OUR MEDICAL STUDENTS.

By Robert C. Beebe, M.D.

The Medical Missionary is placed in a peculiar position in that he has not only the ordinary problems of the physician and surgeon, but he has also what are often harder to solve—the questions of polity, management and work, connected with his position as an evangelist, "sent to a people of a strange speech and an hard language." His time is precious, various and attractive are the opportunities that open up before him, and the great and all-absorbing question he has to consider is, How can I so utilize my time as most to serve the great work to which I have been called?

Among the many questions that arise and that must be considered in this spirit, is that of our Medical Students. This may be a solved problem to many of my colleagues. Some of them, I doubt not, have come through long experience to conclusions that we who are later on the field would most gladly hear, and it is with the hope that these valuable ideas may be called out that I have approached the subject. I would have what I say considered as suggestive rather than as the final dictum of matured thought.

The question of educating Medical Students naturally presents itself in the following order: First.—Shall I educate Medical Students at all? Second.—What students shall I educate? and, Third.—What shall be the extent and character of their education?

One does not have to be in the work long to feel inclined to answer the first question affirmatively. We must have help, native help, and that well trained. To get such help we must train it, thus by the course of events and the force of circumstances, that question is answered to the most of us.

Then arises the second division of the problem,—Shall I limit my instruction to those whom I design for mission helpers, or shall I prepare other young men also, to go out as independent physicians and surgeons among this people?
This is not so easy to answer, and yet it does not present equal difficulties to all. It must be determined, it seems to me, according to our individual responsibility. I believe in the special oversight and care of a Divine Providence, and I believe that the Lord called me to be a physician as much as he has called others to be preachers. Every Medical Missionary is, or should be, as much chosen and called of God as is his clerical brother. The Lord often gives him a wider influence, a greater responsibility and a larger field. He has a higher calling than the ordinary physician at home,—St. Luke, "the beloved physician," is his prototype. He is a Surgeon in the Holy war,—a knight of the Cross, on whose shield is inscribed Salvation and whose sword is faith. Therefore he may not step aside for minor things. More weighty matters demand his energies. His high calling cannot be sacrificed for uncertain or questionable issues. The vow is upon him, and that he must fulfil. Purely benevolent and philanthropic work is not to be disparaged. The education of people in any line of truth and usefulness is most noble and praiseworthy, and happy and contented should any physician be if God should call him to such work alone. I have no doubt that the providential circumstances of some Medical Missionaries so clearly point out their line of duty that there is little room for mistake. A special opportunity or fitness may make what to others are side issues to these the real business of life. These I do not wish to be considered as ignoring or depreciating. Theirs is the exceptional, and I would only assume that we are not called as a body to undertake the exceptional. Therefore our first duty is to our mission work, and with many of us it does not extend beyond it. We are to give our instruction to those who are likely to use their abilities for the extension of Christ’s kingdom.

It may be claimed that every rightly educated man is a force in extending the influences of Christianity. That may be true, but as long as our ranks need drilled men, and the battle is on, we may not step aside to train an independent and undirected squad. The value of Western Medicine to a young Chinaman who goes out among his people to make his own way, seems to me to be over-estimated, and his probability of success as yet an unknown quantity. Will his value be so generally recognized as to make it possible for him to get the extra fees that expensive medicines and appliances require? There are so many chronic troubles, perpetuated, even with the best treatment, by the habits of life, the homes and surroundings of patients, that the average Chinaman will fail to see the superiority of Western Medicine when practised by a native. He will, perhaps, concede superiority in Surgery, but I doubt if there be many who will have the confidence, either as surgeons to take the risks of an operation among this suspicious and mercenary people, where a fatal result might mean the forfeit of their own lives, at least their means, or as patients to submit to an operation at the hands of their countrymen.
Our Medical Students.

With a foreigner to give moral support and real help when needed, and in a place where there is some resource in time of trouble, our Chinese physicians and surgeons will develop. When the attitude of this Government changes and it is administered in justice, and the physician and surgeon is accorded a place and rank in the Army and Navy, with a source for his supplies, then will be opened a field that seems very questionable at present, as those who have gone out under the highest patronage seem to have found a not very desirable position or prospect.

The need of native help presses sorely on some of us. We should be relieved of much of the routine and drudgery that the most important things may have our attention. If the dispensary affords a field for missionary enterprise, why should we not have our circuit of native medical helpers and dispensaries associated with our native preachers and chapels? Around every centre where a hospital is located are many open doors. Is it not possible to extend our work to these, to make the most of our opportunities, and lay hold of every place and form our strategic point, command and marshal a larger force for Christ? If so, then to many of us this part of the problem is solved. The most direct work and plans for evangelization demand our first and chief endeavor. This, for the present, is all we can do, and to many who are alone in the work this is more than they can accomplish.

The third phase of the problem remains, and, I find, has various solutions at the hands of my brethren. Some have the highest ideal, and consider a knowledge of English necessary, holding that the medical literature that exists in Chinese is inadequate for their education, that they should have a wider range of reading than is possible in Chinese at present, and that they should keep abreast of the latest developments in Medical Science, and to do so they must read English. Applying this question to our helpers some difficulties arise. If we give a boy such a knowledge of English that he is able to study our medical works, we have put him in a position where he is able to secure a situation so tempting in its emolument that the meagre mission salary and the claims of the work are apt to go down before his glowing dreams, and our helper is lost to us with perhaps the labor spent on him.

Unless there is a school where English is taught, from which we can draw our students, the task of teaching English and then Medicine becomes one too long and exacting for the busy Medical man with hospital and dispensary work besides. It would be very well indeed to have students who could go on with their studies using the text-books of our home schools, but can the Medical Missionary get and retain them? I leave that for someone with wider experience to answer.

With the works we have in Chinese and the personal instruction we can give both in theoretical and clinical Medicine and Surgery, I believe we can train
efficient native medical helpers. That we have at present duties to these only, and that we should make them as highly proficient as possible, and true followers of Him who went about doing good, is the trend of my thought on the student question.

*Philander Smith Memorial Hospital,*

*Nanking.*

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**CASES TREATED IN THE LONDON MISSION "VICEROY'S" HOSPITAL, TIENTSIN.**

*By the late J. K. Mackenzie, M.R.C.S., L.R.C.P.*

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**CASE I.**

*Hepatic Abscess.—Operation.—Recovery.*

**Chang-ch’ien-shèn.** Aged 39. A soldier. Ill two months.

1886, *March 12.*—Admitted to hospital, complaining of pain over hepatic region, night sweats, and much prostration. Liver dulness largely increased, especially in the right mammary line.

Aspirated, drawing off a pint of chocolate-coloured pus.

*March 16.*—Aspirated again, removing four ounces of pus.

*March 20.*—All pain gone and appetite good. Says his leave has expired and he must go back to camp.

*June 15.*—Again applied for admission. All the symptoms as formerly. Aspirated, giving relief. Remained in hospital nine days.

*August 14.*—Again admitted. Drew off a pint of thick pus.

*August 17.*—Removed 15 oz. of pus. Would not consent to further operative measures. Went out relieved after six days.

*October 3.*—Admitted for the fourth time. Has succeeded in getting a month’s leave.

Patient in great agony. Kneels on the bed with his head touching his knees, and screaming with pain. Hepatic tumour much enlarged, with distinct fluctuation in epigastric region. Face worn and emaciated. Thready pulse.
Administered ether, and with antiseptic precautions inserted a full-sized trocar into the tumour just below the ribs; two pints of pus escaped through the cannula. Introduced drainage tube, and dressed with marine lint.

*October 4.*—Patient comfortable and free from pain. Temperature normal.

*October 14.*—Changed dressings daily. Very small quantity of pus in dressing. Shortened the tube. Appetite good.

*October 21.*—Removed tube.

*October 26.*—Wound quite healed. The enlargement has disappeared. Patient in perfect health. The temperature never went above 99° after operation.

**CASE II.**

*Hepatic Abscess.—Operation.—Death.*

**YUAN-CH'UNG-KWANG.** Aged 56. Farmer. Ill four months.

1887, March 7.—Admitted suffering from pain in the right hypochondrium, fever, night sweats, and much prostration. Patient is emaciated and very weak; pulse feeble. Liver enlarged downwards in the right mammary line, and tender upon pressure. Has had many rigors.

Inserted a fine exploring trocar into the liver below ribs, but failed to hit pus. Chloride of Ammonium ordered, twenty grains three times a day.

March 9.—Pain less since the trocar was inserted, but the fever persists. Again punctured the liver with fine trocar and drew off two ounces of dark blood. Pain relieved. Quinine, ten grains, night and morning.

March 24.—Pain returned. No better.

Again needled the patient, and to the right of the ensiform appendix struck pus. By means of a large trocar and cannula introduced a good-sized drainage tube. Twenty-five ounces of chocolate-coloured pus came away. Dressed with marine lint.

March 26.—No pain, temperature normal. Much brighter and appetite better. Changed dressing.

April 4.—Changed dressing daily, as the discharge of pus continues free. Temperature has gone up again. Takes food badly.

April 10.—No pus coming from tube, but patient not improving as he should do.

April 13.—Again punctured the liver through the former opening, and drew off several ounces of pus. The temperature immediately fell from 102° F. to normal.

April 25.—The relief proved to be only temporary, as the patient died to-day exhausted.

Unfortunately, the temperature chart in this case has been mislaid, and cannot therefore be given.
CASE III.

Popliteal Aneurism.


1887, April 29.—Admitted to hospital with synovial enlargement of the left knee-joint; much pain, and inability to straighten the leg.

The patient is badly run down in health, having suffered for two months from much pain about the joint, with broken rest at night. He has an anxious, weary expression of the face. Complains much of constant throbbing in the neighbourhood of the joint.

April 29.—As the synovial distension was great, tapped and drew off a quantity of synovial fluid from the joint.

There is a well-marked aneurismal tumour in the Popliteal space, marked pulsation and bruit over the tumour, both of which disappear upon pressure of the femoral artery. Compression over the femoral causes the tumour to gradually disappear, but when this compression is removed it slowly distends its sac and attains its former proportions. Attempts to flex or straighten the limb give pain. The aneurism was not recognized upon admission, but after the synovial fluid was drawn off with only slight relief to the patient, a more careful examination of the joint revealed the aneurism.

He was ordered rest and tonics for awhile.

May 21.—Under chloroform applied Esmarch's bandage to the limb, commencing at the toes and bandaging as far as the knee; then, avoiding pressure over the joint, carried the bandage up the thigh. Kept the limb bloodless for one hour and a half. After taking off the elastic bandage, digital compression of the femoral was maintained for a further two hours. The pulsation was found to have returned though with diminished force.

May 22.—Pain and distress from throbbing somewhat less. Applied a bag of shot over the femoral.

May 24.—Pulsation decidedly diminished; knee hot and painful. To use a lead and spirit lotion.

June 10.—Again put him under chloroform and applied Esmarch's elastic bandage as before. Kept it on for two hours and a half. Upon removing the bandage a tourniquet was affixed to the limb, compressing the femoral in Scarpa's triangle. This was maintained for a further period of five hours. At the end of this time pulsation had quite ceased in the aneurism. He was under chloroform for five hours. Compression of the main artery was kept up for seven hours fifteen minutes; out of this time the limb was quite bloodless for two and a-half hours.
June 11.—No pulsation in the tumour, which is small and hard. Patient experiences great relief.

June 20.—Improving in health daily. Scott's dressing to reduce the inflammatory thickening in the joint.

June 29.—No pain. Knee much smaller; can extend the limb much better. Wants to go out.

Remarks.—The patient was in too nervous a condition to stand prolonged digital compression without an anaesthetic. The treatment by compression under chloroform takes up a great deal of time, but having plenty of valuable assistance at hand this proved no difficulty. The patient required a very small quantity of the anaesthetic from time to time; once he came under its influence. It may not have been necessary to keep up compression for so long a time, but as the first attempt failed, we deemed it best to give the method a thorough trial, especially as the patient was bearing the chloroform well.

