A CASE OF OBSCURE DISEASE OF THE BRAIN.

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The following are the original notes of the symptoms and course of a case in which the specific diagnosis may fairly be considered as open to discussion. They contain no comments except such as are implied in the diagnosis arrived at, the prognosis announced, and the final result which proved the correctness of the latter and went far to vindicate the accuracy of the former. It will at all events be evident from a perusal of them that a slipshod diagnosis of nervous prostration did not cover the condition, whatever it may have been, which culminated in sudden death.

Mrs. A., aged 33, four years married. Seen 31st August 1885. Resident in China (Canton and Tientsin) since shortly after marriage. Father is an old sailor, living at 61, gouty or rheumatic. Mother died of consumption at 47, having been pregnant 11 times. She had three miscarriages—1st, 9th and 10th pregnancies. Two children were born with hernia, one of these died in infancy. Another of the eight children born at term was found dead in bed. There was no explanation of his death, except that he was teething at the time.

So far as patient knows, there is no nervous disease in her family. There have been at least three cases of cancer on her mother's side in last generation. Her husband has never had syphilis.

There is an obscure history of violent and uncontrollable nodding movements of the head recurring every evening, which came on immediately after her mother's death, when patient was 20 or thereabouts. This affection lasted for two months. She was treated with assafcetida. There was no recurrence of any nervous trouble up to the date of marriage, and marriage had no effect in reproducing any symptoms.

November 1881.—Marriage.

October 1882.—First child born. The pregnancy had been troublesome, and at some period of it she had been placed in the genu-pectoral position [retroflexion of gravid uterus?]. She was "hysterical" towards its close, and all through it had been subject to "fidgets" of a very worrying character. Delivery was easy, and recovery rapid.
February 1883.—This child died of "diarrhea and convulsions."

November 1883.—Second child born. Towards close of pregnancy "fidgety" movements of the legs were noticed, but these were not sufficient to interfere with locomotion. Squint and diplopia were observed about the same period or a little later, the right eye refusing to rotate outwards beyond the principal antero-posterior meridian of orbit [which condition persists]. This second child was suckled for six months by patient.

May 1885.—Third child born. Towards the close of this pregnancy she noticed that when sitting up she could not throw her head back without producing intense nausea and vertigo, and that when lying down, the same sensations were produced whenever she rested on the back of her head. At the same time profuse salivation occurred [and has continued up to the present. When this saliva is received on a cloth, it leaves a yellowish brown, sometimes green, stain. There are some small ulcers about gums].

This third confinement was easy, and patient suckled for three weeks. She remained as well as before for the first week, but soon shewed symptoms of nervous depression. The feeling of nausea on resting back of head on pillow increased, and five or six weeks later the left arm and left leg became feeble gradually and simultaneously, while spasmodic contractions of the left arm and both legs accompanied by uncontrollable yawning, with vertigo and headache, occurred on waking from sleep. [This condition persists].

She never suffered from sickness of pregnancy, but in last pregnancy she was tormented by heartburn.

Neither of her living children shews any nervous tendency.

All through last winter (1884-85) and up to the present, she has suffered much from aching across the lumbar region, in both groins and in both hips, but more intensely in the left hip. At level of waist there has been, and is, aching on both sides, but not all round. This aching or oppression is marked at apex of sternum and passes occasionally under left breast. On both sides of the occipital region and along the middle line of the head to the roots of the hair on the forehead there is a constant indefinite but very distressing feeling of "giddiness and nausea." But there is no tenderness to percussion anywhere on skull or along spine. The voice has lately become weak, and in speaking, especially when fatigued, certain sounds are slurred as if control over the tongue were momentarily lost. Deglutition is difficult, apparently from paresis of the hyo-glossi. For some months there has been a sensation of burning across the back on the level of the shoulders and down each arm equally to the elbow. This sometimes radiates into the left breast, when the gland becomes swollen and tense, but there is no secretion from it.

Patient complains bitterly of inability to cry. Under emotion a little moisture comes into her eyes, but no tears are secreted. She cannot cough, but she can sneeze and blow her nose. She has never had the sensation of globus. She is much troubled with uncontrollable yawning. All along, she has slept and eaten well, and digested well, being generally a little constipated.

Her intellect is unaffected, and memory is keen. She has frequently recurring fits of depression. Any proposed exertion, or the prospect of seeing new faces, makes her extremely nervous and agitated.

She has recently been treated with strychnia, valerian (no effect) and bromide of potassium (which seemed hurtful). Blisters to temples and behind ears made matters worse.

Patient sits huddled up, the left hand and forearm on lap in hemiplegic position, and the head bowed forward and inclined to the right shoulder, face looking obliquely to left. There is a livid blush on both cheeks, much intensified
by trials with aesthesiometer. The left foot is pointed straight. There is no contracture. Patient can stand for a moment on either leg, and kick out forcibly with the other. There is an evident difference between the nutrition of the extremities on the two sides, to the disadvantage of the left. The right eye is turned upwards and inwards, and cannot be rotated outwards beyond the principal meridian of the orbit. One day lately the left eye was conjugately deviated, when she was able to look only in an oblique direction. There is diplopia. The sight of each eye at average reading distance is normal. The field of vision is normal. Appreciation of colours unaltered. Pupils equal and sensitive. Hearing is normal on left side, diminished on right.

The tongue is projected very slightly to the right. The entire of the right half is the seat of fibrillar twitching. Patient says her sense of taste is as keen as ever, but in fact she is quite unable to distinguish the taste of salt placed on either border of the tongue.

**Dynamometer.**—Right hand 47 lbs.  
Left hand 25 lbs.

There is a considerable difference in the readiness as well as in the force of the grip of the two hands.

Knee phenomenon greatly exaggerated on the left side; normal on right.

**Æsthesiometer.**—

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8 mm. all round mouth.

No ophthalmoscopic examination made, on account of its difficulty, of the distress it would cause, and its uselessness, as without it there seem sufficient grounds for a diagnosis. An ophthalmoscopic examination was attempted in Tientsin several weeks ago, but no report was made.

Heart and great vessels healthy. Left lung healthy. Some consolidation at right apex.

Uterine system normal.

Urine contains neither sugar nor albumen. Bowels are regular, appetite fair, but there is much flatulence.

**Electrical examination, 8th September 1885:**

Regions examined:—Face, flexor and extensor surfaces of left forearm and leg.

Reaction to induced current everywhere normal.

**Battery Current:**

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2nd September.—Head distress very intense. 3 grs. potassium iodide every four hours.

3rd.—Pain rather less; sleepless last night. More distress. \( \frac{1}{2} \) gr. mercury perchloride added to each dose.
4th.—Appears to have caught cold. Slight running from ears.

5th.—Has been sick several times during night, and has suffered much from wind. Complains of mouth being sore. This latter symptom at once relieved by chlorate of potash lozenges. Ordered sinapism to epigastrium, ice to suck, ammonia to nostrils. Medicine stopped. Pains in arms and loins, perhaps somewhat relieved by friction with camphorated spirit. Enema.

Ate a good dinner; and slept fairly with two doses of nepenthe.

6th.—Greatly improved, but depressed. Distressed by hiccough whenever she moves.

The following general directions were given as to treatment:
To keep up mild irritation of skin at epigastrium.
To give potassium iodide in one-grain doses every third or fourth hour, increasing the strength or frequency of the doses, as may be practicable.
To secure sleep if necessary by nepenthe.
To secure daily action of bowels by enema if required.

Since beginning the potash there is very marked improvement in the condition of the left arm. The cutaneous circulation is normal, the hemiplegic attitude is abandoned, and the amount of voluntary motion possible is decidedly increased. No other improvement, however; perhaps rather the reverse.

7th.—There is to-day very remarkable improvement in motor condition of left arm. Comparatively little difference between the two arms. The head is also nearly straight as regards the middle line. Still bowed on chest. Pain or distress especially marked on right side posteriorly, along the course of the great occipital nerve.

8th.—Feeling of distress nearly disappeared. Cheerful. Motor improvement continues.

A letter from patient's former medical attendant, dated 12th September 1885, states that "last winter I treated Mrs. A. for syphilis. She had a course of potash and mercury...... As the treatment did not benefit her in any way, I came to the conclusion that my suspicions were unfounded."

Diagnosis.—Minute nodule, possibly if not probably of syphilitic character, occupying the lower part of the right half of the pons on its ventricular aspect.

Prognosis.—Noting possibility of sudden death, the prospect of some degree of improvement is reasonable, but absolute cure cannot be hoped for.

On the 10th September 1885 patient was placed under the care of Dr. Daly of Ningpo, to whom the above notes were sent. Dr. Daly, finding nepenthe powerless to induce sleep, gave hypodermics of \( \frac{1}{2} \) gr. morphia for a few nights. The general condition remained unaltered, except that periods of remission in the mental symptoms were observed, "good days" when she was cheerful and ate well, enjoying conversation and interesting herself about her household. On these days she was nearly free from headache. She could sleep without a narcotic if anybody sat up with her; otherwise she dreaded the night, and this rendered her sleepless. Intense depression followed the administration of any opiate. Attempts to increase the dose of potassium iodide upset her digestion and had to be abandoned.

A fortnight later Dr. Daly reported that there was less nausea and vertigo and less depression. Pain in lumbar region, across shoulders and down arms, of which she had bitterly complained, was less; deglutition was easier, and sleep had become natural. There was better control of the left leg.
A Case of Obscure Disease of the Brain.

After another fortnight, there was a good deal of pus in the saliva which was secreted profusely. Speech worse. Hysterical.

In the middle of October symptoms were all aggravated. Suicidal suggestions. There was then a sort of crisis of agonising headache, during which it was thought that she must die. This lasted for a few hours, after which she suddenly improved and the symptoms resumed the visage which they presented when she left Shanghai six weeks before. Meanwhile treatment by the iodides had been abandoned, as the smallest dose of either potassium or sodium iodide induced iodism.

She returned to Shanghai towards the end of October and entered the General Hospital, where her condition was, generally, considered to be "nothing but nerves," the diagnosis was "extreme nervous exhaustion," the prognosis "tardy recovery," and the treatment quinine and iron with, later on, an enema, once daily, of 30 grains of iodide of potassium. An ophthalmoscopic examination was made, or attempted, and was reported to have given no indication of brain lesion.

The patient went back to Ningpo without any alteration in her symptoms; and was then subjected to courses of homœopathy and mesmerism. Naturally, nothing came of either, but the case was thus removed from professional observation.

It was known, however, that things were gradually going from bad to worse. In March 1886 the patient was brought back to Shanghai with a view to taking passage for England. She had then, in addition to her previous symptoms, frequent paroxysms of "choking," and mentally she had much deteriorated. She left Shanghai on the 27th March. On the voyage to Singapore dysphagia rapidly increased, so that before reaching that port it was necessary to feed her through an oesophageal tube, and to use nutrient enemata. At Singapore she died suddenly without convulsion on the 16th April. Unfortunately there was no postmortem.

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NATIVE MIDWIFERY IN CANTON.

By MARY W. NILES, M.D.

During a seven years' residence in Canton, I have gained an insight into the customs and practices of the Cantonese at childbirth—experiences not confined to any one class, but acquired in the houses of the learned and wealthy, as well as in sampans and hovels. Superstition reigns supreme. The woman is placed in a sitting posture over a tub, and constantly urged from the first to bear down. In the case of a primipara, she may thus be deprived of rest and food for several days. Often exhaustion and uterine inertia arise from no other cause. The midwife is constantly shouting that the child is just ready to be born. She spends her time stretching the vulvar orifice. This may be advantageous, when her statements are true, but when maintained for hours by relays of midwives, it causes, to say the least, excessive swelling. If there is any delay, the patient is kept in an excited state of mind by neighbors calling, and advising
this and that, by constant invocations to Kun Yam to save, by burning incense, and drinking tea sent by the idols. A sword and fish net are laid upon the bed, to drive away the evil spirits. There are also many other idolatrous practices. The fee to the common classes is $1.00 for a girl and $2.00 for a boy; to the poorest class 50 cents for a girl and $1.00 for a boy.

The midwife has some nice tricks of her own to increase her fee. She works upon the overwrought mind of the patient, by causing her to believe there is some difficulty in the birth, that she can only overcome, and unless she has more money, will not stay. The more terror she can inspire, the more gain she expects. I must, however, say, that all midwives are not so unscrupulous. I am acquainted with at least four who, with all their faults, have gained great favor in my eyes, by always sending for me when they get into difficulty. It therefore does not behoove me to speak ill of those who sound my praises to their patients, and enjoin a strict observance of my orders—to my face, at least. To proceed: immediately after the placenta is delivered, the patient is placed upon the bed, and compelled to sit erect. If she can bear it, this is very favorable to the expulsion of clots, etc.; if she cannot, someone must assist her. Again, if she becomes faint, it is all the more important she should be held upright. A few months ago I witnessed the efforts made to revive a woman, in a condition of syncope, after childbirth. I had been called to the case, as one of difficult labor. But when I arrived, the child and placenta were already delivered. The woman was in the usual position. Perceiving that she was not in a condition to endure very much, I requested her to lie down.

When I myself have assisted at labors, my instructions are generally carried out—at least while I am present. There seems to be a superstition that if there has been foreign interference, some dire results may follow disobedience to orders. Once when I had but left a few moments, a messenger ran after me beseeching me to return, as the patient had fainted. I hastened back and beheld a scene. The very small room occupied by the patient was filled with people. The one window and the two doors were shut. The room was filled with smoke from fire-crackers, and the burning of a varnished umbrella. A lighted furnace was also in the room. Besides the noise made by the crackers, all were screaming at the top of their voices, calling to the woman’s spirit to return. She was supported by the husband and midwife—one behind, the other before. They had their arms tightly around her, excluding almost every breath of air. A third assisted in holding her head up by keeping a tight grip upon her hair. Finding my voice could not be heard in this tumult, I struck out right and left, and soon made the attendants aware of my firm intention to make them let go their hold, even if it had to be done by force. As soon as she was in a horizontal position she revived.
But before I was aware of it, my efforts were seconded by holding over her face a large Chinese iron cooking vessel, heated for the purpose. Of course this was instantly removed. Immediately after a patient has been placed upon the bed, the custom is to give a large bolus, containing some very acrid substances, mixed with the juice of fresh ginger, followed by a bowl of rice, and salted duck-eggs. The pill and ginger is continued to the second and third day, and afterwards “ginger vinegar” is given with the rice throughout the whole of the puerpural month, a large jar of this being always prepared before the birth of the child.

Much importance is attached to the “ginger vinegar,” and it is the gravest question as to whether the patient will be allowed to take it. If at the time permission is not given, a day must be set apart when it can be taken. Friends come to me a number of times during the month, to know if the “ginger vinegar” may now be given. Some drink a cup of child’s urine every day for three days. Having witnessed these pernicious practices, I was surprised, while reading a Chinese book on midwifery, to see how many of them were condemned, and what sensible advice it contained, and given by people, too, who are ignorant of the very mechanism of parturition. I understand the pamphlet in question to be considered an authority. I know not why the educated forgo its advice, to follow the superstitious practices of ignorant old women. The book is called 達 生 編, and is probably the treatise on midwifery translated by Dr. Lochart. It was fully translated by Dr. Kerr, thirty years ago. “The Practice of Obstetrics among the Chinese,” written by Robert P. Harris, M.D., of Philadelphia, and published in the American Journal of Obstetrics and Diseases of Women and Children, July 1881, drew its information and made extensive quotations from Dr. Kerr’s translation. The book evinces the greatest ignorance of the facts of gestation, the mechanism of labor, and the causes of difficulty in the delivery of the fetus and secundines; yet its mission “to restrain the activity of the midwife, and to educate the people, that she is not in any manner to assist in the delivery of the fetus,” is most laudable.

I will make some extracts, which would be really helpful if native midwives would follow their advice:

“There are three important principles to be borne in mind: 1st.—Lie down; 2nd.—Endure the pain; 3rd.—Be slow about the delivery. If these rules were obeyed, at least three-fourths of the difficulties I have met would have been avoided. The first pains are in the abdomen. The woman should have her mind made up to this as necessary, and not to be feared. If the pains do not increase in severity, she need not inform any one of them, but lie still and be at peace. The foundation of all difficulty lies in sitting over the tub 脣 盈 when the pains are but slight.”
"When the pains are beginning, the woman should eat and sleep as usual."

"The rapidity of the pains will show the course of the labor. It is most important not to consider the tub and the straw very early, and hence bear down and put pressure upon the abdomen. The body should be kept straight, neither in lying or standing should it deviate to one side."

"The woman should take matters into her own hands, and not allow herself to be governed by others, such as midwives or meddlesome neighbors. This matter is of the greatest importance to herself. She must nourish, and not waste, her strength."

"It is the best plan to go to bed and lie there with eyes closed. If wearied with lying, rise and walk about with the support of friends, and then return to the bed. The woman should lie upon her back. After prolonged efforts at expulsion, the strength of the foetus is exhausted, and when the proper time for birth arrives there is no strength for delivery." (Write "mother" instead of "foetus" and the remark is correct.) "In a case in which the arm or foot presents, direct the woman to lie down. Gently push up the arm or foot. Have her remain quiet for one night, and delivery will be accomplished normally." The author gives a case of shoulder presentation, where he replaced the arm, and the child was born normally the next day. We know that spontaneous evolution, or spontaneous version, might take place. Last year, Dr. Kerr replaced the arm when spontaneous version took place and the vertex became the presenting part. Certainly the recumbent position, and quietness, would be most favorable to spontaneous version, and would tend to delay impaction and exhaustion.

"The doubter says, 'Shall we not have a midwife?' Yes, but remember the midwife is your servant, and you not hers. Midwives are stupid, not acquainted with the doctrines."

"Late, or early, they call upon the patient to exert her strength. They rub the back, and push down upon the abdomen, and call out, 'The head is here.' They pass the hand into the vagina and do injury. All this as though they, and they only, were responsible for the whole matter. Her duty is simply to pick up the baby."

"After the birth it is not necessary to take any medicine. The pill of 鼠腎兎腦丸 (rats' kidneys and rabbits' brains) injures the spirits and destroys the blood when the patient is in the weakest condition and least able to bear it. The 回生丹 is very unwise to take, as it impoverishes the blood and gives puerpural fever."

"The diet should be good, but not fat; chicken, or duck, broth, from which the fat has been removed. No one should be allowed to visit the room. All should be very quiet. Do not pray to the idols in presence of the patient. Let only one midwife be present, and let her sit at one side, not allowing her to
Rubella Sinensis

interfere with the course of events. If cold, have a fire in the room. If hot, have a pail of cold water to absorb the hot air.”

These extracts indicate common-sense in the management of labor, and would, no doubt, have greater influence if it were not for the superstitions which are so universally prevalent.

RUBELLA SINENSIS.

(Synonym—“Wind Measles”)

By DUNCAN J. REID, M.B., C.M. (Aber.)

During the last month or two, we have had in Shanghai an infectious eruptive fever, accompanied by naso-pharyngeal catarrh, which somewhat resembles European Rötheln, and which, as it differs from that disease in several respects, I propose to call Rubella,—a name sometimes, but not usually, applied to German Measles.

It is generally preceded for a day or two by a hard irritating cough, although this may be absent.

The onset is generally accompanied by slight malaise and vertigo, perhaps sneezing and suffusion of the conjunctiva, sometimes headache; almost immediately thereafter an eruption, consisting of red or rose-coloured, slightly raised but flattened papules, which vanish on stretching the skin, appears on the chin, forehead and neck. The fauces are slightly congested, perhaps scarcely at all, and there may be either on the soft palate, on the pillars of the fauces, or on the tonsils, or on all three, a few small herpetic vesicles. The back of the pharynx is, however, the part which presents the most characteristic and most constant symptom. It is congested, and the mucous membrane is thickened and covered with large, red, smooth elevations or granulations. In only one case has this condition been absent, and in it the membrane was congested and thickened. The temperature may be normal, but is usually 99° to 100° F. It may reach 102° F., very rarely 102.5. The patient complains of the eruption as being hot and tingling or itching, and he is inclined to scratch it,—generally, he only rubs it.

On the second day, or on the evening of the first day, the eruption has probably extended over the body and limbs, and may there present the same appearance of red, slightly raised and isolated, flattened papules, at times somewhat
resembling those of typhoid fever, never shotty and disappearing on stretching the skin, and on pressure. Or, the papules may have run together, so as to assume somewhat the appearance of measles, but on running the finger over these patches, they give rise to no sensation of roughness, but only of a raised condition or irregularity of the skin. At other times, especially on the wrists and forearms, the papules are mere points, and lie close together, and then they resemble the eruption of scarlatina so closely as to be almost identical. The temperature, state of the throat, and of the eyes, are on the second day very much what they were on the first day. The tongue is either normal, or slightly furred and moist, with perhaps a few enlarged papillae at the tip and edges. The cough is still hard and croupy, but is usually less irritating than it was on the first day.

On the third day the eruption has completely disappeared, or may be just visible on the arms. The temperature is normal. The suffusion of the eyes is gone, and the patient probably feels perfectly well, as, in fact, he may have done during the whole course of the illness. The fauces have now lost their congested appearance, if they ever presented it, but the back of the pharynx is still granular or irregular, and this condition of the pharynx may last for several days longer, accompanied by a hard, croupy cough, and possibly a sensation of dryness.

In only one of the cases I saw was the eruption visible on the fourth day. In none of the cases was desquamation of the skin observed, though probably a fine desquamation takes place. The period of incubation, so far as I can make out, is from eight to nine days.

Measles is no protection from the disease, as several of the patients whom I saw had that disease last year.

In none of the cases, with the exception of one, have I seen any complications, and in this one case there was slight aphonia. As to sequelae, from the state of the pharynx, I should imagine that post-pharyngeal catarrh was likely to continue, and to be troublesome in weakly children, and, as a matter of fact, several of the children have, since suffering from an attack of Rubella, been troubled with cough and a catarrhal condition of the post-pharyngeal region.

Diagnosis:—

In Scarlet-Fever.—The onset is marked by rigors or convulsions and rapid rise of temperature. Inflammation of fauces and tonsils well marked, strawberry tongue, high fever. Eruption does not fade usually till fourth or fifth day and not completely till ninth or tenth,—followed by large desquamation.
In Small-Pox.—The eruption does not appear till the third day, preceded by high fever, lumbar pain. Papules soon become shotty, and do not, even from the commencement, disappear on stretching the skin.

In Measles.—The invasion is better marked and accompanied by more severe symptoms. Coryza, lachrymation and catarrhal symptoms much more prominent. Eruption appears on the fourth day, generally forms crescentic patches, rough. Temperature higher, and all the symptoms more severe. Complications and sequelæ frequent.

Rötheln, or German Measles, is, as I have already said, the disease which most closely resembles, and, unfortunately, the descriptions of the symptoms of Rötheln, as given by authorities, differ so materially from one another, that one has a difficulty in knowing what the symptoms of this disease really are. In none of the authorities that I have consulted do the symptoms of Rötheln quite agree with those of Rubella Sinensis:

F. Roberts says:—"Sore throat is almost always complained of, which "differs from that of scarlatina in being much less severe." "The eruption "lasts longer than that of either measles or scarlatina, its duration being never "less than four or five days, and it may continue for eight or ten." 

Wm. Squire (in Quain's *Dic. of Med.*) says:—"There is redness of "the fauces and uvula, less mottled than in measles, not so intense as in scarlet-"fever," and he defines it as being "a specific eruptive fever, the rash appearing "during the first day of the illness, * * * and subsiding with the "fever on the third day."

Fagge says:—Rötheln "has a rash very like that of measles, but re-"sembles scarlet-fever in having a very short prodromal stage, and in being "attended with a marked sore throat."

Eustace Smith says:—"On inspection, the fauces are found to be the "seat of diffused redness, and the tonsils may be inflamed and swollen," and he says, "secondary sore throat is a characteristic symptom of Rötheln. It occurs "between the third and seventh day, and is accompanied by great pain and much "swelling," and, further, "the duration of the eruptive stage is three or four "days."

Bristowe, says:—"The rash usually attains its height on the second day, and "in the course of the next two, three or four days, rapidly disappears." And, further, "There is frequently sore throat, and sometimes red punctæ, or more or "less diffused redness, on the soft palate and fauces," and, "there is often "a little cough."

Copland (in *Dic. of Med.*) describes Rubecola, or Rötheln, as "fever "attended by coryza, redness and watering of the eyes, redness and soreness of the "throat, pains in the head, back and limbs, attended, on the third or fourth day,
"by the sudden and general eruption of a red efflorescence, which terminates
about the tenth day in desquamation, the disease presenting the characters of
measles and scarlet-fever conjoined." And he says, "Inflammatory redness of
the fauces, tonsils and pendulous velum of the palate is never absent unless in
the slightest cases."

Thomas (in Ziemssen's Cyclopædia) gives a description of Rubeola, or
Rotheln, which answers more closely to the disease under consideration than
that of any other authority I have consulted. In fact, the greater the number
of articles one reads on this disease (Rotheln) the more is one convinced
that under this name are included two or more distinct diseases. He
says:—"The duration of the spots was often scarcely two, but sometimes
four, days." "Desquamation was entirely absent in most cases. In a
few cases there were traces of it referable rather to the dryness of the skin
with consequent exfoliation than to the exanthem." Referring to the mucous
membranes of the air passages, he says, they "are almost always in the condition
of catarrh, less intense than with measles, yet so that coughing and sneezing
are rarely absent. * * * A somewhat congested condition of the mucous
membrane of the palate is never absent." "He says, further:—"The
pharyngeal mucous membrane is usually somewhat injected." Further, "as a
rule, the exanthem is the first, or at least among the first, symptoms of disease."* * * "The spread of the exanthem over the body is * * *
rapid; it takes place according to its intensity in from one to two days."
As to temperature, he says:—"The majority of cases have no fever during the
whole course of the disease." * * * "In the minority of cases, fever,
at times considerable, may exist, usually only about 1-5° Fahr. The
elevation of temperature is either only an initial one, disappearing by the
second day of the disease, or it may endure on the second and even on the
third." Speaking of sequelæ, he says, inter alia, "Mettenheimer observed
a naso-pharyngeal catarrh."

By all these authorities, with the exception of Thomas, their description of
the state of the fauces represents a condition more severe than anything I have
seen in any of my cases. The duration of the disease, as given by them
all, with the exception of Thomas, is longer, Squire coming next when he
describes it as "subsiding on the third day." None of them, with the exception
of Thomas, refer to the state of the mucous membrane of the pharynx, and he
only describes it as "somewhat injected," and mentions an authority who had
naso-pharyngeal catarrh as a sequela. As to whether, then, Rubella Sinensis is
a disease by itself, or is one of the already described forms of Rotheln, I refrain
from deciding.
As to Treatment.

Keep bed or room. If fever high, some diaphoretic, as acetate of ammonia, may be given, but usually no medicine is required. A sedative may be combined if cough troublesome.

If catarrhal state of pharyngeal regions persists, an astringent spray is useful.

DEMONIACAL POSSESSION—SO CALLED.

By Dr. Robert Coltman, Jr.

About five years ago, I attended a conference in Chefoo, at the house of a missionary resident, and the above topic came in for the major part of the discussion. Being but just arrived in the country, I maintained a discreet silence, but great was my surprise to hear men of good standing, arguing for the existence of demoniacal possession, and claiming that it occurred here in the East, because, Satan being so vigorously attacked in Western countries, had given up this form of persecution there, and was bestowing all his attention and energy in this portion of the globe. If I remember rightly, I was the only member of the medical profession present, and after numerous wonderful cases had been recited by my brethren of the cloth, I was asked my professional opinion. I had a stronger opinion than I was willing to give at that time and place, so I merely said that the cases were very interesting and apparently authentic, but that, not having witnessed their peculiar symptoms, I could not pass a final opinion, but that some of them might have been mania, hysteria, etc.

I went home from the meeting with the feeling, that the Chinese were not the only people who were superstitious, and that I should like very much to see some such cases as those described. For several years this privilege was denied me, but one day a man, a stupid farmer, came to the dispensary and said his young wife was possessed by a devil, and wanted some medicine. I told him I must see the case and appointed the next day at 2 p.m. He came promptly at the hour with his wife, aged about 28, his mother, and a male friend of the family. This friend was a curious, villainous-looking fellow, a striking contrast to the husband. I was told that when the spirit came up (上) she would become unconscious, would tremble, sigh, and moan, and that she would remain in this condition for hours; that anger, fear, or any unpleasant emotions would
bring the devil on. I asked if they had any way to invite the gentleman now, and they said they had. Upon which the mother and husband stepped into the waiting-room, and the friend of the family commenced making a purring noise in his throat; immediately the poor woman cast her eyes around imploringly and became unconscious. The muscles of the throat and neck twitched violently and her head fell on her bosom. I felt her pulse, it was 76 and regular, breathing hurried and rather shallow. Was told by the friend that her attacks frequently came on in this way. Upon my asking how he knew in the first place that he could bring the devil up, he stuttered and stammered and took refuge in the waiting-room. Upon which her mother and husband entered again. Sticking needles into her hands and arms being without avail to bring her out of this condition, I held a bottle of ammonia under her nostrils. The effect was magical—she quickly regained consciousness and soon appeared as she had been before the attack, which was simply, an incomplete hysterical convulsion. Since that day I have seen several other cases of reputed demoniacal possession, and without exception they have been easily explained as the result of pathological conditions. I think there are a good many causes for this delusion in China, which do not exist in the same proportion in some other countries.

The people are mostly ignorant and superstitious, and are naturally susceptible. Fine subjects for experiments in hypnotism and suggestion. Many of these cases of possession are doubtless due to suggestion. Persons of susceptible tempera-
ment seeing or hearing of others so afflicted, are tempted to worry or annoy their friends, and are carried away, and frightened by their own emotions, into an hysterical state bordering on actual mania.

Then, too, syphilis is no doubt responsible for some of these manifestations. Syphilis is very common among the Chinese, and I have had a number of cases of cerebral syphilis, and I cannot but believe, that in many of these cases in which erratic movements follow the natural result of the pathological condition, they are attributed to demoniacal possession.

Mania, Dementia, and Hysteria, are sufficient of themselves to account for the cases I have either seen or heard described, and I consider any who believe in demoniacal possession as superstitious and too credible. I should be much pleased to hear the opinion of my medical brethren, and to what cause or causes they attribute these manifestations.

CHINANFU,

January 31st, 1890.
COLOR-SENSE AND COLOR-BLINDNESS AMONG THE CHINESE, BASED ON AN EXAMINATION OF TWELVE HUNDRED PERSONS.

By Adele M. Fielde,
Swatow, China.

A love of vivid colors is manifested in all branches of Chinese decorative art. The walls of public buildings are commonly adorned with paintings—historical, dramatic or conventional. Porcelain dishes, paper scrolls, and gauze fans are made to glow with tints that are at once delicate and brilliant. The shoes of all bound-footed women, and the costumes of all actors are covered with variegated embroidery. Countless hues are shown in the silken fabrics which are made into gala-dresses for both men and women. Children, on festive occasions, are always gorgeously attired. Not only little Joseph, but also all his brethren appear in coats of divers colors; and no one thinks it amiss to put on a cap of scarlet, a tunic of buff, trousers of green and shoes of pink. Whether in garb or in pictures, there is nothing in Chinese taste that forbids the juxtaposition of purple and green, of rose and orange, or of any other known tints. Like nature herself, they boldly array themselves in all colors, and the experienced eye is no more offended by their tegument than by that of a mandarin duck or a macaw.

A few colors—black, white, red, yellow, light blue, dark blue, bright green, dull green, and flesh color—have each a name of one independent syllable, while their shades are indicated by prefixed adjectives. Many other colors are designated by reference to familiar objects, as "peach-blossom" for pink; "pig's liver" for brown; "coir-palm" for russet; "ashes" for drab; and "grapes" for purple. Dye-stuffs furnish terms for several colors, and "ink-water," thus used, becomes a comprehensible appellation for pale gray; but it is not easy to see why the effects of logwood dyeing should be termed "celestial green" when manifested in satin, though "red night" has a poetic sound for the same shade in cotton goods.

The fact that the cloudless sky is always called green by the Chinese, and their lack of precision generally in regard to colors, led me long ago to consider them deficient in color-sense. As I could find no account of their ever having been scientifically tested for this defect, I read last year the books of Prof. Holmgren and Dr. Jeffries, procured Dr. Thomson's stick of Berlin wool-tests, and thought myself equipped for preliminary investigations. I have now tested twelve hundred persons, and have found among them twenty who are either red- or green-blind. The two sexes were equally represented in the number tested.
Among the six hundred Chinese women, I found only one who was color-blind by Thomson’s tests. This woman was completely green-blind; and all her four sons were color-blind—the eldest three completely green-blind and the youngest completely red-blind.

Among the six hundred men tested, nineteen were found to be color-blind. This number includes the four sons of the blind woman just mentioned. Of these nineteen men, thirteen were completely green-blind, five were completely red-blind, and one was incompletely red-blind. The last was a brother of one who was completely red-blind. The nineteen color-blind men included eleven farmers, two teachers, two students, one hospital-assistant, one preacher, one mason, and one boatman.

By taking the forty skeins of yarn, which are suspended upon Thomson’s stick, and piling them in confusion upon a white cloth, I was able to observe, as recommended by Holmgren, the action of the hands in the selection of colors; while the brass tags upon the skeins helped me in making quick record, for future reference and comparison, of the selections made by each individual. I did not, in testing, use the names of the colors; but I first held up the green sample skein, and said: “I am going to pick out, from the pile of yarns, all that are of the same color as this one, whether light shades or dark. Then I shall mix all the yarns together again, and ask you to pick out the same ones that I picked out.” When I had taken out all the green yarns, I asked all to look sharply at them, so that they might easily recognize them again. By first showing what I wished them to pick out of the pile, I saved much time in testing the normal-eyed, while I gave no undue assistance to the color-blind.

Upon those found to be color-blind, the tests were repeated, often many times. One color-blind man was very desirous of learning how to distinguish the colors, and as he was at leisure, he remained by my side and gave close attention while a hundred other persons were tested; and yet, after having been repeatedly allowed to “try again,” he made precisely the same mistakes as in his first examination. To green he not only added the usual “colors of confusion,” but also pale pinks; while with pink he invariably matched bright blues, without adding any of the greens. This young man, like many others, made marked effort to discover differences in the fibres of the wools, or to other find some means of distinguishing the skeins otherwise than by their color. Nine other of the twenty color-blinds in the first test also matched green with pink; but of these nine, eight were proven by the second test to be green-blind, matching pink with green.

In all cases where there was doubt of the patient’s clearness of vision, tests for form were applied before the tests for color.
I have, following Young and Helmholtz, set down as red-blind all those who, in the second test, matched pink with blues only; and have set down as green-blind those who in the same test matched pink with greens alone, or with both greens and blues. Nine among the thirteen set down as green-blind matched pink with both blue and green.

The persistence with which more than half of the twelve hundred persons tested matched green with blue is remarkable. Even the brightest blues were added to the selected greens after repeated injunctions against so doing. While the tests established the fact that a much smaller percentage of Chinese women than of Chinese men are color-blind, yet those men who by their out-of-door lives had gained a greater degree of mental training than is possessed by their secluded women-folk, chose the correct colors as rapidly as did the women, and no oftener added blues to greens. While there was an almost universal lack of discrimination between green and blue, two colors distinctly named in their own language, the tests afforded by Thomson’s skeins, prepared expressly for testing rail-road employés for red and green blindness only, were insufficient to prove what I now suspect—that many Chinese are violet-blind.

The number examined, twelve hundred, is too small to rely upon for a percentage of red- and green-blindness among the Chinese. Further tests would add nothing to its value, unless subjection to the examination were made compulsory, for many of the color-blind would avoid being tested through fear of appearing stupid before their neighbors. Moreover, the dislike of the Chinese to everything which is not evidently profitable, and their dread of evils that may come to them through occult influences, make it difficult to test any large number. Those examined by me were mostly members of the mission schools and patients in the mission hospital, together with the dwellers in some hamlets, where I endeavored to omit no one from the test.

