It is of very little use having skillful doctors if our hospitals be lacking in good nursing. The happy combination of the two professions can alone make for success. What a rude awakening awaits many missionary doctors upon their arrival in China! Coming from hospitals where medical work has been conducted in a more or less scientific manner and where skillful nursing formed an integral part of the hospital routine, what are they too often confronted with, or what are the conditions under which they are expected to work? Too frequently a building with dirty wards, insanitary with patients herded together, using their own bedding and wearing their inhabited garments. Besides the patients are to be found their relatives, with one and all practicing their natural non-lygienic habits. Any attempt of nursing is done by the relatives or glorified coolies and is of the most primitive and disgraceful character.

In the majority of hospitals such conditions need not exist or in any ought to be tolerated by any self respecting medical missionary, who should possess a conscience for the things that make for cleanliness if not for godliness. Such hospitals are a reproach upon the principles of medical science but working under the cloak of Christianity. The two excuses proffered for such existing conditions are (a) that the Chinese being accustomed to live under dirty conditions would have their sufferings intensified were their surroundings in any degree altered, and (b) it affords an opportunity for the relatives who accompany the patient to hear the Gospel. We will not enlarge upon these reasons, as the object of our criticism is only to lead up to the subject for which this paper is being written, but we would most emphatically

THE TRAINING OF MALE NURSES.

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The "Hodge Memorial" Nurses' Home.

The Doctor, Matron and a few of the Nurses.
deny the first excuse and at the same time doubt very much whether any spiritual good could result to those hearing the Gospel under such non-Christian conditions. Are we by such unholy and non-medical methods presenting to those who come under our care for physical relief, the most complete expression of divine love, as our medical missionary work claims to be? Are we fulfilling our high calling to minister to the sick by treating the afflicted Chinese in an altogether different manner to what we would mete out to our friends? The recital of such performances may enhance platform clap-trap and assist in deluding an audience, but it is anything but medical missionary work. We remember once exercising great self restraint as we heard a medical man relate how he travelled over his respective mission field, carrying supplies of drugs and instruments, doling out pills and potions to all comers. But the incident that produced upon that unsuspecting audience the greatest admiration for such a man and his work and secured repeated rounds of applause was, when he described how "one day a woman presented herself at a wayside inn, as he sat drinking tea." On her back was a huge swelling,—which he lucidly though unnecessarily described. "I just took out a knife and plunged it in..." The remainder of his barbarous and criminal action was lost to us in the deafening applause. That man's name ought to be "struck off the medical register" his body be cast into outer darkness.

The reason why thus far we have written in a rather denunciatory tone upon certain existing forms of hospital equipment and management is, that the primary essential for the training of male or other nurses is a properly conducted hospital. Nursing of the sick in the manner as we understand it, is, or was unknown in China. The dirty ignorant old women who attend poor unfortunate women at childbirth, are worse than the "Gamp" type immortalised by Dickens. In the eyes of the Chinese the tending to the sick is probably a more degraded practice than that of medicine. "Medicine, fortunetelling, astrology, physiognomy are taken up as a trade or profession (for diversion) by scholars, the last-named only is respectable." Thus reads one of their numerous proverbs.

We know that in Europe and America the nursing profession has risen to its present landable standard of efficiency only after years of strenuous though quiet effort. But in China we need not repeat the methods used, or labour through the details of the enlightened pioneers for efficient nursing in those countries. They have developed the art and the result is at our service. We who are living and working out here have difficulties to overcome which are of a different character,
especially in the training of male nurses. In such a work there is no competition in China, no counteracting of existing methods, for none exist, nor any compromising with prevailing customs. Male nursing of sick men is to the Chinese an altogether new and foreign custom, thus it behoves those of us who have the privilege of introducing such an art and establishing a new profession to present it in its highest degree of proficiency.

Surely, nobody would for a moment doubt the need of such a work if they have visited the homes of the sick and dying, where there is a total absence of tenderness or care. What absolute helplessness—almost callousness there is on the part of the relatives and friends in any attempt to alleviate suffering! Dirt, noise, and darkness existing, where cleanliness, quiet, and light ought to prevail. Because of such conditions we discourage the treating of patients in their own homes, as we know from experience that our instructions will never be carried out.

Another difference that we have to recognise out here is, that the time has not yet arrived when men patients can be nursed by women nurses. We fear that it will be many years before such an ideal can be realised. The only instance that we know of, was an attempt in the Red Cross hospitals during the revolution. Then the nursing by Chinese women was, we believe, only of an indirect character.

Nursing in China as an honourable and refined profession for young educated fellows is opening out a most useful sphere of work, and helping to solve a problem as to what we can do with our lads after they have passed through our schools and colleges. The higher we raise the standard the better will be the type of lad eager to enter the ranks. Towards the maintainence of our ideal we decided to introduce into the men's hospital a fully qualified English nurse. This we did about ten years ago, in spite of much criticism, opposition and evil prognostications from Jeremiahs. So far as we know, ours was the first men's hospital to have a foreign matron, certainly in Central China. From her induction to the present day the experiment has proved to be an unqualified success and has far exceeded our most sanguine expectations, not only in assisting in the training of male nurses, but in the more satisfactory nursing of patients.

Until recent years our difficulty has been in securing those whom we considered to be suitable candidates for training. Such work was considered to be beneath the dignity of most. Had we then lowered our standard of efficiency, this difficulty would have disappeared. But that we refused to do. Our perseverance has been amply rewarded as
we constantly have many more suitable applicants to select from to fill our limited capacity.

At the present time we have sixteen lads in training for a minimum course of three years. Their ages vary between sixteen and twenty-two. All have received at least a normal school education. Some are sent from other hospitals to undertake our prescribed curriculum. Each lad is given a month's trial. In the first six months in addition to their food they receive a few hundred cash per month. At the end of that time if they give satisfaction this is increased to one thousand cash, until they pass their first and subsequent examinations. Then their remuneration is increased. Each one is supplied with the hospital uniforms, which have a red cross on the left sleeve, with one or more white bars above denoting their grade.

When a lad first enters the hospital he is known as a probationer and is appointed to one of the wards working under the supervision of an experienced nurse. All the nurses attend lectures nearly every evening at which they take notes. The subjects are elementary anatomy and physiology; surgical, medical and general nursing; hygiene, ambulance, etc., etc. They have for a text book a nursing manual prepared by the Central China Medical Association. They also receive practical instruction in nursing, dispensing, anesthetics, theatre preparation, preparation of diet, out and in-patient dressing, laboratory technique such as, preparing and staining films, section-cutting, mounting, etc. The examinations are conducted by an independent board which is elected annually by the above association. Promotion is according to their examination results.

A rough outline of their routine work is as follows:—The duty of day nurses commences at 7 a.m. and ends at 8 p.m., with intervals for meals and two hours "off duty," when they must leave the hospital. They start the day by removing counterpanes and making beds. We use foreign iron bedsteads, sheets, blankets, etc., and all our patients use hospital clothes and not their own. Taking and recording temperature respiration pulse and number of motions, etc. To the patients unable to get up the nurses give their prescribed food, and if necessary feed them; then clear up the ward after each meal. Bathing patients when they come in, or seeing that the operation is successfully performed; sponging, packs, giving medicine at stated times, supplying bedpans and urinals is also part of their work. Washing the patients, lockers, chairs, mackintoshes; cleaning brasses; cleansing baths, bedpans and urinals and scrubbing shelves. Every bed,—about ninety—is taken to pieces once a week and thoroughly cleaned. Although this work
and also the carrying of patients, the washing of floors, etc., is the
ward coolie's work, yet the nurses have to assist. We arrange their
work so that they are occupied the whole time.

The night nurses commence duty at 8 p.m. and cease at 8 a.m., the
last hour being occupied in assisting the day nurses in the making of
beds. They are changed to day duty every two months. Each night
nurse has charge of about twenty beds and has to hand to the Matron
in the morning a written report of each case during the night.

In the hospital grounds stands the Hodge Memorial Nurses Home,
in which the Matron has her office and store rooms. Each nurse also
has a bed room to himself. There is a large dining and reading room
in which the nurses conduct their Y. M. C. A. meetings. Bath and
guest rooms are well appointed. Sports amongst the nurses are
encouraged for they have football, jumping, racing, etc., several
times a week. The branch of the Y. M. C. A. is very successful and
some of the lads are frequently found doing definite Christian work
among the patients beside trying to live Christ in the wards.

Many lads who received their training with us are to-day holding
important and honourable positions in various hospitals in this and
other parts of China. They have a good reputation so that the demand
for their services is greater than we are able to supply. Although the
labour of training such workers is necessarily exacting, and is not
without its difficulties, or even disappointments, yet, we are more than
ever convinced of its importance and our sufficient reward is the fact,
that in some small and modest degree, we are assisting in the prepara­
tion of workers who are by ever increasing numbers and higher
efficiency, supplying a recognised need for the alleviation of suffering
in this great empire of China.

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DELAYED CHLOROFORM POISONING.

WILLIAM SHARPE, M.D., The Harvard Medical School of China.

Owing to the very extensive use of chloroform as an anæsthetic
throughout China and the East, I consider the following case to be
very instructive in impressing once more upon us not merely the
immediate danger of chloroform, but rather, its remote or delayed
effects.

*Family History*—Mr. ..............; white; married; 27 years of age;
born in the United States.
Negative; no history of tuberculosis, cardiac, liver, or kidney disease.

Past History—Always well and strong; ordinary childhood diseases, except scarlet fever. Gastro-Intestinal: appetite good, bowels regular daily: never any abdominal pain: never jaundiced. Cardio-Respiratory: Negative; no cough; no oedema of legs; no palpitation. Genito-Urinary: Negative; no venereal history; no nocturnal micturition. Habits: always good. No alcohol, nor tobacco. Patient had always enjoyed the best of health, and had been considered by his friends as an unusually strong man.

During the past two years, however, patient had had four typical attacks of appendicitis, of moderate severity; last attack was ten months ago. Since then apparently perfectly well.

Present Illness.—On February 14, 1912, patient began to have general abdominal pain, of a colicky character; six hours later, pain gradually became localized in the lower right abdomen, especially in the right iliac fossa. Slight nausea but no vomiting. Temperature 101.4; pulse 88; constipation.

I saw the patient, in consultation, for the first time on February 16th—about fifty hours after the beginning of the abdominal pain.

Physical Examination—An unusually strong and well-developed white man; mucous membranes of good color. Conjunctivae, negative. Right leg flexed at the hip. Tongue, heavily coated; no tremor. Chest: Heart and Lungs: negative. Abdomen, symmetrical. Liver and Spleen, negative. Over the entire right half of the abdomen there was a definite muscular rigidity, with extreme tenderness over McBurney's point,—beneath which, an indefinite mass could just be made out: percussion note dull over this area: no free fluid ascertained. Rectal examination revealed distinct tenderness on the right, but no mass palpable. Temperature, 101.8. Pulse, 90.

Blood examination showed a leucocytosis of 19,600—polynuclears being 84 per cent. Urine examination was negative, except for a very slight trace of albumene; no casts observed. Bile test, negative.

Operation—An immediate operation for appendicitis was advised, but consent was not obtained until 18 hours later. The usual incision was made, revealing an adherent mass of small intestines to the caecum, completely surrounding the appendix, which was curled up behind the caecum. An abscess, containing about two drachms of colon smelling pus, evacuated, and the appendix with its gangrenous tip removed; its stump was inverted into the caecum. A cigarette gauze drain was inserted to the base of the abscess cavity, and the
incision closed in the usual manner. *Duration of operation*—1 hour and twenty-two minutes.

*Anaesthesia*—Throughout the operation the anaesthetist had considerable difficulty in keeping the patient in a relaxed condition, and ordered the hypodermic injection of *morphia*, gr. $\frac{1}{4}$, with good result. The amount of chloroform (Merek's) used was $3\frac{1}{2}$ oz., the drop method being employed. The patient began to struggle and cry out while the skin incision was being closed, but complete consciousness did not return until three hours later. The patient was ordered 400 c.c. of saline solution, by rectum, and morphia gr. $\frac{1}{6}$ (hypo) if necessary

Upon visiting the patient the following day, I found him rather restless, but complaining of very little pain. Temperature 100. Pulse 96.

The dressing showed a straw-colored serous discharge, which was not foul; in fact, the right half of the abdomen had become quite soft.

The second day after the operation, I found the patient in a mild delirium, extremely restless, and trying to get out of bed, requiring restraint and morphia. Temperature 99.5 Pulse 102.

Only a slight serous discharge was on the abdominal dressing, and was not foul nor purulent. I was told by the family physician that the patient had been jaundiced during the night, but I could not find any trace of it on the conjunctivae at the time of my visit. I was extremely puzzled regarding the cause of the nervous symptoms, fearing an overwhelming toxæmia as the result of having broken into the appendiceal abscess, and destroying the "walling off" process of the peritoneum; the fact, however, that the muscular rigidity of the abdomen was rapidly disappearing, and that the temperature had not once risen above 101°, made a spreading peritonitis very improbable. There was no abnormal diminution in the amount of urine which the patient voided every six hours, and although several finely granular and hyaline casts were present, I thought such a finding not very uncommon, after the use of any general anaesthetic, and especially of chloroform.