The presence of the synovitis, and considerable thickening after removal of the fluid, was evidently due to pressure of the aneurism causing irritation of the joint. The aneurism appeared, from its being very deeply seated in the popliteal space, to be connected with the anterior surface of the artery, and therefore as it enlarged it created an unusual amount of pain and irritation in the joint.

Not the slightest return of pulsation or pain occurred in the aneurism after the second attempt. Some heat and discomfort in the joint was experienced after each use of the elastic bandage, but a lead and spirit lotion caused it quickly to subside.

CASE IV.

Hepatic Abscess.—Operation.—Recovery.

Sun-huai-hsin. Aged 47. Boatman, from Lin-ch'ing-chow.

1887, October 10.—Admitted in-patient.

Has had pain over hepatic region for ten days. History of hectic fever. Face has a haggard expression; has lost flesh rapidly of late. Percussion shows enlargement of right lobe of liver, extending two inches below the cartilages of the ribs in the nipple line.

Aspirated under the right costal cartilages and hit pus.

October 11.—Under chloroform and antiseptic precautions inserted a large drainage tube, through a cannula, into the abscess sac, close under the right costal cartilages. Drew off over 10 oz. of thick pus: Dressed with carbolic gauze and marine lint.

October 12.—Changed dressing. Tube acting freely. Dressed with Gamgee's tissue.
October 18.—The dressing has been changed every other day; to-day there is no pus coming from tube.

October 22.—The great retraction of the liver has made the opening into the abscess cavity a valvular one, and the drainage tube is much compressed. No pus. Removed the tube. Appetite good. Temperature normal since operation.

October 25.—Patient complains of pain in the hepatic region. No appetite. Temperature 101° F. this morning.

November 7.—Quinine in 10-gr. doses, or Antipyrin, invariably brings down the temperature to normal, but it rises again the next day. Quinine, 10 grs., to be continued morning and evening.

November 14.—As the temperature rises as soon as the Quinine is stopped, and there is still some pain, inserted a needle into the seventh intercostal space, axillary line, and struck pus. At once introduced a drainage tube at the same spot, and two ounces of badly smelling pus came away. Washed out the tube with Iodine and water, and dressed with marine lint.

November 16.—Changed dressing.

November 26.—Changed dressing about every other day.

December 5.—No pus for several days. Exuberant granulation around tube. Removed tube.

December 15.—Track of drainage tube slow to heal.

December 30.—Quite healed. Patient strong and well, with good appetite and normal temperature.

Goes out.

Temperature.

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December 30.—The temperature never rose after the second operation.
CASE V.

Hepatic Abscess.—Operation.—Recovery.

1887, October 8.—Admitted in-patient.

Marked enlargement over left lobe of liver, extending downwards nearly to umbilicus.

Patient emaciated and looking very ill. Says he has had pain over the tumour for one month, with hectic fever. Has had marked perspirations frequently recurring.

Aspirated tumour, drawing off 16 oz. of chocolate-coloured pus.

October 10.—Under carbolic spray inserted a full-sized trocar and cannula into the left side of epigastrium close under the ribs, and drew off some 16 oz. of pus. Passed a drainage tube through the cannula to the bottom of the abscess cavity, and dressed with carbolic gauze and marine lint.

To take a Mixture of Acid Nitro. Muriatic dil. with Tincture of Nux Vomica.

October 12.—Changed dressings and syringed out the tube with carbolic lotion.

October 13.—do. free discharge of pus through the tube.
,, 14.—do.
,, 16.—do.
,, 18.—do.
,, 24.—do. and removed the drainage tube, as for five days there has been no pus.

October 30.—Quite well. Is gaining flesh rapidly; appetite good; no pain.

The track of the tube has closed, and the orifice is puckered up close to the lower margin of the thorax.

All dullness on percussion downwards has disappeared. The temperature after his admission never went above 99° F. and this only twice.

CASE VI.

Hepatic Abscess.—Operation.—Recovery.

Lu-ch'ing-chih. Aged 32. Tailor, from Tientsin. Has smoked opium for three years—half a mace daily.

1887, October 28.—Admitted into hospital.

Enlargement of left lobe of liver, extending as a painful tumour into the epigastric region. The pain has been very severe for ten days; previous to that
time he considered himself well. The patient is very emaciated and ill, with a cachectic look about the face, and a history of hectic for these ten days. Seven days before admission a native doctor had punctured the tumour with a red-hot needle.

October 29.—After aspirating and finding pus, introduced a full-sized drainage tube through a large cannula, and drew off one pint of chocolate-coloured pus. Introduced the tube in the epigastric region to the left of the middle line. Dressed with marine lint.

October 31.—Changed dressing.

November 21.—The dressings have been changed every other day. No pus. Tube removed.

December 1.—Chloride of Ammonium in 20-grain doses three times a day. This was given as the patient complained of some pain over the liver region. Temperature has been normal since the operation, and there is no rise to-day.


December 20.—Goes out. Quite well.

He has lost his craving for opium since admission. It was administered in pill form, gradually reduced, for some time, and then stopped entirely.

Remarks.—Case I. is peculiar in that he is known to have had pus in the liver for 6½ months. He was admitted to hospital and his liver aspirated for the first time on March 12th, but it was not until October 3rd that the abscess was opened and drained. During the six months and a half he applied three times for treatment, each time getting relief, and then going back to the ordinary duties of the camp. He was in hospital prior to October 3rd altogether 23 days.

Case II. shows how a liver, in which there is a large collection of pus, may be explored more than once, and yet the abscess remain undiscovered.

This patient was in a very feeble condition upon admission. That he had more than one abscess is evident, for after the first one was opened and drained, though the temperature fell at the time, yet when no pus was coming through the tube, which remained quite patent, all the original symptoms returned, and a further introduction of the trocar discovered a new pus cavity, with again temporary relief to the patient. Yet in a day or two all his symptoms were as bad as ever, and he rapidly sank exhausted.

In Case IV. I think the abscess was single, and that the second operation was required in consequence of the considerable retraction of the liver, and the fact that the drainage tube was held so tightly in the valvular opening caused by this retraction that it could not readily be pushed to the bottom of the cavity, hence a small quantity of pus remained after the removal of the tube, and a second operation, had to be undertaken to remove it.
The results obtained in these five cases—four recoveries and one death—show that single abscesses of the liver give very good results amongst the Chinese when opened antiseptically and well drained. Multiple abscesses must necessarily be fatal.

One lesson that has been strongly impressed upon my mind is, always to use an exploratory trocar in every doubtful case of hepatitis. In my experience, patients have not only suffered no ill effects from such action, but have invariably derived benefit therefrom. When pain and fever is associated with enlargement of the liver, the use of an exploring trocar will tend to clear up the diagnosis as to the presence or absence of pus. And when no pus is found, the escape of a few drops of blood will give immediate relief to the pain in most cases; indeed, without the withdrawal of blood the relief to the pain is often most marked. It is stated that in India such a line of procedure has become almost a routine part of practice. Here is a case in point:—

Yang-hung-fa. Aged 38. Became an in-patient on August 30th, suffering from marked pain over the hepatic region. The liver reached nearly to the umbilicus, and was tender upon pressure. He said the enlargement had been there for two months, and that several rigors had occurred during this time. His temperature on admission was 103° F. I immediately inserted an exploring trocar in the liver below the ribs in the right mammary line, and, not finding pus, punctured the left lobe, but with the same result; however, some black blood was removed, and this venesection proved wonderfully beneficial. The next day there was no pain, though the tenderness upon pressure still remained. He was put upon Chloride of Ammonium and his bowels attended to. On September 8th, ten days after admission, he wanted to return home, as he felt well. His appetite was good, there was no pain, and only slight tenderness upon firm pressure. He could walk about without discomfort, and his temperature was normal. There was still very considerable enlargement of the organ remaining.

With regard to drugs, I find Chloride of Ammonium, in 20-grain doses three times a day, to be an invaluable remedy in non-supurative hepatitis or in acute congestion of the liver.
HEMORRHAGIC DIATHESIS.

By Robert Coltman, jr.

Although cases coming under the heading of Hemorrhagic Diathesis are comparatively common in the United States, I have as yet only met with one instance of it in China. Whether this be due to the fact that surgical interference is a new thing, and that the relative number of the entire population who have undergone surgical operations is very small, or whether the element known as the "Bleeder family" is rare in this country, I do not know, but I hope the relation of the following case will excite enough interest to bring the experience of my medical brethren in China into print. In the latter part of October last I was consulted by a young man, 25 years of age, who complained that he could scarcely pass his water owing to gradual contraction of the meatus urinarius.

Upon examination I found a hard, fibrous growth in front of the glans penis involving the entire circumference of the prepuce for over an inch in length and so diminishing the calibre of the passage that I could not pass my finest probe through it. The man stated that he had had a chancre two years, before which had remained sore for a long time (several months) at the site of the present growth, and on its cicatrization the prepuce was much contracted and had continued to contract steadily the past two years, until now he was obliged to spend nearly his whole time in efforts of urination, and life was a burden to him.

Upon his consenting I etherized him and amputated the mass directly in front of the glans penis, in other words circumcising him. This was at three o'clock p.m. I immediately sutured the mucous membrane to the integument by five points of interrupted suture, but the hemorrhage was greater than at first. I then introduced, one at a time, six more points of suture until there was scarcely left room enough to put more in. I used Alum first, then Monsel's salt, then styptic cotton, all without avail; the penis rapidly infiltrated with blood and serum, and within an hour was swollen to the size of a tea-cup and bleeding all round from under the clots formed by the styptics. This, however, gradually lessened, and at six p.m. I left the patient in charge of my assistant and went home to dinner, but in the midst of the meal was hastily summoned, my assistant sending word that the bleeding was worse than ever. I hastened back to find a small artery, which had become very much enlarged, was spurting with sufficient force to throw a stream of blood three feet. It was tied, and removing all the previous dressings I applied a fresh layer of styptic cotton steeped in Monsel's solution around the wound and administered a fluid drachm of Squina's Fl. Ext. of Ergot; repeated the dose of ergot in an hour, when all the bleeding stopped and did not recur again. On examining the amputated portion I found it to consist of
a cartilaginous ring an inch and a half in length and an inch in diameter, hollowed on its posterior surface like a cone, the apex presenting to the front, the base just in front of the glans penis; in this cavity was a small, flat stone, formed by urinary concretion, weighing ten grains.

On the second day after the operation a large slough formed in the infiltration on the dorsum of the penis. On the fifth day the stitches were removed, slight hemorrhage occurring, which was checked by cold water applications. The line of incision remained indurated and indisposed to heal for three weeks, when, upon placing the patient under Hydrarg. Chlor. Corrosiv., gr. 1/10, et Potassii Iodidi, gr. v., three times daily, he rapidly got well, and is now able to urinate freely and comfortably. I feel that the ergot in this case was invaluable.

CASES TREATED IN MEDICAL MISSIONARY HOSPITAL, CANTON.

By Mary W. Niles, M.D.

Retroversion of Gravid Uterus.

Case I.—Chinese woman, resident of Canton, 45 years of age. Mother of five children. Admitted September 30th, 1888, stating that she had not passed a drop of urine for twenty-five days, and that she had been pregnant four lunar months. The Chinese woman, a medical student, who saw her, drew with catheter 19 pounds of urine. October 1st.—Patient entered hospital, bladder tense near the umbilicus and giving the general appearance to sight and touch of gravid uterus of sixth month. Catheter withdrew 23½ pounds; gave enema and elevated buttocks. After several hours tried reposition in knee and elbow position, with two fingers in vagina; also tried reposition through rectum, but was unsuccessful. October 2nd.—Introduced pear-shaped pessary into rectum and distended with air. Examined patient after ten hours, and found uterus in place. Patient required the use of catheter for a month before the bladder regained its power. November 18th.—Discharged well.