The proofs of color-blindness must always appear startling to normal vision. It gives one qualms to realize how little one knows of the consciousness of one’s neighbor, and how difficult it is to think how the world must look to one who sees the same hue in a tea-rose and a pea-pod, in a rosy cheek and an azure eye, or in a bay horse and a peacock’s tail. Even the stolid Chinese appear to be deeply impressed by the exposition of color-blindness.
Before proceeding to what I consider to be the subject-matter of my paper, I will give briefly the text upon which it is based:—

On the 10th March, a lad presented himself at the S. John’s College Dispensary, complaining of headache, nausea, chills, and a general feeling of malaise. I examined him and noted pulse 105, tongue coated with a thick white fur, edges and tip abnormally red. Ordered him to the Infirmary and visited him later on; found temp. 101, pulse 112; fauces, palate, uvula and tonsils red and slightly swollen; breath hot, bowels normal. Ordered KCLO₃ drink with lemon-juice, diet of milk and eggs.

Vesp.—Temp. 103, pulse 120. Complains of throat. Gave Antipyrin grs. x, and, at request, oranges, maintaining KCLO₃ drink.

March 11th, Mane.—Restless night, temp. 104, pulse 115, tongue cleaning, papille enlarged, back of throat much inflamed and swollen, consequent pain on swallowing, skin hot dry, complaining of severe frontal headache, urine scanty. Repeated Antipyrin grs. x, swabbed out throat with Liq. Ferri Perchloridi and Glycerine; dieting continued.

Vesp., 8 p.m.—Temp. 104, pulse 128, tongue assuming strawberry appearance. Swabbed out back of throat, repeated Antipyrin grs. x. Visited 10.30 p.m., temp. 103, pulse 130.

March 12th, Mane.—Pulse 120, feeble, rapid, irregular, temp. 103. Fair night, throat somewhat easier, patient generally irritable, tongue dark strawberry color, and scored down centre as in enteric fever, bowels costive. Gave Cal. grs. ii.

Noon.—No appreciable change. Repeated Cal.

Vesp.—Pulse 125, temp. 103; complains much of throat, frontal headache and deafness. Steamed throat with vinegar. Great relief. Antipyrin grs. x.

March 13th, Mane.—Pulse 120, temp. 105, very restless and drowsy. Repeated Antipyrin.

Vesp.—Pulse 130, temp. 104. Repeated Antipyrin and swabbed throat.

March 14th, Mane.—Pulse 122, temp. 105. The third full day. Bright red punctated rash on neck, which soon generally extended. From the 14th to the 18th the lad went on well, the KCLO₃ drink being maintained. Antipyrin pro ré nata, dieting as before, with the addition of a little soft rice.
March 18th, Mane.—Pulse 115, temp. 100. A free flaky desquamation setting in, boy sent home, at persistent request of friends, on the 23rd March, convalescent. On the 12th March, another lad, with much the same symptoms as the case just described, was admitted as a patient. The fever ran its course without giving any undue trouble. Temperature did not at any time exceed 103, throat symptoms were much the same, perhaps not equal distress; urine contained albumen. Lad sent home convalescent on the sixteenth day.

Regarding the history of these two cases, it must be remarked, that the first was that of a boy who had but just come out from the Native City of Shanghai. The second, that of a room mate of his. With this somewhat lengthy preface, I will now broach the second part of my subject.

Upon the 13th March, I was called to attend two boys in connection with the College. There was complaint of nausea and chills, temp. 99 in one, slightly higher in the other, tongue in both cases clean, edges and tips suspiciously red. I had them removed to another room of the Infirmary. Both being costive gave Calomel. On the evening of the same day three other boys were added to their number, the day succeeding two more, making seven in all. It will not be of sufficient interest, or indeed serve any practical purpose, to individualize these cases, so I will briefly extend my notes in reference to Ming Zee.

This lad was admitted to the Infirmary on the afternoon of the 13th March, one of the five boys taken in upon that day. Complaint was made of feeling sick, of pain over forehead, of dizziness. Temp. 100, pulse 106, tongue clean with reddened tip and edges, back of throat congested, skin rough.

10 o'clock p.m.—Temp. 101, pulse 115, restless and thirsty. Gave KCLO₃ drink with lemon-juice.

March 14th, Mane.—Restless night, temp. 102, pulse 114, complaining of difficulty in swallowing, tongue intensely red and papillae enlarged. Swabbed throat with Tinct. Ferri Perchlor. and Glycerine; tested urine for albumen, no results.

Vesp.—Temp. 103-6, pulse 122, throat painful. Gave Antipyrrin and Quinine, grs. v of each, and swabbed throat.

March 15th, Mane.—Temp. 102, pulse 124, complaining very much of throat, urine scanty and high-colored, bowels costive. Ordered Pulv. Jalap. Co. and small doses of Tinct. Digitalis with Acetate of Potash, linseed-meal poultice to throat; tested for albumen, slight traces.

Vesp.—Temp. 100, pulse 110, somewhat easier; being requested, repeated linseed-meal poultice to throat. Took soft rice, gave Sulph. Quiniae grs. xv.

March 16th, Mane.—Temp. 99, pulse 100, fair night, throat less painful, urine albuminous,
The China Medical Missionary Journal.

Vesp.—Temp. 101, pulse 115, irritable all day, surface of body perhaps abnormally red, but nothing to characterize as, or associate with, the intense hyperæmic condition of scarlatinal eruption.

March 17th, Mane.—Temp. 102.2, pulse 111, bad night, complaining of throat and want of sleep. Swabbed out throat, repeated poultice, and gave Antipyrin and Quinine, 5 grs. of each.


March 18th, Mane.—Fair night, throat somewhat easier, temp. 100, pulse 112, bowels costive. Repeated Pulv. Jalap Co.


March 19th, Mane.—No sleep, temp. 102, pulse 120. Gave Quinine and Antipyrin, of each grs. v.

Noon.—Temp. 100, pulse 103.

Vesp.—Temp. 101, pulse 114. Repeated Antipyrin and Quinine, poultice to throat.

March 20th, Mane.—Temp. 99.4, pulse 118, good night, skin peeling, desquamation something like that of measles, but flaky in places. Repeated Antipyrin and Quinine. Urine albuminous.

Vesp.—Temp. 100, pulse 115. Repeated Antipyrin and Quinine.

March 21st, Mane.—Temp. 99.6, pulse 110, good night and fairly comfortable. Swabbed out throat and repeated Antipyrin and Quinine.


March 22nd, Mane.—Temp. normal, pulse 100, good night, urine albuminous.

Then steady improvement until the 30th March, when he was sent home at request of friends.

As I have before remarked, this case may be taken as very typical of the other six, the throat symptoms, setting in within four-and-twenty hours, being particularly prominent and distressing in each and every case; and if, as it appears in the case now under review, the skin was freed from the violence of the "scarlatinal" poison, compensation was evidenced by the mucous membrane suffering. The persistent throat symptoms in all the cases need not strike one as strange, when it is realized that the epithelium of the one corresponds with the epidermis of the other.

If in brief comment of the foregoing, advanced only as a representative case, supplementing two mild cases of "Scarlatina," we diagnose "Latent Scarlatina," I can only point out that the characteristics of that form of fever, admittedly irregular, are not borne out, seeing that we have here, not only an independent
Notes on "Scarlatina." 67

disease, with marked renal implication from the onset, but a fever with symptoms infinitely more severe than those generally attributed to what is distinctively known as Scarlatina sine exanthem, but on reference to the literature of the subject, there does exist a marked analogy between the cases under review and those described by Dr. James Miller of so-called Renal Scarlatina, whose work on the Pathology of the Kidney in Scarlatina is quoted from in Dr. Gregory's Lectures on the Eruptive Fevers.

In passing allusion to treatment, I wish to add, that no untoward symptoms, cardiac or otherwise evidenced themselves; it appeared fairly indicated by circumstances, and substantiated by results.

COCAINE AS A LOCAL ANÆSTHETIC.

By Dugald Christie, L.R.C.S., L.R.C.P. (Edin.)

The following case may be interesting as illustrating the value of Cocaine as a local anaesthetic in minor Surgery.

The patient, a merchant, suffered from epithelioma of the penis. For over two years he had been going the round of the native practitioners, consulting them in vain, and only suffering severe torture from their often heroic but barbarous treatment. He came to me in a state of despair; weak, emaciated, with his nervous system, from prolonged pain and sleeplessness, in a state of extreme irritability. Although a year previous he had refused to submit to amputation, as I recommended, he now readily agreed to our proposed method of treatment. Chloroform was carefully administered, but, after a few inhalations, proving a bad subject for a general anaesthetic, it was decided to try Cocaine. Twenty minims of a five-per-cent solution of the hydrochlorate were injected, in five-minim doses at short intervals round the seat of incision and into the urethra. A quarter of an hour after first injection, amputation was performed without the patient experiencing the slightest pain; indeed, he would not believe me when informed that the operation was over.

Another point of interest is that, except from the large blood-vessels, there was hardly any haemorrhage, doubtless due to the constricting effect of the drug on the capillaries. As to the after-treatment, there is nothing worthy of note, only that the anaesthesia produced lasted over a day, indeed the patient complained of no pain after the operation. He recovered without a bad symptom, and now enjoys excellent health.

I constantly use Cocaine with satisfactory results in eye operations—Cataract, Iridectomy, etc., also in such cases as Fistula in Ano, Abscesses, etc.
AN ASYLUM FOR THE INSANE.

The leaflet before us, bearing the above title, is accompanied with the request that we will notice it in the Journal. We do so with pleasure, realizing that the experienced gentlemen whose names are associated with and introduce the scheme, vouch for its need, thus rendering it unnecessary for us to endorse, so we give some extracts, in which its claims are urged and explained, meanwhile confining ourselves to a pithy statement of conviction that a provision for Insane Chinese, such as this, is a work of great practical benevolence, and we trust that not only will it be warmly taken up, but ably supported.

"On the 18th February several gentlemen, who had previously intimated their willingness to act as trustees of an Asylum, were asked to meet for consultation, and the following, presented by Dr. Kerr, was adopted as a basis of action:

'We, the undersigned, do form ourselves into a provisional Committee for the purpose of inaugurating plans for the establishment of an Asylum for the Insane in Canton or its vicinity.

'The Committee will in the first place prepare in the Chinese language, and circulate, literature bearing on the subject of insanity, its causes, and the rational and humane methods of treating this afflicted and helpless class of our fellow-men. Plans of building which have been found in western countries best adapted for the custody and care of the insane, will be prepared, and the obligations resting upon society for the support of such institutions will be enforced.

'The Committee will take charge of any funds entrusted to its care for the above purposes, and when the time arrives for the practical execution of the scheme, it will take steps for the formation of a Society which shall have the management of any institution that may be established." [Signatures.]
"In presenting this statement to the public, we feel confident that the object aimed at will command the approval of benevolent and humane people of all nationalities and religions. In Europe and America every State has asylums for the insane, and no cost or labour is spared to perfect the means for the care and comfort of this helpless class of the human family. In all this vast Empire not a single Asylum exists, and those who are thus afflicted, whether among the poor or rich, are subject to hardship and ill-treatment in many forms, often resulting in premature death. The contact of Western civilization with the Empire is making the Government and people familiar with the material improvements of modern times, and they are adopting such of them as they consider advantageous; but benevolent and charitable institutions, if established on a permanent basis, must be initiated by philanthropic people from the West. Our efforts will be directed chiefly to the circulation of literature which will impress on officials and people the importance and necessity of providing Asylums for the insane, but they will be stimulated and encouraged to action by the example and aid of benevolent people from Western countries, and we feel it will be peculiarly appropriate that the establishment of the

FIRST ASYLUM FOR THE INSANE IN CHINA

should be an international work, just as the establishment of the first hospital in Canton half a century ago was warmly supported by all the nationalities then represented in China. In the promotion of the object which we have taken in hand, we respectfully and earnestly solicit the aid and support of the Press, foreign and native, and of officials, business men, and Missionaries, who in their several positions come in contact with and influence various classes of the people.

"Mr. G. D. Fearon, of Messrs. Deacon & Co., Canton, has kindly consented to act as Hon. Treasurer, and those who desire to contribute to the object in view may communicate with him.

"J. G. KERR,

"Chairman of the Provisional Committee."
NOTICES OF BOOKS.

THE NATIONAL MEDICAL DICTIONARY.

Including English, French, German, Italian and Latin Technical Terms used in Medicine and the Collateral Sciences, and a Series of Tables of Useful Data. By John S. Billings, M.D., LL.D., Edin., and Harv., D.G.L., Oxon., Member of the National Academy of Sciences, Surgeon U.S.A., etc., with the Collaboration of W. O. Atwater, M.D., Frank Baker, M.D., S. M. Burnktt, M.D., W. T. Councilman, M.D., James M. Flint, M.D., J. H. Kidder, M.D., William Lee, M.D., R. Lorini, M.D., Washington Matthews, M.D., C. S. Minot, M.D., H. C. Yarrow, M.D. In two very handsome royal octavo volumes containing 1,574 pages, with two colored plates. Per Volume—Cloth, $6; Leather, $7; Half Morocco, Marbled Edges, $8.50. For Sale by Subscription only.

This Dictionary is just out, and from the copy before us we can congratulate the distinguished author and his collaborators on the success which they have achieved. The medicine of to-day is cosmopolitan; one must have a knowledge of the medical terminology of the leading languages if he desires to keep up with the times. This dictionary, in two volumes, furnishes us, at a moderate cost, with what we need; and, at the same time it will save us the heavy expense of purchasing a dozen heavy tomes in nearly as many different languages. The special training of Dr. Billings makes him peculiarly well qualified to succeed in the task which he has undertaken. The arrangement of the work is a good one. Principal terms are printed in heavy-faced type, their combinations less prominently, and definitions in a lighter type; this is a wonderful aid to rapidly grasping the sought-for word.

In chemical terms formula are stated, in therapeutical compounds ingredients are given. The etymology and origin of terms are duly attended to. Under each term will be found the equivalent word in French, German and Italian. Accentuation and pronunciation are defined. The Dictionary seems to present an embodiment of the necessary information, and the work will be indispensable to the library of every student. Prefixed to the volume are a series of useful tables. There are tables of doses, of poisons and antidotes; of inch and metre system of numbering, and spectacle glasses; of the comparative values of ordinary and metric weights and measures; of the various thermometric scales; of the average dimensions of the foetus at different ages, and of the parts and organs of the adult human body. The utility of these latter in medico-legal examinations will be self-evident.

There is a series of tables showing the percentage of nutritive ingredients in a large number of different food materials; standards of dietaries for different classes and occupations, for corpulence, etc. These tables contain the results
of a large amount of new experimental study, and are fully illustrated with colored plates. A new table of the expectation of life, derived from vital statistics up to a recent date, will prove of value.

The thorough manner in which the work is done may be gathered from the fact that the total number of words and phrases defined amounts to 84,844.

The Publishers are Lea, Brothers & Co., 706 and 708, Sansom St., Philadelphia, Pa., U.S.A.

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A CLINICAL ATLAS OF VENEREAL AND SKIN DISEASES.


This Clinical Atlas is magnificent. It is a working guide for the practitioner. The pictures are lifelike in form and color and large enough to give a clear idea of the diseases represented. The illustrations of the greatest living authors have, with their permission, been selected, and these have been complemented by reproductions from original paintings from life gathered by the author from his own practice. The text furnishes clear and explicit directions for the management of cases, of the clinical features, etiology, diagnosis and prognosis. The colored drawings are admirably adapted to furnishing the practitioner with a diagnostic guide. The author recognizes that he is writing for general practitioners; theory is made subservient to practice; in fact, the Atlas furnishes a fund of information of the most practical sort that is quite inaccessible to one who has not enjoyed a large clinical experience. Dr. Taylor is an eminent authority in both departments on which he writes, and the possession of this work will be a blessing to the medical man in China, who has to examine and treat so many cases of old, neglected skin diseases, with all the complications which filth and vermin can add to make their true origins obscure.
We acknowledge with pleasure the second number of the Echo. We congratulate the Editorial Staff and the contributors, not only upon their work, well done, but upon the fact that so much good, faithful work is here evidenced, before "the first paper published in the Orient by Chinese lads" could be practicable. We wish it every success, and in the humility of its college motto—"Precept upon precept, line upon line, here a little and there a little"—may it, based upon the "honest endeavour" we ourselves wot of, have a bright and useful future.
HOSPITAL REPORTS.

ALICE MEMORIAL HOSPITAL, HONGKONG.
London Missionary Society.

We have to acknowledge Dr. John C. Thomson's full report, for the year 1889. It is prefaced by a special reference to Dr. Manson, "whose efforts to promote the success of the undertaking were unremitting, and whose departure from the colony was regretted by every member of the staff." Appreciative recognition is then made of Dr. Chung, a pupil of the late Dr. Mackenzie of Tientsin: "his training has been thorough and complete." The subjoined "Statistical Abstract" evidences the year's work:

Patients admitted to Hospital during the year 1889 ... 530
Total number treated as
In-Patients ... ... ... 569
Of these there were—
Dismissed Cured ... 358
" Relieved ... 111
" on other
Grounds ... ... 27
Died in the Hospital ... 30 ... 526

Patients remaining in Hospital on 1st January 1890 ... ... 43

Hospital Out-Patients—New cases ... ... ... 6,726
Hospital Out-Patients—Return visits ... ... ... 7,876
Total ... ... 14,602
Nethersole Dispensary—Out - Patients, New cases ... ... 1,066
Nethersole Dispensary—Out - Patients, Return visits ... ... 1,160
Total ... ... 2,226
Total number of visits of Out-Patients ... ... 16,828

Prescriptions dispensed to
Hospital Out-Patients ... 9,713
Prescriptions dispensed to
Hospital In-Patients about... 1,500
Prescriptions dispensed to
Dispensary Out-Patients about 3,500

Total [not including repeated prescriptions] ... ... 14,713

Surgical Operations ... 143
Dental ... ... 60
Vaccinations ... ... 113
Casualty Cases ... ... 15

THE STUDENTS.

Ten students live in the Hospital, and among them share the dressing, clerking, dispensing, minor duties at operations, etc. As they each hold every minor post in rotation, for two months at a time, they acquire a large experience.

EVANGELISTIC WORK.

"A daily Scripture exposition is conducted with the Out-Patients previous to the arrival of the consultant for the day, and a Sabbath morning service for the In-Patients in the Chapel, at which practically all who are able to leave their beds are present. More important, however, in my estimation, is the bedside teaching conducted daily in the male wards. During the latter half of the year, an old carpenter, who acts as a sort of lay agent of the Mission, has devoted much of his time to this work, and seems to secure a very interested attention, as sitting on the edge of a bed, perhaps with the Scriptures, or a picture representing some scene from the life of Christ, in his hand, he chats with the patients by twos or threes. Hospital evangelistic work must be largely sowing, comparatively little of it reaping."
MISSION HOSPITAL AND DISPENSARY,
TIENTSIN (for 1889).
London Missionary Society.

Dr. Fredk. C. Roberts tells us that "the number of patients seeking medical relief during the past year has been considerably larger than in 1888."

**Dispensary Attendance:**
- Number of New Cases treated 5,010
- Visits paid to Dispensary... ... ... 18,122
- "The Hospital Compound consists of two large wards and three small ones. There are 45 beds."

**Mackenzie Memorial Ward.**
Through the kindness of the committee of the "Mackenzie Memorial Fund," a fund raised by the Tientsin Foreign Community to erect a tomb-stone to the memory of the late Dr. Mackenzie, the surplus ($350) was voted toward furnishing a ward to be called by the above name. This ward has now been fitted up, and promises to make the patient as comfortable and happy as he can possibly be under existing circumstances.

"The number of In-patients during the year was 429; Surgical operations, 188.

We extract the following "Medical Notes."

"**Stricture of Esophagus.**—This is comparatively common in North China. The cause in many cases is very obscure. Excessive drinking of the native spirits, and the habit of taking food while very hot explains some cases.

"**Gangrene.**—In some of the cases it would seem to have been brought on by Ergot Poisoning. The one case of major amputation during the year was for this disease. Hardly any bleeding points could be detected owing to the diseased condition of the vessels after Ergot poisoning. The anterior flap sloughed partly, yet the stumps eventually healed; the opposite foot, however, became affected with Gangrene ere long.

"**Malarial Fever.**—The Tertian variety of Intermittent Fever is the most common. Remittent fever is even commoner than Intermittent and in some cases runs its course for 3-5 weeks, closely simulating Typhoid Fever in some aspects and practically unaffected by the usual Malarial drugs.

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**Evangelistic Work.**

"During the spring we had stirring times spiritually in the wards, and many applied for baptism. This was due in large measure to the instrumentality of two of the in-patients whose ailments allowed of their working actively among their fellow-Christians, and whose Christian zeal was most marked. The first of these two was a trader named Li, aged 45, who all his life had been a moral man, and was up to the time of his first admission into hospital a member of a powerful sect called the "Tsai Li-Ti," the main rules of which sect are abstinence from tobacco, opium, and alcoholic drinks. While with us, Li used to tell with delight how he was led to pray for the gift of the Holy Spirit and how God heard his prayer and helped him to learn the doctrine and on his return home to remove his idols from his shop and to endure much ridicule from many former friends."

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**Chinafoo Dispensary.**

American Presbyterian Mission.

Dr. R obt. Col tan, jr., in his report for 1889 first makes sad mention of the death of one of their small number, then, following on, "the foreign community, small as it is, was visited by diphtheria, small-pox, typhus and famine-fever."

"The attendance at our Dispensary is rapidly increasing in the better class of patients, and scarcely a day of the last three months has passed without one or more visits being paid to the families of officials,
from the Fan-t'ai down to the Hsien-kuan and Hou-pus. The tone of the popular feeling is not quite so hostile as formerly, and I hope and believe that an era of better feeling has begun.

“Our increasing popularity is shown by the following figures:—In 1886 the attendance was 5,714; in 1887 it was 6,189; in 1887 7,221; and the past year, 3,495.”

We quote from Notes of Cases:—

“In February, I, accompanied by two native assistants, went to a village sixty li South of Chinan-fu, and operated on a young man aged 25 for stone in the bladder; the stone was larger than an ordinary tea-cup and required to be broken into numerous pieces before it could be extracted. I remained for five days, after which I left the patient in charge of an assistant. He made a rapid and complete recovery and was out walking in twenty-five days; the operation was the usual lateral perineal one.”

The Doctor tells us of itinerating work in Yü-ch'eng-hsien, prescribing for 525 patients and operating; and at Chei-chia-chuang, 130 patients.

“The street chapel in front of the dispensary has been well attended throughout the year, and the daily preaching by the foreign and native preachers has certainly had a good many listeners, though results in actual conversions are not visible.”

P. M.

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SOCIETY REPORTS.

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The Regular Monthly Meeting of the Shanghai Medical Missionary Association took place on the afternoon of the 18th February at St. Luke's Hospital, the Vice-President, Dr. Boone, in the Chair. Present: Drs. Boone, Gale, Mathews, and Hony. Members Drs. Reid and Lalaca. The routine business being disposed of, Dr. Gale introduced a patient for diagnosis. A ric-sha coolie, who for some months had noticed the formation of a lump, which at times gave him pain. Being examined, two or more tumours—soft, lobulated, moveable, and free from pain—were discovered, extending laterally and superficially between the last two vertebrae-sternal ribs, and immediately over the ensiform appendix. Fatty tumour diagnosed.

Dr. Lalaca then read his paper on Neuralgia, which appeared in the March No. of the Journal. In the ensuing discussion it was remarked that there was nothing very helpful in the diagnosing of the case, and as many drugs had been tried, a new departure would be to forego further medication, and send the man away to a drier and more bracing climate than that of Shanghai.

A vote of thanks to Dr. Lalaca for his interesting paper terminated the meeting.
The meeting being called to order by the Vice-President Dr. Boone, the minutes of the previous meeting were read and confirmed.

Dr. Reid read Notes of a Case of Disease of the Brain, supposed Tumour of the Pons, by Dr. Jamieson, a report of which appears in the present issue of the Journal.

Dr. Reid then read his own paper on "Rubella Sinensis"—Synonym: "Wind Measles." In the course of the discussion which followed, Dr. Lalcaca reported some cases which he had seen. They resembled those described by Dr. Reid, except that he had not noticed the condition of the pharynx, on which Dr. Reid laid such stress. He did not consider them cases of ordinary Chinese Measles. Dr. Boone remarked that for years he had observed cases of Chinese Measles among boys, girls and infants at S. John's College and elsewhere; that in them, fever often ran high, with marked coryza, copious eruption, crescentic in grouping, and coming out in successive crops, lasting for about one week. It differs from European Measles in being rarely followed by sequela of any sort. He then related the histories of three cases just treated:

A child, æt. four, had slight congestion of the mucous membrane of eyelids, and complained of pain in the eyes, no fever. Boric sol. dropped in eyes. On the night of the second day, slight eruption on both cheeks, next morning a number of dusky red papules appeared coalescing to form spots irregular in size and shape, non-crescentic, largest spots ½ in. in long diameter; no spots on chest or abdomen, a few on neck, where the collar rubbed; on arms, thighs and legs, numerous minute red points, like the prick of a pin, were seen, discrete, temp. 99. The eruption disappeared on the sixth day, temp. falling to normal; the child appeared quite well in all other respects; did not resemble measles as usually seen. Roof of mouth behind hard palate reddened, some dark papules. Two other cases were observed in children who had had very severe attacks of scarlatina six months ago. These two children had mild attacks and recovered rapidly from the disease above described. They had no throat symptoms. Dr. Reid said that these last cases seen by Dr. Boone corresponded with what he had described in his paper, and he was certain that neither his cases nor those reported by Dr. Boone, were Chinese Measles. If he gave them a name, it would be "Rötheln," or German Measles. Dr. Lalcaca also inclined to this opinion.

A vote of thanks was then tendered to Dr. Reid for his interesting paper, and the meeting adjourned.
The meeting having been called to order by the Vice-President, Dr. Boone in the Chair, the minutes of the former meeting were read and approved, and the election of officers to the local Society then proceeded with.

Dr. Reifsnyder was proposed, seconded and elected to the Presidency of the Society for the ensuing year.

Dr. Mathews to the Vice-Presidency for the same period.

Dr. Boone consented to act as Secretary until other arrangements could be made.

Dr. Mathews was then called upon to read his paper "Notes on 'Scarlatina,'" an account of which appears in the current number of the Journal. Dr. Boone, in opening the discussion, remarked upon the absence of parotid and other glandular trouble of the neck, the absence of any ulcerative process of the throat, and the desquamation being partly like that of Measles. In reference to treatment, he considered that great caution would have to be exercised in the giving of Antipyrin, seeing to its depressant action upon the heart.

Dr. Mathews considered that the two drugs, Antipyrin and Quinine, had acted well, and with no untoward cardiac symptoms. The combining of the two drugs had been suggested to him in reading, and he thought they had been administered with advantage in the cases under consideration.

Dr. Boone then brought forward a new method of treatment adopted in New York, that of chloral hydrate having been most satisfactory if given in sufficient doses; it allayed all nervous disturbance and restlessness, relieved insomnia, lowered the temperature and also had some effect as an antiseptic.

It was then moved and seconded that, in view of the Conference, the meeting should stand adjourned until the third Tuesday in June.

The meeting then adjourned, a vote of thanks being tendered to Dr. Mathews for his paper.

Percy Mathews, M.D.,
Secretary.
PROGRESS OF MEDICAL SCIENCE.

THE SURGICAL TREATMENT OF TYPHILITIS.

From a paper by Dr. Treves, published in the British Medical Journal, we take the following: 1.—The operation should not be performed until all inflammatory and other symptoms have quite subsided. 2.—The incision should be made obliquely from above, downward and inward over the caecal region, its lower extremity ending just external to the epigastric artery. The incision should not be made directly over the appendix or over the dullest region. If it be so placed a number of adhesions will probably be encountered and the demonstration of the peritoneal cavity might be difficult. The caecum or the appendix might be actually adherent to the anterior abdominal wall. The incising of the peritoneum should, therefore, be conducted with the very greatest care. It is well that the parietal cut should open the abdomen at a point just beyond the diseased area, and where no adhesions exist. 3.—When the appendix and caecum are exposed, the area of the operation should be cut off from the general abdominal cavity by sponges. If this plugging with sponges be well carried out, no blood should enter the peritoneal space. 4.—All adhesions should be divided by cutting; none should be "broken down." The latter measure is apt to tear the bowel, or, at least, to bare it of peritoneum. 5.—The appendix should be lightly clamped close to the caecum, and should be divided about half an inch from that intestine; it should not be secured by a simple ligature. The mucous membrane should be united by many fine sutures, or by a continuous suture; then the divided outer walls of the process should be brought together by a second row of sutures; it is practically impossible to bring the serous coats together. To still further secure the orifice, the stump of the appendix might be lightly attached to any adjacent surface of the peritoneum. 6.—The abdominal wound should be closed; no drain is required.

ANTISEPTIC IRRIGATION OF THE KNEE-JOINT FOR CHRONIC SYNOVITIS.

Maurice H. Richardson reports three cases of chronic synovitis successfully treated by antiseptic irrigation of the knee-joint. The procedure is described as follows; under ether a large aspirating needle is introduced into the knee-joint on the outer side, just above the patella. The effused liquid is removed and a like amount of a 5 per cent solution of carbolic acid is injected. This is in turn exhausted. The limb is then placed upon a posterior splint, the wound dressed antiseptically, and a cure effected in from two to four weeks. Dr. Richardson remarks: Many such operations have been done abroad, especially in Germany, with marked success. The ordinary treatment, by compression with or without aspiration, rest, splints and so on, has rarely been productive of a cure, or even of lasting benefit. Although the immediate effects of the treatment by irrigation are good, it is too soon to say that there has been a permanent cure. It is, however, safe to say that we may expect a permanent cure if we continue this treatment, and make use of repeated aspirations should fluid reappear. It is important to use a needle of considerable size, because of coagulation and precipitation of the albumen in the joint fluid by the carbolic acid. The best point to introduce the needle is through the fibres of the vastus externus, on the outer side, just above the patella. While the procedure is very simple
it should not be employed indiscriminately, nor until ordinary means have failed, and then only with the greatest care, especially as to cleanliness and asepsis.—*Boston Medical and Surgical Journal.*

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**PUNCTURE OF THE BOWEL IN INTESTINAL OBSTRUCTION.**

Dr. O. Rosenbach (Berl. klin. Woch., 1889, No. 17) advises puncture of the distended bowel in complete obstruction. The arguments against this procedure are: (1) It is dangerous; (2) it does not accomplish enough, being merely symptomatic treatment; (3) it is with advantage replaced by laparotomy, done either for the formation of an artificial anus or for the removal of the obstruction. The first objection is met by observing certain details in the operation, which are careful antisepsis, the employment of a suitable cannula, proper selection of the site of puncture, and carefulness in the withdrawal of the needle. By observing the foregoing details the second objection is met. Regarding the third objection, no harm can be done in first resorting to the simple and safe operation of puncture. The histories of a few cases are briefly sketched bearing out the author's assertions.

[The article possesses particular value in connection with the author's former articles in the same journal on the pathology and treatment of intestinal obstruction. Many cases of this condition are merely functional and may be treated successfully by suitable diet, by paralyzing the bowel with small and oft-repeated doses of opium, and by treating symptoms as they arise.]

**THE USE OF SALOL IN PRODUCING ANTISEPSIS OF THE URINARY PASSAGES.**

At a recent meeting of the Société Médicale des Hôpitaux, M. Dreypous discussed the question of rendering the urinary passages antiseptic by means of internal medication, instancing the good effects he had obtained from the use of salol in many cases of blennorrhea. By administering salol, we produce a stream of aseptic urine, which washes the mucous lining of the kidneys, bladder, and urethra, thus establishing the antisepsis of these surfaces much more thoroughly than can be done by the use of injections from without. Sahli has shown that the urine of persons who are taking salol is antiseptic, and also that the salol is well borne, even in large doses. It has the advantage of being only slightly soluble, and so non-toxic; and seems to reserve its action for the urinary passages, and its adaptability for this special end is comparable with the action of naphthol in intestinal antisepsis. M. Dreypous has administered the salol, alone or in combination with balsams, in seven cases of blennorrhagia, the dose varying from five to eight grains. The discharge decreased rapidly in each instance, and in one case which had lasted for four days the cure was complete in three days. The good results seem to be attributable to the fact that the salol renders the urine aseptic, and probably antiseptic. Certain cases, in which the salol was administered alone, proved that the good result was due to it, and not to the balsams, although the speaker preferred to give it with copaiba or cubebes, in order to hasten the cure. If this effect of the drug shall be well established, it will commend itself to the surgeon in those cases where it is desired to render the urine aseptic before an operation upon the genito-urinary tract,

—*The American Journal of the Medical Sciences, February, 1890.*

**ANTHRAX CURED BY SUBCUTANEOUS INJECTION OF CORROSIVE SUBLIMATE.**

A large malignant pustule was situated on the back of the hand of a man who had been engaged in removing the hides of cows, having a superficial graze on the back of
his hand. The index-finger was of double its normal size; two extensive vesicles, filled with dark serum, included the dorsal aspect of the first and second phalanx; lymphatic inflammation extended from the hand up the forearm on the radial side. Six subcutaneous injections, with a four-thousandth solution of sublimate, with the view of forming a protection against the encroachment of the bacteria. It was not without some resistance on the part of the patient, in consequence of the intensity of the pain occasioned by them, that these injections were repeated during eight days. Besides the injections the hand was kept in a warm bath of sublimate solution during the daytime, and at night was covered with a cataplasm of chopped walnut leaves, moistened with the sublimate solution. This treatment was continued for six days longer, and terminated in cure of the gangrene. Cicatrization was complete in fifteen days.—L'Union Médicale.

SOME CASES OF INTESTINAL OBSTRUCTION.

Dr. Gelpke reports four cases of intestinal obstruction, of which two had been operated on, one with success, and two had been successfully treated with metallic mercury. From these cases he concludes that quicksilver is a valuable remedy in cases of obstruction, and that the metal seems to be quite innocuous to the system if not too long retained. It had been so retained in one of the two cases, in which four teaspoonfuls of quicksilver had been given, and the faces and urine of the patient contained the drug for twelve weeks; there were other distinct symptoms of mercurial poisoning, such as great emaciation, excitement, loss of hair, and some stomatitis. The other patient, on the contrary, showed no signs of mercurialism whatever. He considers that in hernia it is generally advisable to commence the abdominal section from the orifice of the sac. Finally, considering the uncertain and not very successful results of laparotomy, he would not operate before other means, such as quicksilver, have been tried for from four to six days. Dr. Reitz has reported the case of a laborer suffering from obstruction of the bowels, who, after three days' fruitless administration of purgatives, was brought to the hospital. Fecal vomiting was present, and a tumor could be felt on the left side of the umbilicus. Enemata of water by the long tube, though as much as six pounds of water were injected, were unsuccessful, but the vomiting and sickness improved under repeated washing out of the stomach. The next day the patient was considerably worse, and fecal vomiting returned, with cold perspiration, restlessness, meteorismus, a pulse of 120, and a temperature of 100° F. After the enema with the long tube had been again used, and the stomach repeatedly washed out, without any improvement, seven drachms of bicarbonate of soda in five ounces of water were injected into the rectum, followed by three drachms of tartaric acid in the same amount of water, and the anus closed. The patient, who was on his knees and elbows, complained at once of severe abdominal pains, and in five minutes the injection came away with exceedingly offensive flatus. Shortly afterward the patient felt considerably better. In three hours the enema was repeated with half the previous doses, and was shortly followed by a large loose motion, and by a second later on. The patient completely recovered.—The Lancet.

TREATMENT OF BUBOES BY IODOFORM VASELINE.

The following is Professor Fontain's "rapid method" of curing buboes: 1. Washing and disinfection of the region by means of hot sublimate solution (1:2,000). 2. Puncture with the lancet if the skin is soft; with the straight bistoury if the pus
is deeply situated. The puncture is small and made in the most fluctuating point. 3. Evacuation of the pus, gently pressing out completely the contents of the ganglion. A few injections of sublimate solution are now made to wash out the cavity. 4. Injection of iodoformized vaseline melted by heat. The oil is to be gently injected in by means of a glass syringe previously charged and placed in hot water. 5. Dressing with absorbent cotton. As soon as the cavity is full of the iodoformized vaseline, a wad of cotton, soaked in sublimate solution 1:1,000 is placed over the bubo, and kept in place with a spica. The contact of the cold coagulates the vaseline, and makes a plug at the orifice of the abscess. After the first day all pain disappears, and, usually, healing is complete in six or seven days. In some cases it is necessary to renew the injections of vaseline. Out of forty-one buboes thus treated by the author, more than half were cured in less than five days. The most rebellious required twenty-three days.—*Journal of Cutaneous and Genito-urinary Diseases*, December, 1889.