It remained until the following day, however, before a correct diagnosis of this post-operative complication was made. A distinct jaundice of both skin and conjunctivæ, and the characteristic sweetish odor of acetone in the breath, pointed directly to delayed chloroform poisoning, causing a fatty degeneration of liver and kidneys especially. The urine examination by Dr. Eggers, Professor of Pathology of The
Harvard Medical School of China, showed the presence of many hyaline, granular, and fatty casts and the presence of acetone, alone,—no sugar nor diacetic acid being demonstrated; such a urine report is typical of those cases of delayed chloroform poisoning producing acetonuria reported in the literature.

The patient rapidly became comatose, and, in spite of vigorous treatment with saline solution by rectum and by hypodermoclysis, and the use of cardiac stimulants, died on the fourth day after the operation. An abdominal examination of the peritoneum revealed no evidences of peritonitis,—merely a straw-colored serous fluid of about two ounces, containing a few leucocytes and colon bacteria.

The treatment of such a condition is very inadequate,—in fact, little, if anything, can be done in the severe cases, as in the case here recorded. Considering the condition as one of acidosis primarily, or acid intoxication, due to the destruction of cellular tissue, especially of the liver and kidneys rather than a fatty degeneration of those tissues, large amounts of sodium bicarbonate have been given, both by rectum and intravenously. In the mild cases this treatment, as in a series of such cases at The Roosevelt Hospital in New York City, of which the writer has personal knowledge, does seem to help. Many cases recover, however, without any treatment at all. The slight jaundice lasting two or three days, while only a very slight trace of acetone is found in the urine. The majority of the cases undoubtedly are not diagnosed,—the urine not being carefully examined, and even the jaundice may escape observation.

This condition of delayed chloroform poisoning, or acetonuria as it has been called, is recorded in the literature less frequently since the introduction of the various chloroform mixtures, either of oxygen gas, or simply of air; but even with such precautions, delayed chloroform poisoning is not so infrequent but that its dangers should always be carefully considered, and, if there are no contrary indications, the use of ether is always to be preferred. Far rather an increased irritation of the mucous membranes of the nose and throat, and possibly a more troublesome administration of the anaesthetic, than the ever-present danger of such complication as delayed chloroform poisoning.

It seems to be a common observation that the Chinese race is peculiarly resistant and immune to any ill effects of chloroform, so frequently observed in the white race; but I think if post-operative examinations of the urine were made a routine practice in every case, we should find the yellow race as susceptible as the white race.
AN ANALYSIS OF A CASE OF TYPHUS FEVER,
SYMPTOMS AND TREATMENT.

By GEORGE F. DeVol, M.D., Friends Hospital, Nanking.

Dr. Lucy A. Gaynor, American Friends Mission, Nanking China, age fifty years, aside from being tired from overwork, was in good health, strong and vigorous, up to the time of taking Typhus. She was at this time treating the sick in an emergency hospital in the Manchu city. Among her patients were several cases of Typhus fever. Just five days before the beginning of her illness she returned from a visit to the hospital badly bitten by a louse. There was a prodromal stage during which she complained of headache and indicated great weariness.

On April 1st, she had a chill followed by fever 103° F. Her temperature was continuous, and rose higher and higher, until the seventh day when it reached 105.3°. After this it continued high until the fourteenth day when it suddenly rose up to 107.8°. It then continued about 104° to 105° until the 20th day, when it dropped to 101.3° but began to rise until it reached 108.8° about midnight on the morning of the 22nd day when she expired.
The patient’s pulse was of good quality and except for a few days, when it intermitted badly, was quite regular. It ranged between 88 and 124 reaching 132 beats per minute just before death.

The respirations at the beginning were about twenty-four per minute but throughout the last week when there were considerable areas of broncho-pneumonia, ran from 37 to 46. There was capillary bronchitis with troublesome cough and little expectoration throughout the disease. There was considerable oedema during the last few days but it cleared up at the end.

At times her face became very dark and there was stasis in the more dependant parts.

The bowels gave little trouble owing to the use of normal saline irrigation. The stools were yellowish in colour.

The urine was very acid at the beginning of the disease and albumen was found to be present on the fifth day and continued to be abundant. Her urine was passed involuntarily throughout the greater part of her illness.

The patient’s mind was remarkably clear and when delirious it took the character of intense activity along the lines of her daily duty. During the last week she talked almost incessantly, but on the morning of the 20th day when her temperature fell to 101.3 she became rational and spoke intelligently to her nurses. She slept pretty well for the most part, though waking frequently.

The characteristic petechial rash of typhus was well marked.

As her pulse held its own she seemed toward the end to be failing from imperfect respiration, but ultimately died from hyperpyrexia.

In recording the treatment we do so not because of any special success achieved, but rather as of suggestive interest to any who may be called upon to treat a similar case.

Dr. William E. Macklin was asked to take charge of the case although Drs. Brown and Evans of the Nanking Medical School rendered able assistance throughout. Other physicians were called in consultation among whom were Drs. Charles and Shields of Nanking and Dr. W. G. Hiltner of the Harvard Medical School of Shanghai.

At the very outset following the initial chill, quinine was given in doses of gr. xii q. 3 h. with a laxative, in order to eliminate possible malarial element. The blood was sent to Shanghai to be examined for malarial and relapsing-fever organisms but with negative result.

When it became evident that we were dealing with typhus, the matter of nourishment and the support of the patient received first
attention. A liquid diet, consisting of milk, broths, the whites of eggs, beef juice, orange juice etc. were given in small quantities every two hours. Sanatogen was given a trial alternating with other liquid foods. For the bronchitis, Ammonium bromide was given to allay the distressing cough. The chest was also frequently rubbed with peppermint oil, at the suggestion of Dr. Hiltner.

Hydrochloric acid dil. was given more or less regularly from the fourth until the eighteenth day.

When the heart began to show signs of weakness, tonic doses of strychnine sulphate were given every six hours. On the eleventh day of the disease when the heart began to intermit badly the condition was met by hypodermic doses of digitalin gr. \( \frac{1}{16} \), with strych. sulph. gr. \( \frac{1}{6} \) q. 6 h. On the 13th day the heart ceased to intermit and continued regular, throughout the remaining days.

At this time, word reached us reporting that tinct iodine gtt. \( \frac{3}{3} \) in red wine 5i q. 3 h. was being used in the treatment of typhus and highly recommended. Forthwith this was tried but with no perceptible result and feeling that it was somewhat depressing, it was discontinued after four days administration. A Chinese helper who had been assisting Dr. Gaynor in the Manchu city was at this time taken sick with typhus, and tinct. iodine was given from the first. He recovered after a short run of only eleven days, and showed very little nervous disturbance. It is possible that he was benefited by the iodine treatment.

By the eighteenth day the prostration of the patient suggested greater stimulation. Camphor gr. 1 and strych. sulphate gr. \( \frac{3}{6} \), were given alternately q. 3 h. while digitalin was reserved to be given as necessary. Finally on the last day of the disease camphor gr. ii, digitalin gr. \( \frac{1}{6} \), and strych. sulph. gr. \( \frac{3}{4} \), were given alternately, so that the patient received one stimulant every hour.

Owing to the deepening cyanosis oxygen was ordered from Shanghai, but the patient was gone before it could be procured.

This generally covers the medical treatment, but perhaps the most important agency of all was the use of hydrotherapy throughout the course of the disease.

Hot soap suds baths followed by an alcohol rub were given faithfully twice daily. These seemed to afford comfort and were frequently followed by a period of repose. The ice pack was used almost continuously for the head.

General cold sponge baths were reserved for high temperature but it was not considered advisable to use the tub bath for various
reasons, first because of the bronchitis, second because of the unusual weight of the patient and also because in previous experience with this disease the temperature seems peculiarly obstinate and no considerable benefit was obtained although used very thoroughly.

Normal saline enemas were ordered to be given q. 3 h. these served the double purpose of adding considerable fluid and even when not retained the bowel was at least washed out.

Perhaps the most conspicuously helpful of all in its benefit to the patient, was the use of hypodermoclysis. One pint twice daily of normal saline solution was given in the loose tissues, under the breast and thighs. The result was very marked and was continued from the 13th to the 17th day when owing to oedema of the more dependant parts, it was discontinued.

The introduction of this amount of fluid seemed to support the circulation, it increased the amount of urine, kept the tissues of the body moist and doubtless diluted the poison in the blood.

The sustained circulation, and the fact that the pneumonic areas cleared up decidedly during the latter days of the disease, left room for conjecture as to the ultimate cause of death. That the patient made a strong fight for life can not be doubted, but she seemed to be maintaining a hopeless conflict with a poison for which she was unable to produce an antidote.

A CASE OF SUSPECTED PULMONARY BLASTOMYCOSIS.

By Jno. H. Snoxel, M.D. and K. J. Strick, M.D.

Report of case: A Chinese woman aged 36 came to the dispensary of the Neerbosch Hospital in March. She was so weak and short of breath that she was unable to walk alone. Our first impression was, a far advanced case of tuberculosis. Physical examination revealed the following: Patient emaciated, anemic, very short of breath, coughing almost constantly and raising large quantities of muco-purulent sputum. Both apices and the left lung normal. There was an area of dullness about 5 cm. in diameter just above the right mammary region in the nipple line. Over this area were heard rales of nearly every description. Patient complained of no pain, but of weakness and an inability to sleep on the affected side on account of coughing. We examined the sputum as many as twenty (20) times for tubercle bacilli but with constant negative results. We however noticed the spore-like bodies with double refractile capsules and granules. This
led us to suspect blastomycosis and after looking up the subject we made the diagnosis of pulmonary blastomycosis. The treatment was that suggested by Bevan of Chicago viz. Copper Sulph. in 1/4 gr. doses t. i. d. Up to this time, a period of about ten days, she had been taking emulsion of cod liver oil and hypophosphites with guaiacol. Her fever ran from 101. to 103. and was more or less constant, except that there were evening remissions instead of usual morning remissions. The pulse was 112 and rather weak. Under the cod liver oil and guaiacol treatment there was no change. After we had decided that we were not dealing with tuberculosis but possibly with blastomycosis, we used the copper sulph. as directed by Bevan and the result was marvelous. After twenty-four hours the temperature had dropped to 99. and in three days was normal in the evening, with a fraction of a rise in the morning; but within a week both pulse and temperature were normal, the constant cough was much relieved, and the quantity of sputum greatly reduced. Its character, however, remained much the same. She was soon able to sleep on the affected side and gained in weight and strength very rapidly. We are sorry we have to report that some cough still continues and that we still find the blastomycetes in the sputum. Nevertheless she has gained so much in the three months of treatment that she is able to walk four miles to and from the dispensary.

Castellani, The Philippine Journal of Science July, 1910, reports several cases which he calls bronchomycosis, the description of which answers quite closely to our own but not entirely. He claims cures by the use of potassium iodide in large doses t. i. d.

We should like to say here that we have had ten cases of what seemed at first sight like tuberculosis, in the last three months, but the microscope showed tuberculosis in four cases, blastomycosis in five, and one negative. It would seem therefore that blastomycosis is not rare and that there may not be so much tuberculosis in China as would appear at first sight. We realize that perhaps this is a dangerous statement, after so few observations.

The first recorded case of blastomycosis was reported in May 1894 by Gilchrist in the form of a “peculiar skin disease” previously diagnosed as scrofuladerma, later as saccharomycosis humana (Curtis 1896) and finally as blastomycetic dermatitis, this term being finally adopted by most investigators.

The first reported general infection was that made by Busse in 1894, the second by Montgomery and Walker in 1902. The blastomycetes were first demonstrated in the sputum by Eisendrath and Ormsby.
in 1905 and in fecal matter from the same cases in 1906 as recorded by LeCount and Meyer.

In the United States the disease was first reported from Chicago, but later cases have been noted in many other states. Cases have also been reported from England, Germany, France, Japan, Scotland, India, Italy, and South America. As far as we can gather fifteen cases of general infection have been reported. We have been unable to find any record of cases reported from China, but shall be glad to be corrected if this is not the case.

The general picture presented by the disease is that of a constitutional involvement similar to tuberculosis, for which disease it may easily be mistaken. One case is on record where the diagnosis of tuberculosis was made both clinically and at autopsy, but on microscopic examination no tubercle bacilli were found and blastomycetes were easily demonstrated. The miliary nodules of tuberculosis and blastomycosis are very much alike. The main symptoms of general infection are, irregular temperature, loss of appetite, general weakness, emaciation, cough with copious muco- or sanguino-purulent expectoration, pulse rapid and feeble, respiration rapid, at times albuminuria, multiple subcutaneous nodules and abscesses resulting in superficial ulcers, abnormal physical findings in the lungs and various grades of anaemia.

The organism is generally round, though it may be oval or somewhat irregular. They vary in size from 5 to 15μ or even larger. They are surrounded by a homogeneous, doubly contoured refractile capsule, immediately within which is a zone of clear protoplasm, while the center contains granules of various sizes and shapes and sometimes a vacuole. The organism is easily seen in fresh preparations of pus or sputum mounted in a 10¾% solution of potassium hydrate or may be stained with any of the common aniline dyes. We find that they are most easily seen by the use of artificial light with the condenser somewhat lowered.

Tuberculosis is the disease which is most apt to be confused with systemic blastomycosis, the only safe methods of diagnosis being microscopic examination of sputum pus or tissue plus cultures and animal inoculations.

The prognosis is good in the cutaneous type, as nearly all cases under proper treatment recover. Recurrences however are common. In general systemic infection the prognosis is grave for of the fifteen undoubted cases twelve died, only one has entirely recovered.