Case II.—Was called to see patient in Canton, said to be suffering from stone in the bladder. Patient, 36 years of age, had had six children. At the third confinement gave birth to twins, and had suffered from prolapsus ever
since. Patient said that ten days previously, at midnight, she was attacked with pain tenesmus, and had passed no urine since, neither had her bowels moved. She complained of constant bearing-down pains. Abdomen enlarged as at the sixth month of pregnancy, tender; bladder tense, felt on level with umbilicus. No food retained. While drawing urine, placed patient in knee and elbow position, and with two fingers in vagina, raised the fundus, directing it toward side of pelvis, thus replacing it. Amount of urine eight pounds. December 31st.—Patient entered hospital. Bladder still distended, urine withdrawn to amount of four pounds. Cervix at os vaginae. Patient still under treatment.

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REMINISCENCES—(continued).

By A. W. Douthwaite, M.D., F.R.G.S.

In 1879 we removed to the city of Wen-chau, on the coast, and on entering the city I was at once struck with the mark of opium-smoking on the faces of the men I met. Hearing from one and another of the ravages that opium was causing there, I determined to do what I could to help those who were willing to give up the habit, and also to show that we as missionaries have nothing to do with the opium traffic. For this purpose I rented a large premises on one of the main streets, and, as far as my means would allow, fitted it up as a hospital and opium refuge.

As soon as my intention became known, the Taoti and all the lesser officials volunteered to help with money. The Hsien Magistrate called upon me in state one day to assure me that I might have as much money as I required. The British Consul, the Commissioner of Customs, and most of the foreigners also assisted me most liberally. Under these favourable auspices the hospital was opened, and during the first year I received into it 213 opium-smokers, all but two of whom were dismissed, cured of the habit,—that is, so far as medical treatment can effect a cure. In this matter, however, my experience has been like that of all who have attempted the cure of the opium habit, and probably before two years had elapsed, not more than five per cent of those who had been turned out as cured had kept their pledge of total abstinence from the accursed drug. I soon found out that I was engaged in an almost hopeless task, for with the opium-smoker, as with the confirmed drunkard, nothing but the grace of God can enable a man to throw off the pernicious habit, and unless he is truly converted
we can never feel sure that he will not, sooner or later, relapse. But my first year's work was not at all disappointing, for one man, at least, was brought to the knowledge of Christ as his Saviour.

When this man entered the hospital he was so emaciated, so thoroughly under the influence of opium, that his case seemed almost hopeless, and probably he would have been eventually dismissed as incurable had he not early in the course of treatment learned to trust in a power outside himself, for strength to overcome the craving for opium.

Soon after entering the hospital he commenced studying the Scriptures, and was often seen late on into the night reading the New Testament and other Christian books. When, at the expiration of a month, he was dismissed from the hospital cured, he came to thank me for the benefit he had received, but said nothing to indicate that he had experienced any change of heart.

On reaching home his first act, after greeting the family, was to remove from the shrine the gods which had been worshipped there for many years, which, together with the incense-jars, candlesticks and everything pertaining to idolatry, he pitched out into the courtyard. His mother and two brothers, seeing what he had done, came round him and begged him with tears not to ruin them and bring disgrace on the whole family by destroying their gods. His mother was almost mad with distress, and exhorted him to repent, but he stood his ground firmly, and said, "Since I have heard about the true God, I know that these are false, and to worship them is sin, so while I am in this house there will be no more idolatry here."

All his neighbours and friends came in, and in vain besought him to restore the dethroned gods to their shrine.

Seeing that their efforts were futile, they declared he must be mad; but a white-haired old man, a member of the clan, came forward and said, "Friends, you don't understand; he is not mad; I know all about it; he has been to that opium-hospital, and the foreign devil has given him a pill which has changed his nature, so he has no longer a Chinaman's heart but a foreign devil's heart. Now," he said, "we can do nothing with this man at present; let us leave him alone until the effect of the medicine has worn off, and then we may be able to reason with him." This explanation, though very absurd to us, was perfectly satisfactory to them, and they went away. But when after some days they returned, they were greatly astonished to find that not only the opium-smoker, but his mother and two brothers had also renounced idolatry and had decided to become Christians, "for," they said, "we have heard of the true God, and we know that all the gods we worshipped before were false." This change completely puzzled the people assembled, and one remarked, "We know that this man, Ho-ming, has been to the hospital and eaten the foreign devil's pills, but the others have never been there, and how is it they are so changed?" But the
same wise old man who had settled the question so satisfactorily on the previous occasion, came to the rescue again, and said, "I know all about it. Do you see, he not only took a pill himself, but he brought some home with him and put them in the water-pot, and all who drink of the water will come under the influence of the drug. Now," said he, "lest anybody else should be affected by that medicine, let us empty all the water from the pot." As they all agreed to this, they adjourned into the courtyard and gave vent to their indignation by smashing a hole in the water-kan—a large pot holding about 20 gallons of water. Then, after cursing the family and prophesying their everlasting ruin, they left them to their fate and retired. It must have seemed to them an easy matter to change the heart of a Chinsaman, if that change could be accomplished by the swallowing of a pill. But what my pills could not do, the grace of God did do, for the whole family was converted, and within twelve months they were all admitted into church fellowship.

My old friend, the opium-smoker, became an earnest preacher of the Gospel, despite all the persecution he had to endure. His mother took a bold stand for Christ by inviting a missionary lady to visit her once a week, to preach the Gospel to her neighbours, whom she gathered together to hear.

The conversion of this family brought my work in Wen-chau to an end, for a number of the leading gentry of the city called on the officials to remonstrate with them for supporting an institution for the propagation of the hated Christian religion; and when, at the beginning of the third year, I asked the Taotai if he and the other officials would be willing to continue their aid, so freely offered when the place was first opened, he replied that he would consult the District Magistrate; and after a few days I received a verbal message to the effect that while they were willing to give freely towards the support of the medical work, they had no sympathy with the preaching of a foreign religion, and therefore must decline to continue their subscriptions. Soon after that the hospital was closed, and as my health failed I left the city, and heard no more of the converted opium-smoker or his family for several years.

On New Year's Eve, 1886, while on a journey, I arrived late at night at the city of Shao-hing, in Chekiang Province, and several of the native Christians came down to my boat to welcome me. The first man who approached seemed exceedingly delighted to meet me, but as I did not recognize him, my response to his salutations were not specially hearty.

Perceiving this he held up his lantern before his face, saying, "Look at me, don't you know me?" "No," I replied, "I don't." "What!" he said, "you saved my life and saved my soul, and yet you don't know me; that's strange. I'm Ho-ming, the man you cured of opium-smoking in Wen-chau six years ago." "Ah!" I said, "now I know you; but no wonder I did not recognize you, you are so changed." "Yes," he replied, "by the grace of God, I am changed." He
informed me that his mother had died trusting in Jesus, and that his two brothers had been led astray by the Jesuits, but he felt sure they were true Christians, and would eventually be brought back to the purer faith of the "Jesus religion." He himself was then, and had been for several years, engaged in colportage work for one of the Bible Societies.

(To be continued.)

EXTRAORDINARY GUNSHOT WOUND OF THE THIGH.

By A. L. Macleish, M.A., M.B., C.M.

(1)—Siapi Tson, male, aged 34, a native of the Pescadore Islands, was admitted to the Amoy Mission Hospital on January 7th, 1887. He stated that on March 29th, 1885, while engaged with his fellow-villagers in attempting to prevent the French marines from landing at Makung, the group of men among whom he was stationed was dispersed by the fall of a live shell in their midst; that while turning to run he perceived one of the enemy aiming at him with a rifle, the bullet of which presently struck him on the outer side of the right thigh, and, in passing into the limb, carried with it an iron padlock key,* which he wore suspended by a cord from his girdle.

There was free hemorrhage from the wound, which was stayed by pressure and astringent applications. An abscess formed on the inner aspect of the front of the thigh, discharging, 14 days after the wound was inflicted, a large quantity of pus, some fragments of cloth, and part of a bullet. When the swelling subsided, the key, which he at first thought had been lost, was discovered imbedded in the tissues, where it had since remained undisturbed, the only change being that latterly the point of it had appeared through the skin. On examination a vertical sinus was found to the inner side of the anterior aspect of the thigh, from the orifice of which a tiny iron point protruded, close to which another similar point could be felt through the skin. On palpation the limits of the sinus could be defined by induration passing upwards for more than

* The common Chinese padlock key consists of a straight slip of iron or brass, one extremity of which is turned up at right angles to the shank, and either perforated or cut into two small prongs; this end, on being pushed home into the lock, disengages the spring wards, and pushes out the bolt.
3 in., the upper end being situated in the adductor longus muscle at a depth of about 1 in. from the surface. This indurated mass was parallel to the axis of the limb, and distant 2 in. from the line of the femoral artery in Scarpa's triangle, its orifice, where the point of the key protruded, being about 1 in. below the level of the apex of the triangle. Besides this orifice, there was another opening into the sinus at about its middle, where the key could be touched with a probe. -A cicatrix close to the apex of the triangle indicated the site of the opening where the abscess sac had discharged its contents. A cicatrix, about 1 in. below and a little in front of the great trochanter, was indicated as the point of entrance of the bullet. Sensation and circulation in the thigh and leg were normal.

On the day following admission, the lower end of the sinus was opened, and an attempt was made to extract the key with forceps. It was found, however, that its upper end was firmly held among the tissues. The sinus was then still further opened, and the little finger, being passed up along the key, discovered a mass of fibrous tissue crossing the sinus from side to side. This was cautiously divided with scissors, and the key liberated. On extraction it was found to be a slip of iron, $\frac{1}{4}$ in. broad, nearly $\frac{1}{8}$ in. thick, and 5$\frac{1}{2}$ in. long; the upper third was bent over the middle third in the form of a rough loop, its last $\frac{3}{4}$ in. lying along the shank, so that its somewhat tapered end came to 1$\frac{1}{2}$ in. from the point of the key, thus diminishing its measurement from point to loop to 3$\frac{1}{4}$ in. It was through this loop that the mass of fibrous tissue above mentioned passed. On probing the sinus further, a piece of a rifle-bullet was discovered lying loose in its upper end, and removed with forceps. To our great astonishment, the patient, on being shewn the key, protested that it was not his key. That, he said, was considerably longer than this one, and, instead of the large loop above described, had had the extreme end neatly turned over, to form an opening just large enough for the string by which it was suspended to pass through. He was particular on this point, having watched the blacksmith make the key, and carried it for some time. He admitted, however, that the prongs of the key extracted were identical in form with those of the one he had lost, and so eventually arrived at the conclusion that it was really his own key, the small loop on the end having been opened out, and a new, large loop made in its stead. On examining the piece of the bullet, we found that it had two curious markings,—one being a clear impress of coarse cloth, such as his trousers were made of; the other, a curved saddle-shaped indentation, with markings corresponding to those on the iron, which exactly fitted the bend of the loop of the key. The tapered end of the iron, where it lay against the shank after forming the loop, was twisted, shewing traces of having at one time had a different curvature from what it had now. Thus the specimens entirely confirmed the patient's statement.
Here then was an extraordinary freak. The bullet had struck the shank of the key, and carried the key with it into the thigh on its outer aspect. In its passage in front of the femur, the original loop had probably hitched on the bone, and so become opened out straight; at the same time the resistance thus applied at one end of the key, while the bullet was forcing the shank onwards, had bent the upper third of the slip of iron over, so as to form a new loop, enclosing part of the bullet. This large body had then passed right across the floor of Scarpa's triangle, without inflicting any serious damage on blood-vessels or nerves. It was with great difficulty that the specimen was secured, the patient being so impressed with the wonderful change which the bullet had wrought upon his key, that he was determined to take it back to the Pescadores, to shew to his friends, and especially to the blacksmith who had made it. I much regret that I am at present unable to procure a sketch of the key and bullet, which would have rendered part of the above description unnecessary.