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NOTES AND ITEMS.

Dr. H. W. Boone, of Shanghai, China, states that additions are to be made to St. Luke's Hospital building in that place, the expenses to be paid entirely out of the savings and investments of the hospital.—*Times and Register*.

**IODOFORM IN CHRONIC DYSENTERY.**

Mr. Stark (*Lancet, November 10th, 1889*) successfully treated a case of Chronic Dysentery, of 18 months' standing, by means of enemata of 2 grs. of Iodoform suspended in mucilage of starch, given twice or thrice daily.

**TREATMENT OF HÅMORRHOLDS BY GLYCERINE.**

Enemata of Glycerine (2 dr.) repeated daily for some time, is recommended as a cure for Hæmorrhoids, by a correspondent in the *British Medical Journal*.

**EZERINE IN NIGHT-BLINDNESS.**

A Native surgeon in India has treated all his cases of Night-Blindness for the past five years with instillation of Ezerine drops, and has found the treatment to be satisfactory.—*India Medical Gazette*.

For the treatment of hæmatemesis, Dr. Flasher (*Algém. med. centr. Zeitung, No. 55, 1888*) considers hot water as the safest and most pleasant remedy. He gives it in successive quantities of one-half to three-fourths of a tumblerful of water as hot as it can be borne. Coagulation of the blood occurs quickly, as shown by the subsequent vomiting of pieces of clot which are discharged without further hæmorrhage.—*Medical Chronicle*.

"Change of Climate is what you need," said the high-priced physician, after he had
listened to all the details of the patient's case. "Change of climate!" exclaimed the patient, in surprise. "Why, man alive, I've never had anything else. I've lived right here in Shanghai all my life."

In facial erysipelas, where you cannot conveniently apply ordinary means, paint the part with a 10°/o iodoform collodion.—*Provincial Medical Journal.*

**TREATMENT OF PHLEGMASIA DOLENS.**

Recipe. — Extract of opium, extract of belladonna, extract of hyoscyamus, extract of hemlock, of each 3 parts; vaseline, 30 parts. This ointment to be applied along the course of the inflamed vein.—*L'Union Medicale,*—*Medical News.*

**Alum in Sweating Feet.—**Dr. Zieglcr, of Berne, field-surgeon-general (*Oberfeldzarf*) of the Swiss army, draws attention to excellent services obtained from a "foot-powder (*Fusspulver*)," used by Swiss soldiers suffering from bromidrosis. The powder consists of two parts of alum and ten of t alc. Unlike chromic acid (which as a remedial means for sweating feet was recently successfully tried by the Prussian Military Medical Department), the alum-powder is entirely free from any toxic properties, and may be conveniently employed even in patients with bad sore feet.—*Provincial Medical Journal.*

Dr. Heitzman, of New York, has found salicylic acid superior to chrysarobin and tarry preparations in a variety of skin diseases. In callosities, corns, warts, etc., no agent softens and destroys these tissues so well, except perhaps, acetic acid. It is also to be regarded as a valuable parasiticide. It is used either in the form of powder, plaster, ointment or solution.—*New Orleans Medical and Surgical Journal.*

Professor Da Costa, in "Class Room Notes," suggests the following:

In erysipelas in strong, robust subjects, pilocarpine or jaborandi, 1-6 gr., of hydrochlorate of pilocarpine hypodermically; repeated again in four hours, provided pronounced diaphoresis has not occurred.

For the irritative fever of phthisis pulmonalis, when treatment is absolutely necessary:

R. Antipyrin, gr. ij.
Quinine sulph., gr. j. M.
Ft. j. in capsul.
Sig.—One every few hours.

As local treatment of the joints in acute rheumatism, among other means:

R. Potass. nitrat., oz. j.
Morph. sulph., gr. ij.
Aq. destil., j. oz.
Sig.—Keep the joint saturated.

In the treatment of the laryngeal complications of phthisis, the insufflation of iodoform or application of cocaine.

In cases of bronchitis in children, tending to spread downward and become capillary, the administration of iodide of potassium.—*Canada Medical Record.*

In the case of a child with tubercular disease of the knee-joint, after breaking up the existing adhesions and placing the part on a splint, Prof. Gross directed rest, extension, and the following:

R. Iodoformi, p. j.
Unguent. simpl., p. x. M.
Sig.—Rub well in twice daily,
In the treatment of a chronic ulcer, free the bound-down edges, paint the surrounding tissue with equal parts of alcohol and iodine, touch the surface thoroughly with solid nitrate of silver, put the patient to bed, and wrap the limb up in a solution of lead-water and laudanum.

The Chloral Treatment of Scarlet-Fever is strongly recommended by Dr. Wilson, of Philadelphia. He gives the drug in doses of gr. j. to gr. v.

In a case of inflammation of the patellar bursa, with accumulation of fluid, Prof. Gross tapped the sac by a trocar, removed the fluid and injected twenty drops of pure carbolic acid.

Lustgarten treats eczema of the arms and genitalia with a salve composed of oleate of cocaine 40 parts, olive oil 200 parts, and lanolin 1,000. Rub in well twice daily.

The following is Buckley's anti-pruritic ointment: Gum camphor, chloral hydrate, of each one drachm. Mix and rub together until a liquid results, then add one ounce of ointment of rose-water.

We learn that throughout his fatal illness the late Marquis Tseng was attended by Dr. Dudgeon of Peking.

Diphtheria.

In view of the many difficulties presented in the treatment of the above, the suggestions made by Dr. Burghardt (Wiener Medical Wochenschr., September 28 to October 5, 1889) seem worthy of attention:

He rubs equal parts of sulphate of quinine and washed flowers of sulphur together into a very fine powder. One and a half to three grains of the powder must be blown upon the diseased parts with a common insufflator, the mucus having been previously removed from the throat by a gargle or a drink of water. After the mass of powder has been blown upon the parts most diseased, that which remains in the insufflator should be blown upon the adjacent surfaces, into the posterior nares, the recesses of the larynx, and into the anterior nares. This should be done twice a day, both during the disease and, with smaller doses, for some days after the disease has disappeared.

Putting New Wine into Old Bottles.

Dr. Theodor Clemens, writing in the Allgemeine medicinische Central- Zeitung, proposes the injection of the freshly passed urine of a child into the bladder for the cure of chronic cystitis in aged persons. The bladder is first thoroughly washed out, and then filled with urine which has just been passed by a healthy child. He claims to have obtained excellent results with this novel therapeutic agent.

How Long Has Syphilis Been Known in China?

In a lecture on Syphilis delivered before the Royal Academy of Medicine, Dublin, Mr. H. Fitzgibbon is reported to have read a quotation from Lancereaux's work on Syphilis in ancient times and in the Middle Ages, found in Chinese medical writings so far back as 2637 B.C. This describes, it is said, what one cannot fail to recognise as a hard chancre, followed by all the phenomena which mark the course of a neglected case of Syphilis. [This date seems to be somewhat wild. Wylie states that the oldest medical treatise extant is probably the Hweng te soo man, which there is reason to believe, he says, to have been written several centuries before Christ. The subject is an interesting one. We commend it to the historic genius of Dr. Jas. C. Thomson.]
When hospital gangrene occurs, isolate the patient at once. Remove the slough by roughly rubbing with sponge (immediately burning the sponge used), cleanse with warm water, dry the wound and cauterize thoroughly with chloride of zinc (with just sufficient water to convert it into an oily liquid) by means of absorbent cotton; allow cauterant to remain on ten minutes; remove and apply antiseptic dressings. An anaesthetic should be administered during treatment; good nourishing diet and opium to relieve pain subsequently.—Professor Gross.

ARRIVALS.

At Shanghai, May 9th, Dr. H. D. and Mrs. Porter, A.B.C.F.M., Pangchuang (returned)
At Shanghai, May 16th, Miss Reifsnyder, M.D., Margaret Williamson Hospital, Woman's Union, West Gate (returned).

DEPARTURES.

From Shanghai, May 17th, Dr. D. D. Main, Mrs. Main, and two children, C. M. S. Hangchow (returned).

To the Editor of the China Medical Missionary Journal, Nanking, May 24th, 1890.

Dear Dr. Mathews,

I would like to offer the prescription of a pill to aid in the cure of the Opium Habit:

R. — Quinine Sulph. grs. iij.
Ext. Cannabis Ind. gr. 1/2—1/2.
Capsicum gr. ¼.

Dose. — One pill as required to relieve the Kin-lu-tang (pains of bones and muscles) and other sufferings of the patient. Extr. Ergoto Fl. is very useful in relieving the spermatorrhœæ. I do not think that this is a dangerous pill to be given a patient to be used at his home, and have thus used them, and have cured several patients without taking them into the hospital. I have great comfort in treating opium cases with the remedies I at present use. The Quinine and Hemp are recommended by one of the leading experts in this disease in America as the best remedy. Quinine in five to ten grain doses is about the best pick-me-up in periods of depression of a cured case when there is danger of his returning to the habit. Tonics, Quinine, Iron, Nux Vomica, Hypophosphites, etc., are of course used after the greater part of the sufferings are over.

Yours sincerely,

W. E. MACKLIN.
Shanghai, 10th May 1890.

Mr. Chairman and Gentlemen,

We the undersigned herewith beg to submit you a Statement of Account compiled in accordance with the motion adopted at the Meeting, held preliminary to the Conference, at S. Luke's Hospital on the 6th day of May 1890.

We have the honor to be, Mr. Chairman and Gentlemen,
Your obedient servants,

ROBERT C. BEEBE, [Censors.]
FRED. C. ROBERTS,
Percy MatheWS, [Secretary.]

THE MEDICAL MISSIONARY ASSOCIATION OF CHINA
IN ACCOUNT WITH THE TREASURER OF THE SAME.

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<td>$ 677.17                                                         $ 677.17</td>
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<tr>
<th>IN ACCOUNT WITH THE MANAGING EDITOR OF THE MEDICAL MISSIONARY JOURNAL.</th>
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<tbody>
<tr>
<td>To Messrs. Kelly &amp; Walsh, Ld., Cr. balance as per statement handed in</td>
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<tr>
<td>... ... ... ... $ 8.00</td>
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<tr>
<td>&quot; Pass Book Hongkong &amp; Shanghai Savings Bank handed in ... 52.10</td>
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E. & O. E.,
S. John's College,
10th May 1890.
## Abstract of Cost for 1889

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<thead>
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<th>Description</th>
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<tbody>
<tr>
<td>Gross Income of Journal</td>
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<tr>
<td>Total cost of same Journal</td>
<td>$433.00</td>
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<tr>
<td>Balance</td>
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<tr>
<td><strong>Journal Expenses</strong></td>
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<td>Net income</td>
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<tr>
<td>Dr. balance met from Reserve Fund</td>
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<tr>
<td><strong>Owing from Subscribers 1889</strong></td>
<td></td>
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<tr>
<td>Written off</td>
<td>$  7.00</td>
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<tr>
<td>Balance</td>
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Report accepted,

(Signed) **H. W. Boone,**

President of the Medical Missionary Association.

(Signed) **Percy Mathews,**

Treasurer & Secretary.

---

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1890.
FIRST DAY.

(Monday Morning, May 19th.)

Photograph of Members of Conference (Facing p. 87.)

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   The Use of Native Drugs by Medical Missionaries.
   By Rev. A. W. Douthwaite, M.D., F.R.G.S.

Discussion ...

Paper.—Preaching to Dispensary Patients.
   By W. H. Park, M.D.

Discussion ...

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   By W. E. Macklin, M.B.

Discussion ...

Paper.—Medical Nomenclature.
   By S. A. Hunter, M.D.

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Dr. Lambuth.
Dr. Swinney. Mrs. Lyall. Dr. Hunter. Dr. Merley.
(late Pres.) (Pres.)

Union Church, Shanghai, 22nd May 1890.
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MEETINGS OF MEMBERS IN CONFERENCE.

FIRST SESSION.

(Monday Morning, May 19th.)

The President, H. W. Boone, M.D., in the Chair.
Secretary, The Rev. S. R. Hodge, M.R.C.S., L.R.C.P. (Lon.)

The Rev. Dr. H. D. Porter offered prayer.

The President, in formally opening the meeting, said, that he could not refrain, in taking the chair that morning, from giving an expression of warm greeting and welcome to those present, and of the gratification he experienced at the large attendance from all parts of China. He then called upon Dr. Kerr to read the first paper.

PAPER.

1.—By J. G. Kerr, M.D., Canton.

Introductory.—Medical Missionaries in relation to the Medical Profession.

The study of Medicine embraces a wide range of sciences which cultivate the intellect and enlarge the mind. It is therefore considered one of the learned professions, and its members occupy positions of influence in every community.

Medical men have to do with the sufferings of their fellow-men, and these sufferings appeal to the better feelings of those from whom they seek relief.
Medical men have to do with the poor, and are often called to minister to them, without hope of remuneration. This unrewarded service cultivates a spirit of benevolence and charity, and begets a feeling of compassion for the unfortunate in the time of their affliction. The Medical Profession is therefore known as one characterized by the benevolence of its members.

Moreover, medical men have to do with diseases which men have brought upon themselves by immoral and impure practices, and the indulgence of the baser appetites, and they thus become familiar with the weakness and depravity of human nature, which bring so much disease, degradation and death to our race.

Medical men are brought in contact with the young at a time when their characters are being formed, and when they are peculiarly susceptible to influences, either good or bad, and it is of the utmost importance that those to whom they look for guidance, should be men of pure minds, noble instincts and correct principles.

The duties of medical men in their professional relations, include the healing of disease and its prevention, by the removal of its causes. In a strictly business view, the duties of physicians are limited to the removal of disease after it invades the body. It might be claimed that the prevention of disease, by measures inaugurated by medical men, restricted to that extent, their business. But the members of the Profession have ever recognized the duty of devoting their energies to the investigation of the causes of disease, and to their removal when possible. The sanitary measures which have been adopted by states and municipalities for the protection of families, public assemblies, cities and travellers, and to limit the spread of epidemics, show the enlightened public spirit of the Profession as a body, and the great influence it exerts in public councils and private communities.

During the present century there has grown up a special class of physicians known as Medical Missionaries. Indeed, it is quite natural that this enlightened and cultivated profession should be the source of supply, of men whose lives should be wholly devoted to doing good. The occasion which gave rise to this special class is found in two facts:—1st, A large part of the human family is destitute of a knowledge of Christianity and of rational medicine; and, 2nd, the Christian Church has inaugurated measures on a large scale to supply a knowledge of Christian doctrine to those who are in this destitute condition. In the execution of its plans the Church has found that the practice of medicine by Christian physicians in heathen lands is an aid to its special work, as well as a work of benevolence, worthy of support, aside from its connection with evangelistic effort.

Medical missionaries are supposed to be endowed with all the culture of mind and benevolence of heart, that characterize the profession in general. They
are also expected to have such devotion to the great work of the moral and spiritual elevation of the heathen, as well as the special work of healing, that they will forego the purpose of seeking pecuniary gain by their profession, and will direct all their efforts to the good of those who, without their aid, would continue to suffer calamities such as are expected where there is an entire want of the benefits conferred by scientific medicine.

Medical missionaries therefore willingly submit to a denial of all the comforts of home in a land of civilization and refinement.

They submit to a life of self-denial in living among a people of a strange language, uncongenial customs, and with whom it is impossible to form intimate and elevating associations.

They have to deal with communities, families and individuals amongst whom they find little intelligent appreciation of their profession, and whose ignorance and superstitions are great obstacles in the way of attaining the best results of practice, either medical or surgical.

They live and practise their profession among a people morally degraded and corrupt, and whose immoral practices have brought upon them suffering and disease in forms and degrees shocking to the refined and cultivated mind.

They willingly forego the hope of pecuniary gain, and of professional honors and advancement, which are the ambition of many in the home land.

When a body of educated men, considerable in numbers, leave their native lands, and submit to such self-denials and engage in a life-long work for the accomplishment of a noble and humane object, they become possessed of a moral power which must make an impression, not only on all who are in sympathy with them, but also on the profession to which they belong.

A moment's consideration of the work, which medical missionaries are doing will illustrate the source of that moral power, whose direct and indirect influence is felt in many directions.

The hospitals and dispensaries opened in heathen cities offer to millions of people, free of cost, successful modes of treating diseases which are altogether beyond the skill of their own doctors.

The translation, from the languages of Europe, of the standard works on medical science, is giving to hundreds of millions the benefits of the labors of all the great men of modern times who have made Medicine and Surgery what they are to-day, and all this without labor or cost on their part.

Together with this healing of the body, which is of priceless value to the recipients, they offer to all the people that system of religion which has produced the best men and women, the best husbands and wives, the best citizens and neighbors, and the best governments on the face of the earth. They moreover present and urge the acceptance of that system of religion, which alone opens to men, the way of salvation from sin and its consequences, and secures eternal happiness.
It will be readily admitted that such a work, is one of widespread and far-reaching beneficence, and it is not from a spirit of pride or vain-glory that we assert that the men and women engaged in this work possess a moral power which must be felt, not only by the heathen, but must react on the churches they represent, and in a special manner must it reach, react upon and elevate, the profession of which they form a part.

That the Medical Profession in Europe and America as a body, has not attained to the highest standard of moral excellence, needs only to be stated to be admitted. While a good moral character is one of the requirements for receiving a diploma, yet many of its members fall below that standard in their lives, and a great many could not stand the test of morality as inculcated in the Bible.

This might be considered purely a personal matter which concerned themselves alone, were it not that medical men are members of a profession which is called on to deal with moral questions, the right decision of which requires in the members, not only right practice but correct principles.

It is with much satisfaction, we affirm that the profession has taken the lead in devising, and executing measures, to lessen and restrict disease by removing its causes, when these causes have been physical or resulting from the physical, chemical or vital operations of nature, and an incalculable amount of good has thus been done in preventing disease and prolonging life.

But there are causes of disease which involve moral actions, and the prevention of which requires the correction of immoral habits and practices. Immoral habits and practices are very prolific causes of disease and death, and it is in dealing with these that our profession has shown that defective moral principle, or that low standard of morality which incapacitates it for dealing with these causes of disease. The constant and widespread operation of these causes, and terrible havoc they make of human life and happiness, make their removal the burning questions of the day.

Let us glance at these causes of disease, which involve a direct violation of some law of God, resulting not only in physical disease but also in the corruption of man's higher nature, and at those evil habits which in like manner bring on disease attended with moral degradation.

These causes may be stated thus:—

1st.—The Social Evil, or the unlawful indulgence of the sexual passions.

2nd.—The habitual use of narcotics and stimulants; the chief of which are opium, alcohol and tobacco.

We will first take the Social Evil and inquire into the relations of the medical profession to this prolific source of disease in its moral aspect, and examine what has been done to remove or eradicate it.
The relations of the medical profession to the Social Evil may be considered in three aspects:—

1st.—In private practice.

2nd.—In medical societies and medical literature.

3rd.—Legal enactments designed to regulate and control it.

In all these aspects the Social Evil is regarded simply as a cause of physical disease, and whether the object be to cure the patient or to limit the spread of the contagion, the manner in which the moral nature of the individual is affected, or the condition of morality in the community, are passed by as matters of secondary importance, or as not coming within the sphere of the physician’s duty.

There is no disease which has attracted so much attention as Syphilis. The ablest men have devoted their lives to the study of its nature, phenomena and treatment. Learned societies have discussed the poison, its mode of propagation, and the lesions it produces. Exhaustive treatises with splendid illustrations have been published, and no amount of labor or expense has been spared to place in the hands of the practising physician all he needs to know about the symptoms, course, and cure of the disease. Yet in all that has been said, and written, we find nothing, or almost nothing about the corruption of the moral nature necessarily associated with the disease. Although the cause of the disease, and the way in which the contagion is propagated from person to person is perfectly understood, there is no word from the profession indicating a purpose to remove the cause and thus stamp out the disease.

Nevertheless, physicians, and philanthropists in all civilized countries, are convinced of the necessity of adopting measures which will limit the terrible consequences resulting from the Social Evil, and we call attention to the laws which have been enacted for the purpose, of showing how earnest has been the desire to limit it, and how the moral bearings of the Social Evil, have been entirely ignored by the advocates of these laws, and by the states which have put them into execution.

From the early part of the present century a system of control and regulation, has been in operation on the continent of Europe, under which women are licensed by the state, and subjected to medical inspection, with a view of restraining those who are diseased, from spreading the contagion. Such as are pronounced free from disease by medical inspectors, follow their business under the sanction and protection of law. A single fact will indicate the extent of this legalized system of prostitution. In the city of Vienna about 50,000 women are licensed to ply their vocation.

In the years 1864-66 and 69 this system of state regulation of prostitution, was in a modified form adopted by the British Parliament, and the laws were known as the “Contagious Diseases Acts.” These laws were designed, as were
those on the Continent, to limit the spread of contagion by putting in confinement, and under medical treatment, the women who were diseased, while medical certificates, issued in accordance with law, gave permission to those who were pronounced free from disease to follow their business, thus giving the sanction of the state to the violation of God's law, and promising men security from the penalties of that violation.

The responsibility for the introduction of this state "regulation of vice" into the British Empire rested in a measure with the medical profession. Without its support, such measures could not have been adopted by the law-making power of a Protestant Christian nation.

In the subsequent agitation against these obnoxious Acts, which compelled Parliament in 1886 to repeal them, many members of the medical profession took an active and honorable part, but the fact remains, that a majority of the leading men in the profession, were favorable to the continuance of this state regulation of vice, or indifferent to the questions of public and individual morality involved in it.

The views of medical men who supported these Contagious Diseases Acts, and favored their continuance is indicated by the following extracts from the proceedings of the British Medical Association at a meeting held in Dublin, in August 1887—the year after the repeal of the C. D. Acts. We quote from the British Medical Journal. "M. J. Molony, L.R.C.P.Ed., Medical Officer of Health for Arklow, says:—The Contagious Diseases Acts having been repealed, the question again arose how far the zeal of well-meaning but misguided persons was to be allowed to run riot, and to what extent, if at all, the influence of their (the Medical) profession was to be exercised against it. The Contagious Diseases Acts lessened enormously the amount of venereal diseases among our soldiers and sailors. Since the repeal of the Acts, syphilis had largely increased, and the efficiency of the army and navy had been thereby considerably impaired.

* * * The Lock hospitals under the Acts provided ample accommodation for prostitutes in the several districts. The results were most gratifying. Venereal disease rapidly decreased within those areas, and many hundreds of virtuous wives and innocent children were saved from 'oul and loathsome disease. * * * The Acts had been favorably reported on by Select Committees and by Royal Commissions, by medical officers of both services, by general practitioners, by clergymen, by Boards of Guardians, and other representative men and public bodies of the districts in which they were in force. Their re-establishment was, he hoped, a question merely of time. Meanwhile it was the duty of governing bodies of general hospitals to throw open their doors for the reception of venereal cases, and it was their duty to advocate by every means in their power, the re-enactment and extension of these valuable and equitable measures."—See British Med. Journal, p. 411. August 20th, 1887.
"After a prolonged inquiry by a Select Committee of the House of Commons all that the supporters of the C. D. Acts on that Committee dare to claim was the alleged saving to the army of 5.38 men per 1,000 daily on parade, instead of in hospital, or a total of 269 men on parade in 50,000 troops, this saving (!) being effected at the cost of £110 per an. per man. The alleged saving of life in the army by the C. D. Acts was 3 1/2 men in 50,000, costing between eight and nine thousand pounds per life!"—(Speech of Dr. Cameron, M.P.)*

In some of the British Colonies protests were made against the repeal of these Acts. We quote from a memorial of the physicians of Singapore, who say:—"We the undersigned, medical practitioners engaged in practice among the civil population resident within the municipal limits of Singapore, desire to testify from our personal knowledge to the great and increasing injury to the public health of this community that has been inflicted by the abolition of the "Contagious Diseases Ordinance" and the consequent withdrawal of all checks to the spread of venereal diseases."

We quote the above extracts, as an index of the sentiments of the majority of the medical profession in Europe and America, and to show that physical disease is the main point considered, while no notice is taken of the moral corruption, and degradation, inseparably connected with propagation of these contagious diseases. The opinion seems to be, that if the state with the assistance of the medical profession can restrict the spread of disease, then let prostitution have the support of the state and the countenance of the profession. In public discussions of Medical Societies, in Medical literature, in the lecture-room and in private practice, there is abundant evidence that the general tone of feeling in the profession is far from what it should be.

*The opponents of the C. D. Acts, however, claim that the data upon which the computation of the above alleged saving of 5.38 per 1,000 of efficiency was based were incomplete, and the conclusion therefore inaccurate. By the insertion of the omitted data the result is, instead of a daily saving of 5.38 per 1,000, a daily loss of 1.47 per 1,000."—(Vide memorial to the Government and members of both Houses of Parliament.)

The Government Statistics regarding the army in India condemn the C. D. system with great emphasis. They show that the number of soldiers in India diseased through immorality were—

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*Mr. Alfred S. Dyer.*
In dealing with an evil of such vast proportions, it becomes scientific men to regard it in all its bearings, and therefore to treat the social evil merely as a cause of physical disease, fails to meet the indications, and any measures which do not deal with it in its moral aspects, must be unscientific, inadequate, and temporizing, and consequently must fail to limit the spread of the physical disease.

We hold therefore that the physician, in order to fulfil his entire duty in this all-important matter, must be a man of high moral principle, guiding his conduct not only in private life, but in his public duties to his patients and to the community by a supreme regard for the law of God, and all his influence must be directed to induce men to conform to that law, which requires purity of heart and of life, as a condition for securing exemption from physical disease, and moral degradation.

It devolves, therefore on the Medical profession to instruct the public, and especially the young, as to the dangers and sufferings which attend the violation of the law of their being, as embodied in the seventh Commandment.

It devolves upon it also to instruct the public as to the loss inflicted on the state, by so many men and women, weakened and broken down by contagious disease, becoming a charge on the state or on benevolent institutions.

It devolves on teachers of Medicine to instil into the minds of their students, an abhorrence of the evil habits of those who have contracted disease by immoral and impure conduct; and to instruct them that it will ever be their solemn duty, to warn all those who come under their influence against the violation of moral law because the instincts of their nature, of which God himself is the Author, are restrained by His most holy law. A generation of physicians trained thus by conscientious and faithful teachers, would elevate our profession to a much higher standard of morality than now exists.

We now turn our attention to the use of Alcoholic liquors as a cause of disease involving moral deterioration. We will not delay to compute the tens of thousands, who year by year, go down to drunkards' graves, or who under the influence of liquor, contract disease or are exposed to accidents which prove fatal. Nor will we repeat the oft-told story of the millions of money wasted by individuals, by communities, and by states, in the thousand ways in which the drink curse calls for the expenditure of money, of labor, and of time. Nor do we need to enumerate the woes which the demon brings into hearts of wives and children, casting a pall over the home, and filling it with misery, and sorrow, when peace and happiness should reign supreme. Nor need we stop to estimate the crime, pauperism and insanity with which it fills our prisons, poor houses and asylums.

To discuss fully the relations of the medical profession to intemperance, would lead us beyond the bounds to which we are restricted. We will only state in a general way what all admit—that many medical men are themselves addicted to the use of spirituous liquors, and not a few to excess.
That only a minority of the profession, are known as constant and positive opponents of the use of spirits, because of the moral evils resulting therefrom. Even as a cause of physical disease, it has not commanded the attention of the profession to such an extent as to lead to the adoption of measures, intended for its correction and removal, and very little attention is given in medical societies, and medical literature, to the moral evils which it inflicts on the human family.

We maintain that the obligations of the medical profession to patients, and to the public, cannot be fully discharged if intemperance is not dealt with in all its bearings. To regard it merely as a cause of physical disease, and overlook or disregard its effects on man's moral and spiritual nature, is to leave out of view the class of results which are infinitely the most important. When the profession rises to the conception, and appreciation of the importance of preventing the moral results, then will it see the necessity of adopting such measures as will absolutely put an end to the physical results. The man who has an adequate conception of the value of a human being, regarded in his physical, moral, intellectual and spiritual capacities and possibilities, must feel the responsibility of surrounding that being, with all the facilities needed to develop his capacities to the highest degree, and of warding off all the influences which would in any degree cause deterioration of any of his faculties. The medical profession in the discharge of its highest duties, must not fall short of dealing thus with the terrible evil of which we are speaking. Let each member of the profession, by example and precept, practice and teach total abstinence, and use all his influence in favor of such legal measures as will prevent the supply of liquor for drinking purposes to the young, and to those who have acquired a morbid appetite by long indulgence. Temporizing and half-way measures will not do, where the health, the lives, the happiness, the usefulness, and the purity of so many millions of human beings are at stake.

Would we not eradicate or stamp out the poisons of small-pox, and of cholera, and of typhoid fever, if we could trace them to their source and isolate them? Would we not punish any, who would even through carelessness, disseminate them? But here is a poison more terrible than those which give rise to occasional epidemics. It is constantly active, and its victims are numbered by tens of thousands. It is visible, tangible, within our reach, and absolutely under control. The state controls its manufacture, and receives fees into its treasury, from those who buy the privilege of dispensing it to its victims.

Small-pox, cholera and typhoid fever are confined in their ravages to the body. No corruption of the victim's morals is associated with these diseases, even though the population be decimated by them. But alcohol not only destroys the body, but corrupts the mind and soul, so that the victims are rendered unfit for the places they should have filled in the family and in society.
If within the whole range of medical science, there is a cause of disease which calls for active effort on the part of physicians more than any other, this is the one. If there can be any means which will put a stop to the ravages of this poison, they should be sought for with all the zeal, which would be called forth in saving men, and women, from fire or from flood. If it is possible for society, or for the state, to adopt any measures which would save the tens of thousands of human lives that are sacrificed to this poison, there is no excuse for an hour's delay. It goes about by day and by night defying everything that is sacred in character, in the family, in Christianity and in law, that its greed of dollars and of hearts and of lives may be satiated.

There is only one method of dealing with this poison. It must be stamped out. All the power there is in Christianity, in morality and in law must be brought to bear upon it, until it is under complete control, as the tiger is when he is in an iron cage.

Assuredly here is a work for the medical profession, and in this holy warfare it should take the lead, and sound no truce until this enemy of mankind has been exterminated, or loaded with chains and fetters that would secure the people from further harm.

The Battle is upon us, it is raging in Europe and America. The Women of Christian England, and Christian America, have sent their recruiting agents around the world, and we cannot escape the conflict if we would. For this mighty warfare with the powers of darkness, we call upon our professional brethren to equip themselves. We ask each member of the profession, to cultivate in his own person the moral characteristics and principles which alone, can fit him to rise to the sublimity of the occasion, and fit him to do well his part in the mighty struggle.

It remains to speak briefly of opium and tobacco as causes of disease associated with moral deterioration. No one will deny that abstinence from the use of these narcotics, will promote the physical and moral well-being of men. Could each one of the millions, addicted to their use, be at once delivered from them, what an immense relief of body and mind would it be to them. Health would be improved, money and time would be saved, and the mind relieved from the tyranny of a craving appetite. This would not be true unless these habits are in some way injurious.

In regard to the use of opium, there is no difference of opinion. Its evil effects are so obvious that all can see them. Tobacco is regarded by some as a harmless luxury, and they are not willing to admit, that it is what many pronounce it—a useless, injurious and degrading habit. Modern investigation and clinical observation have shown, that it is a cause of disease, deranging the nervous system, and through it the functions of vital organs.
Many of those who use it will deny that it is a cause of moral deterioration, but no one who accepts God's word as his standard of morality, and his guide for the elevation and purification of his spiritual nature, can investigate the immediate and remote effects of the noxious weed, and not be convinced that the indulgence is injurious and degrading. In common parlance it is a "bad habit." "Vile" is the term often applied to it. The appetite is not natural. At first the whole nervous system revolts, as shown by the deathly sickness and intense prostration which it produces. The habit is a wasteful, sensual gratification forced upon the system, against the involuntary protests of the organism. Hundreds of millions of dollars are consumed in smoke. To produce, manufacture, sell and use such an article, is assuredly not fulfilling the divine law. Such a man, is not living up to the high and noble purposes of his being.

If such is a correct view of the influence of this habit on man's physical and moral nature, there is but one course open to the conscientious and honest physician. As to the Medical Missionary, professedly working for the highest physical, moral and spiritual good of man, he is pledged to use all means which will aid in this result, and certainly no duty is more obvious and binding than to discourage by precept, and example, any habit which is so injurious to health and to morals as the one we are considering.

It will be said that to the clerical profession, belongs the duty of looking after the moral and spiritual well-being of men, and of guarding them against the moral evils of which we are speaking. This is very true, but the obligation to do good rests upon all men, and duties of one class cannot release another class from their obligations. The very fact that in relieving physical disease, physicians are brought into intimate relations with their patients, gives them special opportunities to bring moral influences to bear upon them, if the physician himself is a man of high moral character. Especially is this the case where the disease is one which has associated with it moral deterioration.

In the minister of religion this basis of moral character is a sine qua non. Without it, by common consent he is regarded as disqualified for his office and work. The medical profession, if less sacred than the ministerial, is so in only a small degree. When the physician rises to the conception of his relations to the immortal, as well as to the physical well-being of his patients, and his obligations to leave no measures untried, to ward off from their souls the terrible evils we have been considering, then will the sacredness of his calling be less in no degree, than that of his clerical brother.

The Medical Missionary, as the term implies, devotes his efforts to the cure of moral and spiritual maladies, and the relief of bodily disease is employed as a means to reach more effectually the spiritual nature, where the unspeakably more important disease—sin—is working its ravages, and leading to spiritual death. He is, in common with many of his professional brethren in Europe and America,
a professing Christian, and pledged to a life of moral purity, uprightness and integrity. While seeking the moral and spiritual welfare of the heathen, to whom he is sent, he naturally seeks the correction and removal of the moral evils, which bring so much physical suffering, and death upon the people, and his highest motive in doing this, is that these evils are in direct violation of the laws, which the divine author of our being has established for the regulation, development and well-being of the physical, moral and spiritual natures of His creatures.

Medical missionaries at home and abroad practice and teach the morality of the Bible. Their personal and professional influence, is directed to the inculcation of the same, on all with whom they come in contact, and in the prophylaxis of disease, they must necessarily regard as of supreme importance, those causes which involve moral corruption, as well as physical disorder and degeneration.

It is to this high standard of professional and personal character that we would wish every physician to attain. We desire that as a body, the medical profession should always and everywhere be, on the side of purity and morality on all the questions, which involve the moral well-being of the race. We desire it to wield, the mighty power which it possesses, for the removal of the evils which bring disease, and death in their train, and for the protection of the people from their propagation.

An American divine, in addressing medical students many years ago, used the following language:—"Much has been done by the medical profession in all ages for the amelioration of the evils of the world. Its mission was merciful from the first, but in modern times, its true mission has been better understood and appreciated, and we have noble earnests of the great work it is destined to accomplish, and the high place to be assigned to it in the final struggle for the world's redemption."

After speaking of the great benefits conferred upon all classes of the suffering by hospitals, asylums and retreats, and glancing at the results of medical missionary work (at that time very much less than now) among heathen nations, the same divine continues:—"Medical men are turning their attention more and more to the grand movements of our age, and God will put still higher honor on that profession, which has already done so much, and is yet to share so largely in all remedial efforts for man. The future travails with great things; science is to win new triumphs; new forces are to be applied; new remedies are to be discovered; nature is to be more severely challenged; all undiscovered secrets are to be yielded, and the domain of human knowledge extended; and before scientific research, darkness itself is to flee away. I rejoice in all. I cheer the toilers in these fields and urge alway to deeper and more thorough investigation, but I rejoice the more in that thorough, and scriptural, and noble work, which medical science is yet to do in this world for Christ. It is this which makes it
the sacred inheritance of the Church; this that clothes it with such dignity, and gives it so high a place in the affections of all thoughtful Christian men; and this that will give to it its final glory and highest eternal reward.” — *Sacredness of the Medical Profession*, by Rev. E. R. Beadle, Philadelphia, 1865, p. xxiii.