The chief remedial agent employed successfully is potassium iodide, first advised by Bevan. The drug nearly always produces marked
results and in some cases entirely cures the disease. Doses as large as 600 grs. per diem are often required. It should be given in large dilution and should be continued for a long time or until no renewed activity occurs after its withdrawal. More recently Bevan has advised Copper sulph. in 1/4 gr. doses t. i. d. In the opinion of the writers these drugs are only prohibitive, and as yet we have no cure.

We are indebted for most of our information to an article by Dr. Oliver Ormsby of Chicago in the first edition of Lexer-Bevan surgery and we refer those interested in the subject to a very complete bibliography appearing at the end of that article.

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NOTES ON A CASE OF HÆMATOMETRA.

ALFRED W. HOOKER, M. B., B. S., Fatshan Hospital.

The patient, a married woman aged thirty-one was admitted to the Fatshan Hospital on June 2nd, 1912.

History. Patient was married at 17. She has never had a menstrual flow. At the age of twenty-one she began to have monthly attacks of pain in the lower part of the abdomen. Two or three years later she began to notice a small swelling above the pubes and slightly to the right of the midline. The tumour has steadily increased in size ever since. She says that during the attacks of pain the tumour was very hard and more prominent than at other times. Occasionally when the pain was very severe she would vomit. Three years ago she had a very severe attack of pain and fever and had to keep to her bed for a fortnight. On the whole the general health has been fair, but lately she has had several attacks of fever and has lost her appetite. She has had no children and no miscarriages.

State on admission. Patient markedly anaemic. Temp. 101°. Pulse eighty and of low tension. Urine normal. On abdominal examination a large tumour was found rising out of the pelvis and extending to about two fingers breadth above the umbilicus. The tumour, which was situated slightly to the right of the midline was cystic, dull to percussion and fairly moveable from side to side. There was no pain or tenderness on palpation.

On vaginal examination it was found that the external parts were normal. There was a short canal lined by mucous membrane between one and two inches in length, forming a rudimentary vagina. This ended abruptly. There was no cervix uteri present, nor could one be
felt per rectum. The hymen was absent. A catheter passed into the bladder could be felt quite distinctly by a finger in the rectum, showing that the tumour did not extend low down into the pelvis.

The history and physical signs naturally led to a diagnosis of hæmatometra.

1st Operation. On June 8th, the patient was anaesthetised and some attempt made to reach the uterus by the vaginal route. A transverse incision was made through the mucous membrane of the roof of the rudimentary vagina and a little blunt dissection carried out. It was soon decided that an attempt to reach the tumour by this route would incur a serious risk of wounding either the bladder or the rectum. The operation was therefore abandoned and the patient sent back to bed.

2nd Operation. On June 13th, a median incision was made through the abdominal wall, extending from the umbilicus nearly to the pubes. On opening the peritoneum the tumour was found to be covered by the omentum. This was adherent below, but with careful traction was pulled to one side and packed away out of the field of operation. It was then found that in several places the bowel was adherent to the tumour. This led to a tedious dissection, specially as, owing to the previous inflammation, the relations of the parts were somewhat obscured. After freeing several of the adhesions and dividing the right fallopian tube between ligatures it was decided that the removal of the whole uterus would be a very difficult matter. As the operation had already lated 1½ hours, it was therefore decided to open the uterus and empty out the blood. A big trochar was first inserted and when the more fluid part of the blood had escaped, the opening was enlarged and a quantity of thick, brown blood welled up. The interior of the uterus was then mopped dry. Digital examination of the interior did not discover the presence of any cervix. The body of the uterus was then clamped as low down as possible and the upper portion of the body removed.

The stump was sewn up with two layers of continuous silk suture, as the oozing from the adhesions was very slight, drainage was considered unnecessary. The abdominal wall was sewn up in layers and the skin united with Michel’s clips.

Convalescence was uneventful. An irregular temperature ranging from 100°-103°, which the patient had on admission, continued until two days after the second operation, when it dropped to normal and remained so. The Michel’s clips were removed on the 6th day, the wound having healed by first intention, and the patient was allowed
to sit up for a short time on the nth day. The general improvement was marked and the appetite returned. In closing these notes there are one or two points which call for remark.

Firstly:— The rarity of the condition. Haematometra associated with haematocolpos, though itself rare, is more common and easier to deal with, i.e. by incision at the vulval orifice.

Secondly:— The age of the patient, 31. From the literature which I have at my disposal, it would seem that the condition is usually diagnosed and dealt with while a girl is still in her teens. From the history it would seem that this patient started menstruating into the closed uterus when she was about twenty-one and had continued to do so for ten years. From the signs of past inflammation and the condition of the patient on admission, it is obvious that the condition, if unrelieved, was a serious menace to life.

Thirdly:— The operation. No one—and least of all the operator—could be thoroughly satisfied with the operation as performed. Undoubtedly complete hysterectomy would have been the ideal thing. Supposing the operation by the vaginal route had proved successful, the patient would have run the risk of becoming pregnant, with Cæsarian section as the only probable means of delivery. The operation as performed can at least claim to have relieved the condition and to have removed a serious menace to life.

ON THE USE OF IODINE FOR SKIN ASEPSIS BEFORE AND AFTER OPERATIONS.

J. L. MAXWELL M.D., TAINAN, FORMOSA.

We claim nothing original in the treatment to which we call attention in this paper. It is probably used already by many of the readers of the JOURNAL, but we are so well satisfied with the results, the simplicity, and the economy of this method that we want to commend it to any who still stick to the old laborious pre-operation preparation of the skin area and to the use of sterilized gauze, wool, and bandages after operation.

In brief, the method consists in painting the skin of the operation area with a solution of iodine some time before and again immediately before operation, eschewing all preparatory dressings of every kind; and in painting the wound and skin just round it at the close of, and at stated periods after, the operation, eschewing all after dressings.
The solution that we use is a 2 per cent. solution of Iodine in 70 per cent. alcohol. Various strengths are employed; we have found this quite satisfactory.

The skin of the operation area must not be washed with water before the use of iodine solution. If this is necessary it should be done the day before; but in emergency cases this is quite unnecessary even though the patient may, as is the case with most sick Chinese, have gone days without washing. It is unnecessary to shave the operation area except in so far as the hair actually gets in the way of the incision. The directions are to paint the skin with the iodine solution half an hour before operation and again while the patient is being anaesthetised; after the latter painting the area should be covered with a sterilized towel.

At the close of the operation the wound and surrounding skin is painted with the same solution; it is painted a second time after another three hours and again in twenty-four hours; after this it is painted once a day for the next four days and then every other day till the sutures have been removed.

No dressing should be applied to the operation area. When the patients are supplied with hospital clothing we do not cover the wound at all. If they continue to wear their own clothing we cover the operation area with a loosely applied ordinary (non-sterilized) towel. The rationale of the treatment is that the iodine sterilizes the most superficial layers of the skin and at the same time hardens them, so preventing the exudations of sweat carrying bacteria from the deeper layers. To apply a dressing, especially in a hot climate, is to encourage sweating and so destroy the value of the treatment. It is inapplicable to cases where drainage has to be employed and to the cases, really very rare, where firm bandage support is essential. Special care must of course be taken in haemostasis to prevent oozing from the edges of the wound. We have used this method for nearly two years before operations for more than five hundred cases and with better results than when the regular pre-operation preparation of the skin was employed. As an after operation dressing we have used it only for a few months, but for such cases as the following—12 laparotomies including 5 hysteropexies, 4 lateral anastomoses, 2 exploratory operations and 1 suprapubic lithotomy and in other operations all over the body including plastic operations on the face, radical cure of hernias, radical cure of hydroceles and removal of tumours, and we have had better results while using it than ever before.
IONIC MEDICATION.

W. E. PLUMMER, M.R.C.S., L.R.C.P.

Some Medical Missionaries in China may have desired to make use of Ionic Medication but have been deterred by the cost of the apparatus. To such, a description of a home-made outfit may be of interest, as all the requirements for doing good work can be obtained for less than £2 if ordered with drugs from home.

The following five items are necessary:—
1. Twenty to thirty Leclanché Cells (fifteen are sufficient for most cases).
2. A Table and Collector, or instead of the collector a Rheostat.
3. A pocket voltmeter.
4. Electrodes.
5. Insulated bell wire and brass terminals.

In addition to the above, the following, while not absolutely necessary, are exceedingly useful and help towards doing good work:—
6. A milliamperemeter.
7. A room with wires permanently fitted.
8. Special chairs to carry the arm baths.
10. Small switch boards for each chair.

THE ABOVE ITEMS WILL BE DESCRIBED SERIATIM.

Cells.—Dry cells are very convenient if the owner will not mind replacing them at the end of a year, but for stationary work the ordinary Leclanché Cells used for bells are the best and cheapest. About twenty of these should be obtained with three ounces of sal ammoniac (ammonium chloride) dissolved in water to each cell. These batteries can be obtained for tenpence each complete, but if suitable pots are obtainable locally it will only be necessary to order zinc rods and the porous pots containing the carbon. The cells are connected up in series, that is the wire of the zinc rod in one pot is screwed on to the terminal of the carbon in the porous pot of the next cell. When all the cells are joined together in this way a wire connected to the free carbon terminal will be the positive end of the battery while the free zinc will be the negative.

Rheostat or collector.—Some method is needed to vary the strength of the current and the simplest plan is to buy a Rheostat such as No.
311 in Schall's List, costing 18/-. The cells are connected up as described above with the rheostat and the patient in series.

A less expensive but more complicated method is to use a collector as shown in the photos. To make this a piece of well-seasoned wood that will not warp, about nine inches square and half an inch thick, must be prepared. A circle with a diameter of six inches should be drawn on the wood and at suitable positions on the circumference twenty (or more, according to the number of cells it is proposed to use) large drawing pins are inserted so as to almost touch one another. To each pin an insulated wire is soldered and the latter is then carried through a hole in the board. (It will probably be better to get the local brass smith to make brass heads with stems attached sufficiently long to pass through the board so that the soldering can be done on the other side.) The wire connected to the first stud is screwed to the carbon of the cell which contains the free zinc. The second stud is connected to the carbon of the second cell and so on. A piece of stout springy brass, four inches long and the width of the brass studs, is needed. This passes from the centre of the circle to the studs at the circumference and by moving it round one or more cells are brought into the circuit as desired. The central end of this piece of brass is fixed in position by means of a brass screw to the end of which a wire is soldered and the latter is connected to a terminal at the base of the board which thus becomes the positive terminal. The wire leading from the free zinc is attached to the other terminal at the base of the board which becomes the negative terminal.

*Electrodes.*—Flat pieces of carbon about five inches long and an inch and a half wide with terminal attached are sold for use with bichromate batteries and can be purchased for sixpence each. These carbons make good general electrodes and can be inserted in the baths or applied to the lint containing a solution of the drug to be introduced.

*Voltmeter.*—A pocket voltmeter costing five shillings, is very valuable for testing the cells and finding if the connections are good.

*A Milliamperemeter* costs about 70/-, but is not absolutely necessary as it is usual to gradually increase the current and give as much as the patient can bear.

If a room can be devoted to electrical work it is a great advantage to have wires permanently fixed and carried round to the chairs so that everything is in place and does not have to be reattached daily. In this way as many chairs can be provided as desired and one or more patients treated at the same time. The same wires may also
Sonic Medication Apparatus.
be used for carrying the current from a small coil and battery or electromagnetic machine. I use six chairs in this way with considerable saving of time.

Earthenware arm and foot baths, such as are shown in the photos, can usually be made locally at small cost. When these are filled with water and an electrode inserted the current enters by the whole of the surface covered by the water and thus the effect is not so painful as if it all had to pass through a small surface. As in Ionic Medication, the negative electrode is often painful; it is advisable to use a bath for this terminal where possible, and this can always be done when the drug is being introduced from the positive side.

A very useful commutator for use with the arm and foot baths is shown on page 50 of Schall's list. I can get a similar thing made here for a little over one dollar.

Quinine, Cocaine, Zinc, Magnesium, and Copper Salts can be introduced from the positive terminal; while Iodides, Salicylates, and Chlorides enter by the negative. Any percentage solution may be used but 2% is commonly employed.

I have found Ionic Medication of value in sciatica, neuralgia, rheumatic pains, and sometimes in gonorrhoeal arthritis; also for some non-tubercular granulomatous ulcers that would have previously been treated by scraping and for introducing Cocaine prior to skin grafting. Judging from the literature on the subject there are many other conditions in which drugs introduced by an electric current are of undoubted value.

The Cavendish Electrical Co., 130 Great Portland Street, London, W., England, publishes a little pamphlet on the subject which will be sent post free on application. Messrs. Burroughs Wellcome & Co., 44 Szechuen Road, Shanghai, also have a leaflet on this method of medication which is here reprinted:

Ionic Medication.

Its simplicity. — Scientific interest in the method of treatment known as Ionic Medication, or Cataphoresis has recently shown evidence of considerable stimulation. The simplicity of the technique and the comparatively low cost of the apparatus required, place the method within the reach of all practitioners.

Dissociation of drugs. — The treatment consists essentially in the electrolytic dissociation of drugs by the galvanic current, the dissociated ions having the power of penetrating the tissues. Drugs intended for absorption applied in the form of liniments or ointments frequently
penetrate the skin with difficulty or not at all, but by means of electrolysis they can be introduced with ease even into the deeper parts.

