wherever we
have used it, whether in muscular pain of rheumatic origin or in obstinate neuralgia with or without neuritis the response at the first séances was all but constantly favorable; the patients felt themselves better, suffering less pain, executing formerly painful movements with greater ease, seeing their former pains gradually lessening or disappearing. They affirmed in a word that the current gave them relief more or less constant from the painful and obstinate trouble which had for the most part resisted the classical prescriptions used in similar circumstances. Two or three séances are sometimes sufficient to produce marked relief, and it is well, in that case, to hasten and precipitate its effect by repeating it as frequently as possible;—daily,—and at the beginning by preference two times a day. One should avoid too prolonged séances, and also equally the application of too strong a current. One should usually content himself with the dose fairly well tolerated, and one takes the precaution to exactly apply the electrode to a surface sufficiently large to cover all or a portion of the painful part upon which it ought to be in exact juxtaposition. In the case of the limbs, for example, as a point of interest, if one would influence profoundly an articular surface, as that of the knee or foot, one would apply the two poles directly to the extremes of the same diameter of the articulation.

**Functional, Trophic, and Circulatory Troubles.**

Wherever long experience sanctions the benefits of the faradic current, wherever, in a word, whether in a circulatory trouble or in a lesion of the peripheral muscular system there was a demand for appropriate electric treatment, and in particular, faradic treatment, we have experimented with the undulatory current.

Although our experience is still insufficient, the responses obtained to the present are nevertheless sufficiently satisfying to permit us to affirm that the undulatory current is destined to become the best succedaneum of the faradic current. More tolerable, less painful, and more active than the latter, it realizes a real progress in general electro-therapeutics, and it does not require more, in our opinion, to come into popular use than a convenient portable outfit for its application. In a succeeding and more complete memoir we will present the whole of our observations, and they will be thoroughly demonstrative. So it is sufficient for us at present to say that it is in simple circulatory troubles, sprains, sequelae of fractures, in functional impotency, muscular and apyretic articular rheumatism, in peripheral muscular lesions, atrophy of one or more groups of muscles; wherever, in a word, its application has been regarded by us as judicious, we have obtained marked therapeutic results. Without desiring to claim for this electric method more than it can attain, and without desiring to make it a panacea proper to cure all ills, we content ourselves with affirming that the therapeutic benefits we have secured
are very speedy, and that there is great encouragement at the present time to try the experiment on a larger scale. We would mention on the other hand, the failures we have demonstrated in all the trials that we have made in the case of functional troubles directly tributary to diseases of the cord or nerve centers.

Conclusions.

In conclusion, the possible contributions of the undulatory current to general therapeutics we have proven to be equally active and important with those that we have already established in gynecology. The undulatory current possessee three principal properties which assure its precedence. 1st. it is a rapid and efficacious analgesic; 2nd. it is a powerful counter-irritant; 3rd. it is a very good excitant of muscular contractility. It possesses, in a word, the associated qualities of the faradic and galvanic currents; and it merits, by rights, to occupy a foremost place in electro-therapy.—Translated from the monograph by G. A. S.

CONGENITAL CATARACT AFFECTING SEVERAL MEMBERS OF ONE FAMILY.

Translated by E. Ruel Jellison, M.D., Nanking.

On the 6th December, 1882, there came to my consultation room an exceptionally blooming, robust woman, from Hüttenberg, with her infant F. S. two months old. The pupil has never since the infant's birth seemed to be in perfect order. At my most carefully worded explanation, that the case was one of total cataract, but that it could be entirely removed by an operation, she broke out into the most extreme excitement and declared that neither she nor her husband would consent to an operation.

To my surprise she explained the circumstances as follows: She and her husband are both perfectly healthy people. F. is their seventh child. The first two born—both boys—were healthy and had good eyes, but the third child was affected with cataract. This third child was at 1½ years of age, unfortunately operated with an unlucky result to both eyes by a late Vienna specialist; the blind boy, now seven years old, is at present in the Grazer Blind Institute. Under such conditions she can never expose another child to an operation. After this third child followed two boys and a girl, all with good eyes. The 4th—a premature birth—died at a tender age. The 5th was carried off by diphtheria and the 6th with some "abdominal disease." Now follows the 7th child F., as the second affected with cataract. The mother having been encouraged and reassured by other operators, in the meanwhile, brought the child F. to me for operation the 27th June, 1887.

F. differs essentially in his whole appearance from children with eyesight. He is very excitable, but has never suffered from convulsions. He not only
played with his fingers before his eyes, in the well-known manner of children born blind or becoming blind very early in life, but also fell into the most peculiar rocking dance-like movements, in which he gracefully held the edge of his apron in his hands—much as a ballet dancer would. Otherwise he was unapproachable, busying himself preferably alone. He defended himself by scratching and biting against any displeasing sociable approaches. His psychical condition was undeniably very different from that of other children.

11. VII. Left, Linear—extraction outward and downward under narcosis. A little lens material remained at the periphery, but there was a splendid dark pupil in the centre.

16. VII. The same operation on the right eye; but because of strong myosis, iridectomy was necessary. Cataract nearly entirely removed. Binocular non-inflammatory healing with the best optical results. Learning to see proceeded very slowly. At first one met with a certain opposition on the part of the child to all visual trials. Latterly before he was dismissed the hospital on 26. VII the little patient began to prize his vision to some extent. Later information was to the effect that F. remained still peculiar in his psychical condition. The latest report, for which I must thank the kindness of Dr. Seinlechner, runs that he has attained a very useful vision. Although he constantly goes with his hands outstretched before him, he goes alone very well, and is also in condition to bring up articles shown him, etc. He has not enjoyed any instruction, principally because of his peculiar unhappy psychical make up; he is unruly, stubborn, passionate and perhaps malicious. He suffers otherwise from advanced scrofula, so that a completely normal condition is scarcely to be expected.

From a medical standpoint I have also to bring forward that F's mother had four other children, and the last one, the eleventh, was the third one blind at birth from cataract. The eleventh, however, died very young. Soon after followed the death of Mrs. S. in a gynecological hospital. The father also died soon after. The only information I could obtain from him was that he suffered once from a light skin eruption.

Finally we find among eleven children of one couple, three affected with complete congenital cataract, the 4th, 7th and 11th. None had suffered from convulsions; both parents had good eyes.—Purtscher in Centrallblatt für Augenheilkunde, July, 1897.

A FAMILY WITH JUVENILE CATARACT.

In the July number of this Centrallblatt, Dr. Purtscher published a report of a family in which three children of one mother were afflicted with complete congenital cataract. This has caused me to report concerning a family where all three children of a still living healthy mother became blind in both eyes of complete cataract at about the 20th year of age—the cataracts
developing in a few months. The father of these three patients died of lung disease at 40 after a long illness; the mother is living and healthy, and has especially good eyes.

The father, on the contrary, must have suffered from poor eyes in the last years of his life. Still he must have seen so much up to the time of his last illness that he could work.

During his illness his eyes became very bad, and he was informed that later an operation on his eyes must be expected.

This couple had six children. One girl died at seven from a fall. Another died at thirteen, the brothers not knowing a cause for the death. A third child died at two, having had an eruption on the neck and ulcers on the arm, which had developed in conjunction with vaccination. The deceased children are the 1st, 3rd and 6th. The eldest living brother, Julius P., shoemaker, aged 31, was run over by a waggon in his youth. The vehicle passed over his abdomen, and the patient remained away from school 14 days. He can recollect no other sickness, above all having never had convulsions. Formerly he had excellent vision, and was drafted into the army, but because he was a supernumerary he did not enter the ranks. He noticed, in his 26th year, when he wished to shoot again, that he saw dimly with the right eye. This caused him to consult an ophthalmologist, who informed him that he must undergo an eye operation. During the next half year the opacity increased so much that the eye became completely blind. Patient had right eye operated. A small amount of disturbance had at that time already developed in the left eye. Still after the operation, although he could see very well with his cataract glass, he worked another year, using the left eye. At this time the opacity had progressed to such an extent that he could no longer use the left eye for work, but was compelled to use the cataract glass. When the patient came under my care this eye had been blind for two years.

The youngest living brother is a tailor, aged 23; had never been ill as a youth, and had always seen very well. His sight was tested while attending the advanced school, and he had the best vision of all the pupils. On account of bodily weakness he was delayed one year from entering the army. In the course of this year he noticed that his right eye was poorer, and for this reason he came to my office in September of that year with the definite remark that the sight of the right eye had been dim for eight days. Upon examination I found delicate opacities in the lens within the pupillary region. The other eye was perfectly clear. The patient was at once told that these opacities were in all probability of an older date, and that they had only now been clearly made out. This seemed all the more probable, as his brother, whom I did not know at that time, was, according to patient's information, blind from congenital cataract.
In this conception I was soon of another mind, because these opacities increased so rapidly in a few weeks, and the collection of a more exact history of the brother's case, taught me that he did not have a congenital cataract. Within two months the entire lens was changed into a homogeneous gray mass. In this stage I proceeded to an operation which was especially easy, because the entire lens consisted of a grayish pulp. During the time of my observation the lens of the other eye began to become opaque, and in a few weeks after the operation the second eye could be operated. The patient retained perfectly round pupils, and with suitable glasses obtained full vision. He worked again as a tailor, could do as much work as his fellow-workers. The third brother Joseph, aged 26, had had swelling of the cervical lymphatic glands and ulcers of the toes in conjunction with vaccination.

At four he was already troubled with his eyes. He had at that time the eyes bound up for a long period. After this disease he had again seen tolerably and reached the first class in school, although during the time of attendance at school he was often ill and suffered constantly from lymphadenitis. After leaving school he returned home, and until eighteen managed the establishment of his parents. Then in a short time, without any perceptible external inflammation, went completely blind.

The first had returned home after the operation, and I had requested him to look at the eyes of the third brother a little more carefully. He informed me that it was the same with his brother as with himself. The pupil was changed into a round gray spot, and all he could distinguish was day and night and the light of the window. Accordingly it is in the highest degree probable that this brother, who formerly had suffered from scrofulous inflammations of the eyes, at 18, without external inflammation, had become blind from cataract in the same manner as the first brother.

It occurs very rarely that anyone without demonstrable cause becomes blind in both eyes from cataract at the 20th year; but how much more rare is it for all three members of one family who reach this age to go blind from a variety of cataract which leads to complete opacity of the lens in a few months.

In the two patients operated on by me, in spite of repeated examinations, neither sugar nor albumen could be found in the urine, nor any other general disease which could be brought into casual relation with cataract. Also in the interior of the eye, which was easy to examine, no change could be demonstrated which could be made responsible for the development of the cataracts. Any common injury can be excluded, as for instance disturbance brought on by naphthalin, because the brothers at the time of the development of the cataracts lived widely removed from each other. We must admit that there was a congenital disposition present in the family toward the early development of cataract, particularly as the father who died at 40 suffered also many years from early cataract.—Schanz in Centralblatt für Augenheilkunde.
APPENDICITIS; WHEN TO OPERATE AND
HOW TO OPERATE.*

BY PARKER SYMS, M.D.

Appendicitis may be defined as a disease more or less widespread, which has its origin in an inflammation of the appendix vermiformis.

It may be limited strictly to the appendix, or it may involve the neighboring peritoneum.

It may result in a general peritonitis, or in general peritoneal sepsis, or in general septic poisoning by infection through the neighboring veins.

It is not within the scope of this paper to go fully into the pathology of appendicitis. I shall merely outline the various conditions which obtain in the different forms of the disease, and then set forth what my experience has taught me as to the best plan of treatment in a given case.

All cases of appendicitis I classify under two heads: First, benign; second, malignant. These may be subdivided thus:—

BENIGN.

Acute, Primary.

1. Simple catarrhal, with or without concretion.
2. Parietal, involving all the coats.
3. Parietal, with local adhesive peritonitis.

Chronic.

1. Recurrent.
2. Relapsing, with concretion, stenosis, or foreign body.

MALIGNANT.

1. Acute suppurative, with local fibrino-purulent peritonitis, by extension or perforation.

*From the N. Y. Medical Journal of May 15th, 1897.

2. Acute suppurative, with progressive fibrino-purulent peritonitis by extension or perforation.
3. Subacute gangrenous, with localized fibrino-purulent peritonitis.
4. Suppurative, with retro-cæcal cellulitis.
5. Gangrenous, with retro-cæcal cellulitis.

Fulminating: 1. Acute purulent, with perforation and general peritonitis or peritoneal sepsis. 2. Acute gangrenous, with perforation, general peritonitis, or peritoneal sepsis.

Any benign appendicitis may become a case of any of the forms of malignant appendicitis.

This is more frequently demonstrated in the recurrent and relapsing forms. The question is really one of degree of severity rather than one of variety of diseased condition.

It is my rule to insist upon operation in any one of the varieties which I have classed as malignant, and to advise operation in the recurrent and relapsing cases, unless there is some special condition of the patient which would contraindicate an operation on general principles.

In these cases I always operate between the attacks, and long enough after an attack to avoid operating through an infected and inflamed area.

Every acute case of mild severity may be treated expectantly with the hope of checking the disease before it becomes one of malignant type.

Any case in which there is not rupture or perforation of the appendix, and in which there is not purulent peritonitis, may completely recover.

This is true of cases with adhesive peritonitis, when there is a perceptible tumor; but it is not true of cases in which there is a periappendicular abscess.
Now comes the important part of this subject—namely, how is one to determine from the clinical evidences of a case of appendicitis just what the local pathological conditions are? This is a most difficult problem to solve, for the symptoms are not always in keeping with the severity of the disease.

Many cases of mild appendicitis are attended by very severe symptoms; while many of the most grave cases give rise to very slight symptoms. This latter is particularly true of the most malignant type—namely, the fulminating variety.

In the beginning of such an attack, symptoms may be even less significant and severe than in a case of catarrhal or simple puri-cal appendicitis. There is no local peritonitis, no tumor, and perhaps the only symptoms will be pain and tenderness in the right iliac fossa, slight rise of temperature, and slight acceleration of pulse rate; in fact, the symptoms may clearly point to a mild attack until perforation or rupture takes place, and when severe symptoms first appear, it will be to announce a condition that is already beyond hope of cure.

In considering this question the physician will naturally be guided by his own experience; but he should always give careful heed to the lessons others have learned. It is very desirable that this subject should be regarded too seriously rather than too trivially. If a physician has been fortunate enough to have been limited in his experience to a number of cases of the benign type, he is apt to have formed the idea that all cases of appendicitis may recover without operation, and a patient with a malignant form of the disease is very unfortunate if he comes under the care of that man. Fortunately, there are to-day few practitioners so narrow-minded and ignorant.

The real danger in cases of appendicitis is that the operation shall not be done when necessary; and that an operation may be done in a case which would have recovered if treated expectantly is not a matter of much importance, for if the operation be properly done, the risk to the patient is almost nil. In appendicitis the danger lies in the disease, and not in the operation.

It is of the utmost importance in acute cases calling for surgical interference that operation be done as early as possible. In a case of acute suppurative or gangrenous appendicitis the patient's chance of recovery is much greater if operation can be done before perforation or rupture has taken place, even if protecting adhesions are formed, and, of course, if these are not present when the breakdown comes the chance of recovery is very small.

I know of no question more difficult to decide than the one which presents itself in the early hours of an acute appendicitis—namely, is it the beginning of a benign case, or is it the beginning of a malignant one?

This is a question that can not be answered in many instances, for in the two forms the onset is the same.

In some cases the local and general symptoms are so severe or significant from the beginning that there can be no doubt that the case is one of a severe and dangerous type. But the converse of this is not true, since one can never predict in a case that has a mild beginning that it will not have a serious ending.

In such cases one can only decide on the proper plan of treatment by making repeated examinations, and noting the progress or regress of the disease.

As a general rule it may be stated that a patient that is not decidedly better at the forty-eighth hour than at the twenty-fourth is not going on to spontaneous recovery.

General practitioners frequently put surgeons to a great disadvantage by not calling them in consultation early enough to allow them the benefit of making an early and then a later examination, and thus com-
paring the conditions. Too often the surgeon is called upon to decide a one-sided question. He can work to better advantage for many reasons if he sees the case early. His judgment can be soundly formed, his knowledge of the case from its early stages is of importance, and, when operation does become necessary, it can be the better accomplished if it has been anticipated and prepared for than if it be undertaken on the spur of the moment, perhaps at night, and without time for the best arrangement of details.

A typical attack of acute appendicitis will have about the following symptoms: A sudden onset, usually beginning with abdominal pain, starting around the umbilicus, and becoming more or less general, and finally becoming most intense in the region of the right iliac fossa. This may or may not be attended by vomiting. Soon there will be slight elevation of temperature, about $100^\circ F$, and acceleration of the pulse rate to about 90.

The most characteristic symptom is tenderness, with its seat of maximum intensity at the appendix. There is always a change in facial expression, varying from a slightly anxious look to a well-marked Hippocratic face.

Muscular rigidity will soon be present, especially in the right rectus abdominis.

All these symptoms may be present to a greater or less degree in the mildest case of catarrhal appendicitis. In the most severe of all cases—namely, the acute gangrenous without peritonitis—there may be no symptom present before rupture save point tenderness, muscular rigidity and accelerated pulse.

After an acute case has progressed a few hours, if local peritonitis is produced, either the simple plastic or the fibrino-purulent, a distinct tumor will be present in the neighborhood of the appendix. This may be obscured by the rigid muscles.

No fixed rule can be laid down for deciding in the early stages between the mild and the severe cases.

No man is capable of deciding this question positively and correctly in all cases. Ample and widespread experience with the various types of the disease will give one a faculty of determining the nature of the condition which may almost be called intuitive.

An exact and true word picture of a given case of simple catarrhal in the first thirty-six hours might fully and accurately describe a given case of the fulminating type; but, to one properly experienced, an indescribable character of some one symptom, as the pulse or facial expression, may indicate a malignant process. Usually a catarrhal or simple parietal appendicitis will present a mild train of symptoms from the start, and under the proper expectant treatment will show marked improvement in some or all of the symptoms by the forty-eighth hour.

At this time, in the majority of cases of suppurative or gangrenous cases with local peritonitis, "tumor," pain, and vomiting will have ceased, and the evidences present will be as follows: Temperature about $100^\circ$; pulse about 100; muscular rigidity, tumor well marked, hard, defined, and increasing; local tenderness now over site of tumor. Facial expression more or less anxious.