The past history of our world is dark and bloody, but a new era has dawned upon us. The Bible, the source of all truth, is becoming the light of the world. Education, long restricted to the few, is becoming universal. Religion, extending its benign influences to all countries and all classes, proclaims peace and goodwill to men. The law of love is the power which is removing the antagonisms between nations, classes, and individuals, and brings all into one brotherhood and one kingdom whose supreme head is the Saviour of the World.

Shall our profession do its part in this great work of renovating the world? Our Association, and this meeting here to-day, answer this question. We represent a movement which had its origin fifty years ago, and which in recent years has been progressing with ever-increasing volume and force. Medical missionary societies are multiplying at home, and the numbers of medical men, consecrated to the service of the Gospel, are increasing year by year. A few years ago we could not have held such a meeting as this.

The future is full of hope, and we look forward with confident expectation to the time, when the medical profession shall be imbued with the Spirit of the Master, and when its great societies and schools, shall be permeated with the Spirit of Christianity, and when the moral and spiritual elevation of man, shall be regarded as objects worthy of its highest efforts, no less than the prevention and cure of physical disease. By the blessing of God, the position and work of medical missionaries at home and abroad, are aiding in the accomplishment of this much-to-be-desired result.

Let us, therefore, be faithful in the discharge of our duties as Christian physicians, ministering both to the spiritual and bodily needs of our patients; and ever pray earnestly, that our profession in all lands may, by the grace of God, appreciate the responsibilities attached to its relations to men, and become more and more a power in the spiritual as well as physical regeneration of our fallen race.
PAPER.

2.—By The Rev. A. W. DOUTHWAITE, M.D., F.R.G.S.

The Use of Native Drugs by Medical Missionaries.

Now that China is rapidly opening to the gospel, and the churches are beginning to realize the value of medical work as an evangelizing agency, we may expect that ere long hospitals and dispensaries will be established in all the principal mission centres. Already there are medical missionaries residing in such remote parts of the country as Kwe-yang, the capital of Kwe-chao, Chen-tu and Chung-king in Sz-chwen, Han-chung in Shen-si, Tai-yuen and Kwe-hwa in Shan-si, and the demand for medical missionaries increases with the spread of general missionary operations.

One great hindrance to the establishment of medical missions in the interior is the difficulty—sometimes amounting to impossibility—of transit of the necessary drugs and appliances to those stations far removed from the great waterways, and hence the necessity for finding out, and making use of such native and imported drugs as can be obtained in the country, and considering the possibility of manufacturing out of the crude material at hand, such compounds as we are accustomed to use in the treatment of our patients.

Wherever it is possible to procure foreign drugs, it is decidedly better to do so, for with few exceptions they are cheaper and better than those obtainable from native sources. In England, we are protected by law against adulteration of drugs, but in China we have no such safeguard, and the native medicine-sellers take full advantage of the privilege they enjoy, of adulterating their drugs to the fullest possible extent, and of substituting at will any article for the one ordered.

Moreover, the medical missionary should not be unnecessarily hampered by having to manufacture his own drugs, but should be free to devote all his time to his proper work of healing the sick, and preaching the gospel. But in some cases it will be absolutely necessary to make use almost exclusively of the Chinese materia medica, and whoever may have the honour of commencing work in such important places as the great commercial centres of Kan-suh or Yün-nan, must needs have all his wits about him, and be capable of recognizing and using such substances as can be obtained on the spot.

Many native drugs are too impure or of too uncertain composition to be of much use to the physician, but some of them can be purified, and nearly all the apparatus required for that purpose can be made in China. For instance, Arsenic Trioxide is readily prepared by subliming the crude mineral (Sing shih 信 石), and condensing the fumes on the inside of a basin, kept cool by
means of ice, or a cloth wrung out of cold water. For the manufacture of Native Sulphur, all that is required is an iron pan in which to burn the native sulphur, a tube to convey the fumes to a large wooden box, on the sides of which the flowery crystals will be deposited.

Camphor may be purified by means of the same apparatus, but of course, it should be slowly evaporated, not burned. An arrangement similar to this may be used for freeing native Calomel (Ch'ing fen 軽粉) from the earthy substances with which it is usually adulterated, but a bottle, or a tin box, would be a more suitable condenser than the wooden box used for coarser substances. Soluble crystals, such as Perchloride of Mercury (Peh chiüan tan 白降丹) or Sulphate of Iron (Ts'ing fan 青黴) can be obtained pure by solution, filtration and re-crystallization.

Good rectified Spirits of Wine, sp. gr. 838, may be made from native whiskey, by mixing with half its weight of freshly-burned lime, and distilling at a low temperature. The stills used by the Chinese are very simple contrivances, but I have found them in every respect as useful as the more expensive foreign apparatus for distilling large quantities of spirits or other fluids.

When I was asked to write on this subject, I purposed giving the results of my own researches and experience during the first six years of my missionary life, when I was compelled by circumstances to depend chiefly on the native market for supplies, but it is now ten years since I was under that necessity, and consequently, I am somewhat out of touch with the subject.

Now, therefore, instead of drawing further from my own notes on past experiments I will quote freely from letters which I have recently received from Dr. Wilson of Han-chung, in the province of Shen-si, where for several years he has, in addition to his medical work, carried on a series of investigations, with a view, to discovering how far it is possible to render himself independent of foreign drugs.

Dr. Wilson has succeeded in manufacturing Nordhausen Sulphuric Acid, by distilling the native persulphate of iron, and, of course, once having Sulphuric Acid, it is easy to make Nitric and Hydrochloric Acids, and many other chemicals, as the following experiment will show.

**Compound Syrup of the Phosphates, or "Chemical Food."** The ingredients of this useful medicine are the Phosphates of Iron, Lime and Soda, Phosphoric Acid, Syrup and colouring matter, and to produce these from native materials, Dr. Wilson proceeds as follows. I quote his words in extenso:

"1.—Phosphate of Iron.—They have not, and to produce it you require Sulphate of Iron, Phosphate of Soda and Acetate of Soda.

The first they have, the latter two they have not, so to produce Phosphate of Soda you require Phosphate of Lime, Carbonate of Soda and Sulphuric
Acid. The first two they have, and the Sulphuric Acid can be obtained by the Nordhausen process of distilling from Persulphate of Iron, which they have.

To recapitulate, you start with native Sulphate of Iron, and manufacture Sulphuric Acid; from this, and calcined bones, you obtain Superphosphate of Lime; from this and Carbonate of Soda you obtain Phosphate of Soda, and from this, and Sulphate of Iron, you obtain your first ingredient, Phosphate of Iron.

2.—Phosphate of Lime.—This you have in the calcined bone dust, or you obtain it as a bye-product as Subphosphate of Lime, when acting on the solution of Superphosphate of Lime with Carbonate of Soda, in the production of—

3.—Phosphate of Soda, so that by one process you obtain two of your ingredients—Phosphates of Lime and Soda.

4.—Phosphoric Acid.—The chief value of this is that it renders the phosphates of Iron and Lime soluble, in addition to its value as a compound of Phosphorus. These two ends are likewise obtained, if you substitute for Phosphoric Acid a Solution of Superphosphate of Lime, and this is easily obtained by acting on calcined bones with Sulphuric Acid.

The final result is, that from purely native materials, and all of the cheapest description, you may manufacture a valuable medicine, the proximal ingredients of which, are such that not one of them is known to the Chinese chemists.

A glance at the subjoined diagram makes this clear—

The essential elements in the above formula are (1) Bones, (2) Sulphate of Iron, (3) Carbonate of Soda, (4) Vinegar.
Dr. Wilson has succeeded in making Spiritus Etheris Nitrosi and Sulphuric Ether from native material, and suggests the following process for the manufacture of Chloroform:

"From native Sulphate of Iron you obtain Sulphuric Acid;
From this and Salt you obtain Hydrochloric Acid;
From this and native Oxide of Manganese you obtain Chlorine;
From this and native Lime you obtain Chloride of Lime, and this distilled with native spirit, gives you Chloroform.

It is not generally known that Black Oxide of Manganese, is obtainable in China, but Dr. Wilson discovered that it is used by the painters in Shen-si in the preparation of drying-oils, just as it is used in the West.

Few drugs are more in request in China than Oxide of Zinc, yet, so far as I am aware, the natives do not possess it. The Peh-yuen-tan (白鉛丹), used by native painters, is an impure Carbonate of Zinc, from which first the metal and finally the Oxide can be obtained by the following process:

First roast the Carbonate, to drive off the water and free Carbon Dioxide contained in it; then mix it with broken Charcoal, place it in a strong earthen retort, and distil at a red heat. The fumes should be conveyed through a pipe into cold water, where the volatilized metal will be condensed, while the Carbon Monoxide will escape. The metal should then be burned in a retort to which the air has free access, and the Oxide condensed in a large wooden box, such as I have recommended for purifying sulphur, etc. A simpler method is to heat the Carbonate to redness, taking care not to volatilize the metal, but of course the resulting Oxide will be mixed with earthy impurities. The simplest plan of all, however, is that adopted by Dr. Wilson, who buys from the native merchants the zinc linings of foreign packing cases, by roasting which, he obtains by one process a pure Oxide. Wherever foreign matches are used—and there are few cities in China where they are not—zinc linings are procurable at a very low price, for the Chinese can make no use of them.

Dr. Wilson has demonstrated the possibility of making Galvanic Batteries, Electric Bells, Electric Telegraph, etc., etc., entirely of native materials, put together by native workmen. As the Chinese have no Acids, of sufficient strength for electrical purposes, he used Caustic Potash, made by boiling together Carbonate of Potash and Caustic Lime—both of which they have—and found it to work well.

One might fill a volume with suggestions and the results of one's experience, but the above is sufficient to show, what may be accomplished by a man of ready resource, when compelled by necessity, "the mother of invention," to manufacture his own tools and seek his supplies in regions far remote from the foreign market.
Dr. Wilson is not an ordinary man, and in Chemistry, he is far ahead of the majority of his brethren, so we must look to him and others of like ability to show us what can be done.

I have made these quotations from Dr. Wilson's letter without his permission, but I hope he will pardon the liberty I have taken, as the information he has given us will be of inestimable value to our Association.

**DISCUSSION.**

The President said that Dr. Wilson is mistaken in saying that the existence of native Black Oxide of Manganese was, until lately, unknown. In the Tai Ping Rebellion, he (the President) being then in private practice in Shanghai, the Chinese Government applied to him for help in preparing percussion caps, the supply of which was running out. After talking the matter over with an old, and very intelligent Chinese druggist in Shanghai, he procured a quantity of Black Oxide of Manganese. He was thus able to supply them, with the ingredients necessary, for the production of their caps, and, as a matter of fact, the Government troops were for the future supplied from purely natives sources. Dr. Hunter asked if the Sulphate of Copper, sold in the shops was a native product or not. Dr. Thompson said it was. Dr. Porter referred to the work being done in Japan by a young man from Cornell University, who was giving his time to the investigation of the question—how far native-grown drugs can be utilised in the preparation of foreign medicine. He suggested that some similar investigation should be undertaken for China, and, with that object in view, proposed the formation of a Pharmaceutical Society, to undertake this special department of work. Dr. Watson spoke of having recently come across an extract of malt of native production, which can be obtained on the street for about 30 big cash per lb. He promised to send a sample to members, and a communication to the Journal on the details of its production. Dr. Macklin subsequently said, that this malt extract was the common candy sold on the streets. The preparation of Sulphate of Soda, Tr. of Nux Vomica and Plaster of Paris from native sources were all touched on. Dr. Porter having referred to the existence of native Liquorice, Rhubarb, etc., asked a question as to whether the ordinary Spanish fly was found in China, and quoted from Dr. Porter Smith's *China Materia Medica* to the effect, that it is not known in China. He (Dr. Porter) had seen it in the North-West of the Province of Chihli, and Dr. Hodge said he had been informed that it was common in Yunnan. Dr. Taylor, referring to an idea common among the natives, that the native preparation of the fly is stronger than the foreign, said the natives explained it by the fact that the heads of the flies were always picked off first. The President then made some remarks on a new, and little known, styptic,
viz., a fern called the Pangar Djambi, or Golden Lion Hair 鬱毛狮子. The stalk of this fern is covered with a soft down of fine hair of golden colour. It is important to get a good specimen—one bright, shiny, clear and clean. A plug of this placed in any cavity, will almost always stop oozing and hemorrhage, short of arterial bleeding, which can be arrested by ligature. The peculiarity of this styptic is that it forms a hard coagulum on the surface of the down; the action is entirely on the surface; if the down be cut open the centre of it will be found dry and clean; it has this advantage over ordinary styptic plugs, that it seems not to favour decomposing clots, as is ordinarily the case. English and American journals contain no reference to this subject, but the French and German ones have gone into the matter pretty exhaustively, especially in Oscar Leibrich's Therapeutische Monatshifte, in an article by Noltenius. It is known, and used, by some of the Chinese. Further, one stripping of the stem does not exhaust the plant; that if the stem is sprayed with ordinary sanshin and hung up in a damp place it will, in a little while, develop a fresh crop of down, and that this process can be repeated several times.

**PAPER.**

3.—By W. H. Park, M.D.

*Preaching to Dispensary Patients.*

The object of the many mission hospitals and dispensaries in China, is the spread of the Gospel among this people. This object should never be lost sight of for a moment.

Hospitals and dispensaries, aid in this work in one way, by showing the people the practical side of Christianity, in another way by softening the hearts of the people towards foreigners, thus rendering them more tolerant of the missionary and of the Gospel he has come to proclaim. If no further good were done, these in themselves would be incentives enough for the establishment and maintenance of mission hospitals; but further good can be and is done.

The hospitals and dispensaries, in addition to preparing the way, can be made highly successful evangelical agencies. Great numbers are brought together in the wards of the hospitals, and in the dispensary chapels, under circumstances most favorable for the direct dissemination of Gospel truths. The importance of this evangelical side of medical missions is known and recognized by all. Take up any mission hospital report and see what stress is laid upon it.

Preaching to the dispensary patients, can never rank as an evangelizing agency, with the effort made in this direction among the in-patients, but at the same time it has its importance and must not be neglected. If patients simply...
come to the dispensaries, get their medicines and go away without hearing anything of the Gospel message, even though they should be cured of frightful maladies, as they often are, they still will not have gained the full measure of benefit, it is in the province of a Christian benevolent institution to bestow. To make it complete they should receive healing for the soul, as well as for the body, or at least hear that such healing can be obtained.

In point of numbers, the dispensary or out-patients go far beyond any other class of patients, reached by the missionary physician. All mission hospitals have their dispensaries, and in some places there are dispensaries without hospitals. Scarcely any dispensary has less than two or three thousand patients a year. Many report four, six and eight thousand, while some go as high as ten, fifteen or even twenty thousand.

At the least estimate over one hundred thousand different individuals, are reached by the dispensaries in China every year, and the number is constantly increasing.

If we count daily sittings in the dispensary chapels, including all, return as well as first-visit patients and their friends, the number will reach into the neighbourhood of two hundred thousand.

The good order maintained in the dispensary chapels, adds to the favorable opportunity they offer for preaching the Gospel. Self-interest, if nothing more, leads the patients to keep quiet and give a respectful hearing to the preacher.

In our dispensary chapel in Soochow, we find if a patient becomes restless, noisy or disrespectful during preaching, he is at once reprimanded by the others and told to be quiet. I have often noted the inspiration the good order seems to afford the preacher. The preaching to our dispensary patients has been mostly done by our chaplain, and often with his face all aglow he tells of the happiness he feels in his heart, and of the good it does him to preach to such an attentive congregation.

Another consideration worth mentioning is the character of the dispensary patients,—principally the poor, and always the sick and the afflicted, just the people who stand most in need of the consolation of the Gospel. When John, from prison, sent two of his disciples to Jesus, to ask, “Art thou he that should come, or do we look for another?” Jesus answered and said unto them, “Go and shew John again those things which we do hear and see: The blind receive their sight, and the lame walk, the lepers are cleansed, and the deaf hear, the dead are raised up, and the poor have the Gospel preached to them.”

What if the results are not such as we would like? Need we hesitate when we have such words as these from our Master Himself? What were the results in Christ's day? How many of the multitudes who listened to the wonderful words that fell from His lips, believed and were saved? We cannot heal, as He healed, nor preach as He preached, but He has told us after all that those
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who believe in Him shall do greater works than He did, referring, as I believe, to the souls that are to be saved through the efforts of those who believe on Him. I cannot believe, although the visible results thus far have been so meager, that all the seed sown in the dispensary chapels throughout China, are snatched away by the wicked one, or fall among thorns or upon stony ground. Let us pray daily that many of them may fall into good ground and bring forth fruit some thirty, some sixty and some an hundred fold.

We come next to the question as to who shall do the preaching to the dispensary patients. If the doctor has the talent and the time for it, it is better that he do it. He is familiar with the vocabulary of diseases and description of diseases, and by the use of these words can appeal most forcibly to the sympathies of sick people. He also commands the respect of the patients, and in the case of return patients who have been benefitted, the gratitude as well.

But so far as the talent for it is concerned, it is a question that every one after prayerful consideration must decide for himself. We are not all preachers. "Now ye are the body of Christ and members in particular. And God hath set some in the church, first apostles, secondarily prophets, thirdly teachers, after that miracles, then gifts of healing, helps, governments, diversities of tongues." If the doctor is not a teacher he can desire earnestly and strive for the gift of healing and still be coveting one of the "best gifts."

As to the question of time, no one should undertake preaching to the dispensary patients unless he has the time for it. Not the time for the delivery of the sermon alone, but the time to prepare for it as well. The doctor may be able to make the time for the preparation, for it is said no matter how busy we may be we can always find time to do whatever we have set our hearts upon and determined to do, but can he command the time for the preaching of the sermon? Preaching to the dispensary patients must be done at a certain hour—the hour just before the clinic, sooner than that is too early for the congregation, and after the clinic begins is too late. If an urgent call comes just at that hour, being a physician his first duty is to his patient. Now preaching should never be a matter of secondary importance, and yet in the case just supposed it must be so, the preaching must give way and the doctor see his patient. This may not occur very often, and yet, on the other hand, it may happen so frequently as to seriously cripple the efficiency of the preaching service. It is something that has to be settled in every case by actual experience.

That the preaching must never be a matter of secondary importance is also a serious drawback in having it done by a clerical brother with his hands full of other missionary work. If he has his schools, his itinerant work, his street chapels, his translating, his giving and receiving of pastoral visits, etc., etc., it is impossible for him to give preaching to the dispensary patients, the attention that its importance demands.
My ideal is a hospital chaplain, either native or foreign. A man appointed specially for the work. A man who shall make a specialty of the evangelical work, just as the doctor makes a specialty of the medical work. This need not necessarily be his only calling, but let it be his first and most important one. With him, evangelical work among the dispensary patients, should not begin and end with preaching. He should have time to be on hand before preaching and meet the patients as they come; get on friendly terms with them, and find out where they live, with a view to visiting them some time in their own homes. This personal interest and visiting, has proved highly beneficial among the in-patients, why should it not be practised as far as possible among the out-patients as well. He should also have time to remain after preaching, to distribute books and tracts, and to pray with any one who might have become interested. Let him be such an one as is described by Dr. Lambeth, in the first report of the Soochow Hospital:—"He should be a middle-aged man, of some weight of character, dignified, but cheerful in disposition, and of gentle manner; have had a large experience of men in all classes of society, be possessed of tact, and with a keen sense of the 'eternal fitness of things' as to what he is to talk about, how long to talk, when and when not. Of course he should be intelligent and above all thoroughly consecrated to his work. We do not mean to set up a modern Solomon or an apostle Paul as a sine qua non, but like the former, a Christian worker in a Hospital should know, 'there is a time to speak and a time to keep silent,' and should be with the latter 'all things to all men.' We think the man who is most highly possessed of the above qualities is best qualified for such service, and we would emphasize the position and its duties, as of vital importance to the success of evangelistic effort, in behalf of the inmates of our Hospital Wards, and patients in our Dispensary Chapels."

DISCUSSION.

Dr. Roberts of Tientsin, urged that every medical missionary should open the day's work with a few words of exhortation and prayer. He had found universally a spirit of reverence on the part of the patients, and had never met with any objection or difficulty. It was only rational that the Medical Missionary should commence his work by invoking the aid of the God he believed in. Dr. Douthwaite found it of great advantage to have one or more lady missionaries present in the waiting-hall, who get acquainted with the women and follow them to their own homes. Dr. Woodhull impressed upon her students the necessity of individual influence. One of her students is set apart to talk to her patients, but she found it difficult herself to say anything, as they were so anxious, to at once tell all about their diseases. This was confirmed by Mrs. Dr. Watson, but she pointed out that women were very grateful for
Medical Education for the Chinese.

Sympathy, and through this open door a way might often be found for the Gospel. Dr. Mary Fulton questions the patients in her consulting-room, upon what they have heard in the waiting-hall, and if any seem to have been particularly impressed, talks and prays with them. Drs. Lyall & Hodge asked how far it was wise to compel patients to hear the Gospel. The latter said he very much objected to any such idea as so much gospel before any medicine is given. Our work stands on a basis of pure philanthropy, and when the Chinaman begins to find out, that we are doing our work chiefly from proselytising motives, and not from a pure desire to do them good, they will not be so anxious to come. Without reflecting on any of his brethren who felt able to do so much, he could only say he had not found it possible to see such a large number of patients daily as some seemed to, and at the same time attend to them properly. He concentrated his religious efforts upon his in-patients, and hoped to do so still more efficiently. Dr. Porter deprecated so much preaching, thought we preached too much; preferred several helpers to enter into conversation with the patients and draw them out in question and answer. This kind of work went on during the whole time that he dispensed. Dr. Watson thought people of good position should not be expected to sit down in the ordinary chapel, but should be received in a guest-room. He evangelises the out-patients chiefly conversationally, fits his waiting-room up as a guest-room, so as to take away the chapel feeling.

On the motion of Dr. Kerr, seconded by Dr. Jellison, it was decided to continue the discussion as first order of the day to-morrow.

The Rev. Professor Thwing pronounced the benediction.

(Monday Afternoon, May 19th, 3 o'clock.)

The President, H. W. Boone, M.D., in the Chair.

Secretary, The Rev. S. R. Hodge, M.R.C.S., L.R.C.P. (Lon.)

The Rev. W. R. Lambuth of Japan offered prayer.

The President, vacating the chair to Dr. Kerr, then delivered the address.

PRESIDENT'S ADDRESS.

By Doctor H. W. Boone.

Medical Education for the Chinese.

In the year 1834, the Rev. Peter Parker, M.D., of the American Board of Missions, arrived at Canton, as the first regularly-appointed missionary
to the Chinese. The great work accomplished by Dr. Parker is matter of history—known to all the world. In 1839, BENJ. HOBSON, M.R.C.S., of the London Missionary Society, arrived at Macao. As the first medical book-maker for China, he was the author of a series of medical text-books which became very popular, and have been sold extensively over China and Japan. Shanghai foreign merchant—subscribed $2,000 to aid their publication, and the Canton Viceroy republished the first of the series soon after it was brought out. In 1854, Dr. John G. Kerr, of the American Presbyterian Mission, arrived at Canton. For over 30 years he has been busily engaged, more than 500,000 out-patients have passed under his care, more than 21,000 in-patients. He has performed the operations of Lithotomy and Lithotrity, many hundred times. More than 27 volumes in the form of Chinese medical text-books have been issued by Dr. Kerr. Dr. Dudgeon, of the London Mission, Dr. Osgood, and others have laboured in this work of giving the Chinese a reliable medical literature.

The Medical Missionary Association of China, formed in the year 1887, conferred honor on itself by electing Dr. Kerr as its first President.

One hundred and ninety-six medical missionaries have lived among the Chinese and have laboured for them since the year 1834. For more than 50 years, earnest, intelligent men and women, some of them of a high order of ability, have devoted their health and strength and the best years of their lives to this work of giving relief to the sick and suffering among this vast nation, striving, on the one hand, to heal the bodily illnesses of their patients, and, on the other, to lead them to a higher standard of life and action, the life of the Christian servant of God. Now that more than half a century has been spent in faithful labor, it is well to pause and take stock of the work. What has been done in the past? What is the promise for the future? The medical missionary has been the pioneer. Many a time it was his work alone which would be tolerated by a hostile people. The daily spectacle before their eyes of a man laboring to heal the sick, to relieve suffering, to bring hope and happiness into the family where the fell destroyer was claiming his prey. Doing all this with no object of gain, and proclaiming to all, that he was the representative of a religion which told its disciples to imitate their Divine Master, the man of whom it was said, "He went about doing good." This example has been before the Chinese in many parts of the Empire for more than half a century. They have learned that the Christian religion is the religion of love, that it prompts its followers to desire and to labor for the good of their fellow-men. The medical missionary has paved the way for Christian work among the Chinese. Millions of the Chinese have been cured by his skill. The medical education given to natives has enabled them to aid their fellow-countrymen, and the text-books published in Chinese have helped to give
some light in the treatment of disease. It may be worth our while to try and see what the Chinese know about medicine. They have no proper methods of examining the sick. Auscultation, Percussion, the use of the Thermometer, and all the varied appliances at our command for interrogating the patient are unknown to them. Their drugs are crude, either inert or drastic. They probe the joints and the viscera with needles, cold or red hot, and even run them into the spinal cord. They have no knowledge of obstetrics, no anatomical or surgical knowledge. A fractured bone is left to get well as best it may. A dislocated joint is let alone. Tumors grow until the patient is destroyed, strangulated hernia is unrelieved, patients with stricture die without any attempt being made to help them. Diseases of the eye run riot and end in total blindness. No attempt is made to treat the insane. Saddest of all, the little children suffer and linger and die from preventable or curable disease. Hygiene is unknown. Why prolong the mournful record. Here is a nation of nearly 300 millions that suffer from every ill that flesh is heir to, with no relief and no prospect of relief except that which the medical missionary has to offer. In the past, medical missionaries have striven nobly to heal the sick, to teach the heathen. But what can 50 or 60 men do to relieve nearly 300 millions? The mass is too great to be reached by their individual efforts. Medical missionaries have taught pupils and sent them out to help in the work. A few Chinese youths have gone to foreign lands, obtained a medical education, and returned to practise in their own country. Much has been done. Let us see what has been accomplished. The following is a very imperfect list of the works written, or translated into Chinese.

Natural Philosophy and Chemistry ............ A. P. Martin.
Elements of Chemistry.. Kerr.
Diagnosis .................... "
Anatomy, Gray’s...Osgood & Whitney.
Chinese Materia Medica Smith.
Western Education .... Faber.
Bandaging ............. Kerr.
Skin Diseases............. "
Syphilis ................. "
Eye Diseases............. "
On Inflammatory Diseases.................. "
Principles and Practice of Medicine........... "
Materia Medica........ "

On Fever ............ Kerr.
On Surgery ....... "
Physiology ............. "
Physiological, (coloured cuts and text)........ "
Chemistry, Roscoe’s .... Fryer.
Light (1 vol.) Optics.
(1 vol.)............. "
Manual of Electricity... Allen.
Physics ................. Fryer.
Stellwag on Eye .... "
Physician’s Vade Me-
cum ...................... Suvoong.
Resuscitation of the Apparently Drowned Macgowan.
Wall Chart, Botany ... Fryer.
Wall Chart, Acoustics. Fryer.  
Sound (1 vol.) Light  
(1 vol.).............. "  
Popular Medical Treatise.............. "  
Diseases of China .... Dudgeon.  
Diseases of Infants  
and Children....... E. Smith.  
Handbook for Anat. and  
Physiology Charts... Southwaite.  
Outline of Chemistry ... Johnson.  
Hobson's Medical works,  
(5 volumes).  
Chemistry .............. A. Billequin.  
Chemistry Analysis,  
Fresenius ........ "  
Botany ............... Williamson.  
Human Anatomy, Atlas Dudgeon.  

Chemistry Principles,  
Inorganic .......... Fryer.  
Chemistry, Practical,  
Blowam.............. "  
Chemistry Treatise,  
Blowam............... "  
Handbook of Medicine.  
Materia Medica, Inorganic ............. "  
Materia Medica, Organic............... "  
Spectrum Analysis..... Wylie.  
Natural Philosophy .... Mateer.  
Wall Chart, Anatomy,  
Physiology .......... Fryer.  
Wall Chart, Electricity "  
Chemical Vocabulary... "  
Electricity ..........  

In addition to these, the translation of works on the higher branches of learning, by our clinical brethren, has furnished a good supply of books, all of which are of value to the young medical man.

Most of this work has been done by the Medical Missionaries. In this, as in other fields, the honored name of Fryer stands among the foremost. Though not a medical man, he has translated some of the most valuable works we have for the use of the student of medicine. From this list of works we can obtain a fair set of text-books to put into the hands of our medical pupils. During the greater part of the last half-century, medical instruction has (generally) been confined to what one man working by himself could impart to his small class. Much has been done in this way. Dr. Kerr of Canton, in his long and faithful service has had more than 100 pupils. Number of medical students now under training.—There are nearly 150 Chinese medical pupils now studying medicine under Foreign medical men. All but one or two of these medical men are medical missionaries. All honor to the labors of such men as Manson and Myers. Though not Medical Missionaries their work is of the best kind and will help us in our efforts to raise the standard of medical teaching for the Chinese. My time will not permit me to give an account of all the work and of the workers. Let us glance over the vast field, in Manchuria, in Korea, in Peking, and all through the Empire to Canton in the south, medical missionaries are at work teaching and training medical pupils. The lady doctors have begun the good work of training women doctors and nurses. Of
late the opinion has been gaining ground that one or two well equipped and
well located schools would do better work and turn out better doctors than
are furnished by the present system of individuals, teaching a few pupil
without the equipments needed to give a full education in medicine. The
schools proposed could, each of them, have a fairly good corps of teachers,
they could be better equipped with all the appliances for teaching, and they
could create the college feeling amongst their students, which does so much
for the scholars. The Chinese have the highest possible respect for education;
they have their grand Governmental examinations at which honors are obtained.
The Government have just introduced a list of western studies into the
curriculum of studies for obtaining a degree. They would be quick to recognize
and to appreciate the benefits which good schools of medical learning would
confer upon the students and upon the public. While such medical schools
would supply a want and train a large body of students, there are parts of China
to which they would not reach, at least for the present. What is said here would
not apply to these. Individual efforts would find their proper sphere of labor
in such places and would supply the local need. Their students could take a final
course in the larger schools, if they wished to pursue farther studies. Methods
of Instruction.—Dissection of the human body cannot be carried on in China.
We have to dissect animals and learn by comparative anatomy. We can obtain,
from London, wet specimens which are admirably prepared and will be of great
value to our students. Anatomical plates and models will be of service, and the
proper use of our ample field for surgical operations can help to train the student.
By assisting at surgical operations the student can be taught many points of
surgical anatomy. It has been well said by Dr. Kenn, late President of the
Medical Missionary Association of China, that, "The education of physicians
and surgeons for the people of this great Empire is a subject of the utmost
importance and one which may well engage the attention of the medical profession
of the world." "By our translations and our medical teaching we are extending
to a large portion of the human family the benefits of the labors of all who have
and who still are advancing medical science and practice." To this I may add,
that when this mighty nation takes her proper place in the medical world, the
researches of her medical men will go far to repay all the care bestowed on her
by the medical profession. The rich and unexplored field of diseases in China
will amply reward the labor of those who examine it fully. As an humble
representative of modern medicine in China, I hope that the hand of fellowship
will be extended by the whole medical profession throughout the world to the
workers in China, who are labouring to advance the cause of medicine in that
great Empire. The International Medical Congresses which hold their meetings
every few years are the proof of the common feeling which binds us all into one
great band of workers for the common good. We have been working in China
for more than half a century, our numbers and our influence for good are steadily increasing. By our late action in uniting to form a Medical Society for all China, with branches in the various provinces, the publication of a Medical Journal, and the free discussion of our methods of labor, we are on the right road to make our future work better and better. We would ask the Medical Profession throughout the world to help us; to encourage Christian young men of exceptional ability to go out and work as teachers and practitioners in the mission field, for life if they will, for 10 years if they do not see their way to devoting a lifetime. New fields for usefulness, and for observation would repay them for the time spent away from home. We would ask our friends at home to take a personal interest in our work and to keep themselves informed about it; to get some of their wealthy and influential friends and patients to help us by grants of money. We need medical schools, better equipped in men and money and appliances for work. We would ask every medical author to give us one or two copies of the latest editions of his works, for our libraries of reference. Other doctors could give us donations from their libraries or bequeath them to us, when they shall no longer have need of them. The medical schools can help us by donations of Charts, Diagrams, and teaching apparatus. We should like to have apparatus for laboratory work, surgical instruments and appliances. The Medical Colleges might perhaps spare us some of these things without detriment to their own work. All such donations should be sent to the several missionary societies at home. The officers of our Association in China would see that these gifts were fairly and suitably apportioned between the various schools so as to best aid us in our work. There is only one thing that has given me the courage to claim this help, it is the knowledge which I have (as one of the fraternity) that the profession has only to know of such urgent need to respond to it generously. The innate nobleness of our profession gives me that faith. Every decade sees our advance in the paths of learning, and bears witness of our ever increasing usefulness to our fellow-men. The medical profession is slowly but surely gaining ground, increasing in weight, power and in the esteem of all that is best and noblest of mankind.

We are subject to all the trials and temptations that beset our fellow-men, yet, every true follower of medicine carries deep down in his heart the noble aspiration to "do good unto others." My brethren, it is because we are followers of the golden rule that our future is a bright one. The man, the profession, that always and at all times seeks for the common good of mankind can never fail. We may, we must, have our share of trial and of sorrow, but unto every true man amongst us it shall be said, "Well done thou good and faithful servant, enter thou into the joy of thy Lord."

It was decided to postpone discussion upon the topic until after the reading of papers on Subject No. 3.
Chinese Materia Medica: Its Value to Medical Missionaries.

The magnitudes and contrarieties of the “Flowy Kingdom” are the subject of frequent remark. In its Materia Medica we find further illustration of this. The well-known treatise on Materia Medica, the P'UEN TSO KONG MUK (本草綱目), the standard authority in China and a work unique in the world of medical letters for its wide range, the large number of its contributors and a minimum of truth in a maximum of error, is a “Synopsis of Ancient Herbals” mainly, as 1,096 of the whole number of officinal species of drugs are referred to the vegetable kingdom, making it the best botanical work as well as pharmacopoeia, in China. It was published about 1597 by Li Shi-chan (李時珍), a district magistrate, born at K’IChau on the Yangtze in Hupeh Province, who is said to have spent between thirty and forty years on it, after which it was published in some 40 volumes.

He combined the thirty-nine previous publications on Materia Medica, containing the observations of some 800 authors, beginning with the “Classical Herbal,” the first treatise on medicinal plants, by the mythical Emperor Shan-nung (2700 B.C.), the father of ancient Medicine, who, taking the one from things he was best acquainted with, divided medicines into sovereign (=heaven), ministering servants (or man) and assistants (or earth). The number of these three kinds united make 365, corresponding to the degrees of the zodiac, one degree answering to one day and so completing a year.

Shan-nung, this imperial originator of medical art, it is said, also united with others and established a National Academy in which botany and other branches were taught.*

Li Shi-chan rearranged the 1,518 various drugs recommended by these writers, adding 374 new remedies of his own suggestion. Thus we have some 1,900 substances used in medicine, with 1,100 woodcuts of minerals, plants and animals, and name or synonym attached to each. The third, fourth and fifth volumes are made up of “A Sure Guide, containing Ten Thousand Recipes,” by which all the prescriptions which are scattered through the P’UEN TSO may be easily referred to. Arranged in their due order under the several classes of diseases, of which several thousands are specified, there are about fifteen or sixteen thousand recipes. The work contains 52 chapters; the 1st and 2nd, Introductory Observations on the Practice of Medicine, and Index of Receipts;

C. Repos., II, 225.
3rd and 4th, Lists of Medicines for the Cure of all Diseases; 5th-11th, Inorganic Substances; 12th-37th, Plants; 39th-52nd, Zoology; the last section, Man or Parts of the human body, and human secretions and excretions employed in medicines.

Presented by the son of the author to the Ming Emperor Wan-lib, on his father's death, and first published about 1597, there have been four principal editions or reprints of the work since the original edition. The first Manchu Emperor was a great patron of the work, and the last regular reprint was brought out in 1826.