Advantages. — Ionic medication has the advantage over hypodermic procedure, in that, whilst drugs can, by injection methods, be introduced into the interstices and lymph spaces of the subcutaneous tissues, and even into the substance of muscles and nerves, they do not actually penetrate into the individual cells of the tissue substances, whereas the ions introduced electrically must enter every cell through which the current passes. Thus it has been found that the physiological effect of cocaine administered in this way is more durable than that obtained by the method of injection, although the amount of drug given may be much less. It has also been observed in the case of lithium after electrical administration that its elimination in the urine is extended over a longer period than is the case after oral administration.

An ion is an atom, or group of atoms, associated with a definite charge of either positive or negative electricity. Positive ions (cations) are liberated from the + pole (the anode) and attracted towards the — pole (the cathode), whilst negative ions (anions) travel in the opposite direction. In ionic medication it is important to know which ions penetrate the skin from the anode and which from the cathode. The following table indicates the direction in which the various ions move:

<table>
<thead>
<tr>
<th>CATIONS (+ Ions)</th>
<th>ANIONS (- Ions)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The Hydrogen Ions of Acids.</strong></td>
<td>Acid-radical Ions.</td>
</tr>
<tr>
<td>Ions of the metals, such as K, Na, Li, Mg, Zn, Cu, etc.; and of basic radicals, such as NH₃.</td>
<td>The Hydroxy Ions of Alkalies.</td>
</tr>
<tr>
<td><strong>The Ions of Alkaloids.</strong></td>
<td><strong>ANIONS, being negative, migrate from the Cathode (— pole) towards the Anode (± pole).</strong></td>
</tr>
</tbody>
</table>

Examples of electrolytic dissociation:

<table>
<thead>
<tr>
<th>SUBSTANCE</th>
<th>CATION</th>
<th>ANION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrochloric Acid</td>
<td>... H⁺ ...</td>
<td>Cl⁻</td>
</tr>
<tr>
<td>Ammonium Hydroxide</td>
<td>... NH₄⁺ ...</td>
<td>OH⁻</td>
</tr>
<tr>
<td>Copper Sulphate</td>
<td>... Cu²⁺ ...</td>
<td>SO₄²⁻</td>
</tr>
<tr>
<td>Sodium Salicylate</td>
<td>... Na⁺ ...</td>
<td>C₆H₄OH-COO⁻</td>
</tr>
</tbody>
</table>

Modification of properties.—Substances in the ionic form do not exert the same action as when they are in the ordinary molecular
condition. For instance, chlorine in the free state is a strong oxidising body, and a protoplasmic poison, but chlorine ions have no such properties. The same applies to iodine and to the whole class of chemical substances whose action depends on their degree of concentration. The action of those bodies which are active in the ionic form is independent of the degree of dilution.

**INDICATIONS FOR IONIC MEDICATION.**

It is essential that the ions employed shall really penetrate into the parts submitted to treatment, and shall be carried by the current into the whole thickness and the whole area of the diseased part. Local disorders situated superficially, therefore supply the cases which are most amenable to this treatment.

**DIRECTIONS FOR IONIC MEDICATION.**

The apparatus required for this method of treatment consists of the following:—

*Necessary apparatus.*—A continuous current battery of ten to twenty cells, or a switchboard to control the continuous current from the main; electrodes of pure zinc, pure copper, or carbon of various sizes; and indifferent electrodes. A milliamperemeter is necessary to register the current used. In addition, the usual cords, handles, etc., will be required.

*Strength of solution.*—The strength of solution suitable for ionic medication is 1 to 2 per cent. One 'Soloid' product, gr. 4.37, dissolved in 1 oz. of water, gives a 1 per cent. solution. Only distilled water should be used. If the electrode is made of the metal to be introduced, a 1 per cent. solution is sufficient, the supply of ions being constantly renewed from the electrodes. With a carbon electrode, it is best to use a 2 per cent. solution for moistening the pad, and to employ several layers of lint to act as a reservoir for the solution. The pad, which should consist of eight to sixteen thicknesses of lint, is thoroughly soaked in the solution and applied to the area under treatment. The lint should be of the purest quality.*

*Electrodes.*—The electrode employed over this pad depends on whether an acid or basic ion is to be driven into the tissues. The positive electrode is used for a basic ion and the negative for an acid ion, or that of a non-metal such as chlorine, iodine, etc. The indifferent electrode, which should be of large size, is also applied to

---

*Being exceptionally pure and free from soda and potash, 'Tabloid' Lint and 'Tabloid' Cotton Wool will be found eminently suitable for use in Ionic Medication.
the skin in the neighbourhood, and a current is passed through, the
strength of which is proportionate to the area of the electrode
employed, taking two or three milliamperes per square centimetre
as an approximate strength. The duration of each application
should range between 10 and 20 minutes. The indifferent electrode
may also be conveniently connected to a foot or arm bath in which a
limb is immersed.

ZINC SALTS.

Rodent ulcer—Zinc ionisation is used for the treatment of rodent
ulcer, the Sulphate being the salt commonly employed. A pad of lint
soaked in a 1 per cent solution is placed over the area of the ulcer. A
pure zinc electrode, also padded with lint soaked in the solution
and connected to the positive pole of the battery, is then applied
lightly over this. The indifferent electrode is also applied at a con­
venient spot. If the ulcer be on the face, the indifferent electrode
is best applied to the nape of the neck.

The strength of current varies with the size of the electrode,
allowing two or three milliamperes for each square centimetre area
of electrode. This is applied for 10 to 15 minutes. Most patients
can bear this current quite well, but in some cases it is advisable
to introduce a little cocaine first. This can be done by ionisation.
Lint dipped into a 1 per cent, solution of cocaine hydrochloride is
applied to the wound and the current passed for a few minutes, the
same electrodes being used as for zinc ionisation.

When the zinc ions have penetrated sufficiently, the rodent ulcer
has a milky-white appearance. This colour fades away gradually.
The treatment is repeated at suitable intervals according to the
requirements of the case.

Zinc ionisation has also been used successfully in the treatment of
carbuncle and boils, pustular eczema, varicose ulcer, and other
superficial suppurative conditions. A case of corneal ulcer has been
successfully treated by this method.*

COPPER SALTS.

Ringworm, rodent ulcer, lupus, syphillis.—Copper has been used
chiefly for the treatment of ringworm. The best salt for this purpose
is Copper Sulphate. A 1 per cent, solution is made by dissolving
one 'Soloid' product in 1 oz. of water. A pure copper electrode
attached to the positive pole of the battery is used. The procedure

* Proceedings of the Royal Society of Medicine, March, 1908, page 75.
Ionic Medication.

is exactly the same as that described under zinc ionisation. Copper ionisation has also been used for the treatment of rodent ulcer and lupus erythematosus. For syphisis, an electrode, consisting of a fine copper wire introduced into each of the suppurating follicles, has given good results.

COCAINE.

Superficial anaesthesia.—The introduction of cocaine ions will render a patch of skin insensitive in about five minutes, and is of value as a preliminary to small cosmetic procedures, such as removal of hairs, naevi, or moles. The introduction of cocaine in this way will also relieve the pain of neuralgia. For this purpose, a zinc or carbon electrode is used, well padded with lint soaked in a 1 per cent. solution of cocaine hydrochloride.

LITHIUM.

Used in the treatment of gout, rheumatoid arthritis, and synovitis. Lithium on the positive side in conjunction with iodine on the negative side has been found to give almost instantaneous relief in cases of acute gout. *

MAGNESIUM.

Warts.—Multiple warts on the hands can be quickly removed by the application of magnesium ions. These can be easily applied from a solution of magnesium sulphate, using a carbon electrode with a thick pad of lint to hold sufficient solution, or an electrode of metallic magnesium may be used.

SALICYLIC ACID.

Sciatica, neuralgia, rheumatism.—This has been used for the treatment of sciatica, neuralgia, and chronic rheumatism. A large pad soaked in a 1 per cent. solution of sodium salicylate is placed over the affected area, and a carbon electrode attached to the negative pole of the battery applied. Active salicylic acid ions are thus driven into the tissues.

SODIUM CHLORIDE.

Absorption of fibrous tissue.—Chlorine ions (negative pole) promote the absorption of newly-formed fibrous tissue, and have given good results in cicatricial contraction, Dupuytren's contraction, and apparently in sclerotic changes in the spinal cord.

POTASSIUM IODIDE.

This is a convenient salt from which to obtain the iodine ion (negative pole). It promotes absorptions of adventitious material and relieves thickening and stiffness after injury.

QUININE BISULPHATE.

The quinine ion (positive pole) is often useful as an alternative to the salicylic ion in neuralgia.

TRADE MARK "SOLID" BRAND PRODUCTS IONIC MEDICATION.

The following 'Solid' Brand Products are prepared specially for medication by electrolytic methods. One dissolved in 1 oz. (28.4 c.c.) of distilled water gives a 1 per cent. solution.

- Solid Cocaine Hydrochloride gr. 4.37 [0.283 gm.] 6/6 per Bot.
- Solid Copper Sulphate .. .. .. 6d
- Solid Lithium Sulphate .. .. .. 6d
- Solid Magnesium Sulphate .. .. .. 6d
- Solid Mercury Succinimide .. .. .. 2/6d
- Solid Potassium Iodide .. .. .. 9d
- Solid Quinine Bisulphate .. .. .. 8d
- Solid Sodium Chloride .. .. .. 6d
- Solid Sodium Salicylate .. .. .. 8d

(Physiologically pure)

'Solid' products for Ionic Medication are supplied in bottles of 25.

THE NEED FOR A POLICY ON MEDICAL EDUCATION IN CHINA.

PHILIP B. COUSLAND, M.B., C.M.

This subject was up for consideration at the Conference of Representatives of Missionary Societies in Great Britain and Ireland held at Swanwick in the month of June. The subject was introduced on the initiative of the Church Missionary Society.

It is a sign of the times that this Society wished to get information from other Societies and from all engaged in medical education in China before embarking on fresh medical schemes, and after one or
two preliminary meetings at which the mission field was well represented it was decided to refer the matter to the Swanwick Conference, the ultimate desire being that through this Conference it might come to the notice of the Continuation Committee for further advice.

A report dealing with the whole situation in China was drawn up and presented to a Sub-Committee of the Swanwick Conference, and this Sub-Committee after fully considering the report passed it on to the Conference. The report outlined the present position in China, and dealt with Chinese Government Colleges and the College in Hongkong. It then went on to treat of the medical mission schools in China and incidentally referred to the Government scheme of education.

The recommendation of the China Missionary Medical Association for five medical schools, one each in the north, west, the centre, east, and south of China, was next outlined, and the present position of these schools was described. It was then stated that four schools, in addition to those at centres suggested by the China Medical Missionary Association as of first importance, had been established, one in Mukden, one in Tsinanfu, one in Foochow, and the school of St. John's University in Shanghai teaching in English. It was further pointed out that schools in addition to this list of nine had been suggested in other centres. The minimum requirements for an efficient medical college were outlined, and probable developments in China and the need for a strong staff for Christian schools were dealt with. Some general considerations on the question of the advisability or otherwise of concentration, and the relation of possible smaller schools and teaching hospitals to the larger schools was referred to. The need for definite standards was emphasised and the pamphlet followed up with the following concluding words:

A policy is needed, and a council composed of experts should be invited to assist in framing one. This policy should be part of a large policy for the whole of the missionary educational work of the empire, because a policy which is not a part of a whole may result in an over-emphasis of a department which may make a wise adjustment of our limited resources impossible. We cannot frame this policy too soon. Delay jeopardises our chances of falling in line with the Chinese Government at this plastic stage in China's history, and may mean a multiplication of inefficient institutions, the combined cost of which would be amply sufficient for a number of institutions which by their excellence would dominate the situation in China.

Our task in China is a complex one, and our evangelistic work, e.g., is as important as our educational work. Our resources are
limited, but we may find them enough for the needs of the moment if they are wisely spent, and if they are not enough a definite policy will constitute an appeal to which the necessary response will be forthcoming.

It may be well to focus attention upon the following points:—

(1) What is our aim to be? How much is Christian medical education to attempt? Is it possible for Christian missions to take a considerable part in the training of China’s doctors from the point of view of (a) money (b) staff, (c) clinical opportunities? Should we train medical missionaries only, or should we, in addition, train men for posts in the medical services and for general practice? Are we to attempt to cover the whole field with medical colleges, or should we concentrate on a few type institutions? Our aim should be related to what we consider to be a sound and practicable policy.

(2) If concentration and consolidation are considered wise, how should these be effected, and to what extent? If further extension is called for, in what order should this take place? Can we frame a policy on a minimum and maximum basis arranged in order of urgency, and show clearly what societies are included in the scheme, and what it would involve for these societies?

(3) We should consider the effect of medical education on general medical mission work, and our whole point of view as a missionary agency should be steadily borne in mind.

(4) In any scheme which may be suggested the possibility of cooperation of hospitals where medical education is carried on other than those which give a full course should be kept in view. For instance, it would be well to consider whether the general scientific part of the medical course could take place at one centre, and the later stages at specially selected clinical schools.

(5) The minimum requirements of an efficient medical school should be clearly stated. This statement should include accommodation, equipment, staff, clinical work, the number of beds to each student, and the maximum number of students to each teacher.

(6) A policy should show the relation of medical education to schemes of general education.

(7) In addition, it would be well to decide what is necessary for the training of medical assistants.