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A CHEAP AND RELIABLE FILTER.

By H. W. Boone, M.D.

Of all the inventions which have, up to the present time, been offered to the public as filters for the purification of water, only one has been thoroughly efficient. Animal Charcoal, Magnetic Carbide of Iron, Coke, Silicated Carbon, and other materials have been put forward as infallible, only to fail when the results of their working are carefully investigated. The 'Chamberland Filter,' in which the water passes through porous porcelain tubes under a high pressure, is perhaps the best filter ever invented. It requires water under high pressure to filter properly, is expensive, and the tubes have to be frequently taken out and burnt in the fire to remove the impurities collected in them, when the tubes can be re-inserted in the filter and again used. This filter will do for work on a large scale, where hundreds of gallons of water are needed for making mineral waters, ale, etc., etc. It is too expensive, complicated and troublesome for domestic use. Recent experiments by eminent chemists in Europe, England and the United States, have demonstrated the fact that celebrated filters, e.g., "Maignen's," "The Silicated Carbon Filters," and others, the most highly recommended, filter well on the first day, not so well on the second, badly after four days, and that all of them, after a month's use, show more forms and organisms in the water that comes out of them than in the river-water which was carefully examined before it
was put into the filters. All filters become clogged up, have to be taken to pieces and thoroughly cleansed—a difficult job. If this cannot be done, attempts at purification are made by passing through them a solution of Condy's Fluid, with the addition of a few drops of strong sulphuric acid, and afterwards two or three gallons of pure or distilled water acidulated with hydrochloric acid. The charcoal in a filter may also be purified by heating it in an oven or furnace. In many filters, the filtering medium has to be removed frequently. To do all this thoroughly requires much time and care, and it must be done every two months at least to be of any use at all. Should one leave their filter, while away on a trip, and all the water if it evaporate, the living organisms in the filter will die and become putrescent. When this happens, as the writer knows from personal experience with "Maignen's" and other filters, neither chemicals or prolonged boiling will prevent the horrible, putrid taste from appearing in water run through such a filter.

The experience of the writer led him to purchase a new filter every other year, and to purify his filter, of whatever pattern, every two months. All this was costly and troublesome. He then tried a large funnel and filtering paper, changing the paper every day. This gave good results, except when the paper tore and let the water all through at once. In the year 1885, a galvanized iron funnel, with a tapering point, and to hold one quart of water, was made to order by a Chinese coppersmith, cost eight cents. This funnel was suspended over a jar, a very small wad of absorbent cotton was rammed gently down to the point of the funnel and boiled water was put in the funnel. Every morning the funnel is washed with some of the filtered water. After the cotton wad has been removed, fresh cotton is inserted, and we have a new filter every day. A servant easily learns to clean the funnel, and bring it to have the new cotton put in. The cost is nominal, and the filter is perfectly secure and effective. By the simple device of making the wad tight or loose, the flow can be made slow or rapid. The cotton should be packed sufficiently to make the water come through drop by drop, but not too tight. My funnel will filter more than 2 gallons per day, and the amount filtered is only limited by the number of funnels one chooses to use.

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NOTES ON MALARIA.

I will, with your permission, advance some few remarks upon the subject I have chosen, that of Malaria. Referring, in the first instance, to diathesis in relation to climate, I cannot do better than briefly recapitulate the few words Mr. Hutchinson says in this connection, that its effect upon the human constitution may be to quickly produce very severe disease, but, whether acute or
otherwise, attacks of arterial spasm, attended by visceral congestions, are almost constant phenomena. Again, its effects, whether exposure be continued or otherwise, are always permanent. One attack of malarial fever by no means prevents another. And finally, what he so aptly terms "malarial diathesis," is a well-marked one, and exists in greater or less degree in all who have ever come under the influence of its cause. The treatment generally adopted in these regions mainly consisted of Opium, Arsenic and large doses of Quinine, which were well borne, and, perhaps I may add, as distinctive treatment, the expressed oil from the liver of the Unpi (*Lota Maculosa*), a fresh water ling, abundant in the rivers and lakes of the north. Regarding giving Quinine in large doses, I found that such was indicated by experience, here advocating Barthlow's aphorism, "That as the elimination of Quinia takes place with considerable rapidity, the maximum curative effect is obtained by the administration of the whole amount required in a single dose, rather than by a succession of doses. The only case really of interest which recalls itself to me was one which was diagnosed and treated by Quinia, the only case I have ever seen—one of Malarial Orchitis, exhibiting itself in a half-breed who had suffered intensely from ague and who evidenced all the marks of severe malarial poisoning—was brought to me. The malarial nature of the complaint being suspected, a full dose of Quinia was given before the rise of temperature and was repeated daily. The beneficent effect of the Quinia was quickly noted, and so well marked it is, "that it becomes of great value as a therapeutic test in a doubtful case." In passing on, I would wish to touch upon the pathology of Malaria. All authors have, I believe, hitherto regarded "the pigment which in all cases of malarial cachexia accumulate in the blood and other tissues, as a product of disintegration of the red-blood corpuscles which have lost their vitality through the fever paroxysm," but Dr. Aphanassiew, in his *Pathology of Malaria*, somewhat takes exception to this. He states that in all cases investigated by him the pigment presented a special form and bore no resemblance to the coloring matter of the red-corpuscles such as is commonly found with all its modifications in other pathological conditions and in melanotic tumours, and suggests an independent origin, inasmuch as if this granular pigment is compared with Cohn's microcococcus prodigiosus or Patnaella prodigiosa, one is involuntarily led to conjecture the existence of a certain connexion between them. I am uncertain as to whether this connexion has yet been established, but it is perhaps not uninteresting to note in the *Can. Medical Record* of November of this year, three more cases reported by Dr. De Beasle, of malarial disease, that were perfectly cured by an attack of facial erysipelas. Not only did the febrile paroxysms cease, but the phenomena of chronic malarial poisoning disappeared rapidly & after the erysipelas cocci had got the better of the malarial micro-organism." The question naturally arises, what is Malaria? and I fear our only answer is a somewhat stereotyped one, —that it is a non-contagious infectious disease and of itself alone capable of pro-
ducing Malarial Fever; and in the subjoined classification, given by Dr. Lithgow, the fact must be distinctly borne in mind that the relative difference is only one of degree; the poison itself, owing to existing conditions, is subject to variation both in quantity and quality:

1. Quartan Intermittent.
2. Tertian.
3. The Marked Intermittent.
4. Double Tertian.
5. Remittent.
6. Continued.
7. Pernicious.

but it must be remembered that these various forms of disease are but individualized effects of malarial poison.

NOTE.—Read before the Shanghai Medical Missionary Association, 12th January 1889.
The China Medical Missionary Journal.


INTRODUCTORY.

It was announced in our last number that a change of editors had taken place, the old editors declining a re-election. Dr. Lyall, who had joined the former corps of editors, is elected the senior editor, Drs. Atterbury, Hodge and Boone being also elected. As is so often the case, the founders of the Journal were men pre-eminently fitted for the work. The eminent services which they had rendered to the cause of medical missions, their great experience, the skill of Drs. Kerr, Mackenzie and Reifsnyder, in Surgical work, the acknowledged ability of Dr. Kerr in putting medical works into Chinese for the benefit of native students, the success of Drs. Kerr and Mackenzie in their education of medical students, above all their earnest Christian labors, made them easily our leaders. All that they wrote, or inspired, came to us with an acknowledged authority. The Journal is the organ of the Medical Missionary Association of China, and, owing to the vast extent of the country, and the fact that we can so seldom meet together, it must always be our chief means for the interchange of ideas. During the past two years the publication of the Journal has brought us together as nothing before ever had done. From a lot of isolated men, each one working away by himself, not knowing what was done by others, neither gaining nor imparting knowledge, we have become a unit. We can and we do inspire one another to an emulation in well-doing. We have learnt many things, and there is an esprit de corps and a public opinion to guide us aright. As an association we have a power which no individuals working singly can hope to have. Our Association has been acknowledged by the International Medical Congress, and our Journal has been quoted in the journals of many lands. To the acknowledged ability and the varied talent of the above-named editors, we, the members of the Medical Missionary Association, owe much. Yet with all this the Journal would not have attained to the position which it now holds without the help of another man. The promoters of the Journal knew that there must be someone, residing in Shanghai, to assume the post of Business Manager and Editor. He must be on the spot where the Journal was issued, to give it form and shape, to arrange all the details of the management. His colleagues were many hundreds of miles away. He must
be able to act and to judge for himself; was deprived of the privilege of consulting with his co-labourers; could not divide the work or the responsibility with them. There was one man who possessed the love and the esteem of his brother missionaries; he held the degree of M.D. As Agent of the American Bible Society, as Editor of the Recorder, as pastor of a large congregation, as a man of years and large knowledge of men and of affairs, he was the man for the place. Still, could such a man, already overloaded with work, be induced to assume new duties of no light character. We proposed and we elected him Business Manager and editor. The result proved that we knew the nature of the man,—once make it clear to him that duty called, and there was no hesitation. The work must be done and it must be well done. Dr. Gulick assumed the offered position, and all his experience, his editorial skill, his varied wealth of learning, and that tact and judgement which have enabled him to carry to a successful issue all that he has undertaken, were put at our disposal. There was no pay, no worldly reward to be gained, but it was the Master's work. From the very beginning the Journal has been a success.

The June number of the Journal brought to us the sad news of the death of J. Kenneth McKenzie, the wise physician, the bold and successful surgeon, the generous, noble-hearted man and the Christian Missionary. "To some of us it was the loss of a warm personal friend, endeared to us by years of intercourse. To us all it is a heavy loss—a leader has departed, but the example of his life is before us. In the words of one who knew him well, "Abundant success in this life and an abundant entrance into the next were his, because he gave God all the tithes which were His due, and devoted himself soul and body to His service."

In assuming charge of the editorial work, we feel that a heavy burden is laid upon our shoulders. While we are grateful to our friends for the kindly feelings which prompted them to vote for us, we know that we are expected to keep the Journal up to the standard which it has always maintained. We feel our responsibility, and we know that, unless every member of our Association will help us, we cannot accomplish the task. We therefore beg you to contribute freely to our columns, to write fully and freely about the religious side of the work, to prepare papers which will set forth the prevailing diseases in the several localities where you reside; give us accounts of the causes of these complaints, statistics of the numbers of cases seen, the death-rate, if any, the most successful methods of treatment. It is by such work as this that we can make the columns of our Journal really useful, so that when we are in doubt we can turn to its pages for that information as to the diseases of China which we can obtain in no other way. Clinical notes, records of surgical operations, and accounts of cheap and successful appliances for the treatment of hip-joint or knee disease will be of great value. We are missionaries and we are physicians.
To succeed in both of these fields is our aim and object. Give us your hearty co-operation and then we can make the Journal what we all wish it to be—not a showy but useful record of our labors and of our experience.

H. W. B.

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THE ALICE MEMORIAL HOSPITAL,

Hongkong, is under the sole control of The London Missionary Society, but funds for its support are chiefly raised by local subscriptions and al fresco fêtes. In the "Historical Sketch and Report of Six Months Work," published in 1887, Dr. Chalmers states that at the first fête held on the evenings of the 12th and 13th November 1886, "a large number of ladies and gentlemen, by means of stalls and a variety of entertainments, and the Chinese by illuminations, puppet-shows and dramatic performances, helped to swell the funds, which, including entrance fees, amounted to $9,000, clear of expenses." He says truly "it was a grand success."

A fête similar in all respects was held on the evenings of the 25th and 29th December 1888, the pecuniary results of which are not yet reported.