As to what is Materia Medica then, we are told, "whatsoever things are produced in the world,—birds, beasts, creeping things, and fishes, which are generated, and have blood and breath; likewise flowers and trees, which are generated, but are without blood and breath; and also inanimate objects, such as rocks and hard iron,—all these can be used as healing medicines." We have referred to the imperial division of the Materia Medica; so we are told the nature of medicines require that some be used as pills, others as powders, some boiled in water, others steeped in wine, and others fried in fat; and there may also be materials that require a combination of these modes. Some are to be used alone, others must be used together, some employed as agents, some stand in awe of each other, among some there is mutual repulsion, others are opposites, and some neutralize each other. Whenever medicines with these seven natures are to be mixed together for use, employ those which associate and assist each other, as you must not employ those which repel and are opposites one to the other.

Medicines are of five tastes, of four smells, and have properties of heat and cold. They operate in three ways, by causing perspiration, vomiting and purging. There is an element of Homeopathy here, but not in the heroic dosage; we read of a sure cure guaranteed under 200 pills a day for two months, or three pounds of medicine daily for several weeks. So the complaint against us is not too much, but too little. The large number of apothecary shops reveal the native willingness to be drugged. We find then in China an exhaustless Materia Medica which must prove of great value to us as medical missionaries. Already we have proved its value. A goodly number of these remedies the Chinese place before us with their properties explained, others in very crude form; but as one has remarked, we have before us an undeveloped mine which only needs to be worked to yield us treasures of knowledge.

We give below a brief list of available remedies, and without stopping to further describe them, can do no better service than direct especial attention to the Chinese Materia Medica and Natural History of Dr. F. P. Smith, where they are described along with some 1,260 substances of Chinese Materia Medica. Dr. Smith, a former medical missionary at Hankow, spent some years in the study and examination of native works on Materia Medica, (culling the largest
amount of original matter from the Pan Ts'uo, above described), and in the collection of the best native drugs:—


Dr. Smith omits the human Materia Medica, seemingly unique in Chinese practice, at least in extent, for we note some thirty bodily parts usable, but remarks, the exclusion of all such substances from this work must not be understood to convey the idea that they are not in use at the present time by the Chinese, for their republication in the last edition in the reign of T'ang-kwang reaffirms the practice. Our own observation being proof for the part of Homo in the native Materia Medica, we might, negatively, as it were, give some illustration of the "curious, nonsensical and disgusting" substances used; but instead we append a list of references upon this subject of Chinese Materia Medica, though the work of Dr. Smith must remain our vade mecum.

We make progress by using materials already collected and building upon foundations already laid, thus may be found of service the following:—

Bibliography of Chinese Materia Medica.


BRAUN, R. List of Medicines exported from Hankow and other Yangtze Ports. C.I.M. Customs, Shanghai, 1888.


BUCHOUZ. Herbier ou Collection des plantes medicinales de la Chine, with plates. Paris, 1871.


Catalogue of Exhibit at the Paris Universal Exhibition, 1878. Shanghai, 1878.

Semi-Annual Reports of its Medical Officers from October 1870, and especially the Epitome of the Reports of the Medical Officers to the Chinese I. M. Customs from 1871 to 1882, with chapters on the History of Medicine in China; Materia Medica; Epidemics; Famine; Ethnology; and Chronology in relation to Medicine and Public
The China Medical Missionary Journal.

Health. Compiled and arranged by Surgeon-General C. A. Gordon, M.D., C.B. London, 1884, which gives the substance of the information contained in Nos. 1 to 24, systematically arranged.

List of Chinese Medicines. C. I. M. Customs, Shanghai, 1889.

See Customs' Museum at Shanghai and other ports.

CLEYER, AND. Specimen Medicine Sinice, China. Francoforti, 1882.


DEVAN-LOBSCHEID. Household Companion in the Cantonese Dialects.


GRENOBLE. Secret de la Médecine des Chinois, 1671, 12mo.


LEPAGE. Récérences sur la Médecine des Chinois. Paris, 1813, 4to.

MORACHE, G. L'exercice de la Médecine chez les Chinois, Rec. de méd. de méd. mil., 3, ser., XII, 1864.


Pun Ts'o Kong Muk (本草綱目), the celebrated Materia Medica of Li Shi-chan, about 1597.

Remèdes Chinois, Mém. conc., V, p. 492; VIII, p. 271.

Shan-nung Pun Ts'o King (神農本草經), Classical Herbal or Materia Medica of the Emperor Shan-nung, 2700 B.C.

SHEARE, Geo., M.D. Collection of Plants from Kukiang. Journal of Botany, September 1875.


As physician to the Russian Eeel. Mission in Peking from 1840-50 he published a list of Drugs obtained from the Chinese apothecary shops, as also a list of the plants growing around that city in 1850.


WARING, Dr. E. J. Pharmacopoeia of India. A most valuable work for every practitioner in China, and many India drugs are known in or exported to China."—Dr. F. P. Smith. WHITNEY, Dr. W. N. Chinese Materia Medica and Flora of China, List of Treatises on and List of many Medicines in Chinese and Japanese. History of Medical Progress in Japan, in Trans. A. Soc. of Japan Vol. XII.

See also Indo-Chinese Gleaner, Vol. III, Nos. XVII, XVIII (1821); Chinese Repository; Bridgman's Chrestomathy: Notes and Queries, Hongkong: China Rev.; Trans. R. A. Soc.; and Möllendorff's Bibliography, not to mention botanical works of Osbeck, Loureiro, Grosier, Hance and others.

Of the numerous native works it is sufficient to mention the earliest, that of the Emperor Shan-nung, and the famous Pun Tso of Li Shi-chan, in which is a list of 276 medical works quoted, and a list of 440 miscellaneous works from which he made extracts for his Materia Medica.

P A P E R.

6.—By JOS. C. THOMSON, M.D. Macao.

Calculus in China.

A new era opened at Canton when, in the year 1844, the first lithotomy was performed upon a Chinese. In his letter of thanks the father of the patient writes:—"My son, whose name in infancy was Sih-yau, in the 7th month of the 22nd year of Tau-kwang, was sensible of fever and atmospheric dampness, which, accumulating in the system, eventuated in the disease of stone. Again and again he requested physicians to treat him, and took their medicines without avail, till fortunately he met Dr. PARKER, more distinguished than Dr. Tso (a celebrated physician of ancient times), and who in his profession imitates the ancient Ki Hwang; and at his office in the City of Rams diffuses universally his kindness and benevolence."

The subject assigned is, Calculus in the Bladder: Its Prevalence in China; so we only mention, in passing, the petractive tendency of the Chinese as seen in renal, vesical, scrotal, urethral, preputial, salivary, ocular and temporal calcareous deposits, and especially in Kwangtung, since Calculus is comparatively rare outside of that Province.

As to the actual Causation of Stone we may not be a great way in advance of the native theory in this first case. Calculus is believed to be a disease of
limestone regions (calculi from calx, lime); or, "calculous diseases are most common where the mineral strata are of calcareous formation."

The Kwangtung rivers seem to flow through districts rich in lime, and the natives use this otherwise impure river-water largely for cooking and drinking purposes, and overboiled, so that there is a considerable deposit of lime; but these conditions also exist in other parts of China, where stone is rarely found; so the geological argument is insufficient. The lime-salts in the "bean-curd" cakes, an important article of diet, with which gypsum (sulphate of lime) is mingled, are also held responsible, but do not probably very much strengthen the argument, for the same reason. The following, also applies at Canton: "Dr. Caisr, in some remarks made at a meeting of the London Pathological Society in 1869, on the case of a Japanese dog affected with large calculs of the bladder, laid down the law that the use of sugar and beans as food leads to the formation of stone, and that the use of meat lessens the tendency to calculous diseases. Now the former substances, sugar and beans, or bean-curd, are very largely consumed in this part of China [as in Kwangtung], sweatmeats and a compound of flour and sugar being sold in very large quantities in the streets, whilst meat is scantily partaken of. Yet stone is a disease almost unknown in Hankow and the adjoining country. This infrequency is in striking contrast with the prevalence of this painful and fatal disease in the South of China. The character of the water drank, as well as the nature of the food, and the degree of concentration of the urine during a long period of the year, have probably much to do with the occurrence of this disease apart from individual or local peculiarities of constitution."*

"Gout and stone," says Dr. Dudgeon, "are often found together. If uric acid calculi, therefore, depend upon a certain acid form of dyspepsia, and have any connection with rheumatism and gout, stone ought to be of frequent occurrence in all parts of China, as the most common form of indigestion among the Chinese everywhere, and especially at the north, supposably from the nature of their food, is that arising from overacidity." But as Dr. Wong observes, "the gouty diathesis appears to have little to do with the prevalence of calculus, as gout is scarcely ever met with among the native population, and a large proportion of the stone cases are farmers."

Again, the condition of the system which leads to the affection has been conjecturally assigned to "malaria, and peculiarities of the diet of the natives," so "humid climates and moist localities" are supposed to be productive; but these are hardly more applicable to Canton and vicinity than elsewhere; and Dr. Wales of Canton, remarking with ourselves that the great majority of calculi are composed of uric acid and its combinations, adds: "I have frequently

* Dr. Smith's Hankow Hospital Report. 1869-1870, p. 15.
been consulted by foreigners residing here who suffered from gravel, which in every case examined was composed of lithates. These cases occur most frequently during the very hot months, when the renal secretion is most scanty and concentrated. In no instance hitherto have I here met with a patient who exhibited symptoms of gravel during the winter months. The stone cases admitted to the hospital mostly come from the farming classes, who are compelled by the nature of their occupation to undergo severe physical exertion while exposed to great heat.”

“One of the ultimate consequences of long-standing unrelieved organic stricture of the urethra,” says Dr. Bucksen Brown to, “is atony of the bladder, and atony of the bladder not unfrequently leads to the formation of phosphatic vesical calculus.”

While stricture is common enough in China it affords no adequate cause.

By way of summary, the saccharine and bean-curd diet with lack of animal food, the impurity of the water, persistently taken hot, along with the low malarious locality and the degree of concentration of urine during a good period of the year, the farmer and laborer (constituting the great majority of the cases) working under the hot sun of this southernmost province, must be main elements in the solution of this problem. The accompanying geographical distribution of the cases may, we trust, help to a conclusion as to the causation of Calculus about Canton.

Treatment.—There is something said of native operative procedure, and we remember seeing a quack who pretended something could be done with a bent wire. Possibly something of the heroic, not to say brutal, measures heard of as occurring in India may have been in vogue in the Golden Age so much boasted of when surgeons abounded. But there is no question that the native practitioner does attempt to dissolve the stone by medication, whether by burnt-hair ashes or what not. There is a story told of a French missionary in Corea who, years ago, after long and terrible sufferings, was relieved in a few hours by a potion from a native physician. Externally they seek to relieve by the moxa and the actual cautery applied to different parts of the abdomen.

No doubt at an early stage we may do something by internal medication, ride advertisement of “Buffalo Lithia Water,” etc., with boasted solvent properties for stone in the bladder. Not to multiply instances, Dr. Park reports a case relieved by mineral acids; Dr. Jardine, of Kiukiang, the cure of a missionary some 20 years resident in China, who had voided some 1,500 small calculi, by the prescription of Dr. Roberts of Manchester: “Recipe.—Potassae bicarb. 1 ½ ounce, Acidii citrici 504 grains, Aqua ad 12 fluid ounces. The dose of such a solution is six to eight fluid drachms, with three or four ounces of water. Two table-spoonfuls every three or four hours. Diluents to drink; avoid much animal food, vinegar and wines, and to live on farinaceous diet.” The patient had also change of residence and left off Chinese diet.
But in most of the cases in China operative measures must be our main
dependence, since the patients are apt to have first undergone a course of
treatment by several of their own practitioners, the stones not small and the
subjects not readily submitting to a long course of treatment at the hands of
one practitioner.

Lithotomy is said to have been known in India long before it was practised
in Europe.

We have no knowledge of it in China before 1844; since then it is no
rarity, specially about Canton, where there have been upwards of 1,000 such
operations, mainly by the lateral method; comparatively few median, and but
few suprapubic, with some 250 lithotitries mainly with Bigelow's apparatus,
and almost all by Dr. Kerr, who will not believe that a lithotritry operation
killed Emperor Napoleon. Incompleteness of one or two reports prevents
more exact figures as to the exact proportion of lithotomies and lithotrities.

The comparative merits may be stated in about this way:—

The lithotritry must more often be repeated, the return after a lithotomy being
less frequent; so at times it cannot be finished because of undue hardness of the
stone, or unwillingness of patient to remain so long in the hospital for sitting
after sitting, in one case as many as sixteen: thus the operation does not seem so
successful in the eyes of the Chinese, having to be repeated again and again, as
that of lithotomy, which is over at one sitting. The nervous shock is apparently
greater, as the greater mortality would seem to show; and the natives seem
more restive under, and less able to sustain, the after treatment of lithotritry.
Again, Cystotomy, or the lithotomy operation, is performed for simple chronic
cystitis, a usual accompaniment of vesical calculus, and so this and the albuminaria
at times found are relieved by a lithotomy, as indeed has been reported of
Bright's disease, and the fatality from lithotritry is apparently greater.
Therefore lithotomy is the usual and more successful operation and lithotritry is
confined to a comparatively few favorable cases. As to the form of the lithotomy
operation there is enough variety; the suprapubic seems to be gaining favor;
though a combined lithotomy and lithotritry, according to the plan of Dr. Kerr
(C.M.M. Jour., Dec. 1888), in which, following upon the lateral lithotomy, there is
the fracture of an overlarge stone to allow of its ready removal, may have much
in its favor, particularly with improved instrumentation.

Meanwhile we give the historical LANDMARKS and some of the CHARACTERISTICS OF CALCULUS in China.

Prior to the advent of the foreigner we need hardly go. The celebrated
Pan Ts'io Kong Mok, of the close of the 16th century, under Homo in Materia
Medica, mentions pulverized urinary calculus as an internal remedy for asphyxia;
and canine urinary calculus is prescribed in heart-disease; again, a solution of hair
ashes is recommended for the cure of stone. Coming then to modern history we
find reported in Dec. 1844 the first lithotomy ever performed upon a Chinese:—
a case of 10 years' standing, in a young man of Canton province, the stone of
9 drams weight and \(3\frac{2}{3} \times 5\frac{1}{2}\) inches in circumference, in which the operation and
treatment were in the highest degree successful, with complete cure in 18 days,
the operator, the pioneer Medical Missionary, Dr. Peter Parker.

His third case was one of 23 years' standing, the longest on record being of
some 25 years' growth; of 20 years' duration we find quite a number, in 1882 three
such, all recovered, one of 31 calculi; of 10 years and upward 78 are recorded.
Case 15, in 1849, was the first under chloroform, so frequently used since with
never a fatality.

In case 19 (1849), the patient admitted moribund, surprisingly enough a post-
mortem was permitted, and by a suprapubic operation a large stone of 3 ounces
lying in the bladder, prostate and neck of bladder, and bound immovably by
fibrous bands, was extracted.

In case 48 (1856) Dr. Kerr begins his reign and counts his thousand—
not slain, but mainly recovered, though "cut and crushed."

In his second case, Oct. 10, 1856, he gives us the first successful lithotomy in
China; though Dr. Parker, in his first case in 1843 broke down the stone into two
pieces, but on account of its hardness and vesical irritability, in the following year
completed the operation by a lithotomy. In Dr. Kerr's next the patient was
removed from the hospital moribund after operation on the day (Oct. 27, 1856) when
shells were first thrown by H.B.M. Gunboat Encounter into Viceroy Yeh's palace.

Case 197, because of large size (of 4 ounces weight) and hardness, had to be
broken up with chisel and mallet and bone forceps.

Case 376 (1874) gives the first lithotomy operation upon the female, while
894 (1883) records the first lithotripsy. Five other female cases are recorded.

The year 1876 gives the best showing; in 7! operations, 1882 records 70,
while 1881, of about 100 cases of vesical calculus admitted (with extraction of 16
urethral and preputial), shows 66 operations, over 30 leaving without submitting
to operation, and two dying from long-continued suffering.

Calculus, as seen in the cases presented at the Canton Hospital, is by far the
most prevalent among the working classes,—those of out-door employments, and of
these largely the farmers. We find but 10 marked "scholars," 9 "students,"
2 "teachers" and one "priest,"—probably not equally literary, but who sadly
enough did not leave the hospital alive.

No age is exempt. From 2 years up to 80, of which latter we have several, and
above 70, some thirteen, while over 60 a larger proportion—all have undergone
operation.

In weight we have from 7\(\frac{1}{2}\) ounces, or 8 oz. in the two calculi of case 692,
and several of 6 oz., with recovery in all, to the least of all. No. 9 gives a
circumference of 10 inches.
In number, case 812 counts 31 calculi, case 267, 22, etc.

In composition the most are of uric acid. A number were encysted, as in case 812, where the sac contained no less than 80 calculi. Case 118 was that of a blind man. One with open urachus. Calculi are also found in the urethra frequently, in the prepuce numerous, often, in one case to the number of 124, in the neck of the bladder, the kidneys, and in the scrotum, a great rarity on this mundane sphere.

In Dr. Parker's early reports are lithographic plates of noteworthy calculi, fac-similes as to form and dimensions; so similar woodcuts are presented in Dr. Kerr's reports.

As to result, while the large majority recover, one being reported of union by first intention and others entirely healed in ten days and longer, some 80 deaths are recorded; an excellent record considering the possible dangers in this "one of the most formidable operations in surgery." From case 210 to case 312 we have but five deaths.

Localization.—Canton's collection of fossils—stone, gravel, vesical, urethral and preputial—is unique in China, if not in the world.

At the Canton Hospital there have been 1,261 operations for stone in the bladder to date, which, with 58 at the Canton Kunn-lu-fan Hospital, a time under Dr. Kerr's care and afterwards incorporated with his Hospital; and 97 at the Fatshan Hospital, but twelve miles distant; and 11 at the Swatow Hospital, on the eastern boundary of the Province, gives us a grand total of 1,427 stone operations for Kwangtung Province, exclusive of a considerable number who were refused operation because of extensive disease or debility, or were unwilling to submit to the operation after examination, or failed to return after first presentation, not to mention many cases of urethral calculi, or vesical calculi expelled from the bladder before operation.

It may be doubted whether any other portion of the globe of equal area can show such a record. Or in the words of Dr. Dudgeon:—"It has been reserved to the Medical Missionary at Canton to present an array of cases unequalled probably, both as regards numbers and success of operation, by any Hospital in Europe or America."

We read of the celebrity of Dr. West, of the American Board of Missions in Turkey, for 154 operations for stone, of which scarcely a half-dozen resulted unfavorably; and of the brilliant success of Dr. Post, of the American Presbyterian Mission of Syria, in a similar record; but in Dr. Kerr we have the Sir Henry Thompson of China.

Stone is generally supposed to be more frequently found in cold than in warm climates; but in this China is upside down as usual.

At the Peking Hospital, opened in Oct. 1861, it is not till 1883 that we find a bond fide case of stone in the bladder reported.
in 1871, there is an account of the first case of calculus, though urethral, 7 years' standing. It was cut down upon and extracted from the navicular fossa and weighed 50 grains. In 1872 we read of the first lithotomy, spoken of as a "novel operation in N. China," but the occasion of this was the removal of a five-inch piece of chopstick introduced into the urethra, which had passed into the bladder some three days before, and on one portion of which was a thin, hard incrustation. It was removed by the median operation.

Shortly after, a similar operation was employed to remove a two-and-a-half inch long lead bougie, inserted into the urethra for a medical purpose, but which had likewise slipped into the bladder.

In 1873 we have report of two other urethral calculi extractions, and in the same paragraph the account of the removal of a "rough, round, flat calculus of a scruple's weight from a tumor of eight years' standing on the right temple."

In 1883 we note it would seem the first operation for removal of spontaneous vesical calculus. Two such were removed by the median operation, and one or two cases of urethral calculi relieved, with a particularly interesting case of vesical stone cured by lateral lithotomy. Two urethral calculi were first cut down upon and removed, then 48 stones, the largest larger than a hen's-egg; the others as large as pigeon's-eggs. The patient was two hours under chloroform. The case excited much attention at the capital. Such a disease and such an operation had never been heard of. Immediately after the operation and daily crowds appeared at the hospital requesting to see the stones and the patient. The stones were circulated round the city and seen by the ministers of the Tsung-li Yamen, the Presidents of several of the Boards, and it is said were also taken into the Palace.

Dr. Pritchard, in Report of 1887-8, remarks: "As far as Hospital records go, cases of stone in the bladder are decidedly uncommon in this part of North China. Three have been admitted during the year. Two of these calculi, however, were probably entirely indebted for their presence to bougies which had found their way into the viscera in question. Two were extracted by a modified median operation, as suggested by Mr. Reginald Harrison (Lancet, July 1887), which allows of extraction of stones of considerable size with ease and safety. The third case then awaited operation. We have found thus but several bona fide cases of stone in the bladder at the Peking L. M. S. Hospital, and hardly more than a dozen operations probably in Peking, including several of the An Ting Hospital, where, in 1887-8, we note two median lithotomies, though one was for extraction of a piece of bone that had slipped into the bladder.

At Tientsin there have been some eight such we are told. At Chefoo, Dr. Southwaite reports two lithotrities. At Pang-chuang, Dr. Peck, two
suprapubic operations. At Chinanfu, Dr. Colman reports removal of large stone of some 1,305 grains by the lateral operation in March 1889.\(^3\)

In Shanghai, at St. Luke's Hospital, Dr. Boone reports three lateral and one suprapubic operations, and, singularly enough, all upon Cantonese subjects.

Dr. Jameson, in 21 years, has performed one lithotomy and one lithotrity upon Chinese, the former a lateral operation upon a high Nankin official, I believe.

Dr. Park, of Soochow, reports having seen but one case, which was treated by medication successfully, it would seem.

At Hankow, Dr. F. P. Smith, in an early report, remarks having not yet met a case. Some dozen or more operations have been since reported. In 1877-8, Dr. Mackenzie reports four calculi cases, two lateral lithotomies, one extraction of urethral calculus, and one refused operation.

In 1885-6, Dr. Gillison records four or five urinary calculi cases having presented; three consented to operation by the lateral method, "a large number for this district, in which calculus seems comparatively rare."

In Amoy we have a case of extraction of urethral calculus by Dr. Lang in 1885, a lateral lithotomy by Dr. Macleish in 1887 and another in 1888, and in 1889 we have mention of several suprapubic operations by Drs. Ringer and Lang.

On Formosa, though we have a record of several cases of urethral and preputial calculi, we see but mention of one lithotomy—in a female—and one lithotrity, both by Dr. A. Rennie, who remarks, "cases of stone in the bladder are exceedingly rare in this island."

As we approach Canton our numbers increase. Foochow Report of July 1873 reads: "Only three cases of stone have been met with since the opening of the Hospital. The first, a child aged 5 years, whose parents refused to submit him to an operation. The second, a case of urethral calculus, was cured. The third, occurring in 1873, was relieved by lithotomy." The report of 1878-9 remarks, urinary calculi are comparatively rare north of Kwangtung; in Foochow out of some 80,000 patients treated in the two hospitals for various diseases, there have been less than a dozen cases of stone (including urethral) and of these, two the past year. The first, a Canton man, was relieved of a small urethral calculus. The second was a lithotomy, but return of the trouble necessitated the use of the lithotrite several times before he was cured. In 1879-80, Dr. Osgood reports a case of lithotomy in which attempted lithotrity had resulted in the breaking of the instrument, and remarks: "less than ten cases of calculus have been operated upon in Foochow."

In 1886 Dr. Whitney records one lithotrity operation. The other native Hospital shows about a dozen more cases, we understand.

The story of Swatow is thus:—In his report of 1867 Dr. Gauld remarks: "Two cases of stone, one in the bladder the other in the urethra, came under observation this year. The former failed to return for operation, the other was relieved by a slight operation. So far as I remember, they are the only specimens of this disease met with since the commencement of practice here in 1863. This is the more remarkable as in the Southern part of the Province, at Canton and the adjoining districts, it is not at all uncommon. At the Canton Hospital the operations for stone have been numerous and the result very satisfactory." In 1875, three 'urinary calculi' are reported, without operation. In 1876 we find 'urinary calculus' two, of which one was operated upon. In 1879 there were operations on two cases—urethral and preputial. In 1881 three urinary calculi presented, two refused operation; but the other, 'the first patient who has undergone an operation for this disease in our hospital,' was successfully relieved by lithotrity at the hands of Dr. Lyall. In 1882, two vesical and one urethral calculi applied for treatment. One of the former was crushed; and the urethral stone extracted. In 1883 three vesical calculus cases presented themselves; one submitted to a successful lateral operation. In 1884 one vesical calculus and one gravel applied and one salivary calculus was excised. At Ng-kang-phu two calculus cases are recorded, one of which Dr. Riddel soon presented with five bean-sized preputial stones, no doubt gratuitously, though the merchant had been a sufferer many years and had spent $100 on the native faculty in a vain hope of being cured.

To the present year four urethral cases are recorded, and 18 vesical calculi, possibly not all new cases; of these latter, five were relieved by the lateral operation and three by lithotrity.

At Hongkong we find in the Alice Memorial Hospital Report of 1889, ten lithotomies, one lithotrity and two urethral calculi extractions.

At Fatshan, Dr. Weynon's reports to 1889 show 85 lithotomies and 9 lithotomies, 13 urethral and 5 preputial extractions.

It has been remarked that foreigners, even after long residence in Kwangtung, do not suffer from stone, yet a few cases are noted. We make no pretence to a complete list here. Dr. Jardine at Kiukiang reports, in 1876, the case of a missionary resident in China since 1859, and who had adopted the Chinese style of living. He had voided some 1,500 small calculi, it was estimated, but on coming to Kiukiang he was cured by internal medication.

At Shanghai, Dr. Jamieson reports, I believe, two lithotomies, and two lithotomies in foreigners.

On Formosa in 1871 there was a case of urinary calculus, but the concretion was voided by the urethra.

At Swatow note is made of a case of biliary calculi, in 1877, in a lady, and at Macao of two calculus cases.
At Chefoo, it is said, there is frequently found an habitual deposit of urates in the urine, a condition of lithuria, among foreigners.

In Korea stone has been reported as prevalent, while at Yokohama, we read, calculous diseases appear to be almost unknown. In ten years one case only was admitted into hospital there—that of a non-resident; the records of the cemetery contain few cases: nor have they been met with in private practice, save when imported.*

Opportunity to complete the account, so far as China is concerned, was wanting. It is to be hoped this may be done through the medium of our Journal.

**DISCUSSION.**

The discussion was opened by Dr. Kerr, who said he could only offer a few practical hints. Hemorrhage after operation was preferably stopped by plugging the rectum, not the wound; where this failed he used manual compression in addition; this would be successful in all ordinary cases. Large stones should be broken up by mallet and chisel or, better still, by a drill working into the centre of the stone, the stone being steadied by a pair of light non-fenestrated forceps. No shock or bruising of wound thus. Being asked by Dr. Watson how he accounted for the greater prevalence of Calculus in the South, Dr. Kerr said some thought it was due to bean-curd diet, but considered this explanation improbable. Suggested that it was due to continuous and excessive perspiration favouring concentration of the urine and precipitation of its salts. He prescribes rain and distilled water to his patients. Dr. Jamieson referred to a recent debate at the Medical and Chirurgical Society of London, in which a statement had been made that the great prevalence of Calculus in South China was due to the absence of salt in the food. This statement he ridiculed; thought it would be useful to hear Dr. Kerr’s opinion on that statement. His own experience of Calculus during 21 years’ practice in Shanghai, was limited to two cases amongst the natives and four amongst the foreigners. Dr. Lalçaca spoke of the common occurrence of Calculus in India, and said it was very common in the Province of Scinde, attributable possibly to the very impure water they drank. In the Presidencies where the water supply was good, Stone was far less frequent. Dr. Hodge was interested in the relative frequency of Stone in South and Mid-China, though not so common as in the South still by no means uncommon in Hankow. Thought its prevalence in Mid-China under-estimated. Dr. Gillison had operated on about 18 cases and about an equal number had refused interference. Dr. Roberts said Dr. Mackenzie had operated eight times in nine years. Dr. Morley thought hospital reports were not a safe basis for investigation.

as he felt sure that hospitals got reputations for certain things, and all these
cases drifted to them. This remark was confirmed by several subsequent speakers.

Dr. Lyall thought so near Canton saw but few cases; yet bean-curd is a
common article of diet in Swatow, and the climate is hot enough to cause excessive
perspiration; but then Swatow was not a lime-stone district. Had operated, in
all, some 16 times, and every year more patients came to him. Dr. Reid thought
there was no doubt that Calculus was more prevalent in South China. Did
not think Dr. Kerr's suggestion of excessive perspiration and concentration
would explain it. Concentration alone would not cause stone formation, or a
precipitation of salts,—there must be an excess of albuminates in the food. He
therefore thought that the bean food theory might have something in it, as beans
contain an excess of albuminoids.

Dr. Douthwaite said beans formed a greater article of diet in the North
than in the South, and yet Calculus was rare. He had seen 12 cases of stone, but
only operated twice. The President differed from some of Dr. Kerr's opinions.
He should recommend Lithotomty more extensively, especially for children, and
referred to the paper of Pryer and Keegan in India—also that the same
principle can be applied to fairly large stones. It is always wise to have your
lithotomy instruments at hand for any such emergency as locking of the blades
of the Lithotrite. Thought Dr. Kerr's recommendation of mallet and chisel open
to several objections:—(a) the chisel might slip and wound the bladder, (b) hard
chips of the stone might fly off and wound the mucous membrane, (c) it might be
impossible to remove all the fragments. Thought the supra-pubic was the operation
for large stones—don't cut into the pre-vesical fat, which contains the fold of
peritoneum reflected from the bladder, but push it up with your finger. If the
stone is too large for your opening, dilate it by manipulation rather than cut any
farther. Dr. Kerr, replying to Dr. Jamieson, said that salt fish was a universal
article of diet in South China.

PAPER.

7.—By Jas. B. Neal, M.D., Chinanfu.

Training of Medical Students and their Prospects of Success.

The subject which has been assigned to me for discussion, is one in which I
am deeply interested, and though I feel somewhat diffident about offering my
ideas, upon medical teaching to my colleagues, after so short an experience in
China, yet there is no other theme upon which I should prefer to write. Before
coming to the foreign field, my attention was directed to the subject of training native
doctors, and I was invited to Shantung more particularly to engage in such
work, so that from my arrival on the field my thoughts have been directed in
that channel. My first three years were devoted to preparation for teaching, and the past three years to the carrying on of a medical class of five young men through a systematic graded course of medical study. Now having premised just how much, and just how little experience, I have had in this line, I shall proceed to briefly discuss the question.

I.—Length of Course:—

The one lesson above all others which my experience has taught me is, that in order to train students in a satisfactory manner, abundance of time must be allowed, so that not only may it be possible to take them over a settled line of studies once or twice, but so that they may have leisure to review and re-review, and in cases where there are collateral books, may have time to do outside reading, in addition to the regular recitations and lectures. I started out to take a class through in three years, but had not half exhausted the time, when I saw how impossible it would be to accomplish the task in the time allotted, and only by unusual efforts will it be possible, by keeping them another half-year, to put them through the course, and give them the opportunities for clinical instruction which they should have. Under the most favorable circumstances, it is impossible to give more than eight or nine months of each year to systematic teaching, and when the extra calls upon a physician's time and strength are taken into account, he may count himself fortunate if he is able to secure seven months of uninterrupted time for such work. So that I think the minimum of time which should be allowed for medical study should be four years, and if it is intended to include any preliminary studies, such as Physics, History, Geography, etc., in the course, five years would not be too much. In addition to thus fixing upon a definite term of years to be spent in study, I think it is well for the instructor to also lay down certain rules for himself, in regard to the amount of time he will give to teaching. The rule, which has been lately adopted by the Shantung Presbyterian Mission, requires four years of study, of at least seven months' teaching in each year. This seems a fair proportion of time to be given to systematic instruction, the students of course being expected to spend a goodly portion of the remaining five months, especially during the latter part of their course, in care of the sick in hospital, and in listening to occasional clinical teaching. With regard to the amount of time to be given each week during the regular terms to the teaching, no doubt no two men's circumstances and engagements are alike, so that no general rule can be laid down. My own habit is to have eight recitations or lectures a week, one in the morning and one in the afternoon on Monday, Tuesday, Thursday and Friday; the students being also required to assist in the Dispensary on alternate days, and to receive instruction clinically as occasion serves. This keeps them fairly busy, yet allows them time for recreation, and for necessary copying of notes, and for other miscellaneous duties.
I am quite aware, of course, that my circumstances in Tungchowfu have been exceptional, and that with a larger practice on my hands and more outside demands upon my time, I might find it quite impossible to give so many hours exclusively to teaching. I think, however, with a properly qualified assistant, who could help in the teaching, it might be possible to require as many as eight recitations per week, or possibly more during the first year or two, when the students are not yet prepared for clinical work.

II.—Medium of Instruction:

Notwithstanding the strong plea lately made by a writer in the Chinese Recorder, for the teaching of foreign sciences in English, and the sanguine views he took of the ease with which such teaching could be carried on, and the prospect of success which would attend it, I can not help but feel more and more convinced that the medium which we as missionaries should use, especially in places remote from the ports, is the Chinese. With a settled system of nomenclature, which I feel sure we shall not be long in securing, the Chinese language, I believe, can be made to express all the ideas which we wish to convey in the teaching of Medicine. I would by no means decry the use of English by those who are willing to spend the time necessary to teach it, for certainly in the present scarcity of good books, and the unsettled state of the nomenclature, no student can hope to obtain so thorough a knowledge of medicine by the study of Chinese books alone, as he can by the use of English, but I think we should use our utmost endeavor to fix upon a suitable set of terms, and build up a native medical literature, which shall enable a Chinaman to attain to perfection as nearly in his own language as in English. Except in the case of those who have unlimited time and money at their disposal, to enable them to spend years in the acquisition of English, and perhaps go abroad to pursue their studies, I have no faith in the ability of the Chinese to so master English as to be able and willing to read English books for the pure pleasure of acquiring knowledge. How many of us, who have spent the best part of six or seven years in the study of Chinese, feel sufficiently familiar with it to pick up a book and read it for pleasure, without either teacher or dictionary to help us? And how much less the Chinese in the reading of English, who, surrounded by people constantly speaking a language different from that which they are studying, have not the same incentive to apply themselves and master the English for daily use. I conceive that the study of Medicine in English must always be confined to the favored few, who have resources at their command, such as almost none of those who come to be taught in Mission hospitals have.

I think too, that teaching should be done as much as possible by the use of text-books and by regular recitations, rather than by lectures. The system of medical education at home, by means of lectures, is not only a bore, but for the majority of students entails an expenditure of valuable time, out of all proportion
to the amount of benefit derived from the lectures. Many times have I thought, while listening to a dry lecture on Practice during my medical course, how much more I could absorb from an hour with a good text-book in my own room, than I was getting from him. Here too, where students are unaccustomed to taking notes, the delivery of lectures is a very slow and tedious work, involving a large amount of repetition, and reiteration, in order to insure a full understanding of the subject in hand.

Again, I think we can not be too careful in the preparation of text-books in Chinese, especially of those which we propose to have printed and offer to others for use in teaching. Nothing is so vexatious as to find a printed book so full of mistakes, as to be practically useless, until gone over and corrected, or so elementary in the treatment of a subject, as to make it necessary to supplement the book largely by lectures and explanations. We owe it to ourselves and our own reputation as teachers of the Chinese, to strive to put forth nothing but what is as good as it is possible for us to make it. In the line of translations of some of the many excellent text-books, now issued in England and America, there is a wide field open to those who are fitted for such work, and the sooner more of the members of our Medical Missionary Association, who are qualified for it enter heartily into the work of translation the better, only let us by all means have good, honest work and first-rate Chinese, let us not disgrace ourselves and dishonor our cause by sending out slip-shod productions in language, which no well-educated Chinaman will tolerate.