After discussion at Swanwick the whole subject was referred to the Continuation Committee, and it is expected that that Committee will take steps to have the matter considered in order that a wise policy may be adopted.
A meeting of a Medical Sub-Committee of the Continuation Committee was held on July 4th and at that meeting the following resolution was passed:

"THAT the Committee has received and read with great interest the Report on Medical Education in China presented to the United Conference of British Missionary Societies at Swanwick and feels that the matter dealt with requires immediate and exhaustive investigation. The Committee has learned with much satisfaction that Dr. Cochrane is about to travel in China, and it is convinced that the further investigations required on the subject of medical education in China would be very greatly helped if Dr. Cochrane would be good enough, in conference with medical missionaries in China, in as wide an area as may be available for him, to collect all the information he can obtain on the questions raised in the Report, and to furnish the Committee with the results of his enquiries."

**NURSES' ASSOCIATION OF CHINA.**

**President** :—Miss Mira D. Gage,
Yale Mission Hospital, Changsha.

**Vice President** :—Miss Margaret Murdock,
Presbyterian Hospital, Hualiuyan, Anhwei.

**Secretary** :—Miss Alice Clarke,
London Mission Hospital, Shantung Road, Shanghai.

**Ed. Secretary** :—Miss Maud T. Henderson,
The Slave Refuge, 7 Brenan Road, Shanghai.

**Treasurer** :—Miss Mary Hood,
Methodist Mission, Soochow,
and the Registration Committee.

A full list of the new officers and an account of the Business Meetings held at Kuling will be published in the next issue. It is good to know that there were good meetings and that there is every prospect that the Nurses' Association has taken on new life. Subscriptions for the Medical Magazine should be sent to the Magazine Department, Presbyterian Mission Press, Peking Road, Shanghai.
Foods may be said to include everything taken into the system capable of being utilized directly or indirectly to build up normal structure, repair waste, or produce energy in any form.

Diet is a mixture of food materials of various kinds habitually taken in such quantity as is needed to maintain or improve the condition of the system.

Dietetics is that part of the medical or hygienic art which relates to diet or food; rules of diet. The whole of dietetics lies in determining whether or not bread is more nutritive than potatoes.

For the maintenance of a proper degree of health and strength, the individual must ingest an amount of food sufficient to meet the daily loss of nitrogen and carbon. This must necessarily vary according to circumstances and hence no rule can be laid down to fit all cases. The best that can be done is to make certain general rules based on the amount of work performed, for the greater the amount of work done the greater the amount of food required to meet the necessary consumption of fuel and to repair the tissues. When performing heavy labor the naturally increased desire for food is shown particularly in the direction of fats, and secondarily of proteids.

Knowing the composition of a given article of food, the proteid, fat, and carbohydrate value of a given weight can easily be determined, and thus one can construct standard dietaries for the various conditions of bare subsistence, rest, and performance of various amounts of daily labor.

According to some authorities the following proportions are given: for each part of proteids, two-thirds of a part of fat, three and one-sixth parts of carbohydrates, and one-fourth of a part of mineral matter, the proportion of one part of nitrogen to fifteen of carbon. Some say these proportions should be changed, not only on account of the fact that an excess of proteid is a burden to the system, but also for economical administration, since the nitrogenous foods are, as a class, by far the more expensive. We were told that four ounces of proteid, four ounces of fat, and eighteen ounces of carbohydrate, besides mineral salts and water, are sufficient for a person's daily need.

*Read at the annual meeting of the Nurses' Association of China, held at Kukiang, July, 1912.*
In any dietary, nutritive value must not be the sole consideration, for taste and variety are highly important, and the ability to digest and assimilate has to be promoted.

It is to hospital dietary that this paper will be limited and to the foods that the Chinese like and which are at the same time nourishing and tempting even when there is no appetite. It is a patent fact that in China, where we need to carry our hospital administration on a very economical basis, we are apt to think that since people here live on very cheap food that sometimes no attention needs to be paid to the diet of patients, unless they need very strict diet for their recovery. So often the kitchen is given to the entire charge of the cook who takes his squeezes and gives the patients very poor food—poor as to food value. Often the treatment has to be protracted, and on account of that the patient’s patience and purse do not hold out, and many give up before they are cured, to the impairment of the doctor’s reputation. Sunlight, fresh air, and nourishing food play such an important part in the cure of diseases that it behooves us to study into this subject of dietetics. The first two named articles are fortunately obtained free of cost and the third we are thankful to say that we can secure at very low rate, if food in China is not the cheapest in the world. Cheap food does not mean that it is without food value.

Notice how the Chinese live in their homes. The rich have rice, vegetables, and meats. The poor also have rice, vegetable and substitutes for meat. These are the wonderful varieties of beans and modifications of beans. There are the bean curd, soft bean curd, yellow or black dried bean curd, bean sticks, bean balls, bean cream in sheets and sticks, yellow bean sprouts and green bean sprouts, the white and red bean cheese, black dried beans, bean flour, bean vermicelli, bean sauce, and bean sauce oil. This last named is said to be the basis for the expensive sauces such as Worcestershire sold in the market of Europe.

In the country any one can have a net and go into the rivers and get a supply of fish which abounds in China. The teeming wild game of all kinds, the chickens that do not depend on feeding but live on what they gather in the country, hence eggs too are plentiful. It is when floods overtake the people year in and year out that so many are driven to our doors for charity. To these we have a duty, not only as their doctors and nurses, but we must be their health educators as well.

Instead of candy to spoil the teeth, roasted lima beans are given the children to exercise them with and to add the needed percentage of nitrogen in their system. Experience has taught them to be sparing
of meats in this tropical climate and it is a good thing, as meats spoil so readily in the summer and the people are not careful about the cattle they slaughter. In the summer we use more of beef, fresh fish, eggs, and chickens instead of pork.

For those who have a general diet, in the morning we have beans, bean curd, fresh vegetable, and a little dried turnip or squash to go with the soft rice. At noon there is one kind of meat, some form of beans, two kinds of vegetables to go with the rice. At night some form of bean curd, eggs, and two kinds of vegetables to go with the rice.

During fruit seasons we buy fruit for patients and encourage them in the use of ripe fruit. The large variety of native vegetables in different seasons seems to relieve the needs and craving for fruit. We discourage the use of salt vegetables, salted meats, and peppers. Small quantities act as appetizers and may be allowed.

In the line of vegetables we have all kinds of fresh beans—pole beans, string beans, and peas rich with nitrogen. That is one reason why vegetarians in China have thrived.

For restricted or limited diet for the sick, the soft rice or gruel, arrowroot flour, lily bulb flour, bean curd cheese, vermicelli, eggs, vegetables, or light meats cooked very tender, scraped beef, and cooked fruit form quite a variety to be served to convalescents, or people with weak digestion.

In cases of typhoid or prolonged fevers, dysentery or kidney diseases where the diet has to be rigid, we have not only to require the vigilant care of good nursing, but find that we have to gain the patient's full confidence in order to get their fullest coöperation. A strict milk diet is very hard at first to those who have never tasted milk. It is easier to make a child take it, but by giving a bite of ginger to take the taste off after taking, patients may soon acquire a taste for it. Those who are anxious to get cured are generally patient and willing to try anything. Sometimes an ocular demonstration will go a great way in enlisting the help of the patient and relative or mother in case it is a child.

Not long ago an only son of one of our day-school teachers was taken ill with Bright's disease. The child had been in bed for two weeks when I found him all swollen and in very bad condition. I asked the mother why she did not bring the child to the hospital; she said she thought it only malaria and that he would soon get better. All this time he was given anything he wanted to eat. The child was now carried to the hospital, and put under a very rigid diet. He
protested against the milk and rice water. At first the mother was heart broken and while the nurse's back was turned she would give him things to eat. The child was getting steadily worse and one day the nurse caught her feeding him with vegetables and meat from her bowl. I reasoned with her, but it did no good. Finally a happy thought came to me to let the mother see the albumin test of the urine herself. I told her that if she did not help me her only son would die. That was too serious and the lesson went home and she helped. Next day the test showed decided improvement and her faith in the milk diet gained ascendancy. The child cried for food and begged for the mother to carry him home, but the ocular demonstration of the clearing of the urine and the reduction of the swelling of the body, the returning of the child's strength outweighed her biased sympathy for her child's hunger in her now enlightened heart, and soon she was rewarded by the complete cure of her son.

With regard to feeding patients broths I find that the simply straight meat broths are not so welcome as broths flavored with vegetables like turnip, arrowroot, celery, dried dates, onions, or a handful of rice. Where vegetables have to be withheld for any length of time, the system being so used to them craves for them and they may be given in this form when only liquid food is allowed.

Grape juice, lemon juice, pear or lichee juice make delicate and refreshing drinks. Egg albumin, fresh beef juice, rice water cooked almost like jelly save many a case of dysentery where small quantities have to be given at frequent intervals.

No amount of skilful cooking will tempt a patient's appetite when fever lasts or the tongue remains coated. It does require art to bring a prolonged case of dysentery or typhoid through, maintaining the patient's strength and keeping her from looking emaciated. The feeding at short intervals plays an important part in keeping the bodily weight even. While dietetics help the doctor it is the business of the profession to see that there is an appetite created for the dietary. This can be easily understood from the coatings of the tongue, which forms the dependable index of the condition of the alimentary tract. Idiosyncrasy has to be taken into consideration too, for "What is one man's meat may be another's poison." Carefully composed menus for the several daily meals are not practical. It is sufficient if the general rules of a wholesome diet are followed out. Obviously in regard to particulars, each patient must be a law unto himself, and the closer the observance of the general principles of the dietary, the quicker will be the restoration of the patient to health.
IN MEMORIAM:—REV. ROBERT THOMAS
BOOTH, M.B., B.Ch., B.A.O., D.T.M. AND H.

It is with very great sorrow that we have to record the death of the Rev. Dr. R. T. Booth of the "Hodge Memorial" Hospital, Hankow, China. He passed away during his furlough after an operation in a nursing home at Cork, Ireland, his native city, on June 22nd.

Born in Cork in July 1873, Robert Thomas Booth grew up in a religious atmosphere. His father was, prior to his marriage, a member of the Protestant Episcopal Church and his mother a Presbyterian. But shortly after their marriage they joined the Wesleyan Methodist Church and thus it was that Booth was brought up in Methodism. In early life he decided for Christ and became engaged in Sunday-school and other Christian activities.

Entering Queen's College, Cork, he passed through its medical curriculum and graduated in the Royal University in 1899 taking the degrees with honours of M.B., B.Ch., B.A.O. The same year, having decided some years previously to offer for Medical Foreign Missions, he was accepted as a candidate for the Irish Methodist ministry. He was a brilliant student, taking honours and scholarships at each step, and his manly Christian character made him a power for good amongst his fellow-students. He took a leading part in introducing and sustaining the Student Volunteer Missionary Union amongst the students, and was also an active worker of the Christian Endeavour Society of which he was their representative in China.

In December, 1899, he was ordained to the Christian ministry in Wesley Church, Cork, where he had been brought up, and sailed with Dr. S. R. Hodge for Hankow. In 1901 he was married to Miss Edith Perrott of Dublin and in her found a true helpmate.

To the medical work in Hankow he consecrated his numerous gifts. As colleague first to Dr. Hodge and then to myself, he did much in developing the hospital and bringing it to its present state of efficiency and fame. He was a careful physician and an intrepid surgeon. Physically a strong man he never spared himself. But his activities were not alone confined to the hospital. For some time he was associate editor of the China Medical Journal and a member of several committees. He was President of our Central China Branch of the Association, which owes much to his interest, work, and enthusiasm.
As Treasurer to the Central China Tract Society, he devoted much thought and time. For the Union Medical College he did much for its development. Probably no member of his Mission was better known or respected outside of missionary confines, as was Booth. Always jovial and splendid company, his presence was hailed with delight in every circle. But he never relaxed his principles. On Kuling he was very popular as a doctor and served on the Council. As an athlete he was in the front rank. In fact, he stood forth from his compatriots in every sphere of life. He was rather a man of action than words, except in conversation or debates, for in the pulpit or on platform he lacked the eloquence for which his countrymen are renowned. The loss which his Mission has sustained in particular and China generally can never be estimated. In the prime of life, with, humanly speaking, many years of work before him, to be "cut down" is beyond our comprehension.

He passed through two political cataclysms viz.—the Boxer outbreak in 1900 and the Revolution of last year. It is common knowledge how heartily he threw himself into the latter and the heroic deeds he performed, especially in assisting in the rescue of the patients and staff of the Hospital and the inmates of the School for Blind Boys, whilst Hankow was in flames.

I met him in Shanghai last February, he en route for Ireland and I on my way to Hankow. How fit he looked! What plans for the future we talked over! How anxious he was to get back again to China? Then came a cable "Booth dead." Who could realize it! No man ever had a better friend or colleague. Always bright and breezy, forceful and energetic, kind and sympathetic, with a genuine manly Christianity that commended itself to all with whom he came into contact, he made his mark in China and has left in our hearts an aching void which the world can never fill. May the God of all comfort hold in His keeping, his aged mother, devoted wife, and three darling children.

W. ARTHUR TATCHELL.
IN MEMORIAM:—REV. PHILIP REES, M.D., B.Sc., B.A. (London).

It is not often that one is called upon to endure the loss of a dear colleague and also one's greatest friend in less than six weeks, but that is what has recently happened to me. On June 22nd my colleague—the Rev. Dr. R. T. Booth—died in Ireland as the result of a minor operation and now on August 3rd the Rev. Dr. Philip Rees of the Wesleyan Methodist Hospital, Wuchow, South China, has passed away, after two operations for appendicitis. The death of each was of a tragical character and both were in the prime of life and the zenith of their career as medical missionaries of the same Society.