A gradual abatement of these symptoms will point to a regression of the disease. A sharp rise of temperature and acceleration of pulse rate, followed by a sudden fall of temperature and a sudden decrease in the pulse rate, usually marks the rupture or perforation of an appendix into firm adhesions.

During an attack of appendicitis a sudden cessation of symptoms is always a bad sign.

A fulminating attack of gangrenous or suppurative appendicitis may have about the following symptoms marking three stages:
First. The stage before perforation. Temperature, 103°; pulse, 120, high tension, small volume; pain localized, severe, lancinating; tenderness exquisite; facial expression anxious, haggard; respiration, 30 a minute, costal variety; vomiting reflex in character. General feeling of severe illness.

Second. The stage of rupture, short in duration, sudden in advent. Temperature normal or subnormal; pulse, 80; pain gone; tenderness slight; facial expression much improved; respiration normal; vomiting none. General feeling of relief and recovery.

Third. The stage of general septic peritonitis or sepsis. Temperature about 101° to 102°; pulse, 110 to 120, small and weak; pain severe, general abdominal; tenderness, general abdominal with maximum at appendix; facial expression Hippocratic; respiration costal, rapid, irregular; vomiting may become stercoral. Great exhaustion and prostration.

Finally, collapse and heart failure will close the scene.

It must be borne in mind that a fulminating case may cause death by peritoneal sepsis without the production of septic peritonitis.

It is most unfortunate that no well-defined rule can be given for determining which is a benign case and which is a malignant one. This has to be decided by one set of symptoms in one instance, and on entirely different grounds in another. In one case the character of the pulse is most important, in another the temperature may decide the question, but usually one must judge by the patient's general condition, and by a careful study of all the symptoms, and of the relation of one symptom to the others.

Concerning the treatment of appendicitis the cases may be classed in three groups:

First. Those in which operation is unnecessary and in which expectant treatment should succeed.

Second. Those in which operation is advisable and justifiable, but in which delay may not do harm.

Third. Those in which operation is imperative, and is the only safe method of treatment.

The first group is limited to the cases of primary catarrhal and primary parietal appendicitis without suppuration and without gangrene.

The second group embraces all cases of recurrent and relapsing appendicitis.

The third group embraces all the forms of appendicitis which I have classed as malignant—i.e., all cases of suppurative or gangrenous appendicitis with periappendicular abscess and the fulminating type.

Before leaving the first group, let me set down briefly the proper method of expectant treatment:

Put the patient to bed and keep him there. Apply over the whole of the right iliac region a soap "poultice," consisting of a thick layer of green soap spread on a single thickness of muslin or sheet lint.

Over this apply a broad ice bag—better still, an ice coil.

Relieve the bowels by a soap-and-water enema.

Keep the stomach at rest while vomiting exists.

Restrict the patient to milk, if he can take it; if not, give him clear broth.

Note the temperature, pulse, and respiration every four hours.

Give no drugs.

Never give opium or morphine in cases of appendicitis, except in case of abdominal shock from rupture of appendix or abscess.

Any case that does not improve under this plan of treatment will be found to be of one of the severer types.

The operative procedures may be described pertaining to four classes of cases:

First. Cases of recurrent and relapsing appendicitis, without acute local peritonitis between attacks.
Second. Cases of acute, suppurrative, or gangrenous appendicitis with local peritonitis, with or without periappendicular abscess.

Third. Chronic cases with persistent sinus.

Fourth. Fulminating appendicitis with rupture or perforation and general peritoneal involvement.

There are certain general rules which apply to all of these forms of operation. I shall touch on those at once, and then take up the special indications and procedures.

I always insist upon having one of my own assistants when it is possible to do so. I consider that the man who has charge of the protecting sponges and packings is of more importance than the one who does the operating.

I also prefer to have a nurse who has been accustomed to my method of operating.

The entire abdominal surface should be sterilized as completely as possible. A proper operating table is very necessary. The Trendelenburg posture should not be used.

Hand sponges and flat laparotomy sponges should be made of sterilized gauze. For catching and removing the pus, I use very small marine sponges on holders.

The patient should be slowly and carefully anaesthetized. This is very important.

A careful final examination should be made when the patient is thoroughly narcotized and the muscles are relaxed.

The operation should be done deliberately and carefully, but with all compatible speed.

We shall now take up the special form of operation:—

First. For relapsing and recurrent appendicitis without acute local peritonitis.

The propriety of operating on these cases must depend on the nature of the attacks, the frequency of the attacks and their severity, the amount of disability they cause the patient, and the patient's condition of general health—that is to say, whether he is a fit subject for an operation or not.

In a patient of good general health and vigor this operation is free from danger.

After the patient has been thoroughly anaesthetized, the skin properly prepared, the whole operation field properly protected by sterilized coverings, and the final examination made, the operation is done as follows:—

An incision is made down to the external oblique muscle. In a thin subject this incision may not need to be over an inch and a half in length. It must correspond to the thickness of the abdominal wall. It should be in a direction parallel to the fibres of the external oblique. Its middle point should be on a line drawn from the umbilicus to the anterior superior spine of the ilium. It should be external to the rectus muscle.

Next, the external oblique should be opened, by separating its fibres, not cutting, as far as the full length of the above incision. With this wound carefully held open the internal oblique should be cut, not split, in the same direction as the wound. The transversalis is divided in the same manner.

When the peritoneum is reached it should be lifted by two mouse-toothed forceps and divided, such care being taken as to positively insure against wounding the intestine, whether there be any adhesion or not. Of course, before opening the peritoneum all bleeding should be arrested and the wound thoroughly dried.

When the peritoneum has been sufficiently opened the index finger is introduced and the region of the appendix explored. If many adhesions are found, the entire wound should at once be so enlarged that the necessary separating and dissection can be done with facility and in plain view.

If this is not the case, the appendix should be sought for, and, if it be free,
its tip should be brought out of the wound. Then, as you come to its mesentery, it should be ligated with fine catgut and divided. The mesentery will require one or several ligations, according to its width.

When the appendix is separated from the intestine, except at its base, it and a portion of the intestine should be brought out of the wound, so that the ablation can be done extraperitoneally. I pass the appendix through a hole in the centre of a flat sponge, so that a very small surface of the intestine is exposed.

I prefer Dawbarn's method of closing the intestine, which is done as follows: A purse-string suture of fine silk is passed completely around the base of the appendix, about a quarter of an inch from the orifice of the appendix, involving only the peritoneal coat, the ends left untied. The appendix is now cut off about half an inch from its base. Its canal is now probed to see if it be pervious. If not, it is made so by means of a small cauterity point, and next the divided end of the appendix is grasped by a fine thumb forceps and pushed into the bowel by a complete invagination. The silk suture is now half tied and drawn tight. As the forceps is withdrawn the closure is complete and the full knot tied.

If all this has been carefully and satisfactorily done there will be no infection. The wound may be closed at once.

I close the wound by a single row of silkworm-gut sutures passed through the entire wall. Simple pad dressing.

I do this operation as an aseptic one, using no fluids after the final cleansing. The operation will take from fifteen to twenty minutes to perform.

I do not believe in McBurney's method of splitting both the internal and external obliques. It necessitates a larger wound, and it requires an unnecessary damage to the abdominal wall, for it means a tearing apart and separation of its layers. I strive as far as possible to keep the various layers in apposition.

The after treatment of these cases is very simple—i.e., fluid diet for four days; enema daily; stitches removed on the seventh day; first dressing removed on the seventh day; patient up and well on ninth to fourteenth day.

I never have a patient wear an abdominal supporter unless the wound has been unusually long.

Second. Operation for acute, suppurative, or gangrenous appendicitis with local peritonitis, with or without periappendicular abscess.

After the above described preparation of the patient and operation field, an incision is made similar to the one above described, but it must be extended at each end, and should be at least four inches in length.

The external oblique is opened by blunt dissection; the rest of the layers should be clean cut, and care should be taken not to separate one layer of the wall from another. If the aponeurosis and fascia are stripped bare they are very apt to slough, and thus leave a weak wall.

The essential part of this operation consists in the intra-peritoneal work in searching for and treating the abscess, if one exists, and in searching for and dealing with the appendix if there be no abscess.

The most important thing of all is the protection of the uninvaded peritoneum. This requires the exercise of sound judgment to determine how much to do, and of knowledge and skill to do it properly.

As soon as the peritoneum is opened sponge packing should be begun.

Throughout the operation this must be done in such a manner that no infected tissue nor disease product can come in contact with healthy peritoneum.

The first assistant must take entire charge of this.

When all the open spaces around the mass of adhesions have been completely closed by dry gauze pads, the
wound should be well retracted and the tumor gently entered by separating adhesions and by blunt dissection. When an abscess is reached I make a pin-hole opening, and at once prevent the escape of pus by pressure of a small sponge held in an artery clamp. After a minute the sponge is replaced by a clean one and the pus is removed drop by drop, all of it being absorbed by these sponges and none of it allowed to escape into the wound.

After pressure is sufficiently reduced by emptying the abscess, the opening is gradually enlarged, and finally the cavity can be thoroughly sponged out.

Now it should be freely opened and its interior disinfected with hydrogen peroxide. The size of the abscess will depend upon the duration of the disease.

Its walls are composed of adherent intestines thickly coated with plastic lymph, and the ruptured or perforated appendix usually forms some part of this wall.

We have now reached the point when the average of the results will depend upon the judgment of the operator. If he is wise, he will remove the appendix in only those cases in which it can be readily found and removed without separating many adhesions. If he is rash, he will unduly persist in his manipulations, and in many cases he will break through Nature's safeguard at some point unseen and cause the death of his patient by secondary infection.

If the appendix can with safety be removed, it should be separated from the intestine with great care and gentleness, its mesentery properly ligated; then it should be ablated about a quarter of an inch from its base, and the canal thoroughly sterilized with the cautery.

Now a single ligature of catgut should be tied around the appendix, including all its coats, then the superficial stump beyond this ligature trimmed away with the cautery or scissors. Now the operator should thoroughly resterilize his hands, and all towels, etc., about the wound should be replaced by clean ones. One or two sutures may be used at each end of the wound, but an ample opening must be left, for the wound must be treated by packing.

Remember that in packing a wound for drainage you must not proceed as you would if you were calking a ship to prevent leakage.

These wounds, whether the appendix has been removed or not, should be packed as follows: One piece of iodoform gauze, folded longitudinally, is passed to the bottom of the abscess cavity and brought out of the wound, and turned to the outer side of the wound.

It should be large enough to completely fill the cavity, but not to stuff it. Now, as the first assistant slowly removes his gauze pads they should be replaced by pads of iodoform gauze which must be carefully protected from any contamination.

These pads must completely close any spaces where adhesions are wanting, and they must come in contact with healthy peritoneum and separate it from all infected areas.

Careful note must be kept of the number of pieces used. Now the entire wound should be covered by first a pad of iodoform, and then several pads of plain, sterilized gauze; flat ones are the best. These should be firmly held by strips of adhesive plaster. Over this a thick layer of absorbent cotton is placed and secured by an abdominal binder.

In case the operation is done before the appendix has broken down, and there is no circumappendicular abscess, the procedure should be the same as the one just described; but the appendix can be removed in nearly all instances.

The after-treatment of these cases is most important. It should be as follows: Complete rest of the stomach for twelve hours. Peptonized milk in small quantity after twelve hours, if there is no nausea or vomiting.
selected article.

patient should be kept quiet on his back for four days.

enema of soap and water every day; if there is much tympanites, turpentine should be added.

the outside dressing should be removed at the end of twenty-four hours, and changed as often after that as it becomes saturated.

the packing should not be removed until the fifth day—that is, on the fourth day after operation.

this needs be done as carefully as the operation itself. retractors should be used and the wound well opened.

then the gauze should be removed from the tumor cavity. this should be thoroughly cleaned by dry sponging. no fluids should be used. now this cavity should be carefully repacked, and then the protecting pads should be gently separated from the adhesions they have caused and new pieces substituted.

after this the wound should be dressed every third day. soon a single packing will be sufficient, and this should be reduced in size at each dressing. the patient should be kept on fluid diet for one or two weeks, and be kept in bed until the wound is healed to a narrow sinus, which it will be in from three to five weeks. when the patient gets up he should wear an elastic binder for one year to prevent hernia.

no drug treatment will be needed. i insist on my rule concerning morpbine. these patients will be comfortable and free from pain if they have not been reinfected at the operation, unless the case were already one of progressing peritonitis.

third. chronic cases with persisting sinus. of this operation i shall write briefly. i make an oval incision which shall include the sinus; the next step is to enter the general peritoneal cavity at some point free from adhesions. now the intraperitoneal dissection is begun, and the mass containing the sinus is slowly separated and pushed outward, while the healthy intestines are pushed toward the median line, and ample gauze packing is interposed. the sinus will usually lead to a diseased appendix.

the entire diseased mass should be dissected and removed without opening the sinuses or appendix, except, of course, when the latter is amputated.

the appendix stump should be closed by dawbarn's method, and if the wound has not been subjected to contamination it may be closed by suture. if there be any doubt about this, it should be packed and drained.

fourth. operation in fulminating appendicitis, with rupture or perforation of appendix, with general peritoneal involvement.

this operation must accomplish removal of the appendix and of all infective material, and the cleansing toilet of the entire peritoneum.

when the diagnosis of this condition is positive, a large median incision should be made. the right iliac region should first receive attention. if the appendix is still attached, it should be removed and the stump secured. if the appendix has sloughed off, the intestinal orifice must be closed.

with one hand in the abdomen, a separate opening in this region should be made for special drainage.

now every portion of the visceral and parietal peritoneum must be cleansed by thorough sponging, which shall remove all inflammatory products and all foreign material. after this is done, every portion of the peritoneal surface must be washed again and again with hot salt solution (6 to 1,000).

if the patient's strength will permit it, the intestines should be systematically, coil by coil, washed outside of the abdomen.

the work should be done thoroughly; but it must be done rapidly, for these patients are always in a bad condition.

often you will be obliged to be incomplete in your work to avoid death on the table.

after the cleansing is accomplished
The China Medical Missionary Journal.

gauze packing should be used so as to drain the entire abdominal cavity. Enough suturing should be done to prevent escape of the intestines into the dressings. A very large dressing must be applied externally; this should be changed in a few hours.

In these cases opium is called for to relieve the pain and as a stimulant against shock. A full dose should be given before operation.

Acting in the main on the principles set forth in this paper, I have been operating in cases of appendicitis during the last eight years. Of five cases with general peritonitis I have lost three patients.

I have lost no other patient with appendicitis.
Medical and Surgical Progress.

THE TREATMENT OF OTORRHEA AND ITS IMPORTANCE.

Dench, one of the most progressive of modern otologists, has a paper with this title in the Medico-Surgical Bulletin of November 14, 1896. He first considers drainage and syringing, and asserts that while much has been written in favor of securing drainage by strips either of iodoform gauze or of some other antiseptic gauze, inserted into the canal as far as the membrana tympani, his opinion is that this procedure is not applicable in the majority of cases, and his experience has proved it to be so unsatisfactory that he no longer employs it. If these strips of gauze could be frequently changed, the measure would no doubt effect its purpose, but this is obviously impossible, either in private or hospital practice. He therefore prefers the old method of removing the discharge from the canal by the frequent use of the syringe, the irrigation being repeated as often as is necessary to keep the canal free of discharge.

Although it seems a very simple matter to syringe an ear, the operation is seldom done properly by the layman, and is not always successfully performed even by the physician. The fountain syringe is not adapted to the purpose, and either the ordinary piston syringe or soft-rubber bulb syringe should be used. As the removal of the accumulation in the canal is a purely mechanical process, a certain amount of force must be used in injecting the irritating fluid. As the meatus is formed by two tubes, joining at an angle in both the horizontal and vertical planes, the deeper portion of the canal cannot be cleansed by a column of fluid unless these angles are obliterated and the axes of the two portions are brought into the same straight line. This is effected by drawing the auricle upward, backward, and outward, during the operation; by this manipulation the fibrous meatus is made to conform to the direction of the bony canal.

It is also important to remember that the tip of the syringe must be introduced into the meatus, instead of being held close to its mouth. Care should be taken that the force applied in expelling the fluid from the syringe does not crowd the tip of the instrument against the walls of the meatus. The portion of the syringe introduced into the canal should be absolutely immovable, as otherwise the meatus may suffer from traumatism.

It is also to be borne in mind that in infants the bony meatus is absent, and that the inferior wall of the canal lies in contact with the superior wall. In order to convert this passage into a fibrous tube the walls must be separated by traction upon the auricle in the direction downward, backward, and outward, as in the adult.

The quantity of fluid to be used at each irrigation varies somewhat according to the character of the discharge. Usually half a pint is sufficient for the purpose of cleansing the meatus.

We are next to consider measures to secure asepsis. Given a serous or sero-mucous discharge from the meatus, no matter what its source may be, no further treatment is necessary to obtain a perfect cure than to prevent infection of this fluid as it lies in the external auditory canal. Frequent cleansing of its surface diminishes the chances of infection, but the danger is still further reduced if the cleansing fluid is antiseptic in character. It need scarcely be said that the syringe must be surgically clean, and that a separate receptacle should
be used for receiving the washings, instead of allowing the return current to flow into the vessel containing the irrigating fluid. This absurd error often occurs unless it is guarded against by giving special directions. The fluid to be used is largely a matter of choice. Personally the writer prefers an aqueous solution of bichloride of mercury, 1 to 3000 or 1 to 5000. The fluid should be warm, but not hot, and the comfort of the patient is the best guide to indicate the correct temperature. Many other antiseptic solutions are, no doubt, as good as the one mentioned. Peroxide of hydrogen in these cases is, however, objectionable, although it is highly recommended by many authorities. The mixing of a solution of peroxide of hydrogen with a purulent secretion is followed by the evolution of considerable gas. The mere ocular demonstration of the activity of this agent, by means of the bubbles of gas which are seen to rise to the surface of the fluid as soon as the injection is made, in no way establishes its germicidal properties. The sudden liberation of a large volume of gas in the middle ear, where drainage is imperfect, is not free from danger, and for this reason the agent is contraindicated in these cases. Another objection is the irritation of the canal which the protracted use of the substance causes.