III.—Course of Study:—

It should be our aim to make the course of study for Chinese medical students, as thorough and comprehensive as in the medical schools at home, dividing the studies among the four or five years in a systematic way, and endeavoring to send our graduates out thoroughly equipped for the work before them. Of course we can not hope to pursue the study of Anatomy and Pathology, as is done in the West for many years to come, but by the use of models and preparations, and dissection of animals, I believe it is possible to give men here a good knowledge of Anatomy, and, by the use of preserved specimens, at least some practical information about Pathology. In the line of Histology, I see no reason why as careful and practical work in laboratory, should not be done here as at home, while for the study of Chemistry, I should like to make a special plea. Being particularly interested in this branch, and believing that only by practical work in the laboratory can a useful knowledge of Chemi-try be gained, I have taken my present class, and propose to put future classes through a course of several months or a year of laboratory practice, teaching them the reactions of the more common elements and the analysis of inorganic compounds, and closing with a study of the more important secretions and excretions of the body, such as the gastric juice, pancreatic juice, bile, urine, etc.
Upon all, of what may be called the foundation studies, such as Anatomy, Physiology, Chemistry and Materia Medica, I feel like laying special stress, grounding the students thoroughly in these, before carrying them on to the higher branches. Two full years spent upon these studies would certainly not be lost time.

When we come to the more practical branches of Surgery, Practice, Diseases of the Skin, and of the Eye, we certainly have an unrivalled field for practical teaching. I do not hesitate to say that if a student makes the most of his opportunities for clinical study, and his preceptor is careful in making use of the cases which come to his hand, he may gain a wider practical knowledge of the branches mentioned above, except of course, emergency Surgery, than in many of the crowded medical schools at home, where the number of students is so large, that each individual has comparatively scanty opportunities of examining patients for himself. The great difficulty lies in the backwardness of Chinese students in availing themselves of chances which come to them of studying cases for themselves, they, apparently lacking the enthusiasm which many students at home possess, and which makes them eager to learn. Here, young men seem content to learn simply the task set before them, waiting for the leading of the preceptor in all things, being apparently incapable of marking out work for themselves, or of doing independent thinking. This brings me to the consideration of the fourth division of my subject, namely,—

IV.—Co-operation in Teaching:—

Many of us being stationed alone, without any colleague within several days’ journey who can take part with us in teaching, it becomes a serious question how to give our students that variety of instruction, and that stimulus, which comes from listening to different instructors.

The best solution of the difficulty no doubt is, to have two or more physicians associated in work in the same place, mutually supplementing each other, and each teaching those branches in which he feels the most lively interest. But in many cases this is impossible, and then comes the alternative of co-operation between different stations of the same Mission, or even a grand combination of all the physicians in a given province, regardless of differences between Missions, for the purpose of training medical men. These, however, are only suggestions of what may be done in the way of co-operation now, in the present unsatisfactory state of affairs. No doubt we all look forward to a time in the future when strong and well-equipped medical schools will be found in different parts of the empire, to which students may be sent to receive that thorough training in medicine, which it is impossible for any one or any two men alone to give them. Nothing is more certain to my mind than the fact that without variety in teaching, we can not hope to produce well-rounded-out physicians and surgeons. No one man, no matter how good he may be himself, nor how diligent in striving
to give his students a thorough training, can do everything in the way of teaching, that should be done, and at the same time attend to his medical work. Then too, the influence of more than one mind upon students in quickening their perceptions and in giving them many-sided views, waking them up from their lethargy and inspiring them to think for themselves, is a most important element in the training of young men to enter upon the responsibilities of the medical profession, in circumstances where they will have to depend solely upon their own attainments and their native ingenuity. In some, I hope many cases, our students in practising for themselves will be far removed from foreign physicians and from fellow-practitioners qualified to help them in difficult cases, and then woe to the man who, with few or no books to consult, has never learned to think and plan for himself.

V.—Object in Training Medical Students:

No one probably will gainsay the proposition, that the training of medical men with the purpose simply of fitting them to minister to suffering people, and thus help their fellows physically, is a noble and worthy object. But we as missionaries of the Gospel, I think, should have a still higher aim in view, namely, the training of men to be teachers of their countrymen in spiritual things. Not that I would advocate the tacking on of a theological training upon a medical education, for I think the two should be kept entirely separate and distinct, but that in our intercourse with our students and in our prayers for their success, we should keep constantly in our view, and in theirs, the prime importance of their exerting a marked influence for Christianity. For this reason I think it is well for us as far as possible to train Christians, or at least to have the Christian element in our classes decidedly dominant, to have regular meetings for prayer with them, aside from the daily worship, to encourage them to talk with patients, and in every way endeavor to instil into them the spirit of missionaries, making them understand that we look to them to let their light shine, and that though they may not be connected with any Mission in doing direct missionary work, but depending simply upon their profession for a living, yet we expect them to be as earnest in trying to lead others to a knowledge of the Gospel, as if they were employed for the purpose. My own hope in training medical students is not that they will become helpers in Mission hospitals, or enter into the employ of foreigners in any other capacity, but that they will go out among their countrymen, and live the Gospel among them, depending upon their practice for support, and taking every opportunity to speak a word for their religion. If we train men with this end in view, of sending them out as independent workers, I think it is even more important to give them the very best of medical instruction, than it would be if we were fitting them to be simply helpers in mission dispensaries, where they would be under the supervision of foreigners.
Training of Medical Students.

No doubt a certain proportion of our graduates will always be employed as assistants to foreigners, as they are indispensable to us, and in certain cases it may be advisable to entrust dispensaries entirely to their care, making them real medical missionaries, but I think these cases should be the exception, and that our aim should be to build up a native medical fraternity, thoroughly Christian in spirit, and independent in its workings. But in thus sending out men to be independent practitioners, we can not hope to see them progress in medical knowledge and skill, unless we give them a journal in their own language, devoted to keeping them informed in regard to the advances of medical science and practice. For this reason I am most heartily interested in the proposal to start a medical journal in Chinese. Such a publication would serve not only to keep the young men up to the times, but would also be a medium of communication between teachers and former pupils, which would be very desirable. Moreover it would foster a certain esprit de corps among men practising foreign medicine in different parts of China, which in the future might be very much to their mutual advantage. Such a journal, I conceive, might be made up in part, perhaps in large part, of translations from foreign medical periodicals, and these translations, supplemented by articles from foreign practitioners in China, and from native medical graduates, might be combined into a publication which would command the support of not only those who are practising foreign medicine, but also of many of the native faculty, who are anxious to learn a little about foreign methods of practice.

VI.—Prospects of Success:—

My paper, I fear, is already too long, so I shall leave the discussion of this part of the subject, to those who have had a longer experience and therefore can speak more authoritatively upon it, merely remarking in passing, that of the three or four natives whom I know to be practising foreign medicine in this region of Tungchowfu, all, with possibly one exception, are making more than graduates of the first degree can command, and this despite the fact that not one of them has received a thorough training, having merely picked up what they know, through assisting foreigners in dispensary practice. It would seem that if these men can succeed, surely men of energy and devotion, who have faithfully prepared themselves for practice ought to be able to do at least equally well.

PAPER.

8.—By J. G. Kerr, M.D., Canton.

Training Medical Students.

The introduction of Christianity into a heathen country is a work of such magnitude, that those engaged in it must seek on all hands for whatever aid can
be brought into service. The education of native youth for service in such departments as they may be fitted for, is resorted to by all missionaries, and it is evident the evangelization of populous heathen countries without the aid of natives in all departments is an impossibility.

Medical Missionaries are especially dependent on natives for assistance in dispensing medicines and taking care of the sick, and are therefore under the necessity of training helpers, who can relieve them of much of the manual work. More important than dispensers and nurses is the training of native physicians, who can discharge many duties otherwise devolving on the foreign physician, and thus save his health and strength and enable him to extend his work. It is therefore not only an economy of time, money and strength, to have qualified medical helpers, but those who are thus trained are prepared to act as physicians for their own people, and this is one of the great objects to be kept in view.

The instruction of two or three students involves as much time and labor as ten times that number, and if many pupils offer, there must be some reason for rejecting them.

Support.—When medical work is new in any locality, and the benefits of Western medicine unknown, it will be necessary to give support to those who are being trained as assistants. In the course of time others will wish to learn, and such as can do so should be required to pay their own expenses, and ultimately a fee for instruction should be received. As in Western countries, there are always promising young men without the means of supporting themselves during a protracted course of study, and it will be advisable to have scholarships, the benefits of which can be extended to worthy persons, on such conditions as will avoid abuse of the benefaction, and secure the object aimed at.

Shall only Christian Students be Taught?—However desirable it may be to have only Christian Students and Physicians, it would be unwise to make profession of religion a condition of acceptance. Any pecuniary or other inducement to bring young men into the Church would be sure to result in increasing the number of unworthy and useless members. Moreover, the Medical class, in a missionary hospital, will be a school of religious instruction, and the knowledge of Christian truth there obtained will, no doubt, influence their future lives, and may bring into the Church some who will honor a Christian profession, and be faithful laborers in the Lord's vineyard.

The importance of giving young men instruction in the sciences, of training up qualified practitioners, and of disseminating a knowledge of rational medicine, is so great in a heathen country, that the advantages of a medical school should not be restricted to those who have become Christians.

Partial Course.—One of the difficulties Medical Missionaries have to contend with is that many students do not stay long enough to complete the course of study. This is nothing more than we may expect in the present state of things.
There is no public opinion, requiring any standard of qualification in those who profess to cure disease. It is not strange therefore that students who learn the routine of our mode of treating some of the more common diseases, should be in haste to make money with the new modes of medication which they have seen more successful, than that used by native doctors. It may be stated as a fact that a young man, quick of observation, and possessed of tact for the work will learn in a few months or a year much that will be useful in the treatment of diseases, the nature of which is evident to common observation. And when it is remembered that the native faculty have not only no scientific basis for their practice, but their theories are all on a false basis, and experience therefore can do them little, or no good, it is not far out of the way to say that an intelligent coolie, working about the hospital for a few years, and keeping his eyes and ears open, is as well qualified to practise Medicine as the native doctors, who are ignorant alike of the nature of disease and the virtues of medicines. Such coolies have been observing the practice of physicians who understood both; and students who have had the same advantages, together with the instruction which they get from books, may acquire, in a year or two, a basis of knowledge far in advance of the native faculty, and if they continue to study the books, they must become more efficient and trustworthy as physicians, than the best of the native doctors, who are so highly esteemed for their skill in feeling the pulse, and for their learned nonsense about the hot and cold, the Yam and Yeung, and similar mysteries which abound in their books.

Students, and employés of our hospitals, however short their stay may be, and deficient their instruction, see and learn enough to satisfy them of the superiority of Western practice, and they will help in their own sphere to break down the prejudice against it, and to prepare the way for its general acceptance. An instance may be mentioned of a man (Mr. Lee Lamkwai) who was for some time in a position to observe the practice of Dr. Ayres, the Colonial Surgeon of Hongkong, and to assist in the care of patients. Having a good knowledge of English, he afterwards became interpreter to H.E. Admiral Fong, an intelligent and progressive official of Kwong Tung. He made use of his knowledge in the treatment of cases occurring in the navy and among the adherents of the Admiral. Last year the Admiral's aged mother fell sick, and, through the influence of Mr. Lee, Dr. Mary Fulton was requested to visit the old lady near Swatow. Dr. F. did so, and spent two weeks in the family, treating successfully the Admiral's mother and other members of the family, and receiving gold medals as testimonials of their high esteem for her personally, and gratitude for her professional skill. Mr. Lee assumed a great responsibility in advising the employment of a foreign doctor in so important a case, and he was exceedingly gratified, that he was justified by the result.
Difficulties and Discouragements of Students.—The prejudice in favor of native practice, together with the ignorance of the people of its defects, on the one hand, and of the superiority of foreign treatment, on the other, will make the struggle between the two systems a long and hard one, and we need not wonder that Medical Students are indisposed to spend much time and labor in becoming masters of the foreign and unpopular system, when a superficial knowledge of a few of its prominent features will answer all their purposes.

As in Europe and America, so in China, the profession will have to work its way up to success, improving the character and qualifications of its members, as fast as higher qualifications command success, and overcoming prejudice and opposition, by years of labor and devotion to new-found truth. In China, however, there is this great advantage: the profession enters on its career with a thoroughly elaborated system of doctrine and practice, and with surgery, we might almost say, brought to perfection in its modes of procedure and adaptation of instrumental appliances. With conditions so favorable, text-books translated, on nearly all the branches, and not far from 100 Medical Missionaries at work, the progress of rational medicine should be rapid, and the time should not be long before the wide prevalence of Western practice should demand well-equipped Medical Schools in the chief centres of population.

In what language shall we teach medicine?—To this question I have but one and a most decided answer. I do not object to the few who are well versed in English studying Medicine in that language, and I strongly approve of physicians who do not know Chinese, teaching medicine to as many students as they can get. Chinese physicians who know well both languages are greatly needed to translate medical books and conduct medical periodicals, but for the great majority of Students, the instruction must be in their own language and their own dialect. Missionaries must give theological training in the language of their pupils, if they would raise up preachers to meet the demands of their ever-increasing work. The necessity is no less as regards those who are to relieve the diseases of their people by rational treatment. We now have text-books in nearly all the branches of study, and a few more years will not only give us text-books up to the requirements of the times, but native physicians qualified to do a great part of the teaching.

Employment of Native Medical Assistants.—Three objects may be aimed at in training native physicians:—

1st.—To provide qualified physicians for the masses of the people;
2nd.—To train assistants who will be helpers in direct Medical Missionary work.
3rd.—To train teachers of Medicine.

The first object commends itself to all benevolent people who know the ignorance and inefficiency of the native faculty, and the terrible sufferings to
which the people are liable in consequence thereof. This object alone justifies the labor and expense bestowed on the instruction of medical pupils. The results at first may not be very great, but the benefits are ever widening and ever extending, until ultimately the whole of this vast Empire shall enjoy the blessings of rational medicine, surgery and obstetrics.

What benevolent man, not to say what Christian, loving his fellow-men as the Blessed Savior enjoins, would not be willing, nay would not rejoice, to contribute to this glorious result? Certainly no Medical Missionary who has witnessed the months and years of preventible suffering endured by so many of his patients, will put a straw in the way of extending far and wide the knowledge of medical science. Neither would any missionary who has mingled with the people, and seen the miseries of men, women and children, which our treatment would ward off or mitigate, object to giving them, the so great a boon.

The second object, that of training helpers for direct Medical Missionary work, naturally commends itself to every physician who has devoted his life to the physical and spiritual good of the heathen. If he can train five or ten or twenty efficient faithful helpers, who will with unselfish devotion give their lives to the good of their countrymen, he will have multiplied by so many fold his own work and extended his usefulness. The accomplishment of this second object does not in the least interfere with the first; on the contrary, the fulfilment of the one is the very best way to accomplish the other. Unfortunately, there are great difficulties in the way of the second object. It is sufficient to mention two:

1st.—The moral and spiritual qualifications required for Christian native medical helpers are wanting in most of our students;

2nd.—In giving them medical education we give them the means of making money.

The first difficulty stands equally in the way of training helpers for direct evangelistic work, and the large number of failures, in all our missions, of those who have been trained and employed, shows how great this difficulty is. Even in Christian lands there are not wanting examples. But when we add the second difficulty, and place in the hands of our helpers the means of making money, it is easy to see how youth brought up under heathen influences may be led away from the self-denying work we wish them to do, and we need not therefore be surprised at the failures which we deplore in those who have been trained as preachers and teachers.

What then are we to do? Shall we employ helpers who are not such as we approve?

I answer, first, that in the work which is under our immediate supervision, we must employ the most suitable men within our reach. Those who are under our immediate supervision and influence, will improve and become better fitted
for the position of assistants in a work which requires Christian, as well as professional training. In every hospital in China there have been, I dare say, helpers who have been of inestimable value, giving efficient aid in the medical work, and doing much in giving religious instruction to hospital inmates, and influencing them by exemplary Christian lives to accept of the salvation offered to them in the gospel. For such men we are devoutly thankful, and pray that their number may be multiplied many fold.

But in the second place there is within reach of all our hospitals, cities and towns where we would be glad to open dispensaries—and it is often desirable to have dispensaries connected with our out-stations, if we had helpers with the necessary Christian and professional qualifications—men who could be trusted to work in a measure independently, with occasional assistance and superintendence.

I regret to say that I have found among my students very few such men, and the few whom I would have trusted, had not sufficient self-denial and consecration for such work. Some of my students have been employed by other missions and have given satisfaction to the missionaries with whom they were connected.

In conclusion, I maintain that the teaching of medicine is one of the duties devolving on us as Medical Missionaries, and one which will become more important as the appreciation of Western Medicine becomes general and the prejudice in favor of native practice passes away.

In general education, and no less in medical, it is of the utmost importance that Christian influence should predominate and mould the moral character of those who are in future to be the influential members of society, and hence the necessity of Christian men devoting themselves to education in all its departments.

I have indicated briefly the kind of students we would desire to have, but would not reject those who are otherwise suitable, on account of non-acceptance of the gospel.

While I would urge as high a standard of professional qualification as it is possible for our students to attain, I would not, in view of the absence of any qualification required by public opinion, wage a warfare against such of our students as cannot attain to our standard, or do not desire to do so.

And, finally, in the employment of students, we should select the best we can get for assistants in our personal work, but I would place in charge of mission dispensaries, away from supervision, only such as were proved worthy of our entire confidence.

As there was no time for discussion, it was decided to make these subjects the first order of the day on Tuesday afternoon; also in future to meet at 2 instead of 3.
The following resolution was proposed by Dr. Mathews, seconded by Dr. Hodge and carried:— "That 40 copies of the next two Numbers of the Journal be forwarded to the various and most influential Journals of England and America, so as to create an interest in the proceedings of the Medical Missionary Association of China." The Secretary suggested that he make arrangements for every member signing the Constitution according to rule, which was agreed to.

SECOND DAY.

(Tuesday, May 20th.)

The President H. W. Boone, M.D., in the Chair.

Secretary, The Rev. S. R. Hodge, M.R.C.S., L.R.C.P. (Lon.)

The routine business being disposed of, the adjourned discussion on Dispensary Preaching was then re-opened by Dr. Macklin, who said that there are some medical missionaries who were not trained preachers, yet were anxious to shew their sympathy with the work; and, although they might not be able to preach a regular sermon, they could explain a parable or miracle and offer prayer. Dr. Kerr said that in the Canton Hospital they had passed through nearly all phases of the question. In the early days he had no Christian assistant and had to do the best he could. The work, however, has since become more systematized, and now there is a school for the women and children among the in-patients, who can there daily study Christian books. Lady missionaries give very efficient personal instruction; 150 to 160 were now under instruction in this way, and there is quite a number of conversions. Work among the men is less systematized but easier than amongst the women, and "Our religious work is a great blessing." Dr. Reifsnieder.—The experience of Dr. Kerr is, no doubt, that of most medical missionaries. Crowded as we are with work immediately upon our arrival, talking directly to Dispensary patients necessarily devolves upon an assistant, either native or foreign. At the "Margaret Williamson Hospital" a most gifted Chinese woman talks with the patients, and thus many spirited discussions are started and much of the truth as it is in Christ Jesus disseminated. Let the medical missionary surround himself or herself with Christian assistants; and if the doctor cannot say much, he or she, by leading a godly life, can do a vast amount towards illustrating the gospel and spreading it amongst the people.

The President.—Dr. Park had very much under-estimated the number of people reached in the dispensaries. He would put the number down as quite a
million, because the relations and friends of the patients all came under the influence of the Truth. We are all agreed that medical missionaries should, as far as in them lies, devote themselves to religious and medical work. In this work, however, there is a personal equation which we must not forget. Some have a greater gift of showing sympathy than others. A medical man has to go through a careful training for his profession; and a medical missionary who is purely a doctor, and has not studied theology, needs a careful training in divinity before he can make a good minister. No mission hospital is doing all the work it could do, unless all the missionaries of that mission take a personal interest in the hospital and give all the help they can. Let us make our brethren welcome and urge them to come. The ladies of the mission should take the women under their special charge, and encourage the native women of the church to take an interest in the hospital. We should attend more to the comfort of the better class of patients, both in the out-patients and in-patients.

Dr. Taylor asked for information as to charging according to the actual cost of the medicines or merely a nominal charge. The President.—Whenever a charge at all was made it was the full price of the medicine. Dr. Lyall had a class of applicants for baptism, and invited the attendance of patients, but that does not necessarily imply baptism, and he is very careful to keep them a long time before they receive baptism. He recently baptized a man who had been a member of the applicant class for 10 years. Dr. Hodge personally shrank from using anything like pressure to compel the patients' attendance at services, but used all his influence to lead them to the Word.

PAPER.

1.—By W. E. Macklin, M.B.

Itinerant Medical Work.

I believe itinerant medical work has a place, even if not the most important. When we think of itinerant medical work, it is natural that visions should arise in our minds of the quack, who goes about at home peddling his "cure-alls," or even having regular visits to towns to gull all the gullible of the surrounding country. It is becoming somewhat common in America, at least, for certain regularly qualified medical men to sacrifice their dignity and honor, travelling about the country advertising to cure all forms of disease. The incentive in this, of course, is the money to be made out of it. We do not wish to introduce any form of quackery into China, and although itinerations are less satisfactory than hospital and dispensary work, yet in the present need we cannot do without them.
Itinerant Medical Work.

It would be folly for a medical man to come to China to do itinerating work solely or perhaps even mainly. A reputation must first be acquired, before his services would be much required or his treatment followed. This could be perhaps gained through itineration, but it seems to me that the most satisfactory way would be to open a dispensary and hospital in some large centre, and as the physician's name became known he could take trips into the surrounding towns and villages, taking a medical chest along, or depôts of supplies could be kept at regular stations, and visits be made to these places. Important cases, operations, etc., could be advised to go to the hospital for treatment. Trained native agents could take charge of these branch dispensaries.

Mr. John Hutchison, at the London Conference, made a valuable suggestion for the carrying on of itinerant medical work. He proposes fully-trained men for branch dispensaries, but evangelists partially trained in medicine to go among the villages healing the sick and preaching the Gospel, as there are so many cases malarial, etc., so easily relieved.

He says, "I have put this plan to the test of practical experience in my own field of labor. My mission sphere comprises the whole of the Chamba State, situated in the bosom of the North-Western Himalayas. A dispensary and hospital have been in existence in the capital for twenty years, but it is only recently that anything has been done for the outlying parts of the State, which are very difficult of access owing to the mountainous character of the country. Beyond the outer ranges of snowy mountains, and bordering on Western Thibet, there is a very interesting and beautiful valley called Pangi. I have long had a deep interest in the people of that valley, and some years ago I sent one of our native evangelists to labor among them. He had been in charge of the Leper Asylum of the Mission to Lepers in India under me for a considerable time, and had become pretty familiar with the uses of the simpler remedies, and the treatment of ordinary forms of disease, and therefore I had no hesitation in entrusting him with a small medicine-chest. He found it of the greatest service in carrying on his evangelistic work. The people were most grateful for the help he was able to render, and he was thus enabled to carry the Gospel to every house in the Pangi valley, receiving everywhere a most cordial welcome. In the beginning of every summer, this noble servant of Christ, one of the most devoted native workers I have ever known, takes his departure from Chamba into the inner Himalayan wilds, and we often hear nothing of him for months. He has to cross and recross a lofty, snowy range higher than Mont Blanc, to traverse mountain-paths which are always difficult and dangerous, and to undergo much toil and hardship. His mode of work is to take up his abode in a village for a few days, or even for a week or two, and make himself quite at home with the people. All day long he is employed in visiting the sick, preaching to and conversing with the villagers, exhibiting and explaining the Bible pictures he
always carries, selling and distributing the Scriptures and tracts to all who can read, and himself reading and expounding the word of God to those who gather around him. I have myself on many occasions when itinerating with him, had opportunities of witnessing the most gratifying evidences of the esteem in which he is held; and as the result of his labours the evangelistic work in Pangi is now in a most hopeful condition.” This seems a most interesting method of work, and it would seem wise to have many of our native helpers trained, so as to be able to cure minor ailments. Objection may be made that it is a lowering of the medical art, but we are not sending men out to make a pretence of being medical men, but merely fitting our native preachers to act as Good Samaritans wherever they preach the gospel. It is difficult for a kind-hearted man to resist the appeals made to him for help, and it is a joy to relieve even one sufferer. There is no evidence that the Good Samaritan was a physician, yet he took upon himself the responsibility of helping an injured neighbor. Much good medical work has been done by missionaries who have carried medical chests along with them on their itinerations. No missionary would treat cases if there was a properly-qualified medical man at hand, but there is such a lack of medical men that it is difficult for a Christian man, whenever he travels, to resist the temptation to do what he can for the suffering all around him. How many opium-poison cases have been relieved by the timely mustard, ague by the quinine, what wonders sulphur has done, and carbolic acid for sores, etc. Yet these remedies can be used without any great skill. All missionaries should try to imitate the example of Him, “who went about doing good.” A very large number of diseases can be relieved with very little skill, and in the present scarcity of medical men, preachers should carry drugs.

Methods:—

1st.—The medical missionary making visits from his central hospital to neighboring towns and villages carrying supplies.

2nd.—Branch dispensaries conducted by qualified native helpers, and visits made by the medical missionary to oversee and manage.

3rd.—Foreign preachers taking medicine-chests on their itinerating tours to do the Good Samaritan.

4th.—Native evangelists trained to relieve common ailments and carrying medicine-chests, so as to preach the gospel and heal the sick.

Great attention should be given by medical missionaries to teaching, and there should be more united efforts of medical men of different denominations. We must try and secure the medical teaching of China to the Church, and not allow, as in Japan, this great lever, in elevating a people, to get into the hands of unbelievers. There are sufficient medical men in China to combine and open
several large schools in large centres, and in a few years supply China with physicians, as the Government schools supply Japan.

Dr. Kerr then read the following letter from Dr. Peck:

"Providentially absent from China, and my beloved work there this year, my thoughts often turn toward it. And as it has been my privilege for two months past to travel through the great continent of India, from Cape Cormorin on the South to Bengal and the Punjaub on the North, missionary operations have, of course, formed a part of my eager observation, especially in my own department.

"I will, as I am unable to be with you in person, allow myself the pleasure of sending a line of greeting with a few remarks on what I have seen here.

"India, like China, is a great country, full of diversity and strange contrasts, stretching through nearly 30 degrees of latitude. With lofty mountains, dense forests, vast barren plains, great rivers, and again treeless and streamless deserts. The wonderful variety in its physical geography is matched in the ethnography of its people. The tropical luxuriance of Travancore and the whole Malabar coast, famous still for its palms and its spices, its ivory and its sandalwood, as it was in the days when the ships of Solomon traded there, is not more different from the barren plains of the Dekkan or the Himalayan passes than are the characters of the simple Turanian tribes still left in the hill fastnesses. The great Diavidian race of the Tamils, the cultured and plastic Aryans, the hard-hearted and cruel Moslems, all relics of successive waves of conquest that have swept over the land even from the dim prehistoric past.

"Naturally, the presentations of religious truth to these different classes, must vary according to the character of the people, but everywhere I found the same unvarying testimony to the value of medical missions in reaching the hearts of all sorts and conditions of men and women. I do not see that in any part women are kept more strictly secluded than they are among the higher classes of the Chinese, and among races as different as the Tamils and the Brahmins, women seem to mingle freely and openly in society. But among the Mohammedan races, and those who have adopted the custom of exclusion of woman, introduced by the Mogul invaders, ladies as physicians are able to find entrance to the harems and zurwans, to be obtained in no other way.

"Itinerant medicine is a favorite system with some, at times, particularly in the south of India and in the Dekkan, where touring in the winter season is pleasant, and access to the frank and unsuspicious village populations free and easy. The missionary encamps on the outskirts of a village, in the shade of a grove which may invariably be found, and either sleeps in his bullock-cart or pitches a tent, and, so far as my knowledge goes, never expects or receives annoyance from the people.

"It is the practice with some to proceed into a village early in the morning, and, by ringing a bell or singing in the streets, to attract a congregation which
will listen to a little preaching, and join in the singing as soon as they catch the refrain of a hymn. In this primitive and pastoral relation the giving-out of medicine forms an additional bond of sympathy, and often proves the concrete evidence of the human uses of Christianity that either begins or completes the conquest of the heart.

"I imagine you, my dear friends, who listen to these words, sighing for such a place, or thinking, with a quizzical smile, of the results which would follow the adoption of such tactics in your parishes.

"I have often enquired of my friends, the medical missionaries whom I have met, their opinion of the relative value of itinerant as compared with hospital work, and while opinions as to the absolute value of itinerant work varied, the unvarying testimony has been that more solid results are gained in hospitals, both scientifically and spiritually.

"It may be that here in India the mission hospital is at a disadvantage, for there are fine civil hospitals all over the country, attended by men of the highest culture and attainments. Hardly any other one thing has astonished me more than the fine hospitals which I have found, not in the great port cities alone, where they might be expected, but in what seemed to me to be most out-of-the-way places. And the niggardly gifts of the Church of Christ for this benevolent purpose cannot begin to compare with the magnificent palaces of healing, erected by the Government or by private munificence, for there is many a costly pile erected by a Hindoo or Parsee.

"In China medical missions are as yet the highest expression of the active militant charities of the Christian world. Famine relief comes, bountifully but spasmodically, whenever there is a strong appeal, and does its beneficent work; but the steady constant presence of its mission hospital, like the attraction of gravitation, is constantly drawing men toward the great centre.

"One thought more with regard to the difference between India and China. Both are great countries, with about 250 millions of people of various origins, but the parallels soon begin to diverge.

"As an animal, man has been defined to be "a stomach, provided with organs." Among nations, China may be defined to be—a stomach, without organs.

"Into this capacious paunch have been poured the various tribes and races which have gone into its teeming population, and, it has quietly digested them. Jew or Mohammedan, Mongol or Tartar, whatever they were to begin with signifies little now, for different as are the dialects and the peoples of the north and the south, they are all Chinamen. Even of the last monthful, what is there left of the Manchu but the queue? Hair is insoluble in the gastric juice. Did I say it had digested all? It is incorrect. I should have excepted the Anglo-Saxon; that indigestible morsel has given it the only colic it ever had.
"And times are changing. Into its slow consciousness is coming the conviction that the polypoid stage of existence cannot last forever. It must be provided with organs. There must be a head and arms and legs, and they are budding.

"We can see the slow process of evolution going on, and believe that God has a high purpose for this great people.

"May it grow up in all things unto Him which is the head, even Christ."

DISCUSSION.

Dr. Hodge.—From a medical and surgical standpoint the value of itinerant work was very small, yet he recommended all missionaries to occasionally engage in it as a help to their own spiritual life. The plan he adopted was to fix on some village where there was some one who would open his house, to live there for a week, working from it as a centre, visiting the neighbouring hamlets during the day—preferably, of course, those to which you are invited—and in the evening holding services for the neighbours. He would always, when possible, take a minister and two or three native Christians with him. He would visit the same place again and again until the neighbourhood was thoroughly evangelised, and then open a permanent dispensary. Dr. Watson.—In their mission they had been able very successfully, to combine lay and professional medical work. When he arrived at his station, five years ago, he found several of the brethren engaged in itinerant medical work. He himself had learnt much of value from some of them as to the best method of carrying it on. He himself confined his attention to the cities, his ordained colleagues doing the country-work and sending their difficult cases to him. Instead of itinerating in places which he might never visit again, he had fixed upon two large cities, one north and one south of his hospital, which he visits on fixed days every month. Dr. Morley could not reconcile Dr. Hodge's two opening statements. He thought that if a medical man required spiritual revivification it would be better to go on a purely preaching tour than to do medical work, the value of which he knew to be "small." He could imagine the presence of the doctor being a hindrance to the preacher. Thought that the preaching ought to be done by the doctor, and recommended the leaving at home either of the medicine-chest or the minister. Dr. Hodge pointed out that few medical men would feel justified in refusing to help the sick which they see, and expressed surprise that the medical man should be thought a hindrance to the minister. Dr. Taylor.—In his experience, evangelists were glad to have him with them. He obtained them audiences. Dr. Hunter.—One who is willing to subordinate the medical to the evangelistic work. Itinerating offered a fair field of usefulness. He intends opening a new station much on the plan suggested by
Dr. Hodge. Dr. Whitney hoped to open up the country surrounding his hospital on the same plan. Dr. Taylor.—In Pekin little had been done in itinerating; but having two physicians attached to their hospital, they had fixed upon certain places, each to be visited three times a month on regularly-known days. They took a shop on the main street as a consulting-room, and hung out their sign. They hoped by steady and persistent work to reap fruit. Dr. Lyall.—Dr. Gauld in previous years had regularly visited two towns once a week for a number of years. At first very hostile, the people at length became friendly, but no spiritual fruit followed. He thought that men of some experience were needed to do itinerating work successfully, for it is easy to do much harm.

Dr. Fulton.—She had to be very strict in refusing to see men, for she found that being lax on this point precluded all idea of her seeing the better classes of women. She referred to Kwang-si Province, where there is no foreigner resident. Her brother had tried for 10 years to obtain a footing in the province, and at last succeeded through her healing a little boy whose father in gratitude offered them a house. They used the house as a hospital, but it was destroyed during the military examinations. An occurrence during that riot seemed to point a lesson of carefulness in work in the interior. One of her students, who had studied medicine under Dr. Kerr, possessed a skull. In the yard was a tub containing a quantity of material for making soap. When the hospital was destroyed the two things were found and connected, the report being spread that they killed people, and boiled down the body. The presence of the skull allowed no contradiction.

The Secretary read a letter from Mr. J. Fryer.

PAPER.

2.—By S. A. Hunter, M.D., Tsi Ning Chou.

Medical Nomenclature.

The nomenclature of any science is a true exponent of its condition and progress. Every advance in scientific knowledge has been indicated by a more thorough and accurate terminology, as well as by a higher and more perfect classification. Accurate observation is no more essential for the discovery of new facts, than a correct nomenclature is for their preservation and transmission. As thought without language is fettered, so is science hampered without a proper vehicle for its expression. Science and its nomenclature have of necessity grown up together in the Western world, the one the handmaid of the other. But here in the East we meet a new factor in the problem. We desire to introduce the different departments of science, already in a high condition of
development, among a people whose language has not been developed along these lines, and which in its present condition is inadequate for their proper expression. How best to meet this difficulty is a question that has engaged to a greater or less extent the attention of every thoughtful mind in China. Shall we attempt the difficult task of expanding and developing the native language, subject to its genius and spirit, in order to meet the new conditions that have arisen, or shall we seek some better medium of communication for scientific thought? The answer to this question is by no means uniform, or definitely settled. It is a subject that requires much careful thought and mature consideration, and its decision is fraught with important consequences to our future work. Admitting the necessity of educating a certain proportion of pupils in a foreign tongue, in order to bring them abreast with the latest researches of science, other questions still remain to be determined. How large a proportion should be so educated? How much should be taught in the native and how much in a foreign language? Or should not all such teaching be bi-lingual, in order that the pupil may be able to impart as well as to receive, to transmit as well as to retain, and thus become, as it were, a distributing centre of Western thought? There are some who would boldly cut the Gordian knot and teach all science in English, thus leaving the great mass of Chinese literature untouched by the leaven of modern thought. But this plan, I am convinced, is neither wise nor philosophical. Aiming at higher results in the individual, it neglects the multitude. It sacrifices the many for the few. It hinders the nation's progress for at least a century; and delays the hour of national emancipation from the deepest intellectual thraldom that the world has ever seen. History has shown that Christianity can indeed destroy idolatry, but that science only can uproot superstition. While Christianity provides moral force and spiritual power to regenerate the nation, we must look to science to strike the deathblow to the imperious sway of the Sages. Buddha and Lao Tzu are indeed destined to fall before the sword of the Christian polemic, but Confucius and Mencius will just as surely be overthrown by the keen lance of the scientist. So Christianity and science should work together hand in hand for the nation's redemption. But if China as a nation is to learn anything of science in our day, it must be through the language of the people. If the mountain will not and cannot come to Mohammed, then Mohammed must and should go to the mountain. Fortunately, most of the earlier laborers in China took this view of the matter, and consequently we now have a great number of Chinese scientific terms of no small utility and importance. What is required at present is not so much the invention of new terms, as the revision and unification of those already in use, looking to the native scholars of the future for such modification and improvement as may be required. The present lack of agreement in the use of terms is a serious drawback to all further
A concise discussion of the general principles, that should govern the Nomenclature of Drugs and Diseases in the Chinese Language, is all that lies within the scope of the present paper. For convenience of description, I will consider drugs under the two general heads of Mineral and Vegetable. The few drugs derived from the Animal Kingdom present no particular difficulty, as descriptive terms are easily and naturally applied to them. In the department of Mineral Drugs, comparatively a limited number are known to the Chinese. Of those which are known, such as Borax, Arsenic, Sulphate of Iron, etc., the use of the native name with the addition of a chemical term as a synonym, to indicate their component parts, is apparently sufficient. But owing to entire ignorance of the first principles of modern Chemistry, the great mass of drugs in use in the west are entirely unknown in China. The introduction of these drugs has necessitated the invention and use of new names by which they may be designated. The rule hitherto has commonly been to employ the Chemical terms. To this, there are serious objections. The chemical terms are not only cumbersome and inconvenient, because they contain numbers as well as symbols, but they are difficult to remember. To obviate this objection the terms have been somewhat shortened, and thus they are neither chemically accurate upon the one hand, nor sufficiently concise upon the other. Besides chemical terms have their proper sphere and use, and they should be preserved intact for that use alone. They are not names at all in any proper sense, but formulae exhibiting the chemical constituents of a substance, and only a necessity which was barren of invention has compelled their use. How much simpler and better to introduce a system of Commercial names for common use, which shall indicate the general composition of the drug, while avoiding the complexity of a full chemical notation. The same causes which gave rise to commercial names in the West will sooner or later inevitably effect the same result in China. But if left to the exigencies of trade and the fortuity of circumstance, this will almost certainly beget a series of names, which will lack the barest hint of chemical significance. It is our prerogative to forestall this untoward result by introducing a system of names which shall be simple, convenient and significant. It is not likely, indeed, that any action of ours will
prevent, nor is it desirable that it should, the growth of common or vulgar names for many drugs. Common names, based upon some real or fancied peculiarity, must and will spring up among the people, but they should not be accorded the first place in a scientific list. In fact, all the conditions of the case will only be fully met when we have three sets of names—a chemical name for the laboratory, a commercial name for the drug-shop, and a vulgar name for the market. It lies with us to introduce the commercial name for the uses of our profession, and leave it to the inventive genius of the Chinese race to provide common names for the people.