Dr. Philip Rees and I were students together in London, although connected with different hospitals. In the early years of our student life a friendship was commenced which had developed and strengthened as the years passed by. His brilliant gifts, which even in those early years were evident, justly called forth the admiration of all who knew him. At that time, no other medical, scientific, or art student in London obtained greater honours, or more easily eclipsed his fellow compeers, than did Rees. Such brilliant achievements were enhanced by the natural modesty with which he carried off his numerous successes. I believe that, with the scholarships he won, very little, if any, money was needed to finance the whole of his college career, besides his gold and other medals.

He was a son of a Wesleyan Methodist minister and one of a large family, and I know that the modest stipends available in our ministry could not in any degree meet the expenses incurred by such a career as Rees undertook and passed through.

Generally amongst students it is considered a privilege of no mean order to be even identified with such outstanding men as was Rees. But I was honoured with his most intimate friendship and to each other we revealed our deepest thoughts and highest aspirations. So close was our friendship and sincere our affection that amongst our friends and relatives we were known as David and Jonathan. True it is that his brilliant gifts appealed to me, but, in my estimation, his graces were greater. As I think of his strong noble character, pure heart and consecrated life, with nature overflowing with affection, his gifts merely form the background upon which his real nature is made to shine out more conspicuously. He was the most modest and retiring man I ever knew.
If instead of becoming a medical missionary he had yielded to the numerous appeals and embraced the opportunities to remain in England, there is very little doubt but that he would have risen to one, or more, of the highest positions in either the medical, literary, or ministerial professions. But he chose the better part!

He had heard the Divine "call" and realised that it was—

"To Thee, Thou dying Lamb,
I all things owe;
All that I have, and am.
And all I know.
All that I have is now no longer mine,
And I am not my own : Lord, I am Thine."

Before studying medicine, he was a student and afterwards assistant tutor in one of our Theological Colleges in England. His theological and Biblical knowledge was much above that of the average cleric. As a preacher his services were in constant demand. His preaching was cultured, eloquent, evangelical, and with power. Well do I remember the day on which he told me of his decision to offer for China. I knew the confession was not far off. As I write I can again catch the passion of his prayer, with the checks of emotion, as we knelt together in my college den and gave ourselves afresh to God and China.

Then came our ordination together in the historic Wesley's Church, City Road, London. Two days afterwards I sailed for my second term in China, but he was stricken down with scarlet fever and so his departure was postponed for several weeks. He then sailed for Hongkong and joined the late Rev. Dr. Roderic Macdonald at Wuchow.

Six years ago he travelled from Wuchow to Kuling to act as my "best man." Three years since he, with his wife and then only child, spent the summer at Kuling with us. We were home together on furlough in 1911. His deputation work, especially amongst the students of schools and colleges, will never be forgotten. He not only appeared to be, but was, inspired.

Only a fortnight since I received a letter from him written at Wuchow telling me of his plans for the autumn and how he was looking forward to undertaking some pioneer work. He was never a physically strong man and has suffered all his life in China. Many of his friends and relatives in England, during his furlough, tried to prevail upon him not to return to China. But he knew that only in China would he be fulfilling God's plan.
I am not competent to write of his life and work in South China. This is but a very halting and imperfect tribute to my dearest and closest chum of many years. My pen falters and my eyes are bedimmed with tears. If my heart bleeds, what must be the condition of the loving hearts of his parents, brother and sisters, his dear brave wife and two darling children! God help them. Then we think of the hundreds of Chinese to whom he ministered and who must have loved him, of his colleagues and friends. May God comfort them. May these “home-callings” to higher service and fuller spheres inspire us with a spirit of greater devotion and may we be more faithful in the service to which God has called us, so that we may be ready when He comes.

"So I am watching quietly
Every day,
Whenever the sun shines brightly
I rise and say:
Surely, it is the shining of His face!
And when a shadow falls across the window of my room,
Where I am working my appointed task,
I lift my head to watch the door, and ask,
If He is come."

W. ARTHUR TATCHELL.
The China Medical Journal.

Vol. XXVI. SEPTEMBER, 1912. No. 5.

The yearly subscription to the China Medical Missionary Association is $4 Mex., payable in January of each year. This includes the Journal and postage on the same, whether local or foreign.

All changes of address, departures on and arrivals from furlough should be notified to the Secretary and to the Presbyterian Press. Members are requested to invite new comers to join the Association.

The Editors will be obliged if all those who are building hospitals will send copy of plans and detailed description (in duplicate if possible). These will be loaned, on application, to members who are proposing to build.

Editorial.

Summer is over and we are thankful to be alive and well. From the various points of rest and refreshment the busy ones are beginning to depart for the scenes of their normal activities taking with them, we trust, enough of that good fellowship of kindred minds, renewed energy, and ozone to last them for the next ten months or a year; while those who belong to the Can't Get Away Club are looking forward to their return and plans for the future.

The state of the country, at present relatively peaceful, is one that can not be viewed without apprehension. While the Government itself is friendly, the increasing spirit of lawlessness combined with awakening national spirit and the natural resentment for the encroachments—real and imaginary—of foreign nationals might easily be turned by unscrupulous and scheming demagogues into a wave of hostility that could in a day undo years of effort at the cost of valuable lives.

All that we can do is to go on with our work with wisdom, tact, and consideration; avoiding causes of offense and looking forward in hope to the coming of that better day, the dawn of which has only just begun to break in the hearts and lives of God's children of China.

PEKIN AGAIN.

Humility is a virtue which we should all strive to attain, and it is doubtless good for us to be reminded that we are not the whole thing. A correspondent from the piratical South wants to
know why we selected Pekin, "a place so inaccessible and remote," to hold our next meeting? and, too, it is "impossible" on the score of time and expense.

It is generally customary for organizations like ours to hold their meetings, when practicable, first in one section of the country then in another, governed by such facts as number of people accessible, desire for the meeting, and the ability to take care of the same; all of which were fulfilled in the present selection. That more of the South China members can not attend is unfortunate and regrettable; but give the poor down-trodden uninhabitable North a chance. They have quite a sizable little city up there which is in itself worth seeing; incidentally it is the capital of the nation, and as such deserves some consideration; and last, and by no means least, they have a body of energetic capable medical men with a first-rate Union Medical School, neither of which can be hid under a bushel or even two.

The die is cast and Pekin with all its troubles and perplexities is selected.

The North China men are bestirring themselves, and it is up to as many of us as can possibly arrange it to go.

We will try to bear in mind the absent member; and, while wishing that he could be with us, will try not to incriminate him in any snap legislation that he will live to regret.

There are matters of importance to come up, and let us hope that we may have wisdom to settle them for the best.

The date set by the Pekin Association is from the 4th to the 8th of January, 1913.

So let all come who can; and help to make the next general meeting of the C. M. M. A. both an inspiration and a pleasure.

PUBLICATION COMMITTEE.

The long looked for revision of Porter Smith's contributions to the Materia Medica and Natural History of China (1871) has at last appeared. It is a volume of 558 pages covering the Vegetable Kingdom only, and is so much more than a revision as to be practically a new book. It abounds in evidences of careful research, especially into the Pêntsao, and intensifies our regret that Dr. Stuart was not
Publication Committee.

spared to complete the set of books on the Vegetable, Animal, and Mineral Kingdoms which he had intended to bring out.

A glance through its pages shows the extreme difficulty in identifying the Chinese names of plants and fixing their botanical positions. Dr. Stuart changed his opinions as to some identifications he made for our Medical Lexicon. His work will be exceedingly valuable in view of the Materia Medica and of the second edition of the Lexicon at present on the stocks.

Every medical missionary should be the possessor of a copy. Its title is "Chinese Materia Medica, Vegetable Kingdom," by Rev. G. A. Stuart, M. D., and it is published by the Presbyterian Mission Press at $3.00. Need it be added that the book is in English except the names of drugs, etc?

The Editorial Secretary has been fortunate in finding very efficient Chinese help in Edinburgh and good progress has been made both in editing text books and in preparing for the second edition of the Lexicon. It is hoped that the Committee will be able to meet for several weeks about Conference time so that this edition may go to press early in 1913. In any case it cannot be published for a year from now. It is hoped that a Chinese-English companion volume may also be published.

Dr. Hill of the Peking College is preparing a set of lectures on Public Health, and these are translated pari passu. This is a very satisfactory method as many of our books follow the original too closely and are not adapted to Chinese conditions, and we hope it may be more frequently followed in the future.

Messrs. Burroughs Wellcome and Co. have recently produced tabloids of Kō-sam or Khō-sam for the treatment of dysentery and allied affections. It is said that the name is a Chinese one. The plant is Brucea sumatrana (nat. ord. Simarubaceae). It is official in the Pharmacopoea Nederlandica. Can any one give the Chinese characters for the name? I have asked B. W. and Co. but they do not know them.

P. B. C.
We have just received from the publishers, P. Blakiston's Son & Co., Philadelphia, an exceedingly interesting and useful book on Microbiology, "a text-book of Micro-organisms general and applied," edited by Charles E. Marshall with some of the best men in the United States and Canada as contributors. The book is intended to be used as a text-book, but at present is not likely to be used in China as there is no institution doing sufficiently advanced work in that line in English and probably not in Chinese. It would, however, be a book of great value to the laboratory worker and investigator. The net price is $2.50 gold.

The same firm kindly sends notices of the following recent publications.

**Published July 1st, 1912.**


Sold by Subscription only.

**Published July 17, 1912.**


Cloth $2.25 Postpaid.

**Published August 6, 1912.**

**Wilcox.** Materia Médica and Therapeutics, Including Pharmacy and Pharmacology. By Reynold Webb Wilcox, M.A., M.D., LL.D., Professor of Medicine (Retired) at the New York Post-Graduate
Branch Reports.

Medical School and Attending Physician to the Hospital; Consulting Physician to the Nassau Hospital, and to St. Mark's Hospital; ex-President of the American Therapeutic Society; Formerly Vice-Chairman of the Revision Committee of the United States Pharmacopoeia, etc. Eighth Edition. Thoroughly Revised. Octavo. xi+832 pages.

Cloth, $3.00, postpaid.

Published August 8, 1912.


This edition contains 33 more pages than the first.

Branch Reports.

Fukien Branch.

The Fukien branch of the C. M. M. A. held two very interesting meetings this year at Kuliang.

The following papers were read:

Report of a case of suspected Pulmonary Blastomycosis. Dr. Snoke.

Report of a case of Papillomatous Ovarian Cyst. Dr. Betow.

Surgical Disease complicated by Hypochondria. Dr. Gossard.

Sodium Salicylate in the treatment of Infections of the Ciliary Body. Dr. Gossard.

Dr. Wilkinson presented 1. Case of Supra pubic Lithotomy. 2. Operation on a fractured patella.

Dr. Bontheis and Dr. Mathews were elected to membership.

The officers for the following year are:

Pres. Dr. Pakenham; Vice-pres. Dr. Snoke; Sec'y and Treas. Dr. Betow.

Lena Hatfield Sec'y.

I enclose three papers for publication in the Journal.

Kuliang, August 19th.
THE RAPID CURE OF AMOEbic DYSENTERY AND HEPATITIS BY HYPODERMIC INJECTIONS OF SOLUBLE SALTS OF EMETINE.

By LEONARD ROGERS, M.D., F.R.C.P., I.M.S., PROFESSOR OF PATHOLOGY, CALCUTTA.

Ipecacuanha is a drug with an interesting past and a brilliant future. The Brazilian root was first brought to Europe by Piso in 1658, and was successfully used by Helvetius in the treatment of Louis XIV, and sold as a secret remedy to the French Government. It was given for dysentery, chiefly in small doses, by Twining and many other Anglo-Indian physicians, but it was not until 1858, exactly two centuries after Piso, that Surgeon E. S. Docker, I.M.S., introduced the use of large doses (60 grains two or three times a day) of powdered ipecacuanha in the treatment of severe dysentery in Mauritius, with the remarkable result of reducing the death-rate of the disease from a former annual rate of 10 to 18 per cent, to only 2 per cent. His excellent results were rapidly confirmed by numerous physicians in India, but it was not until 1880 that Docker's great services to humanity were tardily rewarded by the Government with a gratuity of £400! Maclean and Norman Chevers in 1886 advocated the use of ipecacuanha in the treatment of acute hepatitis. But two or three decades later the pendulum again swung in the opposite direction, and the drug was largely replaced by ammonium chloride in hepatitis and by salines in dysentery, chiefly as a result of the success of the latter in very early and mild attacks of colitis. Indeed, only a few years ago a committee of London pharmacologists actually advised the omission of this invaluable drug from the medical panniers to be taken on field service by the army in India, so far had the Brazilian root fallen in the estimation of the medical profession. During the last few years ipecacuanha has once more gained ground, mainly on account of Sir Patrick Manson's advocacy of it in dysentery, and of the writer's success in the treatment of early acute amoebic hepatitis.