After cleansing the canal in the manner described, it should be maintained in an aseptic condition as possible until the next irrigation. For this purpose each irrigation is followed by the instillation of a few drops of a dilute alcoholic solution of the bichloride of mercury, of a strength of 1 to 3000, the following mixture being the one the author usually employs:

| B & | Bichloride of mercury, 1 part; | Water, 1000 parts; | Alcohol, 2000 parts. |

Under the use of these measures a serous or serous-mucous discharge will ordinarily cease, whether it be the result of aspergillus of the canal or of an acute catarrhal otitis media, either in a case in which the memb.
cases, however, drainage is often imperfect, from the retention of secretion in the middle ear by the remnants of the membrana tympani or by the various reduplications of the mucous membrane lining the tympanic cavity. Here, also, free incision is necessary to secure a perfect drainage.

Again, the products of suppuration may be confined by the development of granulation tissue within the middle ear. In order to perfectly drain the cavity, this tissue must be removed either by means of the sharp curette or by the cold-wire snare. If the inflammatory process has exhausted itself, free drainage and asepsis will effect a cure. If, however, the process is still active, or if all necrotic tissue has not been evacuated, the discharge may continue, and the suggestions regarding treatment already given will merely reduce it in quantity. The author refers particularly to cases in which the bony structures within the tympanum are carious; this process may involve the ossicular chain alone, or may extend to the bony walls of the tympanum as well.

It is to be remembered that there is no such thing as “special surgery.” The same broad principles which apply to caries and necrosis in other parts of the body are equally applicable to a similar condition within the middle ear. Every vestige of diseased bone must be removed before relief can be obtained. The exact procedure to be adopted must vary with the local conditions presented by individual cases. Where the caries is limited to the ossicles, and to those portions of the tympanum which can be easily reached by instruments introduced through the meatus, excision of the remnant of the ossicular chain and thorough curettage of the tympanic cavity will afford relief. Where, however, the process has extended further, and has invaded the most remote parts of the tympanic vault, and even the mastoid process, an intratympanic operation will not give relief, and some modification of the more radical procedure advised by Stacke (Archiv. für Ohrenheilk., xxxi, p. 201) will be necessary.

The Stacke operation consists in detaching the auricle and fibrous meatus from the bony structures, and drawing the soft tissues forward, so as to expose the margins of the bony canal. The mastoid antrum is then entered in the usual way, and the partition between the canal and the opening in the mastoid is broken down, and the superior wall of the bony meatus removed by means of the chisel, thus giving free access to the tympanic vault and mastoid cells. Every vestige of diseased bone is taken away, the parts being under direct ocular inspection. The posterior wall of the fibrous canal is split longitudinally, and the flaps thus formed are turned backward into the bony cavity, thus converting the external auditory meatus, the tympanum, the tympanic vault and the mastoid cells into one large cavity. The auricle is then replaced, and the incision behind the ear sutured. All parts of this space can be seen by speculum examination through the canal, and, if all diseased bone has been removed, a satisfactory result can be confidently expected.

Which operation should be selected in any individual case depends, as before stated, upon the extent of the lesion. If properly selected, the simpler operation of removal of the ossicles and curettage of the tympanum gives results which are equally as satisfactory as those obtained by the more radical operation.—Therapeutic Gazette.

INDICATIONS FOR OPENING THE MASTOID.

Dr. Felix Cohn arrives at the following conclusions as to the indications for perforating the mastoid in acute and sub-acute middle-ear inflammations:

1. The presence of hyperemia and congestion alone is no indication for opening the mastoid.

2. The mastoid should be opened in all cases of osteitis, if, under the usual antiphlogistic treatment, the inflammation shows no tendency to resolution.
3. In pronounced cases of antral empyema, in which the character of the discharge is purulent and the empyema shows no tendency to discharge completely through the middle ear.

4. In all cases of protracted otitis with profuse otorrhea, which show no tendency to resolve within a reasonable period, the time chosen for operation depending upon the manifest symptoms, whether, for instance, retention is present or the mastoid bone is itself involved.

5. In every case of acute otitis in which there are dangerous symptoms of resorption, and in which the drainage cannot be established by paracentesis or by the natural perforations.

6. In those cases, even without manifest symptoms of mastoid affection, the mastoid should be opened in order to produce a more favorable drainage, and to enable a thorough cleansing of the middle ear.

7. In all cases of muco-purulent otitis in which otitis is evidently maintained by mastoid involvement, the time for operation depending upon the condition of the patient and the presence or absence of symptoms pointing to retention or other complications of a serious nature.

8. In cases of mastoid disease, or otitis complicated by lymphangetis or lymphadenitis, in which there is imminent danger of the formation of an abscess, and in those cases in which the lymphadenitis does not tend to resolve under ordinary antiphlogistic treatment.

9. In cases of protracted otitis in which there are symptoms of serious secondary complications, involving danger of extension of the inflammation inward toward the brain, or downward toward the neck.

10. In cases of acute otitis, in which complicating stenosis of the external canal prevents drainage and thorough cleansing of the middle ear.—New York Medical Journal.

MASSAGE IN THE TREATMENT OF FRACTURES.

Woolsey (Medical News, March 20, 1897) concludes an article with the above heading with the following summary:

1. The treatment of such fractures, especially those near joints, by immobilization, whether ambulatory or not, leaves something to be desired in (a) the time required and (b) the functional result obtained.

2. The treatment of such fractures by massage and passive motion shortens the time of bony union by one-third or one-half, and vastly improves the immediate functional result.

3. This treatment is especially applicable and important in fractures near joints.

4. Its application is easy. It relieves pain and swelling, hastens callus formation and solidification, prevents atrophy of the muscles and stiffness of the joints and tendons.

5. Splints should be applied between the daily fifteen- or twenty-minute applications of massage for the first ten or twenty days, according to the nature of the fracture and the tendency to displacement, or until consolidation occurs.

6. This treatment, combined with the ambulatory method, promises an ideal method.

7. Oblique fractures of both or the only bone in a limb, or fracture near the middle of the limb with a tendency to displacement, should be immobilized until consolidation has commenced.

8. The ambulatory treatment is indicated in the latter classes of fractures, in fractures of the lower extremity in the alcoholic or very aged, and in fractures of the neck of the femur in the aged.

9. The plan of immobilizing the limb for a short time in the best possible position, and then applying massage and passive motion, promises equally good results, and especially adapts the method to private practice in which it is particularly indicated on account of the shortened time required for union and the excellent functional results.
THE PICRIC ACID AND ARISTOL TREATMENT OF BURNS.

Dr. Cookman writes upon the recent methods of treating burns in the Hahnemannian Monthly for March, 1897. As he states there is perhaps no subject in the realm of surgery that has been so extensively written upon and discussed as burns and their treatment. Medical literature since time immemorial has devoted countless pages to this topic, and each current magazine seems to bring forward some new drug or plan of treatment that will produce rapid and painless healing of this injury. Yet burns will be burns, and still continue to pursue the uneven tenor of their way, producing ugly contracting scars and taxing to the utmost the skill and patience of the painstaking surgeon.

The two methods of treatment advocated in this brief paper, although comparatively new in this country, have been tried and their efficiency thoroughly proven in England and on the Continent. Powers of London and Thiery of Paris report a long series of cases successfully treated with picric acid; while Walton of Ghent and Von Kiegel of Vienna publish an equally extensive list of perfect recoveries under the aristol treatment.

Picric acid and aristol belong to that group of remedies which have recently been prepared by synthetical methods and introduced into therapeutics. The former, as is well known, is a product resulting from the action of nitric upon carbolic acid. It consists of fine yellow scales, soluble in water or alcohol, to both of which it gives a brilliant yellow color. Its use in medicine has been a limited one, while in commerce and the manufactures it has been extensively employed as a dye. As a local application for burns it is best used in the strength of one and a half drachms dissolved in three ounces of alcohol, and then diluted with two pints of distilled water. This makes the so-called saturated solution of picric acid.

The greatest advantages of picric acid in the treatment of burns are:

1. The severe pain which is so characteristic of these injuries is considerably lessened, this being doubtless due to the carbolic acid of which it is largely made up, and which is a well-known local anesthetic.

2. It limits the tendency to suppurate on account of its strong antiseptic properties and the power it possesses of coagulating albuminous discharges. When we remember that the antiseptic carbolic and the coagulating nitric produce picric acid, these properties are readily understood.

3. Healing takes place rapidly under a scab, and the resulting scar is smooth and shows but little tendency to contract.

Picric acid is most indicated in superficial burns and scalds, with vesication of the skin, and should be applied as follows: After careful removal of all clothing from the burnt part, the wound should be cleansed as thoroughly as possible with the solution of the acid. If a syringe is used for this purpose the surgeon can avoid staining his hands. All blisters should be pricked and the serum allowed to escape, care being taken not to destroy the overlying epithelium. Sterilized gauze is then spread over the burned area and soaked with the lotion. A layer of absorbent cotton is put over the gauze and the dressing held in position by a bandage. This dressing may be left in place three or four days, and then gently removed by thoroughly moistening it with the picric solution, for it will be found to adhere closely to the skin. Subsequent dressings are similarly applied, and after three or four, according to the degree of burn, healing will be complete.

A word of caution is necessary. Picric acid is poison, fifteen grains being considered a lethal dose. We must therefore watch over patients for toxic symptoms. These are a general yellow color of the skin and conjunctiva, orange-colored urine, sexual excitement, mental lassitude, and gastric disturbances.
Aristol is a combination of iodine, iodide of potash, and thymol. It is a light red, extremely fine powder, insoluble in water and glycerin, slightly soluble in alcohol, and readily dissolved in ether, collodion, and the fixed oils. As a ciaerizant it probably has not the toxic and irritating character of the latter, is practically odorless, and probably has some anesthetic properties. When applied to a wound it produces at first a slight burning followed by a diminution of the painful sensations. Granulations spring up, healthy, vigorous, and vascular. Cicatrization takes place rapidly from the edges of the wound, and the scar seems to be less abundant in fibrous tissue, thus decreasing the liability to contraction.

Aristol may be used in all varieties of burns, from a simple crythema of the skin to a complete charring and destruction of the tissues. In the superficial form it is best used as a powder, while in the deeper burns the following ointment is to be preferred: Aristol, one part; olive oil, two parts; dissolve and add vaselin, eight parts.

Strict asepsis of the wound, however, is the first essential to success. After picking all the blebs and permitting the serum to exude, the burn should be well irrigated with a weak solution of boracic or carbolic acid, and its surroundings scrubbed with soap and water. Then with sterilized absorbent cotton the surface should be gently dried, and the aristol applied, either as a powder, or an ointment. If the latter is used, the wounded edges are first dusted with the powder, and then sterilized gauze on which the ointment has been thickly spread is applied. The dressing is completed with another layer of gauze, absorbent cotton, and a bandage. After three days this should be removed, the wound and adjacent parts asepticized as before, and the same dressing reapplied. By careful treatment in this manner very extensive burns will rapidly cicatrize.

Although Cookman has described these two methods as separate and distinct, they may be combined.

**THE TREATMENT OF ECZEMA.**

In *La Médecine Moderne* for February 17, 1897, Besnier writes a long paper upon this subject in which he points out that it is indispensable in these cases to prescribe a particular diet and a regular method of life, if encouraging results are to be obtained in the treatment of severe cases. Care should also be taken that all internal and external causes for tracheal irritation are removed as far as possible, and the urine should always be carefully examined to see that there is no renal cause for the difficulty, as evidenced by albuminuria, phosphaturia, oxyluria, glycosuria, or polyuria, occurring in the course of such diathetic conditions as lithemia, gout, and diabetes. In regard to the methods of life Besnier points out that the patient should be as much as possible in the open air, must eat regularly of easily digested foods, the proteid constituents of which should be present in comparatively small amounts, and that fresh vegetables are useful, such as the various salads, cresses, and similar substances. Should the eczema be present in the new born great care should be paid to the regularity of nursing and the clothes, particularly the diapers; and as healthy surroundings as possible should be provided.

Purgatives have been much abused by the physicians of earlier times in the treatment of eczema because they have been given in excessive quantities, but their moderate use should constipation be present is an absolute necessity. At first calomel may be given in small doses, or some of the neutral salines or castor oil or the preparations of senna. As diuretics it is well to employ some of the alkaline mineral waters, and to use to a great extent a milk diet. Belladonna is sometimes useful in cases of eczema in which there is a profuse serofibrinous exudate. Under these circum-
stances two to ten drops of tincture of belladonna may be taken quite frequently, or in its stead small doses of atropine may be given. If there is a contraindication to these drugs we may employ such remedies as tannin, agaracina, and phosphate of sodium. In persons who have a distinctly malarial history quinine is to be employed both for its specific and general tonic effect, and antipyrin, coelebicus, and digitalia may also be used, particularly if there is a gouty tendency or feebleness of the circulation. Strychnine is useful if there is marked circulatory feebleness. In the eczema of the young, which is often dependent upon anemia in lymphatic persons, the administration of iron is often exceedingly advisable; in other cases it is better to give cod-liver oil or the iodide of iron; or in some cases if there is a tendency to arteriosclerosis we may administer iodide of potassium with good results. If there is hereditary syphilis as an underlying cause of infantile eczema the iodide of potassium in moderate doses may be useful.

PRACTICAL WRINKLES IN THROUGH-AND-THROUGH DRAINAGE.

The following is applicable in any part where a through-and-through drainage tube is to be used.

The procedures were suggested and are particularly effective in overcoming certain difficulties in the maintenance of drainage in an empyema.

The first has reference to keeping the tube patulous by removing collections of pus and cutting off the granulations which grow down into the fenestra of the tube. It consists of an ordinary drainage tube with the requisite number of fenestrae, through the full length of which (previous to insertion) a strong silk ligature has been passed. This silk is of a length about four times that of the tube, and has fastened at about a tube's length from one end of it either a split shot, the size of the caliber of the tube, or a section of rubber tubing. If a section of tubing is used (and this is more satisfactory) it should be of pure gum and just large enough to pass through the tube with some friction. The tube is inserted in the wound in the usual way and both ends are held with safety pins inserted in such a manner as not to infringe on the lumen. The two ends of the silk are knotted to form an endless string with the knot on the outside. When the tube becomes occluded, it is first moved in the sinus to cut off the granulations, and then the drag is pulled through the tube and everything in the form of pus is completely removed.

The second refers to the secondary or horsehair drainage. This consists of a strand of horsehair of the required thickness which has, at the proper distance from each other, two silk threads tied tightly around the strand with one end of each cut short and the other left the length of the drain. The strand is then cut squarely off at each end, one-fourth of an inch beyond the knotted silk. Then the knot and end of the strand are covered with sealing-wax which is shaped into a round probe and with the silk cord protruding from the tip. To insert the horsehair, the silk is attached to the silk of the drag, and the probe end is brought up snugly into the end of the tube. Then, as the tube is removed, the drain follows without giving extra pain. In case there is no cord in the tube, the silk of the drain can be threaded through a curved needle and the needle passed through the wall of the tube from within out. Then the end of the drain can be drawn up into the tube as before. After the drain is in place the two silk cords can be knotted. This will be found especially advantageous with children and nervous people; one quick jerk will remove the tube and locate the drain.—Medical Record, March 20, 1897.
DANGERS OF THYREOID.

In a case of catalepsy large doses of thyreoid apparently brought on an attack of exophthalmic goitre. The cataleptic had lain immovable in bed for over three years, all motor and sensory manifestations were absent, and feeding required the constant use of a nasal tube. The effect of increasing doses of the gland was a gradual return to the normal condition, so that he was able to speak and walk. When the dose of seventy-five grains a day was reached, symptoms of exophthalmic goitre developed, the pulse going up to 160, which required the temporary discontinuance of the remedy. After a few days the catalepsy returned and the treatment was again taken up, with the same results—disappearance of the cataleptic symptoms, but reappearance of the exophthalmic goitre. This latter, artificially produced in this manner, had all the characteristics of the true disease with the exception that there was no glandular enlargement, and that the symptoms disappeared whenever the dose of the remedy was diminished or it was discontinued. I conclude from this that Graves' disease is due to an overstimulation of the nervous system by products of the thyreoid gland, and that the administration of this gland as a remedy is injurious, the proper treatment being one tending to reduce the functional activity of the thyreoid gland.—Hessler.

THE ABORTIVE TREATMENT OF ACUTE CORYZA.

M. Courtade makes use of a siphon-douche to irrigate the nasal passages with saline solution at a temperature of 120° F., a pint of the liquid being usually sufficient. The jet must not be directed against the lateral wall of the fossa, for this will provoke a sensation or heat. A fall of three to four inches is sufficient for nasal purposes. In order that the irrigation may be suddenly stopped, if necessary, the tube should be furnished with a cut-off. The higher the temperature, the smaller the quantity of fluid which will be necessary. Since it is the heat which is important, the choice between solutions of sodium chlorid and sodium bicarbonate is indifferent. Antiseptic solutions having a bactericidal action may be used. This method should be used with care, in order that an otitis media may not be set up.—Bulletin Général de Thérapentique, 1897, 3e. liv., p. 90.

A CASE OF HÆMOPHILIA.

A boy sustained a wound in the region of the temple about three-fourths of an inch in length, and during two days various attempts were made to stop the haemorrhage without effect. The boy was completely exhausted and feverish. I took from a vein in the arm of a healthy woman with a hypodermic syringe about a drachm of fresh blood, and injected into the bleeding wound; the foreign blood clotted in a short time, and the haemorrhage was arrested after a light protective bandage was applied. The clotted foreign blood acted like an elastic tampon in all the interstices of the wound, or else the foreign blood supplied the particular ferment for thrombosis of the vessels which is deficient in the blood in cases of haemophilia.—Bienwald, in Deutsche Medicinische Wochenschrift.

PUTREFACTION OF PROTEIDS IN THE STOMACH.

Though much attention has been paid to the fermentative changes in the carbohydrates which are met with in the stomach, but little study has been given to the abnormal fermentative or putrefactive process which occurs at the expense of the proteids of the food. Among the products of this process, hydrogen sulphide, H₂S, is not infrequently met with, and is particularly disagreeable because of its offensive odor. A case of this type, in which hydrogen-sulphide putrefaction was a prominent feature, has been carefully studied by Strauss (Berliner
Medical and Surgical Progress.