Our object in referring to these fêtes for the support of a Medical Missionary Hospital is to notice the fact that theatrical performances were one of the attractive features on each occasion, and also that the programme embraced a bar for the sale of intoxicating liquors. In the official Report quoted from above, reference to the "bar" is omitted, but newspaper reports show that it was one of the most popular and best patronized of the entertainments. The China Mail, speaking of the last evening, says, the "grill-room and the bar were crowded during the whole evening."

It is not stated who dispensed the liquors, but as missionary ladies and gentlemen presided at some of the stalls, and took in money for a missionary institution, what objection could there be to a missionary attending to a "bar," where no doubt the highest profits would be realized.

If our opinion were asked, we would use very strong terms in condemning the use of theatrical performances and the sale of intoxicating liquors as a means of sustaining a benevolent work so noble and so sacred as that of medical missions. We however content ourselves with a statement of facts for the consideration of the Directors of Missionary Societies, and with placing on record a most earnest protest, in the name of medical missions, in the name of humanity, in the name of sanitary science, and in the name of Christianity, against theatrical performances, and the sale of intoxicating beverages, as a means of supporting any work associated with, or auxiliary to the propagation of our holy religion among the heathen.

J. G. K.
LIST OF MEDICAL MISSIONARIES IN CHINA,
COREA AND SIAM.

The following is a corrected list of Medical Missionaries. Owing to the difficulty of obtaining definite information, it is far from being a complete list. We shall be much obliged to anyone who will send us additions and corrections. In default of any better method of indicating the Lady Physicians, we have attached an asterisk (*) to the names of unmarried ladies, and an obelisk (†) to those of married ladies. The Missions are arranged according to the dates of their commencing work in China, under their different nationalities of Great Britain and the United States of America.

GREAT BRITAIN.

LONDON MISSIONARY SOCIETY, 1807.

<table>
<thead>
<tr>
<th>Name</th>
<th>Mission</th>
<th>Year</th>
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<tbody>
<tr>
<td>King, L. A.†</td>
<td>Tientsin</td>
<td>1877</td>
</tr>
<tr>
<td>Gillison, T.</td>
<td>Hankow</td>
<td>1882</td>
</tr>
<tr>
<td>Prichard, E. T.</td>
<td>Peking</td>
<td>1886</td>
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<tr>
<td>McFarlane, S. S.</td>
<td>Chi Chow</td>
<td>1887</td>
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<tr>
<td>Roberts, F. C.</td>
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<td>1887</td>
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<tr>
<td>Fahmy, Ahmed</td>
<td>Amoy</td>
<td>1887</td>
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<tr>
<td>Smith, G. P.</td>
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<td>1888</td>
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CHURCH MISSIONARY SOCIETY, 1844.

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<thead>
<tr>
<th>Name</th>
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<tr>
<td>Taylor, V. S.</td>
<td>Hokning-fu</td>
<td>1878</td>
</tr>
<tr>
<td>Main, Duncan</td>
<td>Hangchow</td>
<td>1882</td>
</tr>
<tr>
<td>Horder, E.</td>
<td>Pakhoi</td>
<td>1884</td>
</tr>
<tr>
<td>Hickie, Herbert</td>
<td>&quot;</td>
<td>1887</td>
</tr>
<tr>
<td>Rigg, John</td>
<td>Fu Ning</td>
<td>1888</td>
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ENGLISH BAPTIST MISSION.

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<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Watson, J. R.</td>
<td>Ching Chow-fu</td>
<td>1885</td>
</tr>
<tr>
<td>Watson, A. R. (†)</td>
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ENGLISH PRESBYTERIAN MISSION, 1847.

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<tr>
<td>Anderson, P.</td>
<td>Taiwan-fu</td>
<td>1878</td>
</tr>
<tr>
<td>Lyall, A.</td>
<td>Swatow</td>
<td>1879</td>
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<tr>
<td>Grant, D.</td>
<td>Chinchow</td>
<td>1880</td>
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<tr>
<td>Macleish, A. L., Rev.</td>
<td>Amoy</td>
<td>1881</td>
</tr>
<tr>
<td>Riddel, W.</td>
<td>Ng-kang-phu</td>
<td>1881</td>
</tr>
<tr>
<td>McPhun, J. F.</td>
<td>&quot;</td>
<td>1888</td>
</tr>
<tr>
<td>Name</td>
<td>Place</td>
<td>Year</td>
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<tr>
<td>Cousland, P. B.</td>
<td>Swatow</td>
<td>1883</td>
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<tr>
<td>Lang, John C. R.</td>
<td>Tai-wan-fu</td>
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<td>Howie, Jas.</td>
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<td>Russell, Gavin</td>
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WESLEYAN MISSION, 1852.

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<tr>
<td>Wenyon, C., Rev.</td>
<td>Fatshan</td>
<td>1881</td>
</tr>
<tr>
<td>McDonald, R., Rev.</td>
<td></td>
<td>1884</td>
</tr>
<tr>
<td>Morley, Arthur</td>
<td>Hankow</td>
<td>1886</td>
</tr>
<tr>
<td>Hodge, Sydney R., Rev.</td>
<td></td>
<td>1887</td>
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</table>

METHODIST NEW CONNEXION, 1860.

<table>
<thead>
<tr>
<th>Name</th>
<th>Place</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aitken, W. K.</td>
<td>Kaiping</td>
<td>1884</td>
</tr>
<tr>
<td>Shrubshall, W. W.</td>
<td>North China</td>
<td>1888</td>
</tr>
</tbody>
</table>

CHINA INLAND MISSION, 1865.

<table>
<thead>
<tr>
<th>Name</th>
<th>Place</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Douthwaite, A. Wm.</td>
<td>Chefoo</td>
<td>1874</td>
</tr>
<tr>
<td>Cameron, J.</td>
<td></td>
<td>1875</td>
</tr>
<tr>
<td>Puen, W. L.</td>
<td>Takutang</td>
<td>1880</td>
</tr>
<tr>
<td>Edwards, E. H.</td>
<td>Taiyuen-fu</td>
<td>1882</td>
</tr>
<tr>
<td>Wilson, W.</td>
<td>Hanchung</td>
<td>1882</td>
</tr>
<tr>
<td>Parry, H.</td>
<td>Ganking</td>
<td>1884</td>
</tr>
<tr>
<td>Stewart, J. C.</td>
<td>Taiyuen-fu</td>
<td>1886</td>
</tr>
<tr>
<td>Randle, Horace</td>
<td>Chefoo</td>
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</table>

UNITED PRESBYTERIAN CHURCH, SCOTLAND, 1865.

<table>
<thead>
<tr>
<th>Name</th>
<th>Place</th>
<th>Year</th>
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</thead>
<tbody>
<tr>
<td>Westwater, A. McD.</td>
<td>Newchwang</td>
<td>1881</td>
</tr>
<tr>
<td>Christie, D.</td>
<td>Mookden</td>
<td>1882</td>
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</table>

CANADIAN PRESBYTERIAN MISSION, 1888.

<table>
<thead>
<tr>
<th>Name</th>
<th>Place</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smith, J. F.</td>
<td>Honan</td>
<td>1888</td>
</tr>
<tr>
<td>McClure, W.</td>
<td></td>
<td>1888</td>
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</tbody>
</table>

UNITED STATES OF AMERICA.

AM. BOARD COM. FOR. MISSIONS, 1830.

<table>
<thead>
<tr>
<th>Name</th>
<th>Place</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Porter, H. D.</td>
<td>Pang Chia</td>
<td>1872</td>
</tr>
<tr>
<td>Whitney, H. T.</td>
<td>Shaown</td>
<td>1877</td>
</tr>
<tr>
<td>Peck, A. P.</td>
<td>Pang Chia</td>
<td>1880</td>
</tr>
<tr>
<td>Murdock, V. C.*</td>
<td>Kalgan</td>
<td>1881</td>
</tr>
<tr>
<td>Perkins, L. E. †</td>
<td>Tientsin</td>
<td>1882</td>
</tr>
<tr>
<td>Osborne, D. E.</td>
<td>Taiku</td>
<td>1884</td>
</tr>
<tr>
<td>Woodhull, K. C. *</td>
<td>Foochow</td>
<td>1884</td>
</tr>
<tr>
<td>Name</td>
<td>Place</td>
<td>Year</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Merritt, C. P. W.</td>
<td>Paoting-fu</td>
<td>1885</td>
</tr>
<tr>
<td>Ingram, J. H.</td>
<td>Tung Chow</td>
<td>1887</td>
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**AMERICAN BAPTIST MISSIONARY UNION, 1834.**

<table>
<thead>
<tr>
<th>Name</th>
<th>Place</th>
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<tbody>
<tr>
<td>Barchet, S. P.</td>
<td>Ningpo</td>
<td>1868</td>
</tr>
<tr>
<td>Daniels, C. H. *</td>
<td>Swatow</td>
<td>1878</td>
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</table>

**AMERICAN PROTESTANT EPISCOPAL MISSION, 1835.**

<table>
<thead>
<tr>
<th>Name</th>
<th>Place</th>
<th>Year</th>
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<tbody>
<tr>
<td>Boone, H. W.</td>
<td>Shanghai</td>
<td>1880</td>
</tr>
<tr>
<td>Deas, W. A.</td>
<td>Wuchang'</td>
<td>1881</td>
</tr>
<tr>
<td>Haslep, M. *</td>
<td></td>
<td>1888</td>
</tr>
<tr>
<td>Mathews, Percey</td>
<td>Shanghai</td>
<td>1888</td>
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**AMERICAN PRESBYTERIAN MISSION NORTH, 1838.**

<table>
<thead>
<tr>
<th>Name</th>
<th>Place</th>
<th>Year</th>
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</thead>
<tbody>
<tr>
<td>Happer, A. P., Rev.</td>
<td>Canton</td>
<td>1844</td>
</tr>
<tr>
<td>Kerr, J. G.</td>
<td></td>
<td>1854</td>
</tr>
<tr>
<td>Atterbury, B. C.</td>
<td>Peking</td>
<td>1879</td>
</tr>
<tr>
<td>Hunter, S. A., Rev.</td>
<td>Chefoo</td>
<td>1879</td>
</tr>
<tr>
<td>Thomson, J. C., Rev.</td>
<td>Yuen Kong</td>
<td>1881</td>
</tr>
<tr>
<td>Niles, M. *</td>
<td>Canton</td>
<td>1882</td>
</tr>
<tr>
<td>Neal, J. B.</td>
<td>Tengchow-fu</td>
<td>1883</td>
</tr>
<tr>
<td>Allen, H. N.</td>
<td>Seoul (Corea)</td>
<td>1883</td>
</tr>
<tr>
<td>Fulton, H. *</td>
<td>Kwant Ping</td>
<td>1884</td>
</tr>
<tr>
<td>Swan, J.</td>
<td>Canton</td>
<td>1885</td>
</tr>
<tr>
<td>Coltman, Robert</td>
<td>Chinan-fu</td>
<td>1885</td>
</tr>
<tr>
<td>McCandliss, H. M.</td>
<td>Holihow</td>
<td>1885</td>
</tr>
<tr>
<td>Herron, J. W.</td>
<td>Seoul (Corea)</td>
<td>1885</td>
</tr>
<tr>
<td>Hays, J. H.</td>
<td>Bangkok (Siam)</td>
<td>1886</td>
</tr>
<tr>
<td>Thompson, J.</td>
<td>Bankok (Siam)</td>
<td>1886</td>
</tr>
<tr>
<td>Carey, A. M.</td>
<td>Chengmao (Siam)</td>
<td>1886</td>
</tr>
<tr>
<td>Bunker, D. A. †</td>
<td>Seoul (Corea)</td>
<td>1886</td>
</tr>
<tr>
<td>Taylor, Geo. Yardley</td>
<td>Peking</td>
<td>1887</td>
</tr>
<tr>
<td>Smith, Driesback</td>
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<td>1887</td>
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</table>

**AMERICAN REFORMED MISSION.**

<table>
<thead>
<tr>
<th>Name</th>
<th>Place</th>
<th>Year</th>
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<tbody>
<tr>
<td>King, Y. May *</td>
<td>Amoy</td>
<td>1887</td>
</tr>
<tr>
<td>Otte, J.</td>
<td></td>
<td>1888</td>
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</tbody>
</table>

**METHODOIST EPISCOPAL MISSION, 1847.**

<table>
<thead>
<tr>
<th>Name</th>
<th>Place</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoag, L. H.</td>
<td>Chinkiang</td>
<td>1872</td>
</tr>
<tr>
<td>Crews, G. H.</td>
<td>Chungking</td>
<td>1882</td>
</tr>
<tr>
<td>Corey, C. A. *</td>
<td>Foochow</td>
<td>1884</td>
</tr>
<tr>
<td>Beebe, R. C.</td>
<td>Nankin</td>
<td>1884</td>
</tr>
<tr>
<td>Gloss, A. D. *</td>
<td>Tientsin</td>
<td>1885</td>
</tr>
<tr>
<td>Hopkins, N. S.</td>
<td>Tsunhua</td>
<td>1886</td>
</tr>
<tr>
<td>Pray, S. *</td>
<td>Foochow</td>
<td>1886</td>
</tr>
<tr>
<td>Stuart, G. A.</td>
<td>Nankin</td>
<td>1886</td>
</tr>
<tr>
<td>Scranton, W. B.</td>
<td>Seoul (Corea)</td>
<td>1886</td>
</tr>
</tbody>
</table>
Hospital Reports.