Doubtless, the principal cause of the vicissitudes of ipecacuanha is the production of very disagreeable and exhausting nausea and vomiting by the large doses which are essential to obtaining its full curative effects. This serious drawback is only partially overcome by the present methods of giving the drug in salol or keratin coated pills, and the use of opium, chloral hydrate, or tannic acid to check vomiting. Last year Vedder showed that emetine, the principal alkaloid of ipecacuanha, has the power in high dilutions of destroying amoebae in broth cultures, although it is not clear that this was a pathogenic form, which most recent authorities believe has not yet been cultivated. I have, therefore, tested the effect of the soluble emetine hydrochloride on A. histolytica in dysenteric stools. I have found that, on placing a piece of mucus containing numerous active amoebae in normal saline solutions of this salt, the pathogenic organism is immediately killed and materially altered.
in its microscopical appearances by a 1 in 10,000 solution, while after a few minutes they are rendered inactive, and apparently killed, by as weak a solution as 1 in 100,000.

I therefore decided to try if this powerful alkaloid can be safely administered hypodermically in the treatment of amoebic disease, and have obtained such striking results in a few patients that it seems to be advisable to make them known to others before the ensuing rainy season of widely prevalent amoebic disease. The following three cases, which have been selected because in none of them could the patient take ipecacuanha by the mouth, will suffice for this purpose, although much further experience will be necessary before the full value and limitations of the method can be ascertained.

**Case 1.**—*Acute Haemorrhagic Amoebic Dysentery, in a Patient who could not retain Ipecacuanha, Rapidly Cured by Emetine Hydrochloride Hypodermically.*

A Japanese female, aged 29, was admitted to the cholera ward under my care with a history of diarrhoea and sickness for three days, with four or five black stools daily, and severe epigastric pain. Specific gravity of the blood 1.052, pulse fair, transfusion not necessary. A small stool containing blood and mucus was passed soon after admission, but I could find no amoeba in it. Castor oil mixture and bismuth ordered.

**Second day.**—Three stools containing black blood passed during the night. Severe epigastric pain and vomiting of glairy mucus, without blood, still present. Calcium chloride given. By the evening four large black haemorrhagic stools had been passed; the pulse was feeble, restlessness and deep sighing respiration were present, as well as severe epigastric pain. Duodenal ulcer was suspected, and 20 minims of tincture of opium ordered.

**Third day.**—At 7.30 a.m. the condition was still grave, but there was less restlessness. A large black haemorrhagic stool had just been passed, in which I noticed a few yellow pus-like streaks, and at once suspected amoebic dysentery. The transverse colon could now be felt as a thickened and tender mass in the middle line above the navel. Ten grains of Dover's powder were ordered. On examining the stool microscopically I found numerous large amoebae having the characters of *A. histolytica*. As the Dover's powder had been vomited, 10 grains of ipecacuanha with 5 of tannic acid was given, but this also was vomited, and the position became critical. As I had recently obtained emetine hydrochloride from England, I dissolved some in sterile normal salt solution, and at 3.30 p.m. injected hypodermically one-sixth of a grain, being the equivalent of 15 grains of ipecacuanha. This small dose was used for the first trial. No local irritation was produced, while, to my surprise, neither nausea or vomiting ensued. At 7.30 p.m. one-third of a grain more was injected which also produced no ill-effects, not even temporary depression of the pulse.

**Fourth day.**—Only one small black stool was passed during the night; the general condition much improved. One-third of a grain of emetine hydrochloride was injected at 10 a.m., making the equivalent of 75 grains of ipecacuanha in sixteen and a half hours, without the slightest unpleasant effect on the patient, who had been unable to retain 1 grain when administered by the mouth.

The further progress was uneventful. The next three stools
contained steadily decreasing quantities of blood, no further dysenteric motions were passed, and the thickening of the transverse colon could no longer be felt. After another week, during which ipecacuanha was given by the mouth, the patient left hospital, and she sailed for Japan with her husband a few days later in apparently good health.

The remarkably rapid recovery from the very grave haemorrhagic type of amoebic dysentery in this case can, I think, be safely attributed to the hypodermic administration of the active principle of ipecacuanha.

CASE II.—Severe Chronic Amoebic Dysentery, of Three and a Half Years' Duration, Rapidly Cured by Hypodermic Injection of Emetine Hydrochloride.

A high class Indian patient, who had suffered from repeated attacks of dysentery for three and a half years, and continuously for six months, during the last four of which he had been bedridden, had been variously treated by a number of eminent medical men, and had had a course of dysentery vaccine, but without avail. Recently four very experienced surgeons had advised colotomy as the only chance of getting the extensive ulcers to heal, but his Indian medical adviser did not think he was in a condition to stand the operation. The stools had been sent to me for examination, and I found amoebae having the characters of A. histolytica. When I first saw him in consultation he was extremely emaciated, over twenty foul-smelling stools of pure mucus and blood were being passed daily, his pulse was 120 and over, and intermittent, and his general condition very bad. As he was quite unable to take ipecacuanha by the mouth, I advised subcutaneous injections of the emetine hydrochloride. The first dose was one-sixth of a grain, which was rapidly increased to one-third twice a day, being equivalent to 60 grains of ipecacuanha.

On the second day the blood had disappeared from the stools, and faecal matter appeared in them; the mucus then became steadily less, and disappeared finally after ten days. Much pain and trouble arose from extensive ulceration of the rectum, for which 10 grains of calcium permanganate in a pint of water was injected daily, with a good effect, an alum solution being later substituted for it.

After ten days he was able to be weighed, and scaled only 80 lbs., although a tall man. His diet was now gradually increased, and during the next two weeks he put on 8 lbs. in weight. The emetine was gradually reduced until only one-sixth of a grain was being given every other day to guard against a relapse. He was now eating solid food, and able to get out into the verandah morning and evening; and was passing two or three faecal motions daily, being quite free from all dysenteric symptoms.

His relations were much astonished at the result of the treatment, while I can testify that his recovery is by far the most remarkable I have seen in chronic amoebic dysentery, the difficulty in dealing with which is so well known to all workers in the tropics. I have no shadow of doubt that he owes his life and rapid recovery to the new method of administering the active principle of ipecacuanha.

He never once vomited during the treatment, while after the first few doses there was also no nausea, although he received the equivalent of 1,000 grains of ipecacuanha within four weeks.
CASE III.—Acute Hepatitis, in a Patient who could not take Ipecacuanha by the Mouth, Rapidly Cured by Emetine Hydrochloride Hypodermically.

A European lady who had been suffering from fever and pain over the liver for ten days had had an attack of dysentery some two months before. Widal tests for typhoid and paratyphoid were negative. Ipecacuanha was now given by the mouth for three days, with the result that the hepatic pain became less and the temperature declined to a lower level.

On account of the great nausea and vomiting she refused to continue the ipecacuanha, and during the next three days the temperature rose steadily to reach 103° F. in the evenings, and the hepatic pain recurred. At this period I was asked to see her in consultation, and injected one-third of a grain of emetine hydrochloride in the afternoon. The temperature fell steadily during the next twenty-four hours to 100° F., and the pain had also disappeared. I now gave a second injection of half a grain, equal to 45 grains of ipecacuanha. No vomiting and practically no nausea were caused by these doses, and her medical attendant reported to me that she was much better.

Four days later I was again asked to see her, as the temperature had once more risen to 103° F., and it was feared that liver abscesses would result if the disease were not quickly cured. I repeated the former doses on that and the following day, and the temperature declined steadily, to reach the normal in three days, when two more similar doses were given to guard against any recurrence, and no more fever or other trouble has occurred.

Emetine hydrobromide may also be given subcutaneously, but is not quite so soluble as the hydrochloride.

In view of the strikingly good results obtained in these three cases which are illustrative of the most important types of amoebic disease, and in each of which the administration of ipecacuanha by the mouth was impracticable, I venture to think that no apology is needed for bringing this method of treatment to the notice of physicians in the tropics without delay. Should further results fulfil the great hopes raised by the successes above recorded, it will be difficult to exaggerate the boon which will be conferred on the numerous sufferers from the intractable and deadly amoebic form of dysentery and its very serious hepatic complication.

MEMORANDA: MEDICAL, SURGICAL, OBSTETRICAL.

On the Genesis of the Venous Pulse. I am sorry not to have replied earlier to the letters of Dr. Wilkinson and Dr. Verdon which appeared in the Journal of May 4th, but my absence from home prevented my attending to them.

Dr. Wilkinson says that the wave of the venous pulse ought to be greater in the vertical position, if my suggestion that it is an inertia wave be true, "for then the inertia of the column of blood in the vein is augmented by the effects of gravity." He forgets, however, that the amount of blood which comes down from the head depends on the amount which goes up, and gravity opposes its going up in the arteries quite as much as it encourages it to come down by the veins, and consequently has no resultant effect on the flow. The second part of Dr. Wilkinson's letter is probably correct, but I was not dis-
cussing in my communication what takes place in abnormal conditions, such as the instance he gives when the auricle and ventricle contract together, where, obviously, if the auricular contraction be forceful enough to effect anything it must be a regurgitation.

Dr. Verdon definitely states that the blood "stream is swifter" in the jugular vein in the upright position than in the recumbent. Whether this statement is based on observation or inference I do not know, neither can I judge whether Dr. Verdon means that more blood comes down the jugulars in the erect than in the horizontal position. A "swifter" flow may go with less blood if the jugulars are contracted. If more blood comes down more must have gone up, and it would seem on this supposition that a fainting person gains nothing by lowering the head, which is contrary to experience.

Whatever the origin of the a wave the horizontal position is likely to develop it, since the tone of the vessels relaxes, and oscillations in them are far more easily produced. Moreover, the acclivity and declivity of the a wave is not necessarily steep, as Dr. Verdon maintains it would be if it be caused by inertia and the block be sudden. The steepness depends chiefly on the yield of the jugular, which is gradual, the oncoming blood being stored in it as it arrives.

The jugulars commonly dilate considerably on lying down, and are capable of much bigger oscillations, to which, rather than to auricular regurgitation, is to be attributed the exaggerated appearance of the a wave in the horizontal position.

D. W. Samways.

Clyst St. George, Devon.
to give rise to gastritis. A preliminary gastritis by the accompanying increase of absorbing surface tended to produce absorption of lead, and so hastened an "attack." The plentiful supply of fruit last summer increased the number of cases of lead colic. The blue line was nearly always preceded by a red one, which was always found with furnace men. The best treatment for the early stages of plumbism was by means of the internal administration of calcium permanganate.

AN OLD REMEDY REVIVED.

The therapeutic virtues of garlic have been at intervals extolled by many writers. In China its medicinal virtues are considered to be many. Sydenham used it in cases of small-pox, and ancient records tell of its employment in a whole series of complaints. In America it still holds a place for the relief of certain pulmonary diseases, and from Ireland we can now record a strong testimonial in favour of its influence upon tuberculous disease, both pulmonary and general. Dr. William C. Minchin, of Dublin, stirred by an account of a remarkable recovery of a tuberculous bone case in which the cure appeared to be effected by a mixture of soot, butter, and garlic, set himself to study the results of treatment by the sulphide of allyl in tuberculous joint cases. His success in some of the cases quoted appears to have been remarkable, and photographs of patients before and after treatment are given. It has long been known that salts derived from the Allium sativum have bactericidal power, but the intense aversion which so many people have to the all-pervading smell of garlic has no doubt rendered their use unpopular. Such cases as those recorded by Dr. Minchin may fairly be claimed as proof that in certain individuals the drug may practically annihilate the activity of tubercle, but he has found that in others, where a strong antipathy to garlic exists, its administration in any form has failed to give relief. The widely extended use of garlic among the lower orders in Italy may perhaps be traced to a therapeutic origin.

A RAPID METHOD OF DIAGNOSIS IN MALARIA.

It has often been said to me that it is impossible to examine every case of malaria in out-patient practice, owing to the length of time required; but I feel that in order to become thoroughly acquainted with the diseases of any locality this is necessary. The following is a method which I have found useful in practice:

Thick films are made on the slide without even a coverslip, so thick that the blood when allowed to run to one side is seen of a bright red colour. This is rapidly dried and examined directly under a drop of cedar oil and a \(\frac{1}{2}\) in. immersion. The drying of this film causes the only delay. In a dry country such as Persia films will dry in the open air without any special treatment in about half a minute. In a damper climate they should be exposed to the sun turned upside down. In damp and cold weather they should be dried gently over a spirit flame. In any case one can begin the examination before the thicker edge is properly "set."

I have often proved the existence of malaria, verified, of course, by a properly stained slide, in one minute by the watch from the time of drawing blood. The thicker part of the film is best examined
first, and from the character of the pigment the species of malarial parasite can, after a very little practice, be diagnosed in most cases with great ease, almost as easily as in a wet film. The diffuse and fine dots of tertian, the compact and coarser dots of quartan, and the peculiar arrangement of the pigment in the crescents in tropical malaria are very characteristic, not to mention pigmented leucocytes. They are as well seen as in a wet film, the chief point being to be sure that the pigment is on the same level as the red corpuscles, and disappears totally on focussing up or down. If no characteristic pigment is found in two minutes, the case is most likely not one of malaria; in any case of doubt, of course, the other methods are available, but probably not more than one case in ten of untreated malaria would escape detection.

I do not pretend for a moment that this is a method by which beginners can study malaria, any more than that of Sir Ronald Ross; but it is very rapid and accurate, and one, moreover, which avoids nearly all the pitfalls inseparable from those more commonly used, and, indeed, from Sir Ronald Ross's method, which I have tried. At starting, of course, a student should compare his dry slides with slides carefully stained in the usual way. This gives confidence and is a valuable check to the work.

I have no hesitation in saying that once this method is given a fair trial, it will be found of real use in out-patient work in tropical countries, where stress of work makes every minute of the greatest value.