Klinische Wochenschrift, 1896, No. 18). Bacteriological examination of the stomach contents disclosed the presence of a germ corresponding closely to the characters of bacillus coli communis; it grew characteristically on gelatin and agar, produced gas and acid when grown in sugar broth, coagulated milk with production of acid, produced indol in sugar-free broth, and on potato formed a somewhat brownish, abundant growth. It was furthermore ascertained that bacillus coli communis regularly produces hydrogen sulphide in detectable quantity when grown in an abundant amount of ordinary agar or in peptonic water, and in peptonic broth in an atmosphere of hydrogen.

The symptoms of the case varied somewhat, and it was found that a peculiar relationship existed between the production of hydrogen sulphide and lactic acid formation. At the beginning of the illness, when the symptoms were severe, hydrogen sulphide was present in considerable quantity, but no lactic acid was detected; but later, when the symptoms had subsided somewhat, lactic acid was present, while hydrogen sulphide was not found. In seeking an explanation of this fact it was found that the addition of grape-sugar to the stomach contents undergoing the hydrogen sulphide-fermentation brought this quickly to an end, with a coincident abundant formation of carbon dioxide as the result of the fermentation of the sugar. This suggests, of course, that in the sugar the bacillus coli finds a more easily assimilable food than in proteids, and we have thus an explanation of the well-known fact that the administration of carbohydrates tends to lessen proteid putrefaction in the stomach.—American Journal of the Medical Sciences.

THE PHYSIOLOGICAL FUNCTIONS OF LEUCOCYTES.

M. Ranvier, at a meeting of the Academy of Sciences on February 22nd, read an interesting note on the role of the white blood corpuscle in the organism. The note, which abounded in novel views upon the subject, was written mainly for the purpose of demonstrating that the white cell, or lymphatic cell, or leucocyte, contributes to the nutrition of the different organs of the body. At the beginning of the article he deprecates the use of the name phagocyte for these cells; because, as he says, this term would make it appear that the cells to which it is applied are of a new species, whereas they have long been well known and thoroughly studied under another name; and because all the cells in the body eat, as well as the so-called phagocytes. The leucocytes have other functions than that of phagocytosis and functions of much greater importance from a physiological point of view. The author has elsewhere shown that these cells are capable of fixing themselves in the tissues, of increasing in size and of acquiring a new form. In studying them in wounds of the cornea he has been able to demonstrate that they play an important part in nutrition. In preparations of the cornea made 48 hours after the wound the following conditions were found: the epithelial layer has advanced considerably over the lesion, leaving its center free, however, and the cells of this layer present the signs of very active karyokinesis. The central portion of the wound, as yet uncovered with epithelium, shows a great number of leucocytes. The majority of these present a double contour and contain several nuclei and have lost their chromatin. Often, too, the nuclei have been set free by the dissolving of the protoplasm of the cell, and the number of free nuclei is always in direct relation with the intensity of the phenomena of inflammation. The dissolution of the leucocytes brings to the proliferating epithelial cells the nutritive substances of which they have need, and which cannot be otherwise supplied to them because there are no blood vessels present in these tissues. The phenomena of inflammation greatly resemble those of development of
the embryo. In fact, inflammation reduces the tissues to the embryonic condition.

TREATMENT OF GLAUCOMA.

8. O. Richey (Annals of Ophthalmology and Otology, October, 1896) states that he has not seen a case of glaucoma, acute or chronic, that did not have a history of goats, inherited or acquired; and lays down the following propositions as a guide to its management:

1. When syphilis is the agent of causation, the indications are clear—antisyphilitic treatment.

2. Acute or chronic glaucoma of other origin finds its initial cause and beginning in the digestive tract.

3. A departure from the normal physiological processes in the digestive tract intoxicates slowly, progressively, and accumulatively both the vascular and the nervous systems, producing a degrading tissue-change in various organs; and interstitial ophthalmitis (glaucoma), an interstitial nephritis, etc., which may be precipitated into a violently active form by injury, exposure, a more than usually indiscreet meal, or by a severe emotional crisis.

4. That chronic simple glaucoma consists in a hyperplasia of connective tissue, involving ultimately the whole bulk, and cannot be cured by operation.

5. That the acute form is vascular in character, and may be engrafted upon the chronic form.

6. That to meet the indications on this basis we must begin with the beginning of the disease, and correct individual habits.

In the way of specific measures, Richey recommends in acute glaucoma the general hot bath, the use of a myotic with taxis of the eyeball, the prompt exhibition of colchicin, the hot bath repeated after several hours, if necessary, always keeping the patient warm after it; after gaining control of an attack, prophylaxis, as in the case of chronic simple glaucoma; in chronic glaucoma, baths, always hot, several times a week, in a warm room, and immersing the whole body. The bath need not be hot enough (102° to 104°) or continued long enough to produce sweating. A weak myotic collyrium must be persisted in, with daily taxis for a few minutes, until the tension is normal and remains so. A mixture of sodium salicylate, ammonia, and taraxacum should be pushed to the point of physiological tinnitus; and continued as long as necessary, except suspending it to combat symptoms of irritable glaucoma that may arise, with colchicin, if it continues to act well. The intestinal tract must be soaked with hunyadi jamp, three or four ounces being taken at bedtime, and repeated every night, perhaps in less quantity, until the stools become yellow.

STERILIZED WATER IN THE TREATMENT OF INFANTILE DIARRHEA.

Watu (Thèse de Paris, 1896—7, No. 40, ii) advocates the treatment of the above-mentioned disease by a regimen of boiled water, cooled to a suitable temperature, and given in small quantities every hour or half hour, or as thirst demands, to the exclusion of all food, for eight, twelve, or even twenty-four hours. This mode of treatment is a means of diluting the irritating secretions, dislodging the débris of decomposed alimentary matter retained in the folds of the mucosa of the canal; it also increases the pressure in the bloodvessels, and by dissolving the toxins attached to the formal elements, carries away and eliminates the poison from the system, changes the morbid character of the stools, and effects a reduction of the temperature and recovery, especially when administered in acute cases at their commencement, and in children not very strong.—British Medical Journal, April 17, 1897.
CHEMISTRY OF THE THYROID GLAND.

R. Hutchinson (Jour. of Phys., XX, No. 6, pp. 474-496) states as follows:

1. The thyroid contains two proteids—a nucleo-albumin and the colloid matter.
2. The nucleo-albumin is present in small amount, and is probably contained in the cells lining the acini. As far as it has been investigated, it does not differ from other substances of the same class.
3. The colloid is present in large amount, and is contained in the acini.
4. It contains a small amount of phosphorus and a considerable proportion of iodine.
5. It does not yield a reducing substance on boiling with mineral acid, nor can mucin bases be obtained from it.
6. It is, therefore, neither allied to mucin, nor is it a compound of true nuclein.
7. Neither does it contain parameculin.
8. On gastric digestion, it is split up into a non-proteid and a proteid part. This decomposition occurs very readily.
9. Both of these parts contain iodine, but the non-proteid much more than the proteid element. The former contains all the phosphorus of the original colloid.
10. The colloid matter may, therefore, be provisionally regarded as a compound proteid of peculiar constitution.
11. The ordinary extractives are present in the thyroid in fairly large amount. Whether any hitherto unknown amide-bodies are present among these must be left undecided.
12. The colloid matter is the only active constituent of the gland.
13. Both the non-proteid and the proteid parts of the colloid are possessed of activity, but the former in much greater degree than the latter.

CLEANSING AND CLEANLINESS IN ABDOMINAL SURGICAL OPERATIONS.

Lawson Tait (Medical Record, Dec. 19, 1896) in an interesting paper on the above subject, gives the following directions:

First of all, if an operation such as the removal of an ovarian tumor has been conducted so well and so fortunately that nothing has entered the peritoneal cavity, the wound ought to be closed at once without sponge or anything else entering it.

If, on the contrary, a mess has been made inside, it must be cleaned out; and the question is to decide on the best method, and the weight of argument should always be against the use of sponges—they are so inherently dangerous. Yet their use is often essential; thus, in separating adhesions of the omentum to a tumor nothing displays the ability and dexterity of a surgeon so much as the rapid folding up of a dry sponge in the damaged apron; or, if the adhesion of the appendages to the pelvic wall bleed freely, the pelvis must be packed, and the packing will probably remove much dirt with it.

Until two years ago the author always used sponges for this purpose, and would often have six or eight sponges squeezed tight down in the pelvis; now he uses iodoform gauge for this purpose. Who it was who led us to make this important advance he does not know; but it is one of real value, for iodoform gauge stops oozing from parietal and visceral surfaces in a way that nothing else will do, save perchloride of iron. If, however, a ligature has cut through a rotten parietal, or a vessel has escaped the forceps and ligature and cannot be found, washing out with a stream of clean water will speedily display the source of the bleeding and enable the vessel to be secured. He does not combine the two processes if he can help it, for they do not generally aid one another.

As Tait believes that pus is a substance already dead and generally decomposing, he takes the utmost care to cleanse it all away, or anything which from his view more or less imitates it, such as loose blood-clot and blood in solution. The method to be employed in this case is the continuous...
stream; the best way to serve this purpose is simply to reverse a stream of common tepid water through one of his ovariotomy trocars, and he uses a large one if he wishes to dislodge and wash out loose clots by means of a large volume of water issuing from a large tube; or, on the other hand, if he wants to wash carefully every inch of the peritoneal surface, he uses a small tube with a gently flowing stream. If the tubes are not handy—and in our worst emergencies, like ruptural pregnancy they may not be—a very efficient substitute, is to open the wound as widely as possible, pull up the parietals, and pour in with cautious violence one or more jugfuls of tepid water, insert the right hand in the abdomen, and with the left close the wound round the wrist as closely as possible. The process of washing may then be carried out as fully as is considered desirable. If a tube of the Tait pattern can be obtained, it is better to use it, for it can be carried into every one of the complex interstices of the peritoneum, and the washing be thereby made most thoroughly; but the inexperienced operator should be cautioned against using a double tube for entrance and exit, as has recently been recommended. This is a new proposal, and when such is used the stream does not get spread but returns at once, short-circuited, as the electricians say, and without doing much cleansing. Care must be used to have the temperature of the water not lower than 100°.

SUPERALIMENTATION IN TUBERCULOSIS.

Lorcher lays emphasis upon the fact that the food which nourishes and is suitable for a healthy man, is not sufficient for tuberculous subjects; they require superalimentation, which, being methodically administered, modifies and finally greatly exceeds the amount required for nutrition.

This principle, which was established by Debove, led to forced alimentation by gavage, and it has happened that patients attacked by unsurmountable anorexia have in this way recovered their natural appetites. These not uncommon examples would appear to confirm the opinion of Debove that there is no relation whatever between the appetite of a tuberculous subject and the digestive power of his gastrointestinal juice.

In his work on the treatment of pulmonary phthisis Daremberg cites two recoveries obtained by forced alimentation, one being that of a young physician in whom the disease had reached the stage of softening and who was unable to take or retain the slightest food. Superalimentation by gavage not only enabled him to bear without any ill effects an exacerbation of the disease six months after the beginning of the treatment, but also to resume his practice under unfavorable climatic conditions, and to eat normally. His relative recovery was maintained in good condition six years later.

The second case referred to an hysterical phthisical patient who rejected everything she swallowed and who was emaciated to a skeleton-like degree. After five or six gavages she was able to swallow without the tube, and seven years later her recovery still persisted. At present gavage is no longer resorted to except in cases of necessity, such as uncontrollable vomiting and absolute anorexia. It is nearly always possible to overcome the disgust of the patients for their food by persuasion.

Meat-powder now forms the basis of superalimentation, as it can be administered by the mouth. Nutritious in small quantities and assimilable without fatiguing the digestive organs, meat-powder forms the aliment par excellence of the consumptive; whether given alone, by gavage, or mixed with various liquids, to patients unable to eat and consequently doomed to an early death, or administered in conjunction with their ordinary food to patients having a good appetite, meat-powder is the only substance which allows of an assured and methodical superalimentation.

In apyretic tuberculous cases the matter is very easy, and they can be given large
doses of powder. Debove, Grancher, and Bouchard have noticed surprising improvement under these conditions. Even in cases where the patients had vesperal fever, with tuberculous infiltration or even softening, Daremberg has several times seen superalimentation rapidly bring up the general condition and cause the disappearance of the cavernous lesions. As for the patients having a fever, and who must not be overfed, no food is better calculated to antagonize the losses which expose these unfortunates to an early death. As stated by Debove, "we know what the future has in store for the consumptive who ceases to eat. He is consumed by the fever; has sudorific, intestinal, and bronchial losses; while his receipts are nil, and his expenses exaggerated."—La Médecine Moderne.

THE TREATMENT OF CHILBLAINS.

Dr. F. W. Forbes Ross applies the secondary current of the faradic battery from five to fifteen minutes, increasing the current gradually to high strength, the poles being in contact with the affected area, having previously dipped the electrodes in a saturated solution of sodium chloride. The tissues are gradually blanched, commencing after about five minutes. The itching is completely and promptly stopped by the first application, and a second, one or two days afterward, usually suffices for a cure. Seldom, if ever, does a third or fourth application become necessary.—The Lancet, 1897, No. 3832.

MALARIA AND MOSQUITOES.

It has many times been suggested that flies, mosquitoes, and other insects are active agents in the dissemination of such maladies as cholera, yellow fever, and malaria; and recent studies by Dr. Bignani, of Italy, have developed some interesting facts which confirm this view. It appears from these experiments that malaria parasite are not carried by the wind, at least to the extent generally supposed. If this were the case, they would be likely to be carried away by a good strong breeze blowing steadily for some days. If the mosquito acts in the capacity of a vaccinator, it is readily seen why the malaria parasite adheres so closely to given localities, since the mosquito avoids being carried off by the wind by hiding in thick grass, trees, and shrubs whenever the wind blows. The greater danger of contracting malaria through exposure to the night air is also thus explained. The mosquito is well known to be nocturnal in its habits. It always flies near the ground, never ascending to any great altitude in its flight.

The dwellers on the Roman Campagna, which is a well-known malarial region, elevate their houses upon high pedestals. The writer once saw a cottage perched upon the top of an ancient mammoth tombstone on the Appian Way near Rome. In this cottage dwelt an Italian peasant with his wife and little ones, who required the services of a ladder nearly twenty feet in length to reach their melancholy dwelling.

It has long been known that persons dwelling in malarious regions are less likely to take malarial fever if they protect themselves from the bites of mosquitoes. A missionary friend dwelling in one of the most unslubrious regions of Africa, where malarial fever is extremely frequent and malignant in character, in a letter not long since, expressed the view that malarial fever was sometimes the result of the stings or bites of ants.—Modern Medicine.

THE FUNCTION OF THE SUPRARENALS.

L. Szymonowicz (Arch. f. Phys., lxxv, Nos. 3, 4) reports three facts which throw much light upon the heretofore obscure function of the suprarenal capsules. They are as follows:—

1. The extirpation of both suprarenals causes a decided diminution of the blood pressure; the pulse becomes smaller.
2. Introduction of suprarenal extracts into the veins produces, chief of all, a decided increase of blood pressure, and increase of the heart's action.

3. The blood flowing from the suprarenal veins, when introduced into the circulation of another animal, causes the same phenomena as do the suprarenal extracts when introduced into the blood, but in a lesser degree.

The author concludes from these researches and those of Cybulski that: (1) the suprarenales are organs of undoubted necessity to life, being glands with an internal secretion; (2) it is their duty (especially of the medullary substance) to produce and transmit to the blood a substance which continually upholds the activity of the vasomotor nerve-centers, the vagus and the accelerator nerves, as well as the respiratory centers, and, in all probability, the centers controlling muscular tonicity.

Dubois has shown that the principal function of the suprarenales is to destroy toxins present in the circulation, especially those resulting from muscular and nervous activity. The glands contain a peculiar ferment which is capable of modifying organic poisons developed by the tissues or of bacterial origin. A considerable quantity of poisonous liquids is found in the glands.

**COCAIN IN SURGERY.**

The use of cocaine should not be abandoned because its irrational employment has produced deleterious results:

Always make a thorough physical examination of the patient before injecting the drug:

It should not be used in cases showing organic diseases of the brain, heart, lungs, or kidneys, or in persons of neurotic diathesis:

Children bear it fully as well as adults:

The patient should always be placed in a recumbent position prior to its employment:

Constriction should be used whenever possible to limit the action of the drug to a desired area:

Use a freshly prepared solution for each case:

Distilled water should always be employed, to which phenic, salicylic, or boric acid should be added:

A two-per-cent. solution has a better effect, and is safer than solutions of greater strength:

Never inject a larger quantity than one and one-eighth grains when no constriction is used:

About the head, face, and neck, one-third of a grain should never be exceeded:

When constriction is possible, the dose may be as large as two grains:

Every slight physiological effect is not necessarily to be taken as cause for alarm:

Cocaine does have effect upon inflamed tissues:

In case alarming symptoms occur, use amyl nitrite, strychnine, digitalis, ether, or ammonia.—*Clinical Journal* (London).

**NEW TREATMENT OF LEPROSY.**

I have treated two cases of leprosy by means of hypodermic injections of corrosive sublimate. This had previously been accidentally given to a case supposed to be one of syphilis, and which after its true nature was revealed proved to have been greatly benefited. In the two cases just mentioned the dose given was one-fifth of a grain injected into the buttocks. As a result I believe mercuric chloride is worthy of further trial, as the improvement was very well marked in both cases.—*Crocker*, in *The Lancet* (London).

**SERUM TREATMENT OF LEPROSY.**

This method, which originated with Dr. Carrasquilla, he has successfully employed in fifteen cases, and it promises to prove a panacea in this disease. The conclusions
from the cases treated are thus summarized in the Indian Medical Record:

1. The serum treatment overcomes the anesthesia more or less rapidly, in proportion to the extent and gravity of the lesions of the peripheral nerves.

2. It decolorizes the macules without obliterating them entirely; they become the seat of abundant desquamation.

3. It causes edema to disappear rapidly in some cases, slowly in others; the skin retracts, becomes wrinkled, and finally returns to its normal state when the edema has subsided.

4. The tubercles become flattened and softened, and disappear, either by absorption, by desquamation, or by suppuration, leaving marks to show their situation.

5. After suppuring abundantly, the ulcers heal with marvelous rapidity, leaving the skin sound.

6. The scars of old suppurative leprodermata become pale, and tend to assume a level with the surrounding skin.

7. The ulcerated mucous membranes hasten to cicatrize, become decolorized like the cutaneous macules, and regain their sensibility, while the tubercles disappear.