The following extracts from the report of The Pekin Hospital, under the care of Dr. E. T. Pritchard, will show that the work of this old London Mission Hospital is carried on with the same success as in former years. We note that the work among women is large and successful, and that a class of Medical Students are being trained and educated through the medium of the Chinese language. We have been compelled, by the results of our experience, to the belief, that for years to come it will be best to teach medicine to the Chinese in their own language. "The total number of visits paid by patients to the Dispensary during the year was rather over 20,000, and that the number of new cases coming under observation was about 9,000. In-patients admitted, inclusive of opium-smokers, 270. 158 visits were recorded as having been made to patients in their own homes." During the year several patients have become members of the Church.

SECOND ANNUAL REPORT OF THE PHILANDER SMITH MEMORIAL HOSPITAL, NANKING, CENTRAL CHINA MISSION, M.E. CHURCH.

This report is very encouraging; it shows increasing friendliness on the part of prominent officials. Six converts joined the mission from the hospital. The number of
out-patients was 9,889, of in-patients was 211. A Medical School has been formed under Drs. Beebe, Stuart and Hoag. Miss E. Butler takes charge of the training of nurses. This successful advance in so important a centre as Nanking is very gratifying. Under the intelligent care of Dr. Beebe and his able coadjutors we look for much good work.

THE HOSPITAL FOR WOMEN AT SOOCHOW.

The 3rd of March 1887 the dispensary work was opened, and kept open until the 27th of July.

During these months about 1,000 patients were treated, 9 in-patients admitted, about 1,474 prescriptions filled; and during the year 107 office patients registered, and 188 calls made.

Three times a week the native pastor preached to the women. On the remaining days my teacher read to them a lesson from the Scriptures, and daily there were two women there to instruct them while I was prescribing. Since December 1886, I have had the same druggist, one of the medical students from Dr. Park's school; he fills all of the prescriptions and makes up the easier preparations.

In him, as in several of the other students, I have been fully convinced of the feasibility of giving educated Chinese medical teaching.

It is an element destined to play no unimportant part. During the year of 1886-87 I gave three lectures a week to the students and one quiz on Materia Medica. The percentage of two only fell below 80 at the closing examination in June. Having long looked forward to the establishment of this hospital for women, I write somewhat at length, feeling that the buildings that we now have afford very comfortable accommodations for the work we shall immediately have on hand.

We have built upon the lot adjoining the Soochow Hospital, and lying to the East of it. The pavilion style was decided upon as best calculated to allow of satisfactory separation of the sick, and to secure good ventilation. The buildings are of brick, plastered inside and out, and connected by open corridors. They are finished neatly inside with high ceilings and special ventilating pipes.

The woodwork is of the best Chinese red-wood and camphor-wood, and the floors of foreign pine,—varnished with the commonly-used Chinese varnish.

The dispensary building contains a large waiting-room, two consulting-rooms, a drug-room, store-rooms and closets.

To the north of this building are the Medical and Surgical wards in two separate pavilions, each containing a bath-room and a room for special cases. Within an easy reach of the surgical ward is the operating-room, separate from the other buildings, well lighted from above and from the north and from each side.

The buildings so far described are single-storied, raised three feet from the ground, with good ventilation underneath and the ground beaten down with a cement of sand and lime. There is but one two-story building on the lot—the home of my foreign assistant, Mrs. Campbell.

There are four other cheaper buildings in the compound for the Chinese connected with the work, for service-rooms, storage, etc.

The Hospital is well supplied with foreign beds, bedding, and a considerable amount of materials for flannel clothing, etc., and surgical instruments and appliances on hand or expected by the next order to the value of $400.

Including the land, buildings and equipment, the institution is valued at about $10,000.

MILDRED M. PHILIPS.
A YEAR'S MEDICAL WORK IN TUNGCHOWFU.

By Jas. B. Neal, M.D.

During 1888, the fourth year of continuous medical work in Tungchowfu, 55 miles from Chefoo, the Dispensary has been kept open regularly every day, except during the first three months of the year, when it was open only on alternate days.

The attendance has been much the same as in former years—small during the cold weather and somewhat larger during the summer—averaging about thirteen cases a day, the total number of visits of out-patients being for the year 3,283, of which 1,396 were new cases. The year upon the whole was one of unusually good health both among foreigners and natives, especially as regards the usual summer complaints, which are ordinarily so troublesome during August and September. Though there was a severe epidemic of cholera in Chefoo and in many places in the interior of Shantung which proved very fatal, there was little here, not more than half-a-dozen cases being brought to my attention, while the ordinary record of diarrheas and dysenteries was much decreased as compared with 1887.

There has been no dangerous illness among the foreigners of our community, and no deaths among the natives who are connected with us in our work.

The number of hospital patients, though not large, has considerably increased as compared with former years, the whole number being 61, of whom forty-three have been cured, eleven improved, and four unimproved, there having been three deaths during the year. I have been much gratified during this year's work to find an increasing willingness among in-patients to remain in hospital long enough to receive some benefit, instead of becoming discouraged after a few days, if no very evident improvement took place.

Most of them have seemed just as anxious to get well as we have been to help them, which is not always the case, and have been willing to spend time and take pains to effect a cure. The only innovation worthy of note in our practice, has been the use of lavage in treating diseases of the stomach. The treatment consists in daily washing out of the stomach by means of a stomach tube and funnel, with a dilute solution of bicarbonate of soda, so as to thoroughly cleanse the mucous membrane from accumulations of mucus and combat hyperacidity. It is remarkable how quickly a patient becomes accustomed to the passage of the stomach tube, and will swallow it down with almost no difficulty, even coming and asking that it be used, after learning the relief which follows its application.
One case of severe catarrh of the stomach, who on admission was much reduced and suffered greatly from attacks of pain, was almost entirely relieved and left the Dispensary, a fleshy man, after a few weeks of daily washing of his stomach and careful regulation of his diet. Another patient, who suffered from an excessive hyperacidity, was much relieved, and never failed to have a paroxysm of pain cut short by the use of either the dilute soda solution or by lavage with simple tepid water. The treatment however failed to cure him, while another case of cancer of the stomach could scarcely be said to have been benefited at all, though the pain which he complained of was lessened by the washings.

This method of treatment, though a little burdensome at first, owing to the necessity of regulating the temperature of the water to about 100° F., and the care required in passing the stomach tube, soon becomes a matter of routine which any ordinary assistant can carry out. The quantity of water used was usually about three pints, having dissolved in it three drachms of bicarbonate of sodium, though this quantity, of one drachm to each pint of water, was occasionally increased and often diminished, while the Journal from which I learned the method, recommended the use in certain cases of Carbolic Acid, Boric Acid, etc., when an antifermentative effect instead of an antacidal was desired.

There have been no evidences of any marked religious interest on the part of the patients during the year. They all say the doctrine which we teach is excellent, and some aver that they believe it, but when we look for signs of a real understanding and acceptance of the Gospel they are entirely wanting. The people in this part of Shantung seem to be altogether devoid of any religious element in their character. In some other parts of Shantung, the people, or at least the women, appear to think about higher things and many of them belong to sects whose object it is to seek for eternal life, but here in the Shantung Promontory no such spirit exists, the people being all as worldly-minded and as absolutely indifferent to the claims of anything beyond this world as it is possible for them to be. The very occasional case of a man who does grasp the idea of sin and the need of a Saviour therefrom, is like water to a thirsty soul in this barren land.

Medical Teaching.

The teaching of the medical class of five students has been regularly and systematically carried on during the year. In the early part of the summer, at the end of their first year and a half of study, they passed their first examinations in Anatomy, Physiology and Chemistry, and during the autumn they had recitations twice a day, four days of the week, and once on Wednesday in Dr. Kern's Practice of Medicine and in Surgery, passing an examination in the latter at the end of the year.
They are going on this year to pursue the study of Practice in conjunction with clinical examination of patients, including percussion and auscultation, having also regular recitations in books on Inflammation, Syphilis, Skin Diseases, etc., and listening to lectures on Therapeutics, Obstetrics, etc. Though they are bound by their contracts to stay only three years, they have all declared themselves willing to remain through the summer of 1890, which will give them a course of three years and a half, and allow them more time to devote to the clinical study of medicine and surgery. Below will be found a short statistical table showing the work for the year in Dispensary and Hospital.

**Statistics for 1888.**

<table>
<thead>
<tr>
<th>Disease of New Patients</th>
<th>No. of Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Diseases</td>
<td>189</td>
</tr>
<tr>
<td>Surgical</td>
<td>209</td>
</tr>
<tr>
<td>Respiratory Tract</td>
<td>96</td>
</tr>
<tr>
<td>Alimentary</td>
<td>433</td>
</tr>
<tr>
<td>Eye and Ear</td>
<td>85</td>
</tr>
<tr>
<td>Skin Diseases</td>
<td>265</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>119</td>
</tr>
<tr>
<td><strong>Total No. of Patients</strong></td>
<td><strong>3,344</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>List of Operations</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amputation of Fore-arm</td>
<td>1</td>
</tr>
<tr>
<td>&quot; Thumb...</td>
<td>1</td>
</tr>
<tr>
<td>&quot; Penis ...</td>
<td>1</td>
</tr>
<tr>
<td>Tumors excised</td>
<td>7</td>
</tr>
<tr>
<td>Fistula in Ano</td>
<td>2</td>
</tr>
<tr>
<td>Circumcision</td>
<td>1</td>
</tr>
<tr>
<td>Needle-and-fish Spine cut out...</td>
<td>2</td>
</tr>
<tr>
<td>Shoulder set</td>
<td>1</td>
</tr>
<tr>
<td>Ascites tapped</td>
<td>3</td>
</tr>
<tr>
<td>Abscesses and Boils lanced</td>
<td>14</td>
</tr>
<tr>
<td>Necrosed Bone</td>
<td>1</td>
</tr>
<tr>
<td>Teeth pulled</td>
<td>55</td>
</tr>
</tbody>
</table>

**Society Proceedings.**

At the Meeting of the Shanghai Medical Missionary Association held at St. Luke's Hospital on the 12th inst., Dr. Gulick was duly elected President for the ensuing year, Dr. Boone was elected Vice-President and Dr. Mathews Secretary and Treasurer for the same period.