J. CROPPER, M.D.

The chief magistrate of Yung-chun has invited Dr. Maxwell to make his hospital, so far as opium work is concerned, the Government Official Opium Refuge. The invitation was gladly accepted, and Government proclamations have already been issued constituting the Mission Hospital the Government Opium Refuge, naming Dr. Maxwell as the sole head, and setting forth clearly the terms of admission. A copy was also sent officially to the hospital to be put up at the hospital gate. It even goes the length of mentioning the date when the hospital is closed for the summer and the exact date of reopening for the reception of patients (opium). The effect of this will be that anyone who pleases may go to the magistrate for a certificate, and have his fee paid for him by the Government. The patient brings his certificate to the doctor, and is then received into the opium ward for a fixed period. It may involve the setting apart of another ward, and also the appointment of a second attendant, as these cases require close and kindly attention.

MEDICAL AND SURGICAL APPLIANCES.

Bedstead for Tropical Hospitals. Dr. A. J. M. Paget, senior medical officer, Somaliland, has sent a description of a new and inexpensive type of bedstead designed for use in native hospitals in tropical countries. Instead of the wire mattress, which so soon gets corroded, the bed is constructed with rounded framework, which is then strung locally with native fibre rope. The rope both lasts well and is also very cheap (8d.) to renew; this is of considerable importance where discharges have contaminated it in surgical or other cases. The rope mattress is covered usually with a grass mat, which is cool and comfortable to sleep on, besides being easily obtainable in tropical countries. The beds are particularly
easy to freight owing to their comparatively small bulk and absence of etceteras. The feet are designed solid, as much more suitable for mud and lime floors, which soon give way under the usual castorfitted bedstead. Over fifty of these beds have recently been sent to the civil medical department, where they have proved highly satisfactory, and Dr. Paget speaks most highly of the coolness and comfort experienced by the patients. The bedstead is supplied by Messrs. Arnold and Sons, of Giltspur Street, Loudon, E. C.

SURGERY.

An Operation for Elephantiasis of the Scrotum.

The various operations for elephantiasis of the scrotum which have recently been devised show considerable ingenuity, but their very number suggests the want of one method which is entirely satisfactory. In a recent publication (Finska Laekaresaelskapets Handlingar. November, 1911) Professor Ali Krugius has described a procedure which he found eminently successful after a number of other methods had failed, but he does not claim to have solved the difficulties which various forms of scrotal elephantiasis may present. The patient was a lad of 19, who had developed elephantiasis of the scrotum two years before, when he had been seized with rigor, headache, and general malaise, the cause of which was obscure. The swelling of the scrotum had increased, and had at last forced the patient to keep to his bed. After several months in hospital there was little improvement effected, although drainage of the scrotum had been attempted by the transplantation of a portion of the saphena vein to the scrotum, within which its lower end was fastened, while its upper end communicated freely with the loose subcutaneous tissue over the pubes. Capillary thread drainage was also ineffective, and after the scrotum had been amputated the skin which had been drawn together over the testicles became so oedematous that a new scrotal swelling was formed with embarrassing dimensions. As a last resort an attempt to drain the swelling by means of the lymphatics of the spermatic cord was decided on, as these lymphatics are not as a rule involved in elephantiasis of the scrotum. An incision was made over the left inguinal canal, through which the cord was exposed and the testicle drawn up. The tunica vaginalis was divided in front and turned inside out, so that its lining came in direct contact with the fluid in the scrotum which it was intended to drain. The eversion of tunica vaginalis was maintained by the free border of the tunica vaginalis being carried up the spermatic cord, to which it was secured by ligatures. The scrotal swelling rapidly grew less, and had almost disappeared when the patient insisted on returning home. The above operation has been performed for varicocele, but not on the same principles or with the same object. Should there be obstruction to the passage of lymph by the lymphatics of the cord, Professor Krugius suggests utilizing the large omentum, the absorptive power of which is considerable. In order to carry the omentum into the scrotum, a plastic operation would be necessary, by which a strip of the omentum would be cut long enough to reach the scrotum without dragging on the upper attachment of the omentum. This is, however, rather a drastic alternative, as it implies an extensive abdominal operation, and it is therefore only advocated in case of the failure of other and less dangerous methods.
To the Editor of
"THE CHINA MEDICAL JOURNAL."

Sir: In the China Medical Journal of May 1912 there is a "Preliminary Report of Committee on Infant and Invalid Diet." We are greatly indebted to Drs. Logan and Taylor for it.

At the same time I think they take too little account of the firmness or looseness of the casein coagulum. In the case of the water buffalo this is hard and large even where the milk has been diluted, and, in my experience and for this reason, the milk is quite unsuitable for infants.

Clinically speaking, the use of it results in digestive disorder and often the passing of masses of curd in the stools.

To turn to another aspect. Why has the Committee ignored the value of goat's milk? It is easily obtained, at least, and forms an admirable infant diet. I have used it extensively in the form of citrated undiluted milk (Sodium Citrate gr. ii ad 3i.) and consider that there is nothing to match it in cases where bottle feeding is necessary, or in the case of young children.

What about sterilization? The authors of the report have not given us their views on this subject. The writer depends on simple boiling and he has yet to be convinced that this either contributes to rickets or scurvy, where other hygienic details are borne in mind.

I am
Yours faithfully,

J. PRESTON MAXWELL, M.D., F.R.C.S.

Yungchun, Fukien,
August 20th, 1912.

To the Editor of
"THE CHINA MEDICAL JOURNAL."

Dear Dr. Davenport: Correspondence has been invited on the questions which are to be raised at the next meeting of the C.M.M.A. in Pekin.

First, let me say quite frankly that I think it is hardly fair to those in the South, that huge questions of this kind should be brought up for decision at a place so inaccessible to the members in the South of China. Speaking for myself—and I am sure for many others—a place like Pekin is out of the question; not only for the long time which one would have to be away from one's hospital (in my case probably at the very least 6 weeks, as connections are uncertain and infrequent) but also for the serious expense involved. And I would plead that if it is decided to pledge the members of the C.M.M.A. to a large expense for a paid Secretary and Treasurer, such decision should not be carried out unless a majority of the members of the Association approve of it by postal vote. Such a postal vote would not involve serious expense and on a question of this magnitude one wants the views of those who are not so happily placed as regards railway and other communication to be respected.

I quite agree with Dr. Cousland that every second meeting should be in Shanghai. It is far the most central and easily accessible for the majority of the members.

With regard to the large questions raised in the May number of the China Medical Journal it seems to me inevitable that the Association should take upon its shoulders the support of Dr. Cousland,
Correspondence.

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whose services to the Association are so splendid), aided as far as may be by grants from the Missionary Societies. Every Society, American and English, having medical missionaries in China should be asked in a formal way by the Executive of the C.M.M.A. to contribute, the balance to be made up by the C.M.M.A. in such way as it may determine. If necessary, the cost of the books might be slightly increased and instead of paying $4.00 Mexican a year, there should be a fixed subscription to include the JOURNAL which is now very valuable from the scientific point of view alone. Personally, I would be in favour of raising the subscription to $10.00 Mexican per annum and, if it was thought well, giving certain advantages in the way of discount on the publications of the Association bought for the member's use alone.

And whilst we all, I am sure, feel an immense debt of gratitude to those members who have so kindly and so well edited the JOURNAL, I for one agree with those who think the time has come for a further step forward.

It seems to me that it would be better to have a whole or part time salaried business manager, either independent or connected with the publishing house whom the Executive, from time to time, determines to employ. He should be resident in Shanghai and should look after the passage of the JOURNAL through the press, the subscriptions, the advertisements, the sale of publications, and should undertake also the duties of Treasurer, one of our members in Shanghai being associated with him in this latter office and all expenditure being authorized by the latter, failing direct instructions from the Executive.

Then we should have a General Editor, one of ourselves—not necessarily in Shanghai—who should receive a honorarium for his services.

With him should be associated as at present several sub-editors who would, no doubt, give their services to the Association.

Branch Reports, Reports of Hospitals and Colleges, and Reviews of Books should be relegated to an "inset" so as to enable one to bind up the scientific part of the paper without a lot of extraneous material which, however interesting, is very unlikely to be further wanted.

I heartily support the suggestion of a Journal in Chinese having the imprimeur of the Association. Canton having made so good a beginning, would it not be better for the Association to leave it in their hands, recognizing it, however, as the Journal of the Association and giving it the fullest support.

The editorial sentence "our relations with our fellow practitioners, Chinese and foreign, need to be more general and less circumscribed" is rather ambiguous. I am not sure that I understand what the editor has in mind. Does he mean to relax the standard of admission to the Association? I think it would be well if this could be further elaborated in the next issue of the China Medical Journal.

I fear this letter has already grown to an inordinate length and so close with apologies and kindest regards.

I am

Yours very sincerely,

J. Preston Maxwell.

Yungchuu, via Amoy, China.
August 15th, 1912.

To the Editor of "The China Medical Journal."

Dear Sir: I should be very much obliged if you could give me some advice upon a question which has
recently arisen in connection with our medical work here. You may possibly know that we have a few students in training, though of course we are not able to give them anything like a full medical course. One of our students has now completed his training, and in giving him a certificate we find it difficult to state what kind of a qualification he really possesses. As there are a few institutions now giving a full medical course, we naturally do not wish our certificate to be confused with theirs in any way. It is our intention to have the certificate written in English and in Chinese, and it has been thought that on the English side we might style our student a "Qualified Hospital Assistant," using this term in the sense in which it is used in India. We have also felt, however, that a literal translation of this term into Chinese would not produce a suitable result, being rather less than our student is worthy of. I suppose that the great majority of mission hospitals in China give a similar training to ours, and probably this question of a certificate has arisen in many places long ago. Could you tell me how this has been met? If you are not able to do this, would you mind referring me to somebody who would be likely to give the information I require?

Yours sincerely,

JOHN LEWIS.

Taiyuanfu, Shansi,
August 6th, 1912.

To the Editor of
"THE CHINA MEDICAL JOURNAL."

MY DEAR DR. DAVENPORT:—Dr. Todd and I were both disappointed that you made no reference to the Chinese Medical Journal in the last number of the China Medical Journal. We do not want our friends to look upon us as a local enterprise, but to turn in and help us. I thought that in North China there were several medical missionaries who would be able to contribute articles in Chinese, but so far we have not received any. You will understand that it is a pretty heavy burden for us to have to furnish all the material in Canton for every number. Perhaps you could help us out by stirring up some of your friends to contribute to our pages. Then next winter when the General Association takes up the work, as I hope it will do, there will be a fair start already made. If you or any one else has any criticisms to make I hope they will do so freely.

I remain, very truly yours,

WM. W. CADBURY.

Canton, China,
August 21st, 1912.

To the Editor of
"THE CHINA MEDICAL JOURNAL."

DEAR MR. EDITOR:—Referring to the case reported by Drs. Hooker and Vickers appearing in the March issue of this Journal, page 108, I beg to make the following comment: The condition was evidently pyorrhea alveolaris, primarily due to bacterial infection, which led to abscess formation within the deep structures of the alveolaris. The infection, while apparently obscure, more than likely gained entrance in the ordinary way, through the pericementum due to infected tartar formation around the neck of the tooth. The lack of proper hygienic attention to the teeth and gums is a prolific source of many an abscess of the jaw. The fact that there were no
Correspondence.

Decayed teeth was of no significance whatever, except to exclude the dento-alveolar variety, which is usually caused by infection from a diseased pulp.

In the case reported, the abscess evidently formed first in the alveolar process and extended along the lines of least resistance, which broke into the vestibule of the mouth and externally. In the meantime, pericemental destruction took place, which accounts for the tooth getting loose two mouths later.

If the case in question had been seen early, when perhaps there was tenderness of only one tooth, and the tartar removed thoroughly from around the neck of the teeth, if such existed, which is highly probable, and Tincture of Iodine applied, it is possible that abscess formation could have been averted, but since the case was not seen early, the next thing to have been done was to have extracted one or more teeth, if possible the ones most infected, over the point of greatest tenderness in the jaw, with the hope of establishing sufficient drainage and further favoring local treatment of the infected alveolar processes.

Sincerely yours,

NEWTON H. BOWMAN, M.D.

Choon Chun, Korea.

August 19, 1912.
Personal Record.

BIRTHS.
At Huchow, May 24th, to Dr. and Mrs. F. P. Manget, S. M. M., a daughter (Jean).
At Taiyuanfu, June 22nd, to Dr. and Mrs. John Lewis, English Baptist Mission, a son.

DEATHS.
At Pehtaiho, on July 19th, the infant daughter of Dr. and Mrs. T. Bragg, L. M. S., of Chichow, North China.
At Hongkong, on August 3rd, Rev. P. Rees, M.D., of the English Wesleyan Mission at Wuchow, Kwangsi.

WANT DEPARTMENT.

[It is hoped this new departure will approve itself to the Association. Subscribers are invited to send short notices of personal, missionary, and professional "wants," free of charge. Such notices will be kept in for a reasonable time or until withdrawn.—Editor.]

Dr. Stanley, Curator of Shanghai Museum, will be greatly obliged to anyone who will kindly send him specimens of Reptiles (snakes, lizards, and tortoises) addressed c/o Municipal Laboratory, Shanghai. The animals are best sent in 75 per cent. alcohol or strong samshu, or if they have remained one month in the preservative fluid they may be sent by post, just wrapped in a cloth moistened with alcohol and placed in a tin box.