8. With the disappearance of the edema and the tubercles, and with the fading of the stains, the countenance grows thin, and loses its leonine aspect entirely.

9. The appetite is recovered, together with the capability of sleeping; there is cheerfulness and content replacing the previous profound depression, and lost hope is regained.

10. From the first serum injection administered to the patient, the morbid action of the bacillus leprae leaves, and no new manifestation of the disease shows itself.

MALARIAL HEMATURIA.

Summary of Treatment.

In the Alabama Medical and Surgical Age for August, 1896, Guice sums up his treatment of this serious condition as follows:

1. To control pain, restlessness, or other distressing symptoms, give hypodermically about a quarter of a grain of morphia, and repeat pro re nata, observing always that narcotism be not induced. Atropine is added to the morphia when indicated by the condition of the patient. The opiate is also vastly beneficial as a stimulant and regulator of the vaso-motor system.

2. Epsom salts should be given (particularly in the early stage) in full doses about every four hours until about six copious evacuations are obtained. Subsequently the bowels should be moved daily by the use of smaller doses of the salts. The active purgative effect produced by the magnesium sulphate is rationally one of the most important adjuncts to the treatment. The vigorous osmosis thus set up in the alimentary canal constitutes a valuable factor in relieving the congestion of the kidneys by lowering the vascular tension, and thus assists in controlling the hemorrhage. And the same osmotic action of the salts relieves the hepatic engorgement; in fact, all the organs supplied by the portal system are thus relieved or largely benefited. The purgation also tends to relieve the nausea and vomiting and otherwise to assist in placing the alimentary system in condition to retain and assimilate both food and medicine.

3. Turpentine is given early in the attack in the dose of ten drops every three or four hours, and continued till the urine is clear and the patient beyond the period of danger. It is an axiom with those best acquainted with malarial hematuria, that the oil of turpentine is by far the best remedy for the renal hemorrhage. And, aside from its hemostatic action, turpentine is a reliable diuretic, and thus renders additional service in preventing the suppression of urine. It is also a valuable vaso-motor stimulant, and thus fills another important indication, especially in the graver types of the disease.
4. Tincture of chloride of iron and solution of arsenic are given in combination, and operate to improve the condition of the blood and tone up the failing vital forces. The arsenic also acts specifically to counteract and destroy the germ of malaria. Eight to ten drops of the iron and two to three of the arsenical preparation should be given every three to four hours, and continued until convalescence is fully established.

5. In malarial hematuria the patient cannot be considered free from disease or exempt from relapses even after he has reached the stage of advanced convalescence. In truth, he is then, in most cases, only restored to the condition of malarial cachexia, with such additional damage as may have resulted from the exacerbation which precipitated the hematuria. Unless the patient receive proper treatment at this stage, he will continue in a state of malarial cachexia or probably suffer a recurrent hematuria. In all cases, therefore, the patient should remain under the care of the medical attendant, avoid exposure and violent exercise, and have nourishing food and comfortable clothing; above all things he should continue, for not less than thirty days, such treatment as is best adapted to the cachetic condition. Guise has used with unfailing success, in such cases, a combination of iron, quinine, and arsenious acid. The formula given in the case reported is a good one. Should the patient be unable to take pills or capsules, the following combination will be found effective:

**B** Quinine sulphat., dr. j
Tinct. ferri chlorid., f. dr. v
Liq. acidi arseniosi, f. dr. iss
Potass. chlorat., dr. j
Syr. zingib., q. s. ad f. oz. iv

**M. Sig.**: Teaspoonful in water thrice daily, after meals.

The foregoing treatment will prove effective, for this stage, in almost all cases, if strictly carried out for a sufficient period. And it is only reasonable that time should be required to correct the structural lesions existing in the spleen, liver, kidneys, etc.

The same is true of the profound anemia and other pathological changes in the blood which preceded and were intensified by the hematuric paroxysm. The treatment, then, should be pursued until the patient is restored to health, whether one month or twelve be required.

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**TO KEEP AWAY MOSQUITOES.**

A resident of New Jersey writes that a mixture of one part of oil of sassafras in five parts of alcohol applied to the hands, neck, and other exposed parts, will effectually keep away the most ferocious of mosquitoes. The application should be renewed every two or three hours.

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**THE INTERNAL BATH IN TYPHOID FEVER.**

It is interesting to note the increasing number of physicians coming forward to champion the use of water in typhoid and other febrile conditions. Recently a very interesting discussion occurred at the French Therapeutical Society with reference to the treatment of typhoid fever by so called "internal baths." We quote a portion of the discussion, as follows, from the *Medical Week*:

"Dr. Duchenne: It is frequently a difficult matter in the country to treat typhoid fever by Brand's method. In such cases, the ingestion of large quantities of liquids, associated with copious cold water enemata, exerts a very favorable influence on the affection.

"The patient should drink from 3 to 3½ liters of liquid daily, milk or refreshing beverages, but no broth, in view of its toxicity.

"This treatment has been employed in Brittany with fifty-four patients suffering from typhoid fever of variable degrees of gravity.

"Deducting slight cases, there were only two deaths among thirty-seven patients.

"Dr. A Robin: Dr. Duchenne's method of treating typhoid fever confirms the views which I expressed in 1877 as to the
favorable effects of the ingestion of liquids in this disease. The principal effects of this "drainage of the system" by means of large quantities of liquids is to carry off the toxic wastes and to favor oxidation. The patient should therefore be given as much liquid as he can take.

"Dr. Bolognesi: Juhel-Rénoy showed that cold enemata are inactive in typhoid fever, and possess neither diuretic nor antithermic properties, they being of no use except to combat the constipation. With regard to the ingestion of a large quantity of liquid, I think it must be more difficult to make a patient drink against his will than to administer baths. In my opinion, so-called "internal baths" cannot be compared with cold baths, administered externally, as a method of treating typhoid fever."—**Modern Medicine.**

**BEDBUGS AND DISEASE.**

During the typhus epidemic in Odessa the disease was located mostly in dirty and crowded boarding-houses, full of vermin. Some bedbugs were put with spirochetes and starved for several days, after which the bugs were put upon the skin of a patient, under a small glass bell, during an attack of relapsing typhus. When the insects were satiated with blood they were crushed between two glass slides and examined, after slightly staining them with gentian-violet. The blood of the bugs contained many spirochetes, which retained their form after eighteen hours.

Some of the starved bugs were allowed to suck the blood upon a shaven spot on a monkey infected with typhus, then crushed, and the blood injected under the skin of a healthy monkey. Sixty-four hours later spirillo were found in the blood of the latter. Thus among many other agents bugs may play a rôle in transferring disease.—**Tiktin,** in *Meditzinskoye Obozrenye.*

**TO CURE ITCH IN TWO HOURS.**

Employ fresh sulphuret of calcium made as follows:—

℞  Sulphur (flour), 3 ounces.
℞ Quicklime, 6 ounces.
℞ Water, 2 pints.

Boil together till combined, then allow to cool and settle. Decant and preserve in hermetically sealed bottles.

**Application.**—Rub patient all over with soft soap for half an hour, then place in tepid water bath for another half-hour. Next rub over with the solution and allow it to dry on the skin for a quarter of an hour. Complete by washing in the bath—**Hieminkx (Belgium).**

**A METHOD FOR STAINING THE MALARIAL FLAGELLATED ORGANISM.**

Patrick Manson, in the *British Medical Journal* of July 10, 1897, describes the method as follows: Take thirty or forty strips (3 by 1 inches) of thick blotting-paper, each having an oblong hole (1 by ¾ inch) cut lengthways in its center; slightly moisten with water and lay in rows on a sheet of window-glass.

A patient in whose blood the crescent form of the malarial parasite abounds is selected. His finger is pricked, and a minute drop of blood, the size of a large pinhead, is expressed. A clean microscopic slip is then breathed on once, and the droplet of blood immediately taken up by lightly touching it with the center of the breathed-on surface of the slip. The blood is now rapidly and somewhat unevenly spread out with the needle so as to cover an area of about ⅓ by ½ inch. Immediately the slip is inverted over the blotting-paper cell, and pressed down sufficiently to secure thorough apposition of the slip to the paper, without at the same time bringing the blood in contact with the moistened paper forming the wall, or with the glass forming the floor of what is now a very perfect moist chamber.

The rest of the paper cells are rapidly covered with blood-charged slips prepared in the same way. In from half to three quarters of an hour the slips are removed
and dried by gently warming them over the spirit lamp with the blood surface away from the flame. When dry, the films are fixed with absolute alcohol, a few drops being poured on each. After five minutes the alcohol is dried off, and a few drops of weak acetic acid (ten to twenty per cent.) are laid on the film and left long enough thoroughly to dissolve out all the hemoglobin. The slides are then washed in water and dried. They may now be stained with various reagents. So far, I have obtained the best results from weak carbolic-fuchsin (twenty per cent.) and prolonged staining.

The stain is dropped on the slip and covered with a watch-glass; after 6 to 8 hours it is washed off, the slide dried, and a cover-glass applied with xylol balsam.

Most of the slides will show numbers of spheres and several or many well-stained flagellated bodies. Very few crescents remain untransformed. If the slips are removed and dried in from five to ten minutes after being placed on the blotting-paper cells, only crescents, ovars, and spheres will be found. If they are left for three quarters of an hour to an hour, free flagella and what Ross calls spent pigment may be found, the latter sometimes enclosed in phagocytes. Occasionally flagellated bodies are also found partially included in phagocytes.

BLUE PYOKTANIN IN THE TREATMENT OF INOPERABLE MALIGNANT GROWTHS.

In the Journal of the American Medical Association of June 26, 1897, Slach describes his use of pyoktanin in the treatment of tumors, and adds a word as to the technique of the treatment, which varies with the location. The injection should be made under strict aseptic and antiseptic precautions. The skin where the needle is to enter should be thoroughly cleansed with bichloride solution. The needles may be long, short, or curved, but must not be of too small caliber, and should be boiled after using.

The author used the large hypodermic syringe and injected from one to two cubic centimeters of a two-per-cent. solution. This is more than twice as strong as recommended by Drs. Meyer and von Mosetig. The patient is given the pyoktanin pencil, one-per-cent, solution, or a two-per-cent. powder, as the case may require, to apply daily.

Thus far he has seen no untoward effects from its use. The only objection to it is that it stains everything with which it comes in contact, but what is the soiling of linen when compared with the following advantages: (1) Its analgesic effects are marked, as patients soon rest easily without the aid of morphone; (2) "the improvement of the function of the part involved" — the man who could hardly speak so as to be understood talked without difficulty after the third injection; (3) the improvement in general health which has taken place in all five of the writer's cases; (4) the element of hope that is added to the life of suffering man, brightening the remainder of his sojourn.

While he does not claim to have cured his patients, still he has relieved their pain, and rendered them less burdensome to themselves and their friends. He agrees with Dr. Meyer in von Mosetig's conclusions, "that it has been proved by practise that parenchymatous injections of inoperable malignant growths with pyoktanin can produce disappearance of malignant tissue, though in exceptional cases, and can heal neoplastic ulcerations."

Pyoktanin, when properly used, is certainly a palliative treatment for cancer that deserves an honest, hopeful trial, for by its use many have been relieved and some cured.

THE BETTER OPERATION FOR HEMORRHOIDS.

Vaux (The Canadian Practitioner, Dec., 1896), Resident Assistant of Mt. Sinai
Hospital, New York, describes the routine treatment in that institution as follows:—

On admission the patient is given a bath, and if hemorrhoids are strangulated an icec
bag is applied to anus; should they be merely smarting and inflamed, a wet Thiervers

operation

ly dressing

in treatment dilates;

compound of and

a high enema, followed by a low one at 7 a.m.; if necessary these are repeated, the test being that the fluid comes away absolutely clear. No food is given on the day of operation. The perineum is shaved in the ward, but the scrubbing up of the patient is in the operating room. When the patient is anesthetized, the first assistant dilates the sphincter and thoroughly cleanses the rectum with soap and water, by means of a sponge and holder, and then it is irrigated; the perineum and thigh are scrubbed with soap and water, followed by ether and bichloride of mercury; wet bichloride towels are laid over the pubes and around the field of operation. Absolute antiseptic precautions are observed, the preparation of hands being the usual form for operations, and all instruments most carefully sterilized. There is no room in Mt. Sinai for the idea that the rectum is dirty, and therefore hands and instruments may be dirty too; as a consequence, sloughing or pyemia is almost unknown. A good-sized sponge with string attached is wrung out of bichloride and introduced high into the rectum, and the assistant, grasping the string, makes sufficient traction to protrude the internal piles.

The technique of the operation may be summarized under three headings:—

1. Apply the clamp in the long axis of the hemorrhoid so that the scar may be a radiating one, and thus avoid any chance of cicatricial stenosis.

2. Dip the distal end of the clamp well down, so as to include the mucous membrane of the hemorrhoid in its entire length, though only clamping off about one-third of its substance. Be sure that no skin is included, otherwise the subsequent edema will be very great and time of recovery lengthened.

3. Sear the hemorrhoid slowly from above downward, layer by layer, the cautery being only at a dull red heat; by observing these precautions any subsequent hemorrhage is avoided.

4. Insert a tampon cannula as described below, which must not be removed till expelled by the first stool.

When the anesthesia wears off the pain will be intense, and opiates must be given. At 5 a.m. on the morning of the third day a half-ounce of magnesium sulphate is given, and at 7 a.m. an oil enema is administered through the tampon cannula; this is important, as it saves much pain when the tampon is expelled. The enema being expelled brings the cannula with it, and the first stool is comparatively painless. On each succeeding morning a half-ounce of magnesium sulphate is given, and on the fifth day the edema will have disappeared in great part, and by the eighth day the patient is ready to go. No dressing save a piece of iodoform gauze and a T-binder is used. In a ligature operation the bowels are moved on the fourth day, and in a Whitehead on the fifth.

The tampon cannula mentioned above is made by taking a piece of half-inch rubber tubing, sterilizing it and wrapping around it several layers of iodoform gauze; it is then anointed with sterilized vaselin, and after the operation, is inserted in the rectum. The tampon cannula serves a double purpose: it allows the escape of secretions and flatus, so that all danger of retained hemorrhage is avoided; and also allows the primary enemas to be given without much pain.

In conclusion, he reviews the advantages of the clamp and cautery. It is antiseptic; not only can the clamp be readily sterilized, but the cautery itself is the most powerful germicide; there are no sloughs to separate
as in the ligature operation; there are no ligatures or sutures to offer any chance for infection; it is a radical cure; the operation is a rapid one; the time of convalescence can be definitely fixed—the eighth day. The operation, which was formerly but little employed, is now in high favor in the New York hospitals. The record of hemorrhage, pyemia, or death is almost negative. In five hundred cases operated on in Mt. Sinai, by the above method, there has not been a single death. One case of pyemia from which the patient recovered is recorded, and a few slight hemorrhages; and, so far as can be ascertained, there have been no recurrences.

**INFECTION BY FLIES.**

An outbreak of cholera in the gaol at Burman is described by Surgeon Captain W. J. Buchanan, M.B., who attributes it to infection carried by flies. Although no bacteriological investigation was made, and thus no actual proof was obtained that the food had become infected in the way suggested, the circumstances of the case as detailed by him make it extremely probable that the cholera microbes were carried by flies from some infected huts outside the gaol walls to the place where the prisoners who suffered were fed. The prisoners were divided into two gangs, each of which was fed separately and had its food separately cooked. The prisoners of the batch in which the disease occurred were fed in a part of the gaol enclosure near the infected huts outside, while those in the other batch were fed at the opposite extremity of the enclosure, and it is to be noted that the wind was blowing strongly from the infected huts towards the feeding place of the gang which was attacked. It is, therefore, considered probable that swarms of flies were blown from these huts, and on reaching the trees and high gaol wall obtained shelter from the storm and settled on the food exposed in plates before the gang of prisoners who were feeding at this corner. It is clear that we are as yet only at the fringe of this question of conveyance of infection by winged insects. The demonstration which was given last year at the Royal Society of the power possessed by flies not only of carrying bacteria about with them for considerable distances, but of retaining the infection for considerable periods of time, makes it extremely probable that these animals are the active agents in the production of many as yet inexplicable outbreaks of disease, and strongly suggests the possibility of their being the mechanism by which the aerial convection of small-pox is brought about.—*Indian Med, Gazette.*

**IS THERE A URIC ACID DIATHESIS?**

In spite of multitude of researches into the nature and causation of gout and allied manifestations, so much obscurity remains, that inquirers on fresh lines are welcome, even when one is unable altogether to acquiesce in their "statement of claim."

To Dr. Haig, we believe, is due the credit of having been the first to call attention to the fact that large quantities of uric acid are directly introduced with and in the ordinary food of man. This may be eliminated in the urine, failing which, over-saturation of the blood is followed by the deposition of the acid in the tissues. This is a distinct advance in our knowledge of the pathology of gout, and what may be termed uric acid manifestations; but Dr. Haig proclaims that virtually all the mischief-making uric acid is thus introduced, the quantities produced in the normal healthy human body being inadequate to the production of morbid symptoms. He admits, however, that uric acid may be, and indeed is, normally produced in the normal organism, in the proportion of 1 part to 33 of urea. He believes the ratio to be unalterable, but this can only be proved by prolonged observation by inde-
pendent observers. In any event, the fact that uric acid can be elaborated in the human body renders it possible, if not probable, that under particular conditions the output may be so increased as to constitute a pathological condition. We are not concerned to deny the importance of discarding any avoidable addition to the proportion of uric acid already present in a given case, but it has not yet been conclusively proved that it is impossible, even in the absence of alimentary uric acid, for sufficient quantities to be formed to give rise to a deviation from health. All animal tissues contain uric acid or substances of the xanthin group, and the alkaloids of tea, coffee, and cocoa are also xanthins, and therefore to be avoided. The ideal diet of a person who would still be currently described as suffering from the effects of the uric acid diathesis would have to be restricted to milk and cheese, bread stuffs and cereal foods and the pulses, such as peas, beans, lentils and the like. The exclusion of articles of food containing uric acid, in association with the administration of drugs which are recognized to facilitate the solution of this intractable substance, allows of the excretion of arrears of uric acid, and when the surplus has been disposed of the effects disappear. Sublatâ causâ tollitur effectus. There are, however, a number of facts which do not fit in with Dr. Haig's hypothesis. Stone, for instance, is very common in certain parts of India, where the natives nevertheless live exclusively on just such a diet as that recommended by him by reason of its freedom from uric acid constituents. Then, again, certain subjects, especially children continue to excrete large quantities of uric acid in spite of the most careful dieting, and in certain diseases, such as leucocytæmia for instance, the excretion is always largely in excess, whatever the diet. The first thing to do in elaborating such a hypothesis is to obtain a general agreement as to the facts on which it is based, and sufficient time has not yet elapsed since these ideas were promulgated for this to have been accomplished in respect of the conditions under which uric acid production is modified by diet. It is quite possible, as suggested by one of the speakers during the recent discussion at the Medical Society of London, that there are two distinct conditions which have as a common factor an excessive excretion of uric acid, one in which the overproduction is the result of dietetic errors, and is consequently readily amenable to dietetic measures, and a second in which the overproduction is due to a hereditary defect in tissue metabolism, and is only modified by diet to a limited and variable extent. If this be so, the term diathesis will have to be restricted to cases coming into the second group.—Medical Press, December, 1896.