The preparation of a system of commercial names is not so difficult as at first it might appear. To illustrate,—if for this purpose we accept the present commercial names of the mineral acids, and combine them with the names of the various bases, all their salts can thereby be readily and clearly indicated. Thus, if we adopt Ch'iang Suán (强酸) "strong acid," for all the higher acids ending in "-ic," and Yang Suán (弱酸) "oxygen acid," for all the lower acids in "-ous," (where there are two oxaacids), and if we name the vegetable acids according to the sources from which they are derived, retaining Suán (酸) "sour" as the generic name for acid, we can apply the same principle of combination to the names of all the acids and their salts, and thus arrive at a simple and adequate equivalent of the commercial names now in use in the West. For example, by this method we have Huang Ch'iang T'ung (磺强铜) for Sulphate of Copper, (indicating that it is composed of Huang Ch'iang Suán (磺强酸) Sulphuric Acid, and T'ung (铜) Copper), instead of T'ung Huang Yang Suán (铜磺酸), the equivalent of CuSO₄, which is properly Anhydrous Sulphate of Copper, and not the crystallized form in common use. According to this nomenclature, not only is Sulphate of Copper Huang Ch'iang T'ung (磺强铜), but Sulphate of Iron is Huang Ch'iang T'ieh (磺强铁). Sulphate of Sodium is Huang Ch'iang Lu (磺强铝), and so with every other sulphate of whatever kind. Again, starting with Huang Yang Suán (磺酸) Sulphurous Acid, we have Huang Yang Lu (磺酸) for Sulphite of Sodium, Huang Yang Shih (磺酸) for Sulphite of Calcium, and so with each sulphite in the whole list. Beyond this the "Sub-" and "Per-" salts can be indicated by the prefixes Shang (上) and Hsia (下), as perhaps the nearest approach to the English equivalent. Thus, Persulphate of Iron becomes Shang Huang Ch'iang T'ieh (上磺强铁), and the Subsulphate, Hsia Huang Ch'iang T'ieh (下磺强铁), and others in like manner. In the case of the Oxides, Chlorides, Iodides, Sulphides, etc., the use of the chemical name, omitting numerals, and adding a descriptive term where more than one exist, will be found quite sufficient, as, for example, Huang Kung Tien (磺永碘) Red Iodide of Mercury, Ch'ing Kung Tien (青汞碘) Green Iodide of Mercury,
etc. In regard to the vegetable acids, common usage has already determined that Ning M"ung Suau (檸檬酸) shall stand for Citric Acid, Kan Sung Suau (甘松酸) for Valerianic Acid, and so on through the list. In accordance with the principle of combination already stated, Citrate of Potassium will be expressed by Ning M"ung Hui (檸檬錳), Valerianate of Zinc by Kan Sung Hsing (甘松鍍), and others in a similar way. Such a system is not only in accord with the genius of the Chinese language, but is easily acquired by students, and answers all the purposes of practical pharmacy. At the same time, the full chemical formula should be introduced in all books of Materia Medica, for more perfect accuracy of description. The chemical terms already introduced, especially those by Dr. Kerr, are admirably suited for the purpose. They are as capable of accurately representing a correct chemical notation as any symbols in use in the West. We do not need any change in this direction, neither is any desirable. What is needed is to fix upon one set of terms and adhere to them scrupulously. That the same Chinese character should in one Chemistry represent a particular chemical element, and in another Chemistry stand for a totally different element, is as culpable as it is negligent. If we can do nothing more while we are met together, let us settle once for all the characters to be used henceforth to indicate the chemical elements, and thus avoid the puzzling and unseemly incongruities of the past.

In the department of Vegetable Drugs, it will be found convenient to divide them into three classes—that already known in China, those that are represented by plants of the same species, but having less or no medicinal value, and those that are entirely unknown. Those already known require only their native names. Those of which similar species exist will require the addition of a qualifying adjective, such as Yang (洋) foreign, or some other word indicating a peculiarity of the species in question. With regard to the third class, those entirely unknown to China, there seems to be considerable difference of opinion as to the best terminology to be employed. Most translators favour a transliteration of the foreign terms. The gifted Porter Smith has strongly opposed this, and favoured the coining of Chinese descriptive names, as far as possible, along lines analogous to those in use in native books. Notwithstanding this is such an attractive theory, history and philology are both against it. It is the very question which the translators of the Chinese Bible had to meet, with regard to proper names, and they met it in accordance with philological precedent, just as Mohammedanism and Buddhism had done in the ages before. Nor are the records of Chinese medicine without precedent in the same direction, as the pages of the Pin Ts'ao (本草) fully testify. It seems to be the rule, and not the exception, that drugs have carried their native names with them into every other land, and why not into China? The invention of native names like "Hai Ts'un" (海蔥), or "Sea Onion," for
Squill, so far from being an easy task, would more likely prove futile and confusing. There is just as much meaning in Shih Kuei Lu (士圭庐) to the Chinese ear, as there is in Squill to the foreign ear. They alike represent the *ucilla* of the Greeks. If our professional standing rested to-day upon our knowledge of the original meaning of the names of drugs, rather than of their source and uses, it is to be feared that names like Jaborandi, Kino, Sabadilla and others, would prove a source of discomfiture to many a candidate for professional honours. But we must agree to use one transliteration only, and that the best and shortest that can be properly made. The coupling together of an indefinite number of meaningless syllables to represent all the sounds in a foreign word cannot be too strongly reprehended. All transliteration should be limited to three or at most four syllables. A good and euphonious transliteration will in course of time become as much a part of the Chinese language as *Mu Yieh* (没藥) Myrrh, and *Ya Pien* (鸦片) Opium, are to-day. It has indeed been objected, that the same transliteration will not suffice for all China; that local pronunciations differ too widely to permit the use of one set of names, etc. But it should be remembered that uniformity and euphony are of far more importance than accuracy in representing the foreign sound. Nor are the differences of pronunciation so great as have been represented. There are many names now in use which were coined in the South, and yet which in the Northern dialects sufficiently approximate the foreign sound to be quite intelligible. If one set of names is used for native drugs throughout all China, we are not likely to improve upon this by introducing several for foreign drugs, merely for the temporary convenience of the foreign physician. No doubt much can be done in the future by the researches of the botanist to simplify the terminology in this department. But we cannot afford to await the slow and laborious elaboration of complete botanical lists from the Chinese standpoint. Over a hundred dispensaries now in active operation demand of us a uniform working vocabulary sufficiently full and explicit both for the requirements of medical practice and the growing demands of Chinese trade. These requirements we can and should meet and meet them at once, trusting to the future for such improvement as the advance of science may make possible. With a full list of commercial names, similar to those which have been outlined in this paper, providing for mineral drugs, names of general chemical significance, and for vegetable drugs, either a modified native name where possible, or a good transliteration of the foreign name, all the requirements of the present time will be fully and efficiently met. Let us not be deterred from making the attempt, by the apparent short-comings of this method. The completeness of Western terminology is the growth of centuries. It is not to be expected that any system we adopt will either be free from error or incapable of improvement. But we can lay a sure foundation for future progress, and
indicate the lines along which the now scattered forces of laborers should unite and exert their strength.

The Nomenclature of Diseases next claims our attentive consideration. We will find much to be done in this important field. Although many diseases are unknown to the Chinese, owing to their lack of anatomical knowledge, yet it seems fairly evident that we have not given them sufficient credit for the knowledge of disease which they have. There is so much that is absurd in Chinese medical literature, that few persons have the patience or inclination to gather up the few grains of truth and wisdom that lie scattered through it here and there. Nevertheless there is quite enough to amply repay a careful perusal. Too little effort has been made to identify native names of disease, and too great a tendency exhibited to multiply terms needlessly. The existence of a native name, identical in its use with the foreign one, has every reason in favour of its adoption; unfortunately, however, many Chinese names are vague and indefinite. But this fact is no adequate reason for discarding them altogether. Here we meet a question similar to the Term question in theology. Is it better to take the native term, with its indefiniteness and liability to be misunderstood, or to make a new term entirely? The only safe answer to this question is, that we need both, and cannot afford to discard either. It is without doubt often desirable to introduce new terms, descriptive of the nature of diseases as known to the modern investigator. And yet, even in our own land, how persistently the popular names hold their own against the more technical ones of the profession! It seems therefore proper and justifiable to maintain at least two names for most diseases, one for the book and the other for the bedside. Wherever a native name can be used it should have the preference. Even where the native term lacks definiteness, we can make it definite by description and definition. The Chinese classification of disease, based wholly upon external observation, and mostly upon wrong conceptions of the exciting cause, must necessarily differ widely from that of the rational method based upon pathological research. Often where we recognize but one disease, they divide it into several, and where we find several nearly allied diseases they have but one name for all. Thus their names are often either wider or narrower than ours, some of them corresponding very closely with the terms in use in the earlier English medicine. Then again, in course of time terms may change in their use with them as with us. But their best books being written centuries ago, the book and common use are thus sometimes not identical. For example, the disputed term Shang Han (傷寒), as it occurs in the Yi Tsung Chiao Chien (醫宗金鑿), is apparently the equivalent of our word “Fever;” but in common use among native physicians, at the present time in North China, it appears to mean any simple, continued, non-contagious fever—commonly Typhoid. That is to say, every case of Typhoid Fever would be pronounced Shang Han (傷寒) by a
competent native physician. But not every case of Shang Han (傷寒) is Typhoid Fever. Therefore, unless we use the term Shang Han (傷寒), at least as a synonym for Typhoid, the native student will be at a loss to know what disease is being described. However well the terms Tu Fa Jih Ch'eng (腹熱癥), or Hsiao Ch'ang Hui Jih Ch'eng (小腸瘰癥), may serve to describe the seat of anatomic lesion, they afford no clue to the Chinese mind by which the disease can be connected with any case of disease ever known before. So also the term Wen Yi (瘟疫), a name used for any contagious fever, is always applied to Typhus, although not every case of Wen Yi (瘟疫) is Typhus. The term Wen Yi (瘟疫), therefore, is only by metonymy used for an epidemic in general. It is only properly applied to a contagious fever. If we accept Wen Yi (瘟疫) as one synonym of Typhus, with a modifying clause, we shall have made great headway in explaining the nature of that disease to a native pupil. Accepting, therefore, the best of the names coined for disease by Western practitioners, we must yet seek out the native synonym and modify it by description and limitation. Without such native names, our foreign translations will be in a great measure unintelligible, whereas by their use, not only do the higher technical terms of Western medicine become intelligible to the Chinese mind, but we ourselves become able to use and appreciate their terminology of disease. Unless we know something of native terminology, we must always appear to a disadvantage, when called upon to treat the educated classes of China.

In the department of skin diseases, and in fact in all diseases which the Chinese define as Wai K'ao (外科), or external, we find a fuller nomenclature. While giving fanciful names to Abscessos, Carbuncles, etc., according to their location, yet they are not destitute of generic names which answer the purpose of description fairly well. By accepting a generic name we can often apply a qualifying adjective by which we can introduce our classification of disease, while retaining in the main a native term. For example, the word Hsiuan (藓) is the equivalent of our old phrase, "a scurf of the skin." This term having so wide an application can be made the foundation for several other more accurate and definite terms; thus, Yang Hsiuan (藓斑) "Itching Hsiuan," for Prurigo, Lin Hsiuan (藓點) "Scaly Hsiuan," for Ichthyosis, Sha Pi Hsiuan (蛇皮藓) "Snake-skin Hsiuan," for Pityriasis Rubra, Pai Hsiuan (白藓) "White Hsiuan," or Nie Pi Hsiuan (牛皮藓) "Ox-hide Hsiuan," for Psoriasis, etc. Several of these names have been incorporated in foreign translations, and are now in common use, although I have not found them in any native work.* By

*I have since found most of these names, with many others of interest, in the Tung Yi Pao Chien (東醫寶鑑), a Corean medical work written about a century and a half ago.—S. A. H.
the exercise of patient enquiry and a little ingenuity, a very respectable vocabulary of diseases can be made out from Chinese names alone. The phonetization of foreign names of disease is a wholly useless task. It is a very different question from that of the names of drugs. Such drugs as we introduce from foreign countries have been hitherto entirely unknown; but most diseases already exist in China and are known by some name, however indefinite or inapt. To identify, classify and improve the native names of disease, as well as to simplify, unify and render complete the names of foreign drugs and preparations, should be our resolute aim and constant endeavor. By united and continuous effort the present imperfections of medical nomenclature will gradually disappear, and our labour will be crowned with final and complete success.

In conclusion, let me ask you to remember that we are working for the masses of China. Here and there may indeed be a fortunate one who is favoured to drink from the fountains of Western learning at their native source, but the untutored millions of this nation look to us, the missionary workers, for instruction in all those departments of knowledge, which, together with the Gospel, are the glorious heritage of our race. True science, like true religion, goes forth, torch in hand, into the bye-ways and hedges, into the lanes and alleys, and extends its numberless blessings to the poor and the unlearned as well as to the gifted and the great. In this vast enterprise the individual worker may indeed be lost sight of, but the great work still goes on apace. As one of our leading missionaries has well said: "We are just like so many piles sticking down in the mud, over which to build a highway for God." Over our buried heads the highway will be built, and the mighty train of advancement and progress will thunder on, long after we are forgotten. Or, if I may be allowed to change the figure, we are like coral workers far down in the sea, each of whom shall lie encysted within his own life-work, and surrounded by the marks of his own toil, while over our heads shall be reared, by the sacrifice of a multitude of lives, a mighty island, to bear upon its summit forever a lighthouse for God and for humanity. Blessed is he who hath a part, however humble, in this glorious work!

**DISCUSSION.**

Dr. Morley said that, as far as he had seen, the natives objected to transliterated terms, and that he suspected the reason foreigners preferred them to be—that they are easier for them to remember. Dr. Douthwaite.—Transliteration should be avoided if possible, but that it is not always possible must be admitted. Dr. Porter noticed that some of the chemical names in Dr. Hunter's list followed the old method of writing; wished to know whether the more modern system could not be used, as Copper Sulphate instead of Sulphate of Copper. Dr. Hunter.—Reference is here made to commercial, and not
Medical Nomenclature.

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chemical, names; the correct principle of nomenclature in Chinese is that the important word be last. That word here is "copper." We want to convey to the mind the idea that the substance was a copper and not that it was a sulphate. He had been working on the subject at an average of three or four hours a day for seven years, and advocated the formation of a Committee of five or seven which should use all the work done in the matter of nomenclature, unifying it and placing it on a common basis. For facility of work each man should take one department.

Moved and seconded that a vote of thanks be presented by the Association to the gentlemen who had read papers on the subject. [It was then agreed that the morning's papers not read should be taken up in the evening at 8 o'clock.]

(Tuesday Afternoon, May 20th.)

The President H. W. BOONE, M.D., in the Chair.

Secretary, The Rev. S. R. HODGE, M.R.C.S., L.R.C.P. (Lond.)

Dr. PARK of Soochow offered prayer.

The adjourned discussion on the training of medical students was then taken up.

Dr. HODGE remarked that he had long been thinking on the subject, but had not been able to do much. He thought that four years should be the minimum, but preferred five years. The tutorial system is best for the Chinese; recitations are too much on native lines, and we wanted to make the students think; but no one man can do the necessary teaching, all of which should be in Chinese. He suggested the establishment of central schools, say at Canton, Nankin and Pekin, and that the Association fix a course, appoint examiners and grant diplomas, which we might hope to get officially recognised. He was afraid that China was not ready for native practitioners using foreign methods, and that they could not make a living without giving up their Western notions. He would train them to conserve our own work, and use them in opening new stations. Dr. WATSON testified that such men could make a living among their own countrymen, and that if they did nothing else than remove superstition and deified-ignorance, they did a good work. There is a good demand for such men. Dr. MORLEY.—Dr. Hodge's doubt was not whether these men could make a living—we had plenty of evidence about that—but how far they could carry out the principles of their training, especially with regard to surgery. Could a native, unsupported by foreigners, afford to risk a death after a surgical operation? Dr. TAYLOR.—A native can easily do minor surgical operations without risk. He
knew of two students practising on foreign lines and making fortunes. One of them lost a patient after incising a carbuncle, and all that happened to him was having to go into seclusion for six months. Dr. Porter knows four Chinese students who are earning a good living; one had practised in the country, using native medicines, but doing some surgical operations; another is very talented and is a preacher. Dr. Porter favoured the educational scheme. Dr. Roberts doubted whether a medical man should go beyond training his own assistants, because he did not think that China was ready for native practitioners trained in foreign schools, as was seen in Dr. Mackenzie's difficulty in obtaining posts for his pupils. Whilst he favoured the educational scheme, he thought it somewhat premature. Dr. Phillips was one of those who thought that China was ready, and gave an instance of a student from their hospital, a good operator, who, relying upon her own efforts, is doing a good practice. Dr. Kerr.—For seven years the medical class in the Canton hospital had seven teachers, partly native and partly foreign. Clinical instruction is given in the wards and dispensaries. Two days a week are devoted to recitations, one hour to each branch, and though they cannot keep up the recitations with perfect regularity, the intermissions are not many. Two written examinations are held in the year. Last year a certificate was printed in Chinese and English. There are 12 to 15 students, of whom 3 or 4 are women. The fee is £20 per annum. They thought that at present, with the books we have, a course of three years is sufficient.

Further discussion was then adjourned, and the regular business of the afternoon taken up.

PAPER.

3.—By H. T. Whitney, M.D., Shaoqua.

The Best Treatment of Hip-Joint Disease among Chinese Patients.

The form in which this subject is stated implies that a discrimination is to be made in the treatment of this disease in different countries, and that there are peculiar circumstances and conditions in China that require a modification of the most approved methods now employed in Western lands.

This is doubtless true, and the purpose of this paper is to briefly indicate what seems to the writer the best method of treatment, and also give some of the circumstances and conditions which limit the best form of treatment which it is possible at present to furnish this class of Chinese patients.

As there is some difference of opinion among leading surgeons in the West as to what constitutes the best method of treating hip-joint disease, it will be necessary to first briefly allude to the different methods employed and the theories which underlie them.
These methods of treatment may be conveniently classed under three heads, viz:—

1st.—The Constitutional method,
2nd.—The Excision method, and
3rd.—The Mechanical method.

1.—Those employing the Constitutional method regard the disease as general rather than local, and hence rely mostly upon Constitutional treatment and pay but little attention to surgical treatment, except local dressings.

2.—Those who practice Excision regard the disease as local, and in the majority of cases tuberculous, and consider an early removal of all the tuberculous tissue necessary to secure the best results.

3.—Those who adopt the Mechanical method also regard the disease as local, and in most cases tuberculous, but consider that rest to the joint and proper attention to the system produce ultimately better results than any other method, though they also advocate Excision in the later stages of the disease, after Mechanical treatment has been faithfully tried or the time for such treatment has passed.

Unfortunately, however, those employing the Mechanical method do not agree in the application of the treatment.

And as a consequence we get at least four different views under this method:—

1.—First those employing simple Rest, i.e., fixing the joint in splints or Plaster of Paris, etc., and maintaining perfect rest.

This practice is based upon the denial of any spasmodic contraction of the muscles about the joint causing pressure of the head of the femur against the walls of the acetabulum.

This class are represented by Thomas, of Liverpool, and his followers.

2.—But, as it has been demonstrated that in the large majority of cases there is muscular spasm and interarticular pressure, we have a second class who use Rest and Extension, this latter being effected by means of a pulley and weight, and counter extension by fixing the body.

3.—But, again, there is a third class, mostly the orthopaedic surgeons of America, who practise Extension with Motion, on the ground that if extension is applied sufficiently to relieve the interarticular pressure, full motion may be allowed without detriment to the joint.

4.—But, as this is supposed by many to violate one of the established laws of surgery, namely, that an inflamed part must be given rest, we have a fourth class who practise Rest with Extension and Fixation, in order not only to relieve interarticular pressure but also to secure perfect immobility to the joint. And, in addition, this fourth class have recently demonstrated that vertical extension, i.e., in a line with the shaft of the femur, is not sufficient, since most
of the muscular contraction is not vertical but oblique, i.e., in a line with the axis of the neck of the femur, and hence that lateral extension should also be employed.

When eminent surgeons of large experience thus disagree in the application of their methods, it is not always easy to know which course to pursue.

But a close adherence to the scientific side will be our safest guide.

In order to treat any disease intelligently its true nature must first be recognized.

The weight of authority at present regards morbus coxarius as an inflammation of the joint, in most cases tuberculous, and tending to run a rapid and destructive course. That the starting-point of the disease, in the majority of cases, is either in the synovial membrane, or the epiphyseal cartilage, or in the bone itself, but never in the articular cartilage or articular ligaments, though these latter may become easily infected and readily destroyed.

It seems to be further demonstrated that in the first stage of the disease, owing to the pressure upon the filaments of the peripheral nerves in and about the joint, a spasmodic contraction of the abductor, adductor and flexor muscles is set up, causing interarticular pressure and consequent traumatism in the joint, thus hastening caries and necrosis of the head of the femur or of the acetabulum.

Under such conditions what are the principal points to be kept in mind in the method of treatment?

In accordance with the prime law for treating inflamed tissue, the central idea of which is antiphlogistic, perfect rest and freedom from pain are first in order. And, in aid of this, adequate means should be used to overcome muscular spasm and relieve the interarticular pressure, so as to prevent traumatism, the most important point of all.

Deformity and ankylosis should also be avoided if possible; and in the application of splints, etc., convenience in dressing the hip, when necessary, should be provided for.

In the first stage, therefore, of hip-joint disease, when there is considerable inflammation, the patient should be treated in bed or some horizontal position.

When there is slight inflammation, however, the recumbent position need not be insisted on in the preliminary treatment. A great many are being thus treated, with good results, in orthopaedic dispensaries in America by the use of "Taylor's long jointless hip-splint." In cases of active inflammation, in addition to the recumbent position, the joint should be fixed to prevent motion, and the pressure should be removed to avoid traumatism.

With the exception of lateral extension, the Bryant Morgan, or Double Splint, meets these conditions better than any other. But, anatomically, lateral extension is a very important condition to be provided for. And I know
of no better apparatus to meet this condition than the **Perineal Crutch with abduction bar**, which is used with crutches, and a high-soled shoe is worn on the opposite foot, thus leaving the affected limb in a pendant position.

This apparatus was described in the *New York Medical Record* about a year ago, and claims to meet all the conditions for vertical and lateral extension and fixation of the joint, and also admits of out-door exercise.

For small children, Sayer’s wire cuirass is well spoken of, though what is still better for general use, because cheaper and easily made, is the so-called *Portable bed*, which also provides for fixation and double extension, and secures for the young child what the Perineal Crutch provides for the youth and adult. In addition to a proper apparatus there are other conditions to be considered as they arise, such as opening abscesses, changing dressings, securing a nutritious diet, and giving proper medical and hygienic treatment.

Having thus briefly pointed out what are regarded as the most important lines of treatment in the West, we will note some of the obstacles that prevent our securing such treatment to Chinese patients.

And first in *Dispensary Practice*:

In America it has been found that well-equipped orthopaedic dispensaries can treat, with a good degree of success, a large number of this class of cases, provided the parents will interest themselves enough to faithfully carry out the physician’s instructions at the patient’s home. But in China no such door is open to us.

Not one person in a hundred would faithfully carry out the instructions of a physician even if he could be made to understand them.

Neither would it be safe to furnish any surgical appliances from our dispensaries unless paid for in advance, which could not be expected from that class of patients.

This shuts us up practically to hospital practice.

What are the conditions that meet us here?

Chinese patients do not like to be bound, and will not submit to it for any great length of time.

If the appliance is anything they can remove, either alone or with another’s help, it will soon be loosened or removed altogether.

If the appliance does not feel easy, and he cannot remove it, or if it confines him too closely, or interferes with attending to nature’s calls in the usual way, he either refuses to have it applied, or, finding himself securely harnessed, makes an excuse to go home.

Under such circumstances Mechanical treatment cannot often be successfully employed except among intelligent Christians and occasional well-to-do heathen families who are willing to trust the physician and help carry out the proper treatment.
Then, again, the majority of cases do not come for treatment till the first stage has passed, and abscesses have formed or sinuses exist, or perhaps necrosis or exfoliation of bone have already taken place, and the patient is emaciated, and an operation the only hope left.

In such cases we usually advise an operation, which is generally refused. Sometimes chronic cases that have passed through all the various changes and healed by natural processes are brought to the foreigner to see if he can remedy the ankylosis and deformity.

Reports show that some deaths have occurred among Chinese patients, from Excision, though the subjects were in the last stages and very unpromising. In one case an operation was performed only at the earnest request of the parent, and another had perforation of the acetabulum.

In ordinary cases, however, Excision results in a fair recovery. But as yet comparatively few have been willing to submit to an operation. So that we are forced to rely mostly upon constitutional treatment as about the only alternative at present left us.

And in applying this method we are also hindered in many ways. Most of the patients are poor and cannot provide proper diet. Neither can they afford to remain in the hospital long enough to get the benefit of prolonged tonic treatment. Also, we all know the great difficulty of getting Chinese patients to follow instructions, whether in taking medicine, or making external applications, or attending properly to dressings of any kind.

The principal medicinal agents in which I feel the most confidence in treating this disease, are Cod Liver Oil Emulsion, Dialysed Iron, the Hypophosphites of Lime and Soda, alternated with Cinchona and Gentian, or some equally valuable vegetable tonics.

With a fair opportunity for prolonged treatment of this kind, and a reasonable attention secured to the hip, I am led to believe that in many cases a great deal of good has been done.

Of course, no such complete results are to be expected as are obtained in Western lands, but still, if we get an improved condition of the system and healing of the ulceration, so that the patient is able to go about and do some kinds of work, even though there be ankylosis, adduction, deformity, shortening, and some atrophy, yet, in the present undeveloped state of medicine and surgery in China, such results are appreciated by most Chinese, or even any result short of actual death, especially if it is a son.

There are exceptions to these results, and no doubt there are those present who have had exceptions in their practice, as we have in ours, but the general results obtained are, I apprehend, much the same in all parts of China.

To sum up this subject, I am inclined to view it as follows:—(1). That the most advanced treatment of hip-joint disease at present should include modifica-
tions of the three methods referred to in this paper, i.e., primarily the Mechanical with the Constitutional, but resort to Excision if other means fail or the patient is seen too late to employ the Mechanical method. (2). That the Mechanical treatment should employ that kind of apparatus which will secure double extension and fixation in order to prevent traumatism and furnish absolute immobility to the joint. (3). That in the first stage of the disease, if the inflammation is slight, the treatment may admit of out-door exercise, but, when the inflammation is considerable, the patient should be confined to a recumbent position. (4). That, owing to the peculiar conditions existing in China, it is practically impossible to apply the best methods which scientific medicine calls for. (5). That in China the main reliance must be upon Constitutional treatment, but use the Mechanical method whenever an opportunity offers and, as a rule, perform Excision as often as consent can be obtained after the stage for Mechanical treatment has passed. And (6). That, in the large majority of cases, the ultimate results, from any or all methods, are unsatisfactory from a scientific point of view.

In the view thus advanced in this paper we cannot hope for unanimity of opinion on all points as to the best method of treating this disease, owing to the widely different teaching of eminent surgeons in Europe and America. And, as the application of treatment may vary in different parts of China, it is desirable to adduce further testimony on these two points, viz.:

First.—What is really the most scientific method of treating hip-joint disease? and

Second.—In what parts of China can it be most thoroughly employed?

DISCUSSION.

Dr. Lyall.—These cases are very hopeless, because they either come into the hospital in too advanced a stage of the disease or will not stay long enough for treatment. Rarely sees a case in the early stage. Had some success with old treatment of long splint to sound limb and extension to diseased one. Abscesses and sinuses he drains, cutting into the joint. He has excised the joint but without much success. Dr. Southwaiite had lately tried a padded splint of hoop-iron from the axilla with another round the buttock; raises the foot from the ground by fastening pieces of wood to the sole of the foot on the sound side; and sends them off with a pair of crutches and Cod Liver Oil. He knew one ease do well. Dr. Hunter did not take them in for less than three months. Dr. Reifsnyder testified to the unwillingness of the Chinese to take trouble in the early stage. The President.—Occasionally we find patients willing to undergo treatment. If the joint contains fluid, he aspirates with antiseptic precautions and then injects a solution of iodine and glycerine; the aspiration may be repeated. He afterwards applies weight and pulley in such a direction as gives the child greatest ease;
and after about two months proper hospital treatment, applies a splint—the New York Poly-clinic splint answers well. Should abscesses form, he aspirates continuously, and later, lays open sinuses freely, and if they lead to the joint, he explores, cleaning it out thoroughly; finally excise, but only as a last resource, and in young children being careful not to remove too much. As a rule, amputation is not advisable, the pelvic bones being too often involved. Mortality after excision in St. Luke's Hospital was 50% of the cases, which were followed up to their homes.

**P A P E R.**

4.—By ROBT. COLTMAN, junr., M.D., Chinganfu.

*The Fevers of China.*

(Read by the Secretary.)

On receiving notice of my appointment to prepare a paper under the above title, to read before your honorable body, I proceeded to write to my professional brethren in China, with a view to obtaining their experiences; and the collection of facts which I lay before you, I have gathered from their replies, hospital reports, and my own experience. I find the field to be investigated a large one, and that apparently but little personal investigation has so far been made. This is due to several reasons: *First*—The comparatively recent advent of foreign physicians in China, for although since Dr. Parker's time there have been a few physicians scattered about at the seaports, yet it is only the past few years that they are penetrating to the interior, and that medical missionaries are beginning to be in position to make extended observations of the climate and diseases of this land. *Second.*—Want of confidence on the part of the natives to submit for any lengthened period to the treatment of a foreign physician, or in fact to any one physician, their rule being to change physicians twice or thrice daily in serious cases if they can afford it. *Third.*—Lack of hospital facilities in many places where fevers might be studied. *Fourth.*—Impossibility of obtaining post-mortem examinations.

I understand my appointment to mean, what are the fevers of China now, and how they differ if at all from fevers of other countries. It is just possible that some of the diseases, to be enumerated, have been introduced from foreign countries, but in the state of the native medical faculty we can get no reliable information, and I fear some of these points, on which information would be desirable and interesting, will never be forthcoming.

I find that Variola or Small-pox is the most common disease of China. By this I mean that nearly every one has it at some period of their life, usually
in childhood. No region is free from it; it may be called resident everywhere—
and epidemics are few, for the reason that the entire adult population have had
the disease in childhood. Occasionally you meet with more than usual of it
among the children; especially is this so when floods or famines drive people
away from their homes, and cause them to crowd together, but it is confined to
the children. I venture to say that in every Chinese city of size there are
always a number of cases of small-pox. Last spring it was worse than usual in
Chinanfu, and my wife and three children were all taken ill with it, but all
recovered, while a native child on my place, treated by native physicians, changed
thrice daily, succumbed. Vaccination is practised, but the virus is in many cases
impure from carelessness in obtaining and from ignorance. And I doubt not
that Syphilis. Scrofula and Tuberculosis are often communicated in this way.
Until China has a large body of practical, well-educated native medical men, to
whom, as "boards of health" the hygiene of her cities can be trusted, small-pox,
as well as all contagious and miasmatic diseases, must continue to annually
decimate her population.

Measles exist here, and about Teng Chow Fu appear to be very frequent—
reports from other places also prove their existence in other cities and towns.
I have personally seen two well-marked cases occurring in Chinanfu in foreign
children, both of whom were born here and had never been away, so that
the infection was doubtless from native source. This disease, as nearly as I can
find out, is in no way different from our descriptions of it in Western works
on practice of medicine, though apparently milder.

Scarlet Fever undoubtedly occurs among the natives. I myself have seen
but one case of this disease in China, and that occurred in a child four years of
age, the daughter of an English missionary. She had ulcerated throat, rose
rash all over the body, high temperature, desquamative nephritis, purulent
otorrhoea and finally pneumonia and death. This child had been residing inland
for ten months, and I judge the infection must have come from native source.

But other observers have met the disease in native patients, as dispensary
reports from Moukden and Peking show. My correspondents also from
Shanghai, Piang Chuang and Tientsin report having treated native patients with
this disease. Indeed one of my Tientsin correspondents reports it epidemic
there every winter. Observers in other places report having met cases of
nephritis who came with a history of a previous fever much resembling scarlatina.
While from Canton, Teng Chow Fu, Ch'ing Chow Fu, Wei Heiien and Chefoo,
my correspondents have reported that, so far, they had never seen a case. My
own opinion is that it is more prevalent in North than in South China, and that
possibly it has been introduced by foreigners from England or America. I
also believe the temperature of a fairly cool climate to be more favorable to its
development than a warmer region.
Erysipelas is very rare in China, but has been reported from Foochow and Soochow, as I glean from hospital reports. Unfortunately, I cannot say whether of idiopathic or traumatic origin. I have met with a few cases myself of traumatic origin, which yielded readily to Tincture Ferri Chloridi. More information on this subject would be valuable, and I hope that any of my brethren having surgical cases followed by erysipelas will promptly report them through our Journal.

Typhoid of undoubted type, that is to say, genuine enteric fever, has been reported from Shanghai, Canton, Hainan, Hang Chow, Wei Hsien, Tientsin and Tung Chow Fu, and I myself have met it in this city. It appears to be rather infrequent, as some observers report not having met it, and no one observer has had any large number of cases. But this is one of the diseases that usually requires eight to twelve days to establish a perfect diagnosis, and consequently the foreign physician is not retained long enough to decide positively the nature of the case. I believe when greater confidence is shown in the foreign physician, and more accurate reports are possible, that this disease will be found more common among the natives than is now supposed. Universal testimony to the value of the mineral acid plan of treatment for this disease lies before me, though in the selection of the acid there is some disagreement, the Sulphuric and Nitro-muriatic each having their friends. I myself have used both acids, but prefer the latter, especially in those cases complicated by malaria. It is here perhaps that I should speak of the so-called Typho-malarial fever, and I feel I can do no better than to quote Professor Roberts Bartholow:—"By this term is meant typhoid fever complicated with a malarial element. In consequence of the existence of a malarial infection the symptomatology of typhoid fever is modified—the chief variation from the usual thermal line consisting in the greater excursions of the daily temperature. This modification of the fever has long been known by all well-informed physicians practising in malarious regions. Dr. Woodward, of the U.S. Army, gave to this combination the name typho-malarial fever, he at first supposing that there was something distinctive in this form of fever, and that its morbid anatomy differed in important particulars from that of typhoid. However, in a paper read before the International Medical Congress at Philadelphia, Dr. Woodward retracted his original observations and admitted that he had been misled, and that the morbid anatomy of typho-malarial fever is merely that of typhoid. Typho-malarial fever then has no reason to be admitted into nomenclature—does not in fact exist. All that can be claimed for it is, that when typhoid fever occurs in an individual saturated with malaria, the fever is modified somewhat in its course, has more of the remittent type and is apt to be protracted, owing to the occurrence of intermittence during convalescence."
If the pathological lesions of the so-called typho-malarial fevers are but the lesions of typhoid, then the term, if used at all, should be distinctly understood to mean typhoid fever occurring in an individual previously subjected to the malarial poison.