A Meeting of the Shanghai Medical Missionary Association took place on the afternoon of the 12th inst.
After the meeting had been opened by prayer, the minutes of the previous meeting were read by the Secretary and confirmed. Dr. Mathews was requested to read his paper on Malaria, and in connection with the remarks he advanced upon the new antipyretics, he stated that he was unwilling to adhere to the somewhat prevailing tendency of subordinating Quinine to either of them, and promised later on to give the meeting the results of his experiments with Phenacetin and Picrates of Ammonia.

Dr. Boone remarked that it was of the utmost importance that we, living in this malarious China, should recognize the part malarial fever plays in eye affections, so he would supplement Dr. Mathews' paper by the following Notes on Malarial Poisoning and Eye Diseases. Bull gives histories of seventeen cases of intra-ocular hemorrhage that showed some connection with severe Malarial Poisoning. The vessels ruptured during the febrile stage of the disease. Constitutional treatment is alone effective. Javal, from the presence of interstitial keratitis in patients suffering from intermittent fever, was able to tell from what part of the country his patients came, knowing the malarial districts. Quinine was the effectual remedy. Landolt agrees with Javal, and Poncet goes even further by stating that he has seen in Africa, hemorrhages and choroiditis result from the same cause. Sedan gives the result of thirteen years' experience in Africa, during which time he had 34 cases of interstitial keratitis, 19 monolateral and 12 bilateral. In only 11 of the 34 was syphilis the cause, and in 27 the malarial origin was demonstrated by the quick response to antifebrile and tonic treatment.—Annual of Medical Sciences.

Dr. Henry Dickson Bruns, of New Orleans, reports, in the Medical Record, July 14th, the details of six cases of malarial retinal hemorrhage. All were middle-aged males, the victims of chronic malarial poisoning, enlarged spleens, etc. Both eyes were effected in five of the cases, the hemorrhages were usually multiple; there were slight retinitis and papillitis; the vision was impaired according to the location of the hemorrhage. The tendency is toward recovery as the general malarial affection is conquered, and the absorption of extravasations follows the characteristic course. The hemorrhages are ascribed to no special morbid process, but simply to the poverty of the blood induced by the malarial poison.

The six cases of Van Nullingen (Centralblatt, January) present us with a different aspect of the inquiry. It speaks of a peculiar form of Keratitis, associated with intermittent fever. The peculiarity of this form of Keratitis consists in a superficial erosion of the temporal border of the cornea, or more infrequently as a fungus like erosion at some other point of the periphery. "At first sight it seems like a case of mechanical injury in which the epithelium has been broken off from a limited portion of the cornea. The clear area soon passes over into a cloudy ulcer, gradually enlarging toward the pupillary
space, and penetrating the deeper layers of the cornea, but not perforating the last. From the infiltrated spot radiate stellate parenchymatous prolongations into the adjacent portions of the cornea. The iris and uveal tract are not implicated. In the beginning there is local pain and a feeling as of a foreign body in the eye, with lachrymation and photophobia. There is little pericorneal injection. In the second stage of extension and deepening of the ulcer, there is ciliary neuralgia. Whilst the symptoms are inconstant, the general character of the Keratitis must be reckoned with the asthenic and torpid forms. Even pain may not exist. The most constant and the most important symptom is the anaesthesia of the cornea, even in the unaffected parts, and sometimes persisting for a long time after convalescence and cicatrization. Paresis of the externus and inferior recti muscles was observed in one case. Vascularization of the corneal border may arise after the ulcer has existed for a few weeks. Healing is slow, and the prognosis as to vision is grave, owing to corneal cicatrices that are formed. Even the clearer parts are traversed by stellate rays of opacities, thus spoiling the hope of successful iridectomies. The author has no doubt of the malarial origin of the affection, but as to the direct cause of the desquamative process and the anaesthesia no explanation is advanced, except the analogy of the decubitus of spinal lesions or other exhaustive ailments."

The reviewers would suggest, as a possible cause, a peripheral neuritis of the corneal trophic and sensitive filaments. The systemic disturbances and impoverished nutrition of the tissues would predispose to such a morbid process, and exposure to cold—the frequent cause of such peripheral neurites as underlie herpes zoster, facial paralysis, etc.—might directly bring on the condition above described. This assumption of a local neural inflammation, which in reality is beautifully described in the last case, and which tallies so nearly with the descriptions by Arlt of herpes zoster, ophthalmicus and herpes facialis, is rendered more plausible when the two forms of disease are carefully compared.

A vote of thanks being tendered both Doctors Boone and Mathews the meeting then adjourned.

PERCEY MATHEWS, M.D., Secty.
PROGRESS OF MEDICAL SCIENCE.

PRACTICAL HINTS ABOUT CHILDREN.

Dr. Jacobi gives in the Archives of Pediatrics the following suggestive hints about the management of children:—"Always teach a nurse that a child cannot swallow as long as the spoon is between the teeth; that it is advisable to depress the tongue a brief moment, and withdraw the spoon at once, and that now and then a momentary compression of the nose is a good adjuvant. Syrup will turn sour in warm weather, glycerine and saccharine keep. The taste of quinine is corrected by coffee, chocolate and 'elixir simplex.' Powders must be thoroughly moistened; unless they be so, the powder adhering to the fauces is apt to produce vomiting. Inunctions require a clean surface, and are best made where the epidermis is thin and the net of lymph-vessels very extensive on the inner aspect of the forearm and the thigh. Babies, after having taken opiates for some time, demand larger, and sometimes quite large doses to yield a sufficient effect. Febrifuge and cardiac tonics, such as quinia, antipyrin, digitalis, strophanthus, sparteine, convallaria, etc., are tolerated and demanded by infants and children in larger doses than the ages of the patients would appear to justify. Mercurials affect the gums very much less in young than in advanced age. The rectum of the young is straight, the sacrum but little concave, the sphincter ani feeble, and self-control gets developed but gradually; for these reasons a rectal injection is either allowed to flow out or is vehemently expelled. Therefore one which is expected to be retained must not irritate. The blandest and mildest is a solution of six or seven parts of chloride of sodium in a thousand parts of water, which serves as a good vehicle for medicine unless incompatible with the latter. The injection must be made while the child is lying on its side (preferably the left side) not on the belly over the lap of the nurse, for in this position the space inside the narrow infantile pelvis is reduced almost to nothing. In many cases of intense intestinal catarrh, large and hot (104° to 106° F.) enemata will relieve the irritability of the bowels and contribute to recovery. They must be repeated several times daily. When there are many stools, and these complicated with tenesmus, an injection, tepid or hot, must or may be made after every defaecation, and will speedily relieve the tenesmus."

SALT IN MILK FOR CHILDREN.

Dr. A. Jacobi (Arch. of Ped.) says that the addition of sodium chloride prevents the solid coagulation of milk by either rennet or gastric juice. The cow's milk ought never to be given without table salt, and the latter ought to be added to woman's milk when it behaves like cow's milk in regard to solid curdling and consequent indigestibility. Habitual constipation of children is influenced beneficially, since not only is the food made more digestible, but the alimentary secretions, both serous and glandular, are made more effective by its presence.—Practice.

INTESTINAL DISEASES OF INFANCY AND CHILDHOOD.

By A. Jacobi, M.D. Detroit, Mich.; George S. Davis. 1887.

This book is quite an exception to the usual unprofitable results of writing on the special diseases of children. The author shows that in the first year of life the
stomach and the intestines are the sources of a high death-rate amounting to forty per cent., whereas in the second year only nine per cent., are due to digestive troubles. It is clear that hygienic rules for infants concern the digestive organs mainly, and hence an account of the physiology, hygiene, pathology, and therapeutics of the infant’s alimentary canal forms an unusually interesting and instructive volume.

An experience of more than a third of a century justifies the author in attempting to diminish infant mortality by insisting on normal alimentation during the first few months of life; he points out that almost one-half of the infants who die before the end of the first year do so before they are one month old, and that the mortality diminishes with every day of advancing life. The following quotation will serve to give an illustration of the style and practical value of the book:

“How should children be fed, from a spoon, from a cup, or from a nursing bottle?”

Most certainly from the latter. It alone gives the certainty that food has a suitable consistency and contains no lumpy ingredient. The accurate removal of lumps and a uniform consistency of the food is analogous, in the child, to mastication in the adult; at least, this is approximately true. The prejudice which is prevalent with mothers and many nurses, that thick nourishment is necessarily nutritious, must be met and opposed energetically. Proper digestion demands, above all, a gradual introduction of the food into the stomach. The use of the bottle is so much the more indicated, as well as desirable, in that when a slight degree of weariness comes on after its use, the infant is naturally obliged to cease nursing.”

We refrain from further quotation. The book is one to read; abstracts from it are inadequate. It contains the ripe experience of a good observer, and is likely to be of great value to those who consult it.

R. S. S., M.D.

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CLINICAL REPORTS ON SULPHONAL.

Three months ago a quantity of Sulphonal was presented to St. Luke’s Hospital, Shanghai, with the request that I would give it a fair trial in the wards of that institution. As this remedy is but slightly soluble in water, it was given in suspension with syrup and mucilage of gum acacia, the usual dose being twenty grains. Sulphonal was tried on 17 patients suffering from insomnia, while undergoing treatment for the relief of the opium habit. In every case from 5 to 8 hours of sleep were obtained; in two of the cases, the dose was raised to 30 grains before a good effect was produced. In one case of insomnia from prolonged and exhausting mental exertion the effects of 20-grain doses were excellent. In two cases of violent cough, bronchitic asthma, Sulphonal induced sleep although it did not relieve the cough.

As Sulphonal is a valuable addition to our list of remedies, I append some of the latest reports of the use of this drug.

H. W. BOONE, M.D.
Thirty-three cases of dose usually given at bed time. In order to prevent mental impressions, either of a favourable or of an adverse nature, from influencing the results, the patients have not been informed of the nature of the drug or of its expected action.

While the cases reported above are too few to justify any generalizations regarding the exact indications and effects of Sulphonal, they yet offer some interesting corroborative evidence regarding its great hypnotic value, already established by earlier observations. The general conclusion which may be drawn from these observations is that Sulphonal, even in single doses of 20 or 30 grains, is a safe and, in the main, reliable hypnotic, free from unpleasant concomitant effects, and usually from all undesirable sequelae. The single objectionable after-effect witnessed by the writer has been moderate somnolence on the morning following the administration of the remedy. In none of the cases has there been the slightest derangement of appetite or digestion nor have the circulation and respiration been appreciably affected at the time of awaking. The cutaneous and renal secretions have neither been increased nor diminished; nausea, vomiting, and constipation have not followed the use of the drug. Several of the cases seem to show that an increase of the original dose is often not required, and that, after a certain time, natural sleep being restored, the Sulphonal may be discontinued. This is the only light thrown by the writer's cases upon the important question as to the possibility of engendering a Sulphonal habit or of prejudicially affecting the organism by the continued use of Sulphonal. The doctrines that Sulphonal is of exceptional value in insomnia occasioned by debility, neurasthenia, and mental perturbation, and that it has no appreciable anodyne properties, receive support from the history of several of these cases. Thus, in Case 30, the happiest results followed the use of the drug in a destitute, homeless, neurasthenic, and exhausted patient. The same was true in Cases 11 and 25, of hysteria. In Cases 1, 7, 19, 26, 28, and 29, the pain of acute rheumatism, of pelvic peritonitis, of chronic rheumatism, of sciatica, and of dysentery was not sufficiently controlled by the remedy to permit of quiet sleep. On the other hand, the pain of splenitis (Case 16), of cerebral gumma (Case 20), of pharyngitis (Case 21), and of alcoholic gastritis (Case 27), was not of sufficient violence to prevent the patients from sleeping under the influence of Sulphonal. The effect of Sulphonal was particularly fortunate in the cases of those patients who had previously been addicted to the use of opium and of other
hypnotic drugs, or were suffering from insomnia, due to the withdrawal of these remedies. These results are illustrated by Cases, 4, 22, and 32. In Cases 4, 12, 13, and 14, of insomnia due to the dyspnoea of cardiac and Bright's disease, Sulphonal was powerless to produce sleep, and morphine was alone perfectly adequate to meet the indications. In Case 4, of cardiac dyspnoea, the hydrate of amylene proved fairly successful. In Cases 2 and 6 insomnia was occasioned by the harassing cough of pulmonary tuberculosis, but, under the influence of Sulphonal, the patients slept better than usual, and although the cough continued during sleep, they were not awakened by it. Sulphonal also rendered excellent services in the insomnia of typhoid fever, as shown by Cases 5, 9, and 18.