A SUBSTITUTE FOR COD-LIVER OIL.

Although children take cod-liver oil much more readily than adults, one occasionally encounters patients with whom it does not agree. It is of interest, therefore, to note the results of a trial made by Noorden in the Frankfort City Hospital of sesame oil, which is of a bright golden-yellow color, odorless and tasteless, or nearly so. In only one of several hundred cases was it necessary to discontinue because of vomiting and diarrhœa. Most of the children were scrofulous or suffering from debility following some one of the acute infectious diseases. In all, with the one exception, marked and rapid improvement followed. The usual dose was two or three tea- or tablespoonfuls a day, according to age, and not infrequently double this amount was given. The cost of the oil is about thirty cents a quart.—Pediatrics.
The past summer in America has been marked by the number of important meetings of medical and other scientific societies that convened there during this period. Judging from the large number of papers presented and the amount of discussion upon every subject affecting the physical well being and health of mankind one would expect to see that the sick rate, not to mention the death rate, of the civilized world is noticeably lessened. And this we believe will prove to be the reward of the indefatigable, unselfish labors of our medical scientists. "Medicine is not an exact science" can no longer truthfully be spoken, for while something is still left to be desired in this direction in the domain of special therapeutics and in a less degree in other departments, yet most of what the successful physician and surgeon requires to know is "exact science." No science can be said to be mathematically exact, and very much of what is now "medical" science is as exact as any other. One is impressed with this thought in perusing the papers read at these various meetings.

One of the more important of these gatherings was the adjourned meeting of the British Medical Association, which convened at Montreal on August 31 and September 1, 2, and 3. The business meeting of this Association had been held in London on July 27, and the Montreal meeting was "for the promotion of scientific and social intercourse." This is the first time that this great Association, whose membership numbers some thirteen thousand, has met on American soil. And we are pleased to see that it was largely attended by medical men from the United States, and that such men as Osler of Baltimore and Herman M. Biggs of New York gave the important addresses on medicine and public medicine respectively. One thing especially noticed by observers from the United States was the striking similarity between the meetings of this Association and those of their
own medical congresses. There was nothing in the character or appearance of the members, the conduct of or attendance at the meetings, the value of the papers read, or the tone of the discussions to mark any difference between this and the session of the Congress of Physicians and Surgeons. And this is not because the one is paterned after the other, but it is the result of oneness of purpose, a common origin, practically identical institutions, and similarity in thought.

The Montreal meeting was opened on Tuesday, August 31, by an impressive choral service in the English cathedral at 12 m. In the afternoon the president of the council, Robert Sanndby, M.D., F.R.C.P., of Birmingham, led the president of the association, Dr. Thomas G. Roddick, to the chair. Addresses of welcome were made by the mayor of Montreal, the lieutenant-governor of the Province of Quebec, the Earl of Aberdeen, and others. Dr. Roddick then delivered his presidential address. On the evening of August 31 Professor Charles Richet, official delegate from the French government, delivered an address at Laval University. The sections of medicine, surgery, public medicine, obstetrics and gynecology, pharmacology and therapeutics, pathology and bacteriology, psychology, ophthalmology, laryngology and otology, anatomy and physiology, and dermatology held meetings, which were well attended, on the mornings of September 1, 2, and 3. Subjects that commanded special attention were the dietetic treatment of diabetes, arthritis deformans, the surgical treatment of appendicitis, the choice of an anesthetic, the utility of quarantine, mandatory measures in measles, whooping-cough, tuberculosis and leprosy, hyperemesis gravidarum, vaginal vs. abdominal hysterectomy, treatment of insomnia and of syphilis, Widal's test, surgical gynecology in the insane, heterophoria, color perception, turbinotomy, and causation of the heart-beat. On Wednesday afternoon the address in medicine was given in Dr. Osler's inimitable style. He was spoken of on all sides as "our Osler," for he belongs to the entire English-speaking race, whether in America, Canada, or other portions of Greater Britain. On Thursday afternoon Mr. Mitchell Banks spoke on "The Surgeon of Old in War" and the foundation-stone of a new building of the Montreal General Hospital was laid by the Right Honorable Lord Lister. In the evening the annual dinner of the association was partaken of at the Windsor Hotel. The scientific business was concluded on Friday, September 3, by an address on public medicine by Dr. Herman M. Biggs, of New York City. Social gatherings were held every afternoon and evening during the entire week.
A dinner was also given by the Montreal Medico-Chirurgical Society to Lord Lister on the evening of August 31, at which time an illuminated address was presented to him in recognition of the great work done by him for the profession and humanity in the inauguration of methods of antiseptic surgery, and congratulating him on having been raised to the high distinction of a peerage.

Another important meeting was that of the North American Conference of State and Provincial Boards of Health. Some of these Boards of Health are having a hard time of it in the United States in their contest with filth, ignorance, and "laissez faire"; but most of them are awake to the sanitary needs of the people, as is evidenced by the character of the subjects presented at this meeting. Among the interesting questions discussed may be mentioned the isolation of tuberculous insane; the restriction of tuberculosis by municipal ordinance; inspection of dairy cattle; the furnishing of diagnosis of contagious and infectious disease by the Boards of Health; mandatory measures in contagious and infectious diseases; embalming; vaccine farms; and the feeding of hogs on offal from slaughter-houses and cooked meat from knacker's yards. The work of these Boards is productive of much good to the states they represent, and it even touches a few in this extreme end of the world, who occasionally indulge in such things as Kansas City ham, Chicago tinned meats, or Elgin butter.

Two other meetings of far reaching importance were those of the American Association for the Advancement of Science, at Detroit, and the British Association at Toronto. The former, while not largely attended by the strongest men of science in America, accomplished much by its session. Not the least result to be attained by these meetings is education of the general public in scientific truths, thus doing away with quackery in general science, and concomitantly in medicine as well. It is to be regretted that our scientists do not do more in the way of general education. There is nothing upon which the world at large can be said to be more superstitious than upon the subject of science; and generally just in proportion as it approaches medical science, which means the knowledge of one's own body, how to care for it and treat its ills, this superstition becomes the more dense. And scientists could be of much aid to those who look after the public health and sanitation if they would give themselves more freely to the dissemination of scientific knowledge in a popular way.

The British Association had a much better session. A number of great names were represented at this meeting. There were Lord Lister,
the retiring President; and his successor, Sir John Evans; Lord Kelvin, and Michael Foster, the physiologist; Prof. W. Ramsay, the discoverer of argon; SylvanuS Thompson, the physicist, and the Rt. Hon. W. Bryce, the political economist. Prof. Foster's address was most timely, containing many notable utterances. He defined the position of the true scientist when he expressed the fear that at the present day many undertake a research, "not because a question is crying out to them to be answered, but in the hope that the publication of their results may win for them a lucrative post." The great progress made in the study of the conditions and aspects of life in the higher animal forms had rendered much more hopeful the study of life in its lowest and most generalized forms; so that there is good reason to anticipate that "in the immediately near future a notable advance will be made in our grasp of the nature of that varying collection of molecular conditions, potencies, and changes, slimy hitherto to the intellectual no less than to the physical touch, which we are in the habit of denoting by the word protoplasm." Here "the animal physiologist touches hands with the botanist, and both find that under different names they are striving toward the same end."

The addresses by Sir John Evans, Prof. Miall, Prof. Marshall Ward, and others were equally interesting, instructive, and useful. Upon the whole, the meeting was of much value, not only to the scientists themselves, but to the public as well.

The last association to which we will call attention is the American Public Health Association, which convened near the end of October in Philadelphia. The topics discussed covered a very wide range, and we will be excused if we give the full list. They were as follows:—

The Pollution of Water Supplies; The Disposal of Garbage and Refuse; Animal Diseases and Animal Food; Car Sanitation; Steamship and Steamboat Sanitation; The Prevention of the Spread of Yellow Fever; The Transportation and Disposal of the Dead; The Relation of Forestry to Public Health; The Nomenclature of Diseases and Forms of Statistics; The Cause and Prevention of Infectious Diseases; Public Health Legislation; The Cause and Prevention of Infant Mortality; The Transportation of Diseased Tissues by Mail; River Conservancy Boards of Supervision; The Period during which each Contagious Disease is Transmissible, and the Length of Time for which each Patient is Dangerous to the Community; Sanitation, with Special Reference to Drainage, Plumbing, and Ventilation of Public and Private Buildings; Some Method of
International Arrangement for Protection against the Transmission of Infectious Diseases; Disinfectants; and Existing Sanitary Municipal Organizations of the Countries belonging to the Association, with a View to a Report upon those Most Successful in Practical Results.

Special Committees had previously been appointed on all of these subjects, and the papers presented were in the shape of reports of collective investigation of each committee upon its own topic. This plan very much enhanced the value of the papers.

It is probable that something will soon be done on the subject of terminology. The members of the Committee have been asked to meet in Shanghai, next April, and it is to be hoped that much may be accomplished at that time in the way of settling this vexed question, and definite steps be taken toward preparing a suitable vocabulary and lexicon. The different members of the committee are at work on the terms relating to the various departments of medical science, and each one will doubtless be prepared to present a useful list of terms in the department to which he has been assigned, and also to give careful consideration to those presented by others. Every member of the Committee, without doubt, desires to see this question speedily settled; and while in all probability the two parties of Radicals and Conservatives are represented in this Committee, yet we feel that the radicalism of the Radicals and the conservatism of the Conservatives is not of an extreme kind, and mutual concessions will readily be made. As a Radical-Conservative we maintain that no term already in use should be discarded without ample reason for doing so, but that no faulty nor objectionable term should be retained simply because it has already been used by translators. The best terms from a philological and etymological standpoint, and the most convenient terms to use in teaching, is what is needed.

In deciding upon terms, however, it will be necessary to fix upon a Chinese dictionary as the authority for the true meaning of a character. Giles and Williams both give terms that have been adopted by foreign translators, and do not indicate in any way that they are such, thus leading the unwary into error. A case in point is a very common anatomical term upon which the writer had some doubts; and when he came to look it up in the Chinese dictionaries, could not find it in that combination, and he is assured by Chinese scholars that it occurs nowhere in Chinese literature, and is not so used by the Chinese themselves; yet both Williams and Giles give it without a word to indicate
that it is practically a new term. A standard Chinese dictionary, like Kanghi's, should be made the ultimate authority in this direction.

The proposition of Dr. Cousland, made in his article on Medical Education in this number of the Journal, to appoint an Educational Committee, meets with a hearty second from us. It had been in our mind for some months to propose the appointment of a Publication Committee to whom might be referred the questions of the publication of text-books, the publication of the Journal, that of a journal in Chinese when we are ready for it, the collection of funds for these purposes, and the like. Such a Committee could also indicate what text-books and other works are needed or desirable, and could arrange for their translation or preparation. This educational committee will cover a wider field, and if rightly constituted will do much for the advancement of medical education among the Chinese.

A journal that must depend for its original articles upon a not too numerous clientele of very busy men necessarily will be subject to delays and disappointments. And this will especially be the case when articles command no honorarium. The lack of contributions to our Journal is not occasioned by the lack of material for articles; for nowhere in the world has the physician a better opportunity for original investigation, the study of rare maladies, or collective work on the commoner difficulties, than here in China. The reasons that these opportunities are not more fully utilized are various. For one thing, the medical missionary is much taken up with the evangelistic side of his work, and this, on account of the lack of time for both, naturally quenches the scientific spirit. And we are not at all disposed to find fault with such persons; this is the work they have come to do. Other reasons that may be mentioned are the great amount of secular work, the management of petty details about a hospital, the time required for the training of students and helpers, the lack of suitable apparatus and room to carry on such investigation, and the like.

However, there still remains ample material to make the Journal most useful and interesting to the members of our Association if we could compass some method of securing it. Those who have been our most faithful contributors are among the busiest of our missionary body. They have felt the importance of keeping up the interest of the Journal and have acted accordingly. Our September number failed to appear
solely on account of the lack of sufficient original matter. And we do not feel inclined to apologise for the delay in the appearance of the present issue since this was occasioned primarily by the same condition of things, and secondarily on account of the fact that the editor has been taking over the management of one of the largest educational institutions in China, and in addition to his usual duties has been trying to keep up the duties and the class work of the retiring President for the remainder of the year.

It has been our desire to get a number of persons who would be willing to undertake the digesting of medical and surgical progress under its various departments. Eight or ten persons could do this readily, and with a very small expenditure of time, if each person took charge of some one special department. One person has not the time for it. He cannot wade through the literature of a quarter year and properly digest it for the journal in the time at his disposal. So the scissors must be brought into requisition with the result that, instead of having a broad view of medical literature for the quarter, one gets only excerpts from paragraph notices in other journals. Extensive articles and papers on important subjects must be passed over in silence. We have asked for volunteers for this work, and have specially requested certain persons to take portions of it, but as yet have come to no satisfactory arrangement.

Unless the members of the Association desire the Journal to remain of its present size and are willing to come up to the help of the editorial staff in making it of interest to all, its size will be somewhat reduced, and the other portions will be kept in some definite proportion to the amount of original matter. We will endeavor to get it out on time hereafter, and its size will depend upon the amount of matter we have in hand when the time comes to go to press.

Two New York physicians, well known to nearly every possessor of a medical library in America, died within a few days of each other in June of the present year. These were J. Lewis Smith, the author of the well known Treatise on the Diseases of Children, and clinical professor of diseases of children in Bellevue Hospital Medical College; and William Thompson Lusk, professor of obstetrics, diseases of women, diseases of infants, and clinical midwifery in the same institution, and especially well known on account of his most excellent text-book on The Science and Art of Midwifery, a work that has passed through several editions, and has been translated into several European lan-
Editorial.

Dr. Smith was born in 1827, graduated from Yale College in 1849, and took his medical degree from the College of Physicians and Surgeons, New York, in 1853: since which time he has devoted himself to the practice of medicine in New York City, giving special attention to the diseases of children. Dr. Lusk was born in 1838, entered Yale University in 1855, but did not complete his course. He studied medicine in Heidelberg and Berlin for three years, and then took his degree in medicine from Bellevue Hospital Medical College in 1864. Later he returned to Europe, prosecuting his studies in Edinburgh, Paris, Vienna, and Prague. After returning to the United States he became professor of physiology in Long Island Medical College, which position he held for four years, and was concomitantly lecturer on physiology in Harvard Medical School for one year. In 1871 he was appointed to the position in his alma mater which he held for the remainder of his life. He died suddenly of apoplexy on June 12, just three days after Dr. Smith passed away. The profession has suffered a serious loss in the death of these two men, and the world is so much the poorer by two kindly, genial, sympathetic physicians.
The question of the abuse of medical charity has been largely discussed in the medical periodicals of Great Britain and America during the last few months. There is a general feeling that large numbers of well-to-do people, and even those who may be said to be in affluent circumstances, accept free treatment at the dispensaries and hospitals supported by public charity, thus filching from the really deserving poor and crowding them out of the place provided for them. In the home lands there are many who really deserve such aid, but who struggle with poverty and manage to pay their doctor bills, or get along without treatment, because their self-respect will not allow them to ask or accept charity; while on the other hand, there are those who are amply able to pay for all they get in this direction, but who seek the public dispensary on the occasion of every indisposition however insignificant. These, of course, are the extremes. But it is sad to say that the latter class is very common, and seems to be on the increase. Undeserved gratuity cannot be conferred without pauperizing its recipient. Every true man likes to feel that what he receives is his by right; and if misfortune drives him to seek charity he will only do it to relieve his present necessities. The spirit that allows a man to seek or receive unneeded charity is either the spirit of a tramp or that of an anarchist. No one can continue to do this and retain his self-respect; and just in proportion as he loses respect for himself he loses it for others and for his Maker. It is a serious question how far the indiscriminate free, or practically free, dispensing on the part of our medical missionaries aids in the propagation of the Gospel. The situation is relieved somewhat in China, as compared with England or America, by the fact that so large a per cent of the population are poor beyond ability to pay for scientific treatment, while comparatively few of the rich as yet come to our clinics or desire our treatment. But we believe that the feeling is becoming prevalent among medical missionaries that a line ought to be drawn somewhere in the matter of free dispensing, and that more should be required to pay for what they receive. Just where to draw this line is the difficult question, and how to equitably adjust the matter, or how to distinguish between the undeserving and the deserving, those able to pay and those not able. Free and indiscriminate dispensing involves the assumption of less responsibility on the part of the physician, and is in other ways the easier method. But to the patient who is able to pay it is degrading; to the unworthy patient it is valueless from a moral standpoint; it involves the expenditure of much time and considerable sums of money for which there is no adequate return; and it often crowds out the
deserving poor, or leaves so little time for the consideration of his case and its treatment that he runs the chance of failing to get relief. We have long had the feeling that a more select clinic, made up of the really deserving poor and of those well-to-do people who take enough interest in the relief of their ills to pay for it, would be more satisfactory than that made up of the present mixed lot of all sorts and conditions.