The average length of time at which sleep ensued after the administration of the Sulphonal was about an hour.

The average duration of sleep was a little over six hours, and success attended the use of the Sulphonal in about 82 per cent. of all the trials.

The high average of successes, in a series of unselected cases, many of which were plainly unsuitable for experiment with a pure hypnotic, encourages the writer to publish this record in the hope that it may aid in hastening the general introduction of Sulphonal.

POISONING WITH SULPHONAL.

In the Deutsche Medizinal-Zeitung for November 26th, Dr. Bornemann, who has charge of an institution for the treatment of neurotic invalids, gives an account of the case of a physician, fifty-three years old, a victim to the morphine habit, to whom Sulphonal was given among various other hypnotics. On one occasion sixty grains were given shortly after nine o'clock in the evening, and thirty grains more an hour after midnight. Sleep did not follow promptly, but the patient shortly showed symptoms of muscular inco-ordination of a decided character. It took six days for the ataxia to subside entirely, and during a portion of that time there was great mental depression. The author infers that the action of Sulphonal is not confined to the cerebral cortex, for in this case the ataxia was of central origin, inasmuch as the patient's condition was the same whether his eyes were open or closed. Certainly the case should serve as a reminder that the use of Sulphonal is not wholly free from danger.

Sulphonal is clearly a hypnotic, and is to be classed with chloral and paraldehyde. It consists of small, white crystals, soluble in water. It is tasteless and odorless, and should be given in doses of from 1-3 grams (15-45 grains). Its hypnotic effect is produced, as a rule, inside of thirty minutes—rarely after an hour. The sleep produced by it lasts from six to eight hours.
Insomnia is regarded by Salgo as the indication for Sulphonal, while exaltation requires hyoscin. He did not find it superior to paraldehyde, and in many cases not as effective as chloral.

In one case of hysteria in a patient with the morphine habit, after a dose of two grams the patient fell into a sleep lasting several hours, although his dose of morphine had been reduced one half. In another case of hypochondriacal depression, two grams of Sulphonal were more effective than six grams of paraldehyde. S. observed no ill effect to follow the use of Sulphonal. Patients take it more willingly than they do paraldehyde and chloral.—*The American Practitioner and News.*—Dr. Salgo.

**SULPHONAL IN INSOMNIA.**

A. Cramer (*Neurolog. Centralblatt, 1888, 430*) reports the results of 407 administrations of Sulphonal to forty-five patients with various mental disorders. 30 times there was no result; 377 times sleep lasting five or more hours was produced, usually one-quarter to one hour after the medicine had been taken. The dose varied from one to three grammes. Unpleasant secondary effects were only observed in one instance, and consisted merely in some sleepiness on the following morning. The author then instituted experiments to determine whether the drug possessed any disturbing influence on the diastasic action of saliva, and on the power of artificially prepared gastric and pancreatic secretions to digest fibrin. The results showed such power to be absent.

Rabbas (*Berliner klin. Wochenschrift, 1888, 330*) has also obtained only good results with Sulphonal in the insomnia of mental disorders. In doses of two to three grammes it acts better than either amyl hydrate or paraldehyde; and though sleep is produced by chloral more promptly, it does not last so long. He has found the remedy efficient in the worst maniacal conditions where chloral and paraldehyde had proved unavailing. Most of the twenty-seven cases to whom the medicament was given 220 times were instances of mania and melancholia.—*Am. Jour. of Med. Sciences.*

**SULPHONAL IN INSOMNIA.**

By E. B. Doolittle, M.D.,

Jeaneville, Pa.

Having noticed the very favorable results alleged by our German colleagues with this new hypnotic, I procured a sample for trial, and have thus far given it in about thirty cases of insomnia, some simple, others accompanying acute and chronic diseases. The results were uniformly good. The dose given, with one exception, was half a drachm.
In every case but one sleep followed in about an hour, lasting from four to eight hours. In one case it had no perceptible effect, but a dose of forty-five grains afterward produced sleep of nearly six hours, and was followed by considerable languor, mental hebetude, and loss of appetite for twelve hours or more; in no other case were there any unpleasant after-effects noticed. Several of the patients had previously been taking chloral, and expressed themselves as having a more quiet and longer sleep after the Sulphonal. In a few cases which had been quite obstinate, a few doses seemed to establish the normal habit, and so far no return of the insomnia has occurred.

A dose of half a drachm taken by myself produced in about an hour heaviness of the eyes, and slight vertigo on walking, followed by a quiet sleep of eight hours. The only after-effect noticed was slight drowsiness, which disappeared in two or three hours.

Although these few cases are insufficient to be of much avail, I give them in the hope that thereby others who have suitable opportunities may give the drug a more extended trial. So far as these few cases go, they accord with previous reports, and seem to indicate that we may find in Sulphonal a valuable addition to our hypnotics, and an aid in the treatment of an affection sometimes very troublesome.

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CORRESPONDENCE.

ODON TOMA.

I notice in the last number of the Journal, in Dr. Kerr's report of cases treated in the Medical Missionary Society's Hospital, page 162, the statement that only nine cases of this affection have been reported. I had supposed that it is more frequent. While temporarily in charge of the Missionary Hospital at Nanking, I removed one of these tumors from the lower jaw of an old woman. It was attached to the root of the right second incisor, and was about the size and shape of the one represented in the cut given by Dr. Kerr. I removed it by forcible extraction with a pair of tooth forceps. The irritation caused by the tumor produced considerable deformity of the lower part of the face, which had partially disappeared the last time that I saw the patient. From its situation it was easily accessible, and therefore was extracted without much difficulty.

GEO. A. STUART, M.D.
Wuku.

Shanghai, 12th February 1889.

To the Editor,
Medical Missionary Journal,
Shanghai.

DEAR SIR,

Among the arrivals in your Journal of December last is that of "PERCEY MATHEWS, M.R.C.S.E., M.R.C.P., London." May I beg you to insert this by way of correction:
although my Hospital work was done in England, I have no claim whatever to the diplomas indicated, and therefore the announcement did not emanate from me.

I am, dear Sir,

Faithfully yours,

PERCEY MATHEWS, M.D., LL. D.

Canada.

Nanking, February 15th, 1889.

To the Editor of the

Medical Missionary Journal.

DEAR SIR,

My dispensary, a large native Kung Kwan of twenty-four rooms, is situated in the heart of the busy part of Nanking. The front is used as a chapel and waiting-room. I go into the city three times a week, and after Scripture reading with an explanation, and prayers with the servants and patients, the dispensary is opened and the sick treated. After lunch either one of my colleagues or myself preach to a goodly chapelful of people, a number of whom listen fairly well. One interesting enquirer came last fall, and sent up a large official card with the characters on one margin "Yin Fai Kwok thib rang lai pai, a Jew comes to pay his respects." I had just finished tiffin, and asked him upstairs. He was a large, fine looking, intelligent young man, and claimed that he was a military Ku-rang of the rank Yuh Sy, about equal to our colonel. He told me there were three or four thousand Jews in his city, Kai fung fu, all of eight family names, and that many were lapsing into idolatry. They are known as Yao king Hnei tess, or Mahomedans, who pull out the sinew, and are many of them well-to-do, one a Chi Hien another a large silk merchant. I talked to him a long time on the history of the Jews and of Christ, and gave him a set of the Scriptures. He also went down to the Chapel to hear me preach, and on taking his leave promised to come again. He came several times and met Mr. Saw and myself. We learned from him that his father had learned of Christ in Pekin, was converted, and returned to Honan to preach, but soon died. He left word with his wife to have the boy educated and sent to a foreign settlement to learn the Gospel. This is the boy grown and educated. On my taking a trip to Japan, Mr. Saw continued to instruct him, and later on baptized him on a profession of faith in Christ. He has now gone back to Honan, but hopes to come to us again shortly. We hope and pray for great things as the result of this conversion. Who knows but that God has sent those Jews to be his messengers to carry the Gospel to China. The Gospel came to the Jew first and then to the Gentile, and this order was kept by the Twelve and Paul. It might be an economy of missionary force to concentrate an effort on the Jews of Honan. They may be the Pauls and Apollos being prepared to evangelize China from the centre to the circumference. They have some knowledge of our true God, and, having lost the conceit of nationality greatly, should readily receive the truth as it is in Christ Jesus.

Yours sincerely,

W. E. MACKLIN, M.D.

To the Editor,

China Medical Missionary Journal.

DEAR SIR,

As Dr. Coltman has seen fit in the December number of the Journal to state the impression which my assistant’s conduct at Ping-tu made upon him, I trust you will have the goodness to find space in the next number for Mr. Li’s account of the same. Dr. Coltman states, “Upon arriving at the mine, we were told that a Chefoo doctor had arrived about fifteen minutes (1) ahead of us, but upon inquiry it proved to be only an assistant of a Chefoo Surgeon, and it was very fortunate for the patient we arrived so soon after this gentleman, or our patient would have succumbed to his treatment, which consisted in spreading iodoform ointment over the wounds.”
Li confesses the painful fact that he reached P'ing-tu but fifteen minutes before Dr. Coltman. Further, as a foreign doctor from Wei-hsien was hourly expected, he did not feel inclined to touch single-handed so serious a case, hence the employment of placebo treatment to gain time. Li was then retained to nurse the wounded for about a month, and Dr. Hunter apologised to me for keeping him so long away from his hospital duties here, as his services were invaluable. If you look at Dr. Coltman's statement you will find, on the night of the 6th July, rupture of the femoral was feared, but it is not stated that it was Mr. Li who sat up all night and gave the signal to Dr. Hunter of the rupture. When neither Dr. Douthwaite nor I could leave Chefoo I sent Li, whose mental power is above that of the average foreigner, knowing he would never make a mess of the matter; that if he failed it would be from not doing enough, never from officiousness, and enjoined him, if possible, to bring the cases to Chefoo.

Now, I would ask, which of us could practise physic if our apparent errors were to be shown up in print, not to mention the case of our necessarily nebulous pupils, who with us are helping "to widen the skirts of light," and who, though Chinese, are entitled to claim the right of professional support as much as we.

W. A. Henderson.
Chefoo, 22nd February 1889.

Note.—We publish the above, as requested, and are not responsible for the statements made by either party. There seems to have been an unfortunate misunderstanding.—Editor.

NOTES AND ITEMS.

Dr. John C. Thomson has recently arrived in Hongkong to take charge of The Alice Memorial Hospital. He is in connection with the London Missionary Society, and he is to be distinguished from Dr. Joseph C. Thomson of the American Presbyterian Mission, now resident in Macao.

Dr. McCandless, after many failures, has succeeded in renting a house in Kiuang-chow, Hainan, which he can use for a hospital.

Marriage.


William McClure, M.D., to Margaret A. Baird. Married at Canton, China, February 7th, 1889.

Births.
At Kobe, Japan, January 7th, 1889, the wife of Dr. W. H. Park, Methodist Episcopal Mission South, of a daughter.

At Tseng-chow Fu, December 1st, 1888, the wife of Dr. J. R. Watson, of a son.

Arrivals.
At Shanghai, December 30th, 1888, for China Inland Mission, Dr. and Mrs. Randle and 3 children, (returned.)

At Shanghai, February 5th, 1889, for M. E. Mission, Foochow, Dr. J. J. Gregory and wife.
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