It is interesting to notice just what phases of this question have most struck those who have had this subject under consideration in Western lands. As a résumé of what has been said by the many writers upon this subject we reproduce the following from the *N. Y. Medical Journal* of October 23:

"In a paper read before the recent meeting of the New York State Medical Association, Dr. Frederick Holme Wiggin, of New York, said that his object was not so much to present individual views as to cull from recent literature, both lay and medical, the opinions of many writers. He said that it was easy to demonstrate conclusively that, as at present administered, medical charity was demoralizing to both the recipient and the donor. Some idea of the alarming growth and extent of this evil might be obtained from the carefully prepared report of Dr. Stephen Smith to the State board of charities. Here it was shown that during the year 1895, 837,971 persons applied for and received free medical treatment at 105 dispensaries in this city; that 1,418,847 free visits were made by these applicants to these dispensaries; and that 78,000 persons received free board, lodging, nursing, drugs, surgical dressings, and treatment—in other words, that something more than forty-nine per cent. of all who lived within our borders had professed in one year to be unable to care for themselves. This should be contrasted with another statement by Dr. Smith to the effect that during the period from 1791, when the first dispensary was established in New York, to about 1870, the applicants for charity bore a ratio to the total population of 1.5 per cent.

Dr. Wiggin then went on to quote from an editorial in the *New York Herald* to show that Greater New York spent fifty millions of dollars every year on charities, and that, according to a conservative estimate, fully fifty per cent. of the donors' money was diverted from the purpose for which it was intended, and was practically filched from the poor, to whom it rightfully belonged. Again, according to one author, Dr. J. B. Huber, one might find in large numbers at dispensaries such people as actors, opera singers, gamblers, bar-tenders, policemen, farmers from out of town, prosperous business men and those owning houses, lawyers, and perhaps even a stray railway president. According to another author, Dr. George F. Shrady, fully fifty per cent. of the applicants in the reception room of a well-known institution which he dubbed "the diamond dispensary" were well dressed; ten per cent. were finely dressed; more than half the men bore no evidences of poverty; and among the women there was an attractive display of fine millinery—yet all obtained
the free treatment supposed to be given only to poor persons. A reporter on
one of the daily papers, describing what he had seen at a well-known clinic,
stated that not more than one in fifty was at all shabbily dressed; a large
majority were fairly well dressed; one-third of them were quite presentably
dressed, and perhaps one-fifth were positively well dressed. The reader
of the paper said that he knew of a man who paid an enormous rent
in a fashionable apartment house near Central Park, and who spent
many thousand dollars a year on living expenses, yet went to what Dr.
Shrady had so aptly termed "the diamond dispensary," on the plea
that his expenses were so heavy that he could not afford to pay a
fee to a doctor. Surely, the author continued, these instances certainly
showed the spirit in which charity was asked for and accepted; it was
largely a desire to save money, without apparently thinking that self-respect
was lost in the effort, or that a wrong was done to the really poor and to
the physician, who was certainly as much entitled to his hire as the
clergyman or other members of the community, as he, too, had social
obligations to fulfill. More than this, as Dr. Schweck had well said, in the
Philadelphia Press: "People of means who go to charity dispensaries and
receive treatment free of charge, representing themselves to be too poor to pay
for medical services, commit a criminal act, for they obtain what they are not
entitled to, and do it under false pretences."

Another and important aspect of this subject had been revealed in a
communication from Dr. G. M. Roe, medical superintendent of the Boston
City Hospital, to the Boston Herald. He said: "It is a generally accepted
fact among people who have had large experience in doing charitable work
that the first thing that a man or woman will accept as charity is medical
attendance. They will accept free service of the doctor when you could not
prevail upon them to accept rent or fuel, or anything of the kind, as a gift.
The acceptance of gratuitous medical attendance is the first step toward
pauperism. There is already a tendency toward what is generally known as
'nationalism,' a belief among the common people that the city and the State
owe them a living, and that medical attendance, among other things, should
be furnished them by common taxation, regardless of their financial standing
as individuals." Again, as Dr. J. J. Stevenson had expressed it in the Mail
and Express: "If recovery from disease is secured at the expense of self-denial,
the memory of the cost will lead, in ordinary cases, to care that a
recurrence of diseases and attendant expenses may be prevented. But if the
careless feel that treatment, medicine, and even diet can be had simply for
the asking, there can be no reason for resisting the natural tendency to
neglect the laws of health. ... It is not surprising that the reckless poor see
in such careless giving an acknowledgment of the unequal distribution of
wealth, and believe that it is founded on injustice; nor is it strange that the
anarchist's cry is not for opportunity to earn by labor, but for such distribution of wealth as may enable all to enjoy the luxury of idleness."

The following were the conclusions arrived at by Dr. Wiggin after a critical review of the subject: 1. That medical charity, as at present administered, is an unqualified evil, and is seriously menacing our existing social conditions. 2. That the application for free treatment of those able to pay the physician a moderate fee for his services robs the really poor. 3. That all medical charitable institutions should be under the direction and control of State and local boards of charities, which should have the power to enforce their rules. 4. That all applicants for medical charity should be investigated by local charity boards, and the unworthy excluded. 5. That no medical charitable institution should be allowed to charge nominal sums for medical or surgical service, nor should they be allowed to charge for medicines or appliances. 6. That all physicians connected with charitable institutions should be paid for the service which they render. 7. That it should be made a misdemeanor, punishable by fine, for any person to receive free medical treatment by reason of false representations as to financial condition. 8. That State or city aid should not be granted to private medical charities."

As evidence that these views are taking practical shape we just have to hand the statement that Dr. Steven Smith, who was recently elected President of the Board of Charities of New York City, is reported as having said that hereafter not one person who is able to pay for medical aid will receive free treatment at any of the city institutions.

This is an interesting and important question, and we would be pleased to see it fully discussed in its application to our medical missionary work in the columns of the Journal.

At the request of the Hon. Secretary of the Society for the Suppression of the Opium Trade we gladly reprint the following:—

REMINDER TO MISSIONARIES ON FURLOUGH.

The following circular has been issued by our Committee, on the suggestion of Mr. H. J. Wilson, M.P. It is intended to send copies from time to time to British missionaries from China arriving home on furlough. From a number of missionaries now in this country we have received cordial assurances of their readiness to assist in the way suggested; some of them tell us that they are already in the habit of referring to the subject in all their addresses. We reproduce the circular here, hoping that it may thus meet the eye of some of our missionary friends in China, and may be borne in mind by them when they next visit the home country.
"A True Witness delivereth Souls."—Prov. xiv. 25.

The Society for the Suppression of the Opium Trade desires to call the attention of all missionaries from China to the opportunities which they have while in this country, and the corresponding responsibility that rests upon them, to enlighten their countrymen with regard to the Opium Trade between India and China.

A sentence or two spoken by a missionary, in the course of an Address on the work in which he is engaged, will be heard by many whom it is impossible to reach by any direct effort on the part of those engaged in the Anti-Opium Agitation. The Majority Report of the Opium Commission has thrown doubt upon our two main positions:—(1) "That the consumption of Opium is exerting a distinctly deteriorating effect upon the Chinese people, physically, socially, and morally;"* (2) "That the past history and present enormous extent of the Opium Trade with India produces . . . suspicion and dislike in the minds of the Chinese people towards foreigners,"† and is thus a serious hindrance to their reception of the Gospel of our Lord and Saviour Jesus Christ. On these points the personal testimony of missionaries who have lived and laboured in China is of the utmost value. When they have failed to allude to the subject, their silence has sometimes been taken—often, no doubt, unjustly—as proof that they have no strong conviction as to the immoral and injurious character of the traffic.

We therefore earnestly appeal to all missionaries coming from China, in their Missionary Addresses whilst at home, to make a point of always bringing in at least a few words of reference to this important question, in the way of personal testimony as to what they have themselves seen of the evil effects of Opium. They will thus materially help to hasten the day for which earnest Christians have long been praying, when the fair name of our beloved country shall no longer be sullied by participation in this traffic.

On behalf of the Society for the Suppression of the Opium Trade,

Joseph W. Pease, President.
Donald Matheson, Chairman.
Matthew Dodsworth, Treasurer.
Joseph G. Alexander, Hon. Secretary.
George A. Wilson, Organizing Secretary.

Finsbury House,
Blomfield Street,
London, E.C.

* Memorial presented to the Opium Commission by 17 British missionaries in China, all of at least 25 years' standing.
† Ibid.
While Dr. Tsao Yung-kuei was in England with Embassador Chang Yin-whan, the following Address was presented to him by the Society for the Suppression of the Opium Trade. We are pleased to reprint it for the benefit of our readers from The Friend of China, October, 1897:—

To Dr. Tsao Yung-kuei,

Physician to His Excellency Chang Yin-whan, Special Envoy of His Majesty the Emperor of China.

Dear Sir,—The Committees of the British Societies for the Suppression of the Opium Trade welcome you as a representative of the Christian Church in China, on whom has been conferred the honour of being chosen to accompany to this country the Special Envoy deputed by your Emperor to attend the Diamond Jubilee of our beloved Queen.

We gladly take this opportunity of conveying through you to your fellow-Christians of the great Chinese nation our fraternal greetings. We rejoice that they now constitute so numerous a body, who are, in common with ourselves, "built upon the foundation of the apostles and prophets, Jesus Christ Himself being the chief corner-stone." We pray that our Chinese brethren may be enabled so to show forth the praises of Him who has called us out of darkness into His marvellous light, that through their testimony the knowledge of His love and grace may be spread throughout that Empire, and the day hastened when China shall be won for Christ.

We are well aware that one of the greatest hindrances to the spread of Christianity in China is the Opium traffic carried on by the Government of India for the purpose of revenue. We know by the testimony of honoured missionaries, who have gone out to China from our own and other Christian lands, that the revenue thus raised is won from the misery of the Chinese people, and we deplore with you the devastation wrought in tens of thousands of homes throughout your land by the baleful habit of Opium-smoking. As British Christians, we remember with shame how in past years British merchants smuggled Opium into China, British troops made war upon China because of her honest and determined attempt to stamp out the infamous traffic, and finally British diplomatists left her no option but to admit Opium into her customs tariff, contrary to the ancient laws of the Empire and the wishes of her rulers. We regret to know that this forcing of the Opium traffic upon China has led to the extensive growth of the poppy in China itself.

We have for many years sought to enlighten our people as to these evils wrought in their name, but of which very few of them have any personal knowledge. Six years ago, to our great joy, the British Parliament was at last brought to declare the Opium traffic "morally indefensible," and we hoped that this
would lead up to the abolition of the evil. But statesmen, unwilling to give up a lucrative revenue, under the plea that there was a difference of opinion as to the evils of Opium, persuaded Parliament to send a Royal Commission of enquiry, not to China, the country which suffers the chief injury from this evil traffic, but to India, the country which reaps all its profits, and in which the consumption is very much smaller. The Commission, when it reached India, was guided and entertained by the officials of the Government which carries on the traffic and the resources of that Government were brought to bear to minimise the testimony to the evils arising from the use of Opium. Under these influences, the majority of the Commissioners reported, as regards the use of Opium in China:—"We conclude that the habit is generally practised in moderation, and that when so practised, the injurious effects are not apparent," though they acknowledged "that when the habit is carried to excess, disastrous consequences, both moral and physical, inevitably follow." They expressed the belief that "the existing regulations" under which Opium is imported into China are "in accordance with the wishes of the Chinese Government." Their conclusion with regard to the export of Opium to China accordingly was:—"We agree in not recommending any action tending to the destruction of the trade." One of the English Commissioners, Mr. Henry J. Wilson, M.P., in a masterly report, dissented from the views of his colleagues, and pointed out "that it is altogether unworthy for a great dependency of the British Empire to be thus engaged in a traffic which produces such widespread misery and disaster." One of the two native Indian Commissioners, who supported Mr. Wilson on several important points with regard to the sale of Opium in their own country, also suggested that a communication should be made to the Chinese Government by that of the United Kingdom, offering to release them from their present treaty obligation to admit Indian Opium.

The Report presented by the majority of the Commission has puzzled many in this country.

We know, however, that our cause is that of truth and justice, and in the assurance that God is with us we are determined to go on working and praying for the cessation of this great evil. We are confident that the Christians of China will do the same.

We are,

Your brethren in the Gospel of Christ,

On behalf of the Representative Board of the Anti-Opium Societies of the United Kingdom,

Joseph W. Pease, President.
Joshua Rowntree, Chairman.
On behalf of the Society for the Suppression of the Opium Trade,
Donald Matheson, Chairman.
Matthew Dodsworth, Treasurer.
Joseph G. Alexander, Hon. Secretary.
George A. Wilson, Organizing Secretary.

[The names of all the members of the Executive Committee of our own
Society and the Christian Union against the Opium Traffic, with those of the
Anti-Opium Urgency Committee, and ten of the Women's Anti-Opium
Urgency Committee, were appended.]

SIAMESE THEORY AND PRACTICE OF MEDICINE.

By E. A. Sturje, M.D.

Nature, according to the Siamese, is made up of four elements—namely,
earth, fire, wind, and water.

The human body is supposed to be composed of the same elements,
which they divide into two classes—visible and invisible. To the former
belong everything that can be seen, as the bones, flesh, blood, etc.; to
the latter, the wind and the fire.

The body is composed of twenty kinds of earth, twelve kinds of water,
six kinds of wind, and four kinds of fire. The varieties of wind are as
follows:—The first kind passes from the head to the feet, and the second
variety from the feet to the head; the third variety resides above the
diaphragm, and the fourth circulates in the arteries, forming the pulse;
the fifth enters the lungs, and the sixth resides in the intestines. The four
kinds of fire are—first, that which gives the body its natural temperature,
the second, that which causes a higher temperature, as after exercise or
in fevers; the third variety causes digestion; and the fourth causes old age.
The Siamese divide the body into thirty-two parts, as the skin, heart, lungs,
etc. The body is subject to ninety-six diseases, due to the disarrangement
of the earth, wind, fire, and water. Thus, if there is an undue proportion
of fire, we have one of the fevers. Dropsies are caused by too great a
proportion of water, and the wind causes all manner of complaints. Nine
out of ten of the natives, when asked what is the matter with them,
answer "Pen lom" ("wind").

The external elements are constantly acting upon the elements making
up the body, causing health or disease. Thus, in the hot season they believe
we are more liable to fevers, and during the wet season too much water is
absorbed, causing dropsy. Earth is supposed to produce disease by invisible
and impalpable mists and vapors.
Spirits are supposed to have great power over our bodies, deranging the elements and producing all manner of diseases. The minds of the natives are thus held in continual bondage for fear of the spirits, for no one knows what great sins he may have committed in a previous state of existence for which he may be called upon to suffer at any moment. Thus the people are constantly endeavoring to propitiate the spirits by presents, incantations, etc.

In the time of Buddha lived one still worshipped as the father of medicine. To him it is said the plants all spoke, telling their names and their medical properties. These were written in books, and have become sacred. If they fail to produce the effects attributed to them, the fault is never theirs, but the want of success is due to the absence of merit in either doctor or patient. The natives use almost everything as medicine; the bone and skins of various animals occupy a large part of their pharmacopoeia, while the galls of snakes, tigers, lizards, etc., are among the most valuable of their medicines. Many of the Siamese remedies are very complicated, being composed of scores of different ingredients.

The following is a characteristic prescription for the bite of a snake:—

A portion of the jaw of a wild hog; a portion of the jaw of a tame hog; a portion of the jaw of a goat; a portion of goose-bone; a portion of peacock-bone; a portion of the tail of a fish; a portion of the head of a venomous snake. These, being duly compounded, form a popular remedy when the venom has caused lockjaw.

Many other native remedies are equally marvellous, but I cannot mention them. Every native physician has an image of the father of medicine in his house. The drugs are placed in this idol's hand and receive his blessing; afterward they are taken to the patient's house and boiled in earthen pots, a wickerwork star being placed below and above the drugs to give the medicines strength. The patient is usually obliged to swallow many potsful of medicine, each pot containing two or three quarts. If the patient dies, the doctor gets no fee. — Siam and Laos.
Canton Examiners’ Reference Book.—A list (with descriptive notes) of goods passing through the Canton Examination Shed. Compiled by W. H. Williams, Examiner, 1892.

The above is the title of a book of 200 pages (10 in. x 9 in.) in which is given in tabular form the information required by an officer of the Imperial Maritime Customs, whose duty it is to decide questions bearing on the duty to be levied on goods passing through the Customs.

That this book is a valuable one for the purpose intended is evident when we reflect that the officers of the Customs are foreigners; and the value of the book is attested by the fact that, as soon as it was published, copies were placed by the Inspector-General in all the Custom Houses under his jurisdiction.

It is to be regretted that the compiler has received no recognition of his service or reward for his labor except that the book has been utilized as far as possible in the Customs’ service. One would expect that advancement in the service or other tangible recognition would have shown that such service was appreciated. But the worthy I.-G. has not been able to see that he has taken the poor man’s lamb to feast his rich mandarins.

This book has a value for medical missionaries which has only here and there been recognized, because it was little known beyond the limits of the Customs. In it will be found the names in Chinese and English of almost all Chinese medicines, with the source from which they come, their approximate value, and short descriptive notes stating in what form they are, whether seeds, or leaves, or bark, or roots, and giving also the botanical name where known. These facts form a basis on which medical missionaries may institute investigations as to the medicinal properties and virtues of the Chinese armamentarium.

We learn from Mr. Williams’ book, among many other interesting facts, that there is a very large trade in pills, which are made in Canton and exported to all parts of the empire. We notice that under the head “black pills” there are 50 different kinds. These are put up in tins or in bottles of one catty each. Of “red pills” there are seven varieties, and under the head “wax pills” there are four varieties. There are boluses, enclosed in a round covering or capsule wax, (white or yellow,) in which they are hermetically sealed, transported any distance, and kept unchanged for an indefinite time.

If other large cities produce pills in any thing like the amount made in Canton, then China cannot be deficient in a supply of medicines in this form.

J. G. K.

The Preservation of Health in the Far East.

This is a parchment-covered pamphlet of 47 pages with 15 diagrams appended, illustrating house-building, well-sinking, etc. It is written especially for those resident in Mid and South China, but much of the advice given is suitable for all parts of the country.

Having recently been engaged in hospital and house building and having found many valuable hints in it, the writer of this note desires to bring it under the notice of all who may feel the need of help in similar circumstances. He can further recommend it to all who have recently arrived in China. They will find much useful information on
the best way to preserve that without which nothing can be accomplished—their health. Some of the advice is a little grandmotherly, such as the liberal use of disinfecting fluids, and that vegetables bought in the market should never be eaten, and there are some other points with which one can hardly agree, but these do not detract from the value of the pamphlet.

From experience the writer can recommend the grates described and figured. He has found them economical and warm. The only modification found necessary was to lower the height of the arched opening 6 inches to obviate the tendency to smoke. All the iron work was made locally by a blacksmith.

P. B. C.
Correspondence.

In the March No. of this Journal, 1896, I published a plea for medical statistics, and, in pursuance of the scheme proposed there, issued in December of the same year a letter to all the medical missionaries in China, inviting their help in the compilation of the statistics. To this appeal a very meagre response has been received. It would appear that many are not in the habit of keeping a case book, and where the diseases treated are noted it is not always in a shape that lends itself to tabulation. Several of these correspondents expressed the hope that they would be able in the future to send a proper list.

I write this note in the first place to thank those who sent me lists, and in the second to appeal again to all who have not yet done so to let me have statistics for this year. If they cannot compile tables of all the diseases seen, percentage statistics of the more important diseases will be very valuable. From stations in the interior any information as to the occurrence of leprosy, malaria, beriberi, rheumatic fever, rickets, chorea, granular ophthalmia, vesical calculus and elephantiasis will be most welcome.

The letter referred to is published below.

PHILIP B. COUSLAND.

Dear Doctor,

If you will kindly turn to the China Medical Missionary Journal for March 1896, you will find there a plea for medical statistics, of the great importance of which I hope you are fully persuaded. To carry out this scheme therein proposed I am sending out this circular letter in the hope that you will compile a list of the diseases you have met with during 1896. It should include both dispensary and hospital patients. A list of the diseases treated in hospital only would be valueless from the point of view of comparative statistics. Will you then kindly give the total number of cases treated, and a table of the different diseases with their percentage, e.g., 3000 patients treated, dyspepsia 300 or 10%. In the skin diseases it will be as well to state whose system of classification you follow, and with regard to general terminology it would be a great advantage if the standard nomenclature drawn up by the Royal College of Physicians could be adhered to. The occurrence of any epidemic should be noted. It is especially important that the diseases given below should be recorded. Specific febrile diseases from small-pox to dysentery, erysipelas, leprosy, malaria in all its manifestations, beriberi, venereal diseases, rheumatic fever, true chronic rheumatism, osteo-arthritis, tubercle, rickets, chorea, insanity, alcoholism, suicides (opium), granular ophthalmia and entropion, cataract, cardiac, valvular affections, phthisis, vesical calculus, elephantiasis, goitre, diabetes mellitus, malformations. Rare cases especially should be noted. I trust you will be able to send me as full a list as possible. If time or circumstances prevent you sending a complete list, I hope you will be able to report on the diseases mentioned above.

Yours sincerely,

PHILIP B. COUSLAND.

Chao-chow-fu, Swatow, 2nd Dec., 1896.
Notes and Items.

A CORRECTION.—In the article on Myopia, translated by Dr. Jellison for our June number, on page 106, 3rd line, instead of "Example: for an M 20 D will U20 = \frac{20}{2} = 20 D" it should read "Example: for an M 20 D will U20 = 10 + \frac{20}{2} = 20 D." The 20 beside the U is an exponent, and the 10, which is in all the formulae, was omitted.

The editor frequently receives letters addressed to him as editor, but not intended for publication, which contain items and suggestions of so great value that we feel tempted to publish them just as they are written; of course we might utilize much of this material in making up paragraphs without indicating the source of our information, and thus we sometimes do. But in other instances it is impossible to use some of the most valuable suggestions, on account of the necessity of eliminating the personal element, unless we should promulgate these thoughts as primarily emanating from our own brain, which would scarcely be honest. So with an apology to our correspondents for the liberty we take, we proceed to give a few extracts that we think will be of value and interest.

Our senior medical missionary in writing of the March number of the JOURNAL says: "The President's address and your editorial are to the point, and if the younger members of the profession do not come up to the mark they will be much to blame. It is evident that as our literary work develops it increases on our hands many fold. Literary and professional activity at home is pressing on us here, and with our pressing duties here in our special work, the medical missionary in China of the present day cannot take things leisurely. He must work, work, work; and with system and mutual consultation a vast amount of work can be done.

Uniformity in terms is the first matter of supreme importance; and when a dictionary of terms is completed, the way will be much easier and shorter for those who then take up the work." Another member of the Association writes: "It is especially gratifying to see such an article as von T Alfred's in the JOURNAL. I could wish we might see more such, showing original work done by members of the Association, or by Port physicians in China. I do not think the JOURNAL has been particularly strong in lines of original work, and it seems as though in such a wide field as China we ought to be able to make studies, which would be fitted to instruct the world. I freely confess, however, it is easier to talk than to act.

I like the idea of reviewing hospital reports as received by the JOURNAL so as not to delay acknowledgment, but at the same time I thought the plan adopted last year of lumping the reports and giving a list of hospitals and their attendances, together with copious notes showing progress, was an excellent one, which might supplement the notices of individual reports from time to time. By giving a summary toward the end of the year of all reports received. Indeed I think it ought to be considered the duty of each one of us to send at least a numerical report to the editor of the JOURNAL at the end of each calendar year, so that once a year the JOURNAL might give a reliable total of medical work done in the mission hospitals of China during the preceding year."

Dr. Davenport, in a letter enclosing photographs of Mackay's tomb, which came to hand after our June number had gone to press, in speaking of the stone having been erected by the wife of the Governor of Hupeh, says: "Since the erection of this stone there has been a more precious witness. Recently, in the public worship, on a Sabbath morning, at the hands of
Mr. Kristensen, this lady was admitted a member of the Church, receiving Christian baptism. The present good feeling shown by the Governor toward us and our work, so different from his bearing only a few years ago, appears to be largely due to the free entrance Mackay won in the official circles and the influence of his character in their midst. He has not lived to see these fruits—they follow him. May not we encourage ourselves in the work, feeling that we sow with the right hand and with the left, and may see little result, yet the promise still stands, 'that we cannot labor in vain in the Lord.'

Dr. Porter writes the following from P'ang-chuang, showing very welcome progress in medical educational work. We hope the plans have gone on to consummation. "At our annual Mission Meeting the question of more continuous work in the line of medical instruction came up. It was decided to open up the way for the College graduates to study medicine by adding a Medical Department to the college and by the appointment of Dr. A. P. Peck to be Dean of the Medical Faculty. A committee was appointed to consider a medical course and to decide upon which of our mission hospitals should be considered the most suitable place for carrying on a course of study. These plans are still in an undeveloped state."

Attention of all of the members of the Association is called to the resolution offered by Dr. Cousland in this number of the Journal, in reference to admitting to membership in our Association the medical missionaries and other medical men of the Far East outside of China. This is in line with our suggestion in a former number of the Journal. Of course the extension of the privilege of membership to these countries involves a change in the name of the Association and in the title of the Journal. We feel that this move will greatly strengthen our Association and will give us a strong bond of union between all of the medical men of the Far East, and in particular will bring the medical missionaries of these ends of the earth nearer together. We hope that the members will send in their votes to the Secretary early, so that the decision of the question may not be long delayed.

The following hospital reports have been received since our last review, but for lack of time extended notice of them must be delayed until the March number:—Twenty-fifth Annual Report of the Po-na-sang Hospital, Foochow; Report of the Hospital and Dispensary at Teng chow-fu; Eleventh Annual Report of Hao-meng-feng Hospital, Ningpo; Report of the Peking Hospital, London Missionary Society; A. B. C. F. M. Hospital for Women and Children, Foochow; Report of Medical Work in connection with P'ang-chuang Station; Fifth Annual Report of the General Hospital of the M. E. Church, Chungking; Report of the London Mission Leper Asylum at Hiao-kan.

In response to the following doleful complaint the officers of the Association have decided to print the amended Constitution and Bye-Laws in the present issue of the Journal. The brother must not, however, take too much credit to himself, as there was some thought of publishing these documents before his letter was received. The share that he may rightfully claim for himself in the matter is in having somewhat hastened the publication and in having assisted thus in making it an accomplished fact:—

Dear Mr. Editor: Would it not be well, for the sake of those who have never had the opportunity of seeing the Constitution and Rules of the Medical Missionary Association of China, that they should be printed in the pages of the Journal? I see we are expected to send in our votes on some proposed
alterations in the Constitution, but how can we do so if we have never seen it? Another thing I notice is that with nearly every issue of the JOURNAL Voting Papers are issued, and we are asked to look up Med. Miss. JOURNAL, Sept., 1890, pages 210, 227. I suppose for instructions how to vote. Now I suppose that more than half of the membership of the Association has been admitted since that date, and I suppose that very few of them have the back numbers of the JOURNAL, so that the voting is really a matter of form confined to a few. I have now been a member for 5 or 6 years, I am afraid a very useless one, and I don't think I have ever yet signed a voting paper. How officers are elected and the affairs of the Association are managed I do not know. I am not complaining that this is the fault of any other person than myself, as I suppose if I had wanted to know all I had to do was to write and enquire. I think, however, I am in the same position as many others who are members, and whose membership consists only in getting the JOURNAL and reading it. Of the other privileges of membership we practically know nothing, except that we have the privilege of contributing to the pages of the JOURNAL. In view of what our President says in his address about a broader representation, I would propose that the Constitution and Rules of the Society be printed, so that all of the members might have a copy, and intending members might know something about the Society we ask them to join.

Extra copies of the Constitution will be sent to each of the officers of the Association for distribution. Members or others desiring copies can secure the same by applying to any one of these officers.

We are requested to call attention to the following little sheet tract, which is intended for free distribution to dispensary patients. The author of the tract says: "Let all who wish to do so have the proper characters inserted, advertising each his work and print as many copies as are needed. The cost at the Presbyterian Mission Press is nine dollars for ten thousand, about ten for one cent. Patients who come to the daily clinics are generally so much interested in their bodies that they need to have the importance of their souls pressed upon their attention. The object of this sheet tract is to present the leading facts as to the soul in the simplest and briefest form."

論

棄

靈

一人生在世惟有一回死後不能復投他

天主靈為人靈魂之根本，人悔改而信耶穌，獨倚賴之人。

耶稣必救罪人，故顧死於十字架，替人贖罪。

耶稣要萬國得救，願其救法萬國通行。

世人末日耶穌將降世，使萬民復活，末日各人靈魂與身體，同歸各人身體。

人生前信耶穌復活審判之後必得永無疾。

病之身，大禱告文，求天父，使我靈魂同身體在天堂，永遠享福。

蘇州齊門外耶穌教福音醫院敬送
Notes and Items.

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THE FOUNDER OF THE RED CROSS
IN A POOR-HOUSE.

J. Henry Dunant, the real founder of the Red Cross society, and the organizer of the famous convention of Geneva, was born in Geneva, May 8th, 1828. The horrors which he witnessed in the campaign of Napoleon III against the Austrians in Italy, in 1859, led him to write a pamphlet upon the subject, which horrified the civilized world with the terrible cruelties of war, especially the account of the suffering of the wounded through neglect. A few years later, in 1863, he traveled at his own expense from capital to capital through the countries of Europe, and finally succeeded in organizing the conference in Geneva in October, 1864, which resulted in the permanent organization of the Red Cross society.

M. Dunant spent the greater portion of his fortune in developing this splendid charity, and, a few years later, lost the balance of it. He has since been obliged to live as an object of charity in a poor-house. It is to the credit of the empress of Russia that she has recently provided for his comfort and maintenance. Like many other philanthropists, M. Dunant does not find the compensation for his philanthropic labors in this world. It is unfortunate indeed that society is so little appreciative of the sacrificing efforts of such men as to deny them even proper recognition.

MARRIAGES.


At the British Consulate, Chefoo, 21st Oct., Dr. J. NORMAN CASE, of Wei-hai-wei, to Miss E. RUTH FARWIG, of Lao-ho-k’ou.

BIRTHS.

At Jin-jow, N. Kin-chow, Manchuria, on the 15th July, the wife of T. L. BRANDER, M.B., C.M., of a daughter.

At Ta-ku-tang, on July 23rd, the wife of Dr. J. A. ANDERSON, of a son.

At Soochow, on the 5th of August, the wife of J. B. FEARN, M.D., of a daughter.

At Brooklyn, N. Y., on the 11th Oct., the wife of Rev. Geo. A. HUNTLEY, M.D., A. B. M. U., Han-yang, of a daughter.

At Li-man, Shansi, Oct. 18th, the wife of Dr. W. L. HALL, of a daughter (Dorothea).

At Wuhu, Oct. 22nd, the wife of Dr. E. H. HART, Am. Meth. Epis. Mission, of a son.

At Hongkong, on 27th Nov., 1897, the wife of Rev. C. R. HAGER, M.D., American Board Mission, of a son.

DEATH.

At Kuan-cheng-tse, on the 5th July, of dysentery, ANNIE GILLESPIE, L.R.C.P., S.E., of the I. P. Mission, Manchuria.

ARRIVALS.

At Shanghai, 27th Sept., O. T. LOGAN, M.D., (not located).

At Shanghai, 2nd October, Dr. MARY L. BURNHAM, and Dr. and Mrs. W. MILLAR WILSON, (returned).

At Shanghai, 18th October, Dr. H. N. KINNEAR, Foochow, (returned).

At Shanghai, 24th October, Dr. IDA AIKEN, for Manchuria.

At Shanghai, 21st November, Dr. W. WILSON, for C. I. M.

At Shanghai, 26th November, Dr. MARY A. AYER and Dr. FRANCES F. CATELL, for Soochow.

DEPARTURES.

From Shanghai, July 24th, Dr. and Mrs. WILLIAMS, C. I. M., for England.

From Shanghai, 22nd November, Dr. C. F. JOHNSON, for U. S.
Official Notices.

Miss D. M. M. Macklin, M.D., Toronto, has been duly elected a member of the Medical Missionary Association of China.
CONSTITUTION AND BY-LAWS

OF THE

MEDICAL MISSIONARY ASSOCIATION OF CHINA.

CONSTITUTION.

ARTICLE I.

This Association shall be called the Medical Missionary Association of China.

ARTICLE II.

The objects of the Association shall be—

First.—The promotion of the Science of Medicine amongst the Chinese, and mutual assistance derived from the varied experiences of Medical Missionaries in this country.

Second.—The cultivation and advancement of Mission Work and of the Science of Medicine in general.

Third.—The promotion of the character, interest, and honor of the fraternity by maintaining a union and harmony of the regular Profession in this country.

ARTICLE III.

The Members shall be graduates of a recognized regular medical college, with proper testimonials from the Missionary Society under whose auspices they are laboring. They shall be proposed by one Member of the Association and elected by a majority of those voting. They shall be considered Members when they shall have signed or sent in their names to be added to the Constitution, thereby agreeing to be bound by its provisions.

Persons of every nationality shall be eligible for membership.

ARTICLE IV.

There shall be three classes of members: First.—Active Members, who shall be those engaged in Medical Missionary work in China; Second.—Honorary Members, those engaged in private practice in China, not being connected with any Missionary Board. Honorary Members are not entitled to vote; Third.—Corresponding Members, who shall be composed of all Non-Resident Medical Missionaries throughout the world, and of such others as may be duly elected by the votes of the Association. Corresponding Members shall not be entitled to vote.

ARTICLE V.

The Officers of the Association shall consist of a President, a Vice-President, a Secretary, a Treasurer, an Editor and a Curator of the Museum, all of whom shall be elected biennially by a majority of the Members voting. No Member shall be eligible to the office of President for two successive terms. These officers shall have the power to elect executive committees from their own body, or from other active members of the Association, to fill up any vacancies (caused by death or otherwise) in the executive of the Association, and to take initiative action in all matters affecting the welfare of the Association.
A copy of these Rules, together with the By-Laws made from time to time, shall be printed, and shall be binding upon every Member of the Society.

Each Member shall be provided with a copy of the Rules and By-laws free of charge.

BY-LAWS.

ARTICLE I.

Meetings.—The stated meetings shall be held at the call of the President of this Association.

ARTICLE II.

The President, or in his absence the Vice-President, shall preside at the meetings, and enforce the rules of order, appoint all committees not otherwise provided for, give the casting vote in case of a tie, and perform such duties as his position requires. In the absence of both President and Vice-President the meeting shall elect its own Chairman.

ARTICLE III.

The Secretary shall keep the minutes, notify absentees of their appointment, furnish the Chairman of each Committee which may be appointed with the list of its members, receive the signatures to the Constitution, notify in writing new members of their election, keep a roll of all three classes of members, publish a revised list annually in the Journal, and conduct such correspondence as may from time to time be necessary.

ARTICLE IV.

The Treasurer shall receive and have charge of all the moneys of the Association and pay all bills approved by the same. He shall report the condition of the Treasury to the Association on the 30th day of June, and the 31st day of December, of each year.

ARTICLE V.

Members preparing papers, or proposing to exhibit cases to the Association, shall notify the other Members of the subject they propose for discussion, at least two months before the next regular meeting of the whole Association. As the Association will only meet, as a body, once in several years, most of the discussions will be conducted through the columns of the Medical Journal of the Association.

ARTICLE VI.

All motions shall be presented with the signature of the proposer, either directly to the Association or through its Journal.

ARTICLE VII.

Each President on retiring shall become an Honorary Vice-President of the Society for life.

ARTICLE VIII.

The initiation fee required from all Active Members shall be one dollar. There shall be no fee from Honorary Members. Yearly dues shall be two dollars, in advance.
Constitution and By-laws.

Article IX.
The following shall be the order of business for each meeting, in the transaction of which ordinary parliamentary rules shall be enforced:

I. Calling the Roll of Members.
II. Reading of the Minutes of last Meeting.
III. Report of Committee on Admissions.
IV. Election of New Members.
V. Propositions for Membership.
VI. Report of Committees and Officers.
VII. Written Communications and Discussions thereon.
VIII. Verbal Communications.
IX. Unfinished Business.
X. New Business.
XI. Adjournment.

Article X.
In the event of any important subject coming up calling for the immediate action of the Association, the President and Secretary can issue circulars calling for the votes of the Members on the question at issue. The result of this vote when counted by the President and Secretary and announced to the Members of the Society, to be binding upon all Members of the Association. The President and Secretary can use the columns of the Medical Journal in lieu of a circular when they may deem it best so to do.

Article XI.
These By-laws may be altered or amended by a three-fourths vote at a regular meeting, provided notice of the same shall have been given in writing two months previously.