Typhus Fever is frequently met with all over North China and as far South as Shanghai, after which it is seldom or never seen.

In 1878 an epidemic occurred in Peking with heavy mortality rate. In 1886 an epidemic occurred in Shansi. In the spring and summer of 1889 an epidemic occurred in Shantung. It is also reported from Moukden, Peking, Tientsin, T'ai Yuen Fu, Shanghai, Chefoo, Teng Chow Fu and other places. Its existence has been denied in Canton.

Relapsing Fever in China, as in other countries, is found constantly associated with typhus. I saw a number of cases last spring during the epidemic of typhus. It is mentioned as the most common variety of fever at Teng Chow Fu.

Dengue is reported as having occurred in foreigners at Canton, but as that is the only place, and there is no evidence that a native has ever had it, it cannot as yet be classed under our title.

Cholera occurs as an epidemic every few years and is frightfully fatal. The ports seem to be affected most, but in the summer of 1888 a widespread epidemic swept through Shantung and Chihli from east to west, sweeping away thousands of lives. I believe it has existed in Chefoo the past five years, as there are perennial outbreaks of it among the natives there. The natives dread this disease very much, and on being seized with a diarrhoea during a cholera visitation, immediately give themselves up for lost, and doubtless many perish from fright alone. I had one case in which all my persuasion could not induce my patient to believe he had not the cholera. Finally, by joking with him and telling him if he really had it he would not be willing to admit it, I got him in a more hopeful frame of mind, and he soon recovered from his diarrhoea.

Diphtheria is reported from Tientsin, Peking, Chinanfu, P'ang Chuang and Ch'ing Chow Fu. I have seen a number of cases in foreigners and natives in this city, but I get no reports of its existing south of Shantung. It is severe and frequently fatal in the natives, though apparently less so in foreigners. This may be due to earlier and more energetic treatment on the part of the foreigners.

Cerebro Spinal Meningitis I believe to exist in China, as my own child suffered a well-marked case of it three years since. But I have received no reports of any one else having met it. Bartholow says it has never been reported from Asia.

Whooping-Cough is reported as occurring occasionally in Tientsin. I have not heard of it elsewhere and have not personally met a case. I infer that if it exists it is rare.
Rheumatic Fever is reported from Foochow as very prevalent. Shanghai, Soochow, Chefoo, Lao Ling and Hang Chow also report its prevalence. I have seen but one case in four years and a half, and that occurred in a Catholic priest, a native of France. Chronic Muscular Rheumatism is common all over China, but is unattended by fever.

And now we come to Malarial Fevers, and I find they are reported from everywhere. From Peking in the North to Canton in the South, everyone says they are common. It is interesting, however, to note the different forms the poison manifests in different localities. Thus I find the Intermittent of tertian type to be most common in Peking, Chinanfu and Wei Hsien.

Quartan Intermittent in Korea, Soochow, Foochow, Swatow, Shanghai and Hangchow.

Remittent is reported as the prevailing type at Chefoo and Tientsin, though intermittents are far from rare. Here in Chinanfu I have never seen a case of Quartan Ague, it is all intermittent of the tertian or quotidian type.

Since the Yellow River has flooded this region there has been a marked increase in the number of fever cases treated at our dispensary.

Shanghai reports a pernicious type of remittent fever, with scarcely any remission that is largely fatal.

In answer to my question, How do you treat malarial fevers? I have received about the same reply from all sources. Quinia or some other alkaloids from the cinchona bark are the specifics. Some prefer Quinia Sulph., some Cinchonidia Sulph., others still other alkaloids, but it is universally recognized that Peruvian Bark is the specific for malarial poison. Scarcely any have tried the Carbolic Acid and Iodine treatment, which is so popular in Camden, U.S.A., where Malaria is especially rife; though from Hangchow we learn that its employment in that vicinity as a prophylactic has been successful. Arsenic is recognized as valuable in the chronic forms.

It has up to the present time been found impracticable, owing to the ignorance and prejudice of the Chinese, to hold post-mortem examinations, and until that can be done the pathological appearances and morbid anatomy of these and perhaps other unrecognized diseases must remain a secret. But we may fairly conclude that where the symptoms so nearly coincide with descriptions in our works on practice, that the morbid conditions producing them will also coincide, and our treatment, based thereon, give the desired result. I find in all the diseases I have mentioned that our English and American descriptions are as perfect for China as for the home lands. To sum up then, I believe that, with the exception of Dengue and Yellow Fever, you will find in China all the fevers recorded in any American work on practice, and that the fevers are essentially the same in this land as in America.
DISCUSSION.

Dr. Porter.—Scarlet-fever and whooping-cough are both common in Shantung; diphtheria is also prevalent in North China. Dr. Kerr last year had a number of cases of scarlet-fever amongst the Chinese in the girls' school: he had also many cases of typhoid, but they presented no rash. Dr. Lyall thought that Röthel's was often mistaken for scarlet-fever. He has seen typhoid, but without the rash. He seldom sees typhus, which is a much milder disease in tropical than in temperate countries. He has not seen scarlet-fever in Swatow. Dr. Lalagua thought that the fevers of Shanghai are of a less virulent form than those of India, but that some cases may have a slight renal complication. He further noticed that in some cases Quinine seemed to make worse. Dr. Mathews made reference to nine irregular cases of scarlatina recently under his care, allusion to which sufficed as he had published an account of them in the current Number of the Journal. In the Spring of last year he had had many cases of Röthel's under his charge. Dr. Whitney had never seen a case of typhus, whilst typhoid, whooping-cough, Röthel's, febricula are all common and diphtheria probable. In Foochow the malarial type of fever is principally remittent; scarlet-fever is said to occur; then in Formosa there is the typho-malarial fever. Dr. Reifsnyder said that in one year a quarter of the patients had ague or fever, that is, out of 12,000 patients 3,000 are "fever and ague," mostly quartan, the next in frequency being quotidian.

On motion of Dr. Roberts the evening meeting was postponed until 9 p.m.

THIRD DAY.

(Wednesday Morning, May 21st.)

The President, H. W. Boone, M.D., in the Chair.

Secretary, The Rev. S. R. Hodge, M.R.C.S., L.R.C.P. (Lon.)

The Rev. Dr. S. A. Hunter, late of Wei Shien, Shantung, offered prayer.

The minutes were read, corrected and passed.

Dr. Porter moved that the order of the day be proceeded with. Dr. Watson proposed and Dr. Grant seconded an amendment that the discussion on Dr. Coltman's paper be taken up, and this was carried.

The President, referring to the spread of vaccination, said he understood that in North-China the native faculty had improved on our methods, for having
run out of vaccine on one occasion they used condensed milk as a substitute, and were so satisfied with the results that they had continued the practice to the present day. Referring to Scarlet-Fever, he said that for many years Scarlet-Fever had never been seen among the natives in Shanghai, but some eight years ago it was introduced by a foreign child who came to the port ill with it. From this child it spread, and since that time he had frequently seen it among the Chinese. His cases were seen by several doctors, and the diagnosis was confirmed, desquamation quite distinctive. Typhus very rarely seen. Typhoid he had seen among the Chinese, with typical eruption, and confirmed post-mortem experience had led him to conclude that it was a much milder affection with the Chinese than with foreigners. Diphtheria is seen in Shanghai, and a peculiar form of Pernicious Malarial Fever. Whooping-Cough is known among the Chinese; the first case ever known amongst foreign children in Shanghai was that of his own brother, when they were living in a native house amongst the Chinese. At that time there were only some 12 foreign children in the Settlement. Malarial Ascites cases generally do well after tapping. True Asiatic Cholera visited Shanghai in 1863, 1864 and 1865. The victims were attacked suddenly and quickly carried off. There were many troops in the harbour, but only one vessel, the American man-of-war, escaped. She was in port six weeks. No communication was held with the shore. Ship's stores and distilled water only were used, and she never lost a case. Dr. Lalcaca thought the types of fever met with in Shanghai were mild compared to those prevalent in India. Doubted very much whether true Asiatic Cholera was ever seen in Shanghai now. Dr. Hodge referred to his paper on Scarlet-Fever in the Journal and to Dr. Pritchard's reply. Recommended Picrate of Ammonia for Intermittent Fever: no use for Remittent. His experience of Malarial Ascites differed from Dr. Boone's; they generally died, despite careful tapping with Southey's trocar, proper dietary and medicinal treatment; they are liable, too, to an obstinate form of diarrhoea. Dr. Lucas, of Bombay, recommends Fluoride of Ammonium. Intends to try it. Had seen true Asiatic Cholera in Hankow two years ago, virulent, mortality high; lost all his early cases. Used Waring's pill freely in the early stage, sending natives among the people with written instructions. Whilst agreeing with Dr. Lalcaca that we never see any malarial fever equal in intensity to the Terai Jungle-Fever of India, yet he had seen some very obstinate, and somewhat athenic cases of Malarial Fever amongst the Chinese. 104 and 105 not uncommon temperatures. Perseverence in treatment. Quinine given intelligently, with careful feeding during the remission our main anchor. The President asked how many cases Dr. Hodge had treated with Picrate of Ammonia, and if he was satisfied with the results. Dr. Hodge replied he must have treated one or two hundred, and was quite satisfied. He again insisted that it was no use in Remittent Fever: if pushed too far it
might make the patient yellow, and the colouring matter is always excreted in the urine. The President asked if Dr. Hodge had taken measures, when tapping, to prevent septic infection, and whether the diarrhoea he spoke of might not be due to such cause. Dr. Hodge replied that the diarrhoea was generally there before tapping. The opening made by Southey's trocar was exceedingly small and valvular; he doubted if sepsis were possible; no signs of it in his cases; suggested that the end of the tubing might be placed in an antiseptic solution. In reply to a question from Dr. Lyall, he said he certainly should not give purgatives in these cases.

PAPER.

1.—By A. Lyall, M.B., C.M., Seator.

Advantage of Two Physicians Working in Each Large Centre.

The subject which has been assigned to me to bring before this Conference for discussion is the advantage of two physicians working together in each large centre. From the medical point of view, the great advantages of this plan to the medical missionaries themselves, as well as to the work under their charge, must be so patent to the mind of every one who has had any experience of medical missionary work in China that it seems unnecessary to dwell on this point. But there is another side to this question, which must not be left out of view. Medical missionaries are supported by the Christian Church, and are sent out for a special purpose, and therefore we must look at this subject from the Church's point of view as well as from our own. We must not let any merely selfish desire for an easier life, for more leisure for the culture of our own scientific tastes, for more time to allow us to pursue our work in a more scientific manner, or to enable us to develop our work so as to embrace a larger number of patients, obscure in our mind the primary object of our presence in this land, or make us forgetful of the fact that the task which the Christian Church has undertaken, and, with the help of God, means to accomplish, is nothing less than the conversion of the Chinese nation to Christianity. To the Church, therefore, the vital question is, how this task can be most successfully and rapidly accomplished. Its obvious objection to the plan under consideration resolves itself into one of men and means. It amounts to this,—would the two physicians not be of greater use working at separate centres, each having a full complement of native helpers under his control, to relieve him of much purely routine work? There is much in this objection. Some churches have difficulty in getting suitable men. Other churches have their resources strained to take advantage of the many openings for pushing missionary operations which they find springing up on every
side, as a direct result of existing missionary centres. Again, there are many and most obvious reasons why two centres are more advantageous than one. Neither is this objection an unreasonable one. It is, indeed, the very opposite. It is the duty of the Christian Church to give the Gospel to the Chinese and to other heathen people, but it is not specially its duty to support large and, it may be expensive benevolent institutions among them. It is well that the practical side of Christianity, in the shape of hospitals for the poor and suffering, schools, etc., be shown to the heathen. This, the Church is trying to do. We cannot, however, supply all the medical requirements of such a vast Empire as China. Even were it practicable, it is not advisable to do so. The Chinese must be taught to support and carry on their own benevolent institutions. When the influence of Christianity begins to be felt by the people, they will not only do this, but will also set about to get medical men trained for themselves.

Recognizing, therefore, the reasonableness of the objections on the part of the Church, what then are the advantages which we can offer to the Church for having two physicians at one centre? A good many, and some of them, to my mind, weighty ones:—

1. Both surgical and medical work better done. This is a matter of no small importance. One man may have a better opportunity than another, but, other things being equal, it may be laid down as an axiom that the influence of a medical missionary (or of the hospital under his charge) among the people is in direct proportion to his skill in his profession. I say his influence is dependent on his skill as a physician or surgeon, but it depends largely on the character and spirit of the man whether or no this influence will be utilized for the spread of Christianity. It may or it may not.

2. The medical missionaries themselves will be enabled to take a more prominent part in the evangelistic work of the hospital, and that without interfering with the proper discharge of their medical duties. This, also, is a matter of great importance. The more intimately a man can identify himself with the evangelistic work in his hospital and elsewhere, the more surely will any influence which he possesses tend to impress his patients favorably towards Christianity.

3. More medico-evangelistic work could be done in connection with outstations. While I do not think that the quality of the medical work done in itinerating amounts to much, yet it has a certain value. It provides, at least in some cases, a favorable opportunity for presenting the Gospel. When, however, a week or two can be spent at a time at one place, say a village or town where there is a chapel, more valuable results may be reasonably expected. It brings people about the chapel and in contact with the native preacher, and it may render the position of native Christians a little more endurable by making the people more friendly disposed towards them.
(4.)—A certain amount of help could be given in teaching in the schools and college on such subjects as lie more directly in the line of the physician, such as the various branches of science. A little knowledge of science is certainly useful, as it helps to clear the Chinese mind of superstition.

(5.)—More medical work could be done among the wealthy and official classes in their own homes. A wealthy man or a mandarin can hardly be expected to come for medical treatment to the hospital, where he may have to mix with all classes of people, even though he be willing to pay for medical attention. On the other hand, the care of a large medical mission leaves little leisure for visiting patients at their own homes. So far, I believe, little or no effort has been made to reach the well-to-do or official classes with the Gospel, and while I do not pretend to say that for various reasons much could be done in this direction, even by medical missionaries while attending them in sickness, yet it would tend to allay hostility and create a more friendly feeling towards missionaries, beside giving occasional opportunities for direct missionary work.

(6.)—A more efficient and systematic effort could be made in teaching and training native medical men. In connection with this matter certain questions present themselves at the outset, such as how far is it the duty of the medical missionary or the Church to train native doctors, but it is outside the scope of this paper to discuss these questions. The work of training native medical men commends itself to the Church from at least two points of view.

(a.)—One is the philanthropic nature of the work, providing, as it does, a class of comparatively skilled medical men for the people. Whatever view may be held as to the advisability of medical missionaries giving time to this work, it is certainly not antagonistic to the spirit of the Gospel, but rather, in the present condition of matters in China, it is a Christ-like work. Therefore, in the case of churches which could as easily support two men as one at their large mission centres, there would be nothing unwarrantable in asking them to do so, for no other purpose than that this work might be more systematically and effectively carried on.

(b.)—The other is that it provides for intelligent, well-educated young lads who have been brought up in the fold of the Church, another useful career besides that of the preacher or teacher. In many old established missions a difficulty is springing up to find suitable employment for young men belonging to the Church, who have been fairly well educated, and who may not care to enter the employ of the mission as preachers or teachers. Many branches of industry are practically closed for such lads, owing to their Christianity, and the education which they have received, even though it may not unfit them for life on the farm, renders this life distasteful to them. As medical practitioners, a useful career is open to them, and if due and proper care be taken in the selection of pupils, there is no
reason why they as medical men should not be a help to the Church in their neighborhood.

In course of time, some of these men may be found willing to become medical missionaries to their own people. The time, however, in my opinion, has not come for the Church to employ natives as medical missionaries. The temptations to which they would be exposed are great, and it is not wise to place young men just emerging from heathenism in positions of great temptation. It is better to send them out to earn their own livelihood, hoping that as private individuals they will help in the building up of the Church of Christ in their midst.

(7.)—This arrangement would go a great way in solving the often perplexing question of furlough. So far as the South of China is concerned, seven years is long enough for any man to remain out without a furlough. Too often hasty arrangements have to be made, and perhaps a young man just from home, without having had time to get up the language, is forced to undertake the whole responsibility of a large medical work, to the great detriment of his future usefulness.

Such, then, are some of the more important advantages which may be offered to the Church as inducements to furnish two medical missionaries at each large centre. It is obvious that the principle is of limited application. At present the drift of missionary policy is tending in the direction of each mission having one strong, well-manned centre, where the educational, literary and other departments are carried on, with smaller centres in the surrounding country for only medical, evangelistic and pastoral work. It is, therefore, not unreasonable to expect that in the larger and most important centre there should be two medical missionaries.

As the result of some experience, I have gradually come to think that in most large mission stations where medical work has been long established it would be most beneficial, both from a medical and a missionary point of view, to have not only a male medical missionary, but also a lady physician.

The discussion on this paper was deferred till the afternoon.

A motion that Dr. Thomson again read his paper on "Native Practice and Practitioners" was lost; but on the proposition of Dr. Morley, seconded by Dr. Hodge, it was agreed to take up the discussion on the subject, for which purpose Dr. Thomson was asked to give a brief résumé.
A Chinese being struck by an arrow, the surgeon breaks off the protruding
portion, leaving the point imbedded in the body. This he refuses to meddle with, as contrary to medical etiquette, and leaves the patient to call a physician to treat him for the arrow-head, as being _inside_ the body. So there are doctors for the eye, chest, bowels, skin, women, children, bone-setters, dentists, barbers, pain-killers, bruise-curers, gland-doctors, bullet and sword-cut doctors, snake-bite-curers, priests, massageurs, corn-curers, secret society chief doctors, midwives, abortionists, fortune-tellers, spirit-mediums, the doctor afloat, the miscellaneous doctor, the faith-healer, and the veterinary doctor, ("the diseases of the inferior animals have been included as a subsidiary branch of the medical profession from the earliest times,") not to mention the brass mule of Peking.

There is the Great Medical College at Peking, dating from the Yuen dynasty (1280-1368 A.D.), in suspension more or less of the time since; yet it does not impart instruction, though it may confer some degrees; but its physicians mainly attend on the Imperial family and court, and there is no other. So there are no examining boards, nothing really to prevent any simpleton from advertising himself as the eminent Dr. Blank and experimenting _ad libitum_. But the doctor by famous descent is the most honorable. In the Chow dynasty the public was warned against rashly swallowing the prescriptions of any physician whose family had not been _three generations in the medical profession._* If the line runs out, this reputation, with the right to any secret nostrums, is sold with the estate. By purchase there is another way into this profession. On getting possession of a few old medical books, the applicant reads them, possibly with the aid of a preceptor, and up goes his shingle.

As to who is called in sickness is a matter of choice; may be already known, near at hand, or the selection may be by casting lots. The doctor repeats his call if again sent for. "Doctors knock at no doors; they only come when invited." Usually, one after another is called till the patient is better or has died, or they resort to other curative measures.

The _fee_ may be according to the patient's ability; wrapped up in red paper, called "golden thanks," "thank-walk," etc. Or the invalid may contract to be cured in a specified time for a certain sum. His recourse at the end of that time is to declare his doctor a humbug and try another. So their proverb:—

("He'll warrant a cure when his fee is provided,
Men doubt it, however, and are undecided.")

There is said to be a plan of paying moderately, so long as one, an aged person for instance, is kept in health.

If the patient be a government officer or wealthy, the nature of the disease, prognosis and treatment will be written down; so special penalties are laid down in the Penal Code against any failure in this particular, in the case of the

* _Giles's Historic China_, p. 10.
Emperor; but generally a verbal communication is sufficient. It was a standing regulation in the Chow dynasty, that all potions administered to the ruler of a state should first be tasted by his Prime Minister.*

This same code declares that if a practitioner proceed contrary to the established forms, and the patient dies, the doctor shall be treated according to the law for accidental homicides, and prohibited from longer practising; but if he intentionally departs from established rules of practice to obtain property, and death ensue from his having used medicine with intent to kill, he shall be beheaded. Nevertheless there are tricks of the profession, since for ways that are artful, the Chinese is peculiar. So capital amputation is averted, though we have heard of the running out of a quack and the splitting of his red sign-board by the populace, when his impositions become too flagrant. However, there is a higher court, since the spirits of dead patients are supposed to hover and sit around the door of the unfortunate physicians by whom they have been "cured-dead." In the proverbs "the most wonderful medicine must fail to cure a sickness caused by resentment." If one have caused the death of another, the ghost of the murdered man is supposed to haunt and afflict his enemy with a sickness no medicine can cure.

Someone has ventured to declare, that "were all the native practitioners in the Empire at once swept away, the Chinese people, so far as regards their prospects of health and longevity, would sustain no very serious loss."

The practice of medicine in China is in its decadence. And China, it has been said, is not behind the more civilized countries of Europe in shewing disrespect to medicine, and curtailing or niggardly granting state honors and pay. The highest usual rank in medicine is a fifth Button, and for extraordinary services rendered, or some wonderful cure, sometimes a Third, is bestowed. The "Golden Age" has passed away, with its famous surgeons and physicians, Shan-nung and Wong, who on thrones of high estate exalted sat, Wa-t'o, who scraped a bone of the future god of war and excised and anew replaced the eyeball of a king's son, and Pin-ts'eu, who, receiving his knowledge from a genii and drinking dew for thirty days, became perfect in his art. The theory of the pulse and the practice of Acupuncture and the moxa are put down to his credit. Soochow boasts a medical pantheon or "Temple of the Healing Kings." Among the 2,000 more or less in Canton the names of Dr. Chin and Dr. Tai Wong, the "Rhubarb King," appear, the latter's chief reliance being on the one drug rhubarb. The few experienced practitioners are not enough to redeem the class, which for the most part is held in but little esteem. Social respectability counts for more in giving a reputation. As to patients, six classes, the doctors say, are incurable—the self-indulgent and the profligate, unreasonably violating propriety; second, the

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* Giles's Historic China, p. 10.
inconstant and the covetous: third, the unsuitably clothed and fed; fourth, the constitution which has its functions deranged; fifth, the emaciated, who is unable to take medicines; and sixth, the believer in enchantments, who has no faith in his physicians.

Such is practice in China, yet strangely its ignorant and unscientific practitioners are courted by foreigners at home and abroad.

The art of Acupuncture seems to have been invented in China in a period of the remotest antiquity. Emperor Wong (B.C. 2697-2597), according to Chinese tradition, was the first to teach Acupuncture, in his work Ling Chi King (靈樞經). We know that in 579 B.C. Acupuncture was practised by Chinese physicians, and it is said this is the first mention of it in any book, Chinese or Foreign.* The celebrated Pin-t-seuk (扁鵲), of about this time, was also credited with the practice of Acupuncture and the moxa. Yet it is declared it was under the Sung's (A.D. 960-1280) that the first work on Acupuncture was published. In A.D. 1027 the Emperor had two copper male and female anatomical figures of the human body made to illustrate the practice of Acupuncture. One of these is still in the college at Peking, it is said, but not very like that which it is intended to represent.

Mention is made of 367 points on the surface of the body, to which are given particular names according to the relation in which they suppose them to stand with the internal parts. Other models of iron wire are employed, on which the parts safely vulnerable are clearly and distinctly shown, in order to obtain practice without compromising human health; and small copper figures, in which very small holes are made in the proper places, the surface of the figure then covered with paper pasted on, and the student is required to place his needle without hesitation upon the spot where the opening is made, and on which he would be required to operate according to the affection examined.† The same writer remarks that, in the application of both needle and moxa they seem to have been guided by long practice: but probably their experience has cost the lives of a great number of patients.

Litigation sometimes takes place as the result of death from Acupuncture, and the case is always decided in favor of the doctor if it can be shown that he has punctured the body in the places indicated on the Brass Man, or from the recognized diagrams.

As to the modus operandi, nine kinds of needles are mentioned, also a "tube needle" as given under Surgery. The whole skill is in the choice of places where to insert them, the depth and the direction; usually a slight blow with a light mallet drives the long metallic needle one-half to three-quarters of an inch into the soft parts. If the skin be distended and the needle turned

* LEGGE's Classics. † Huc's Travels, II, p. 17.
instead of being driven straight forward, the operation is not very painful. The needle is sometimes made red hot. As a panacea, it is used in all manner of diseases, much in cholera, so in cough, colic, hernia and local pain and swelling; even the stomach and abdomen may be punctured. The proverb reveals its comparative importance. "It is a disease which neither needle nor medicine can reach." The practice seems to be more in vogue at the North. This indiscriminate puncturing is often worse than the disease. A notable illustration of its use is given under the topic Obstetrics. So far as native references go, suffice it to say it is treated upon in the Su Man (素問) of the third and fourth centuries B.C., probably the oldest medical treatise extant.

From China it early passed into Japan, and Remusat says the first notion of it as practised in China was brought into Europe by Ten-Hyne, a Dutch surgeon, at the end of the seventeenth century.* At one time early in this century it was much extolled in France, and might, no doubt, with benefit often find a place in our armamenta.

A knowledge of Anatomy and Physiology is fundamental in the practice of medicine; yet in these the Chinese are lamentably deficient. To them man is a microcosm, a little universe. The body is composed of 5 elements, and these connected with 5 tastes, 5 colors, 5 metals, and 5 solid viscera. A derangement of the balancing of these 5 elements causes disease. So fire and moisture, cold and heat, when in excess or deficiency, derange the economy.

The ramifications between the elements, etc., may be readily found under some of the references given. The sympathy between different organs and viscera they romance upon satisfactorily,—"the heart is the husband, the lungs the wife."

Our appreciation of woman might alter this; but their traditions agree with us anatomically on a side issue, and assign to woman a rib more than to man; and in an old treatise on how "the bones do grow" the important question of man's rights or superiority is established, since his bones grow from the skull downward, hers from the foot upward.

They do not dissect the human frame, so remain ignorant, unless perchance in the excision of the gall-bladder of a pirate for a dainty morsel to give them like valor, or in such butcheries as that of the Taiping. Dr. Macgowan, in support of the practice of dissection, also quotes from the Pin Teo (本草), the highest authority. A man of rank, as well as his slave, suffered from abdominal pains. The slave succumbed, and the master opening the body, discovered a red-eyed white turtle. After various trials he found it was soluble in equine urine; he tried it and was cured. Hence the high place in the Pharmacopoeia of that excretion, for the treatment of visceral tumefactions and

* Middle Kingdom, II. 123.
like disorders. Pin-ts'ek, who flourished in the reign of We Lih, B.C. 468-440, the first to whom a temple was erected, is credited with anatomical knowledge obtained by dissection, as with the theory of the pulse, etc. In the "Golden Mirror," a standard medical work, human anatomy occupies several chapters, in which the principal parts of the osseous system are named and the names anatomically defined. A similar list of terms and definitions occurs in the Liu Kung, or Medical Cyclopaedia, by Ch'ien. Wylie's Notes on Chinese Literature notices 59 treatises of a medical and physiological character. A number of these have anatomical diagrams, such as the one herewith presented, amazingly behind the times for a people who have had such a good start, and who now make such boast of superior knowledge. We have only further to recall the copper man, about six feet high, pierced with many small holes, and on it the names of all the different pulses, as found in the Peking Medical College.

For fuller elucidation of these anatomical guessings and diagrams, we refer you to the Chinese Repository, Vol. IX, p. 194, or the Middle Kingdom, 119, or a Treatise on the Chinese System of Anatomy and Physiology, by W. A. Harland, in the Transactions C.B.R.A. Society, I (1848) p. 23.

Bibliography.—Beyond what appears elsewhere, sufficient is it to say that the medical literature of the Chinese is very abundant, copious, and antique.

Cholera has been known in China from time immemorial. Over two thousand years before our era it was described by the very name it now bears—Fok Liiu (霍亂)—an expression meaning something lidded up in a confused manner inside the body, and which is evidenced by the vomiting and purging. In a supposed work of the Yellow Emperor (B.C. 2500) it is said to be due to the development of three pent-up airs, which give rise to vomiting and purging. An author during the Tang dynasty (A.D. 620-907) attributes it to food and "not to demons." A writer of the Yuen dynasty (A.D. 1280-1368) ascribes it to retained ingesta, aided by certain external influences, such as cold, by which the male principle (yin) ceases to ascend and the female (yin) to descend, and the diaphragm is drawn down. Another author, Li-Ting, of the Ming dynasty (A.D. 1368-1644) ascribes the disease principally to heat, for the reason that it prevails mostly in summer and autumn. Chinese writers divide cholera into the wet and dry; the latter, with no vomiting and purging, is considered the most fatal.

No mention is made in early history of the epidemic (wan yik 瘟疫) character of the disease. Cholera is reported to have prevailed as an epidemic in China in 1669, probably brought from Malacca. Again in 1769, and notably in 1829, spoken of as the year of the advent of epidemic Indian Cholera into China.* since which it has reappeared periodically. From Canton it reached

* See Dr. Simmon's Cholera Epidemics in Japan. C. I. M. Customs, for its track on the map.
Chinese Anatomical Diagram.
Peking in 1821 and distributed itself more or less widely. In 1826 and 1840 it again came from India. From 1858 to 1867 it re-appeared year and year, and again in 1877 and 1888.*

The native treatment of cholera is too large a subject to introduce here. Cholera being an afflictive dispensation of the gods, much is done to appease them. Remedies are abundant, among them acupuncture, cautery and other forms of external irritation. The following translation of a placard is illustrative:—"A god-like recipe for immediately saving those who have the disease: Whenever a person has the cholera, at once take an earthen spoon, rub it with tea-oil and then thoroughly rub the spine of the sick person with it till small black spots appear. Pierce them with a needle until it touches the bone: the poisonous blood will thus be removed. Dip your hands in cold water, and rub the patient’s arms in front of each elbow, also the popliteal spaces, until they are of a black hue. Then apply a burning lamp-wick. For an adult the following: one cup of salt heated in an iron spoon over a fire and then mixed with ginger-juice, boy’s urine, and cold water, of each a cupful. The mixture to be given in hot water." Boundless merit to the publisher and distributor of this! Reverently, save printed paper!†

Though some years ago we picked up a number of cholera-cure circulars at the time of an epidemic, as an internal remedy we have nothing so full as the following, warranted to prevent or cure, by a Chinese Co. —Recipe.—Atractylodes rubra 5 taels, Sz-chün soapstone and fresh liquorice each two taels, Sz-chün Araliaedacalis, Peking mustard, Peppermint leaves, stone sweet flag, wi'tso kwon, realgar, cinnabar, cloves, each one tael: Sz-chün Magnolia hypolena two taels, Sz-chün Citrus fusca peel, Pods of Gleditchia Chinensis, old orange-peel, of each 1 tael, Kunchung 3 taels, Libenotus 1 tael, Shankük 3 taels, Sz-chün levestillum 2 taels, Bupleurum Octoradiatum, Radix angelicae, Putchuk, each 1 tael, Fennel seed 2 taels, Boletus 1 tael, Platycodon grandiflorum root 3 taels, Shuk-kwän, Fatha each 2 taels, Iris florentina root, Anemone hepatica, each 1 tael. The above 29 ingredients, of some 5 lbs., to be all mashed up together into a very fine powder, Dose for an adult about 1 scruple, for a child 7 grains. The medicine should never be taken without ginger, and a little of the powder should be blown into the nose first. Another prescription is added for a troubled mind, a frequent accompaniment of cholera.‡

Counter-irritation or revulsion is a favorite process with the Chinese. This is accomplished by pinching the skin with the fingers or bamboo-sticks or cash, or scraped with a cash dipped in water or oil till the skin becomes livid. One

‡ Foochow Mission Hospital Rep., 1878, p. 5.
§ C. Mail, July 12th, 1888.
often sees the neck striped thus. We recently saw an infant whose abdomen had been thus vigorously scraped die of lockjaw. The strong native peppermint is often used locally in headache and neuralgic pains.

The actual cautery is a favorite method. A native work "Eminently Conspicuous Instances of Success in Cautery," in 7 volumes, ascribes the origin of Cautery to K'ai-pak, of the 3rd century B.C., and gives description and illustration of nine iron instruments used. Not to delay on blistering and other rubefacient plasters, we come to the moxa, which is peculiarly Chinese, they having employed it from time immemorial. Pin-tseuk (仙鹤) reign of We Lih (B.C. 468-440) is credited with the practice of the moxa. Thence early Portuguese navigators carried it to the West, where we have also exalted it to the "electric moxa" stage. Another reason for the Chinese conceit that the West has only developed perfected what China imported in the rough. Acupuncture we have referred to, cupping and leeching are found, and cases of blood-letting by means of sharp stone or broken China are mentioned.

The practice of Dentistry in China is doubtless very ancient. Toothache and dental decay are due to the presence of worms—so the ancient standard medical books tell us, and a noted Western dentist has published lately a brochure on "Bacteria in teeth." The advantage of priority and size of the worm all in their favor. So the object is to stop the gnawing of this imaginary worm with "pointed black head and brown body."

To preserve the faith of your patient, buy several cleverly made worms en route and conceal them under thin paper, pasted to your bamboo spatula. The paper moistened in the mouth easily frees the worms, which are picked out with forceps, killed by the tooth-loosening powder previously applied, or the forceps, and held up to the wondering gaze of the sufferer. This along with the fright and a little bleeding results in a faith-cure at once. Or a less dexterous juggler will rub a medicinal powder on the under eyelid, to entice the worm out through the eye; or the steam of heated hemp and leek-seeds entering the mouth will cause the worm to wriggle out of the ear; or a wad of cotton steeped in peanut-oil and put into the ear will cause the worm to come out of the tooth into the mouth, as will a medicinal powder rubbed on the cheek. Or Camellia-seed oil, or white pepper mixed with clay, or a heated peanut applied directly to the tooth, will kill the worm.

To cure toothache, and prevent other teeth from being attacked by worms, grind the extracted tooth to powder and swallow it. Or the Dimocarpus longan mixed with cinnamon, and eaten, or fresh ginger, or fresh indigo-leaves as a poultice to the cheek, or finger-nail ashes put into the tooth, will relieve the pain.

To loosen for removal—for they can't extract a solid tooth—apply a kind of wax or one of various kinds of powders, the following being a recipe for one
such:—Ma-long-héung (馬鶏嘴), Chü̃n-ú (川鳥), Ts'o-ú (走鳥), Shang-pún-ha (生半夏), Pák-chí (白芷), Chü̃n-kung (川芎), T'o-kau (土狗), Pák-chéuh (白芍).*

A mixture of cinnabar, saltpetre, horse and turtle urine, applied to the tooth, will loosen and remove it.

The above "allee samee" bread-pills, not so the calomel prescription, which either loosens or causes the teeth to fall out.

The patients are led to believe instruments are not used, so the rude forceps or pincers and the strip of iron with a hole in one end for the canine teeth, are apt to be concealed in a cloth. After the loosening powder had supposably done its work, "the dentist struck the patient several slight blows in quick succession upon the cheek, to divert his attention, while with his right hand he appeared to be rubbing the gum with this cloth, but in fact adjusting the instrument upon the tooth; then with a very quick jerk upwards and outward he dragged the tooth in part from its socket (the patient wincing considerably), but so adroitly as to likely lead the sufferer to think it an accidental catch on the tooth, or perhaps a hasty movement of the hand from the patient's mouth up over his head, as the operator stepped hurriedly back to his traps behind the patient in quest of some more wax or toothache plaster, when, on a repetition of the operation, out came the tooth."

Or it may be snapped out with thumb and forefinger (in this the Japanese are said to excel) or an end of a twisted bit of paper is so adjusted that on the patient closing his teeth the loose one coming in contact with it a quick jerk brings out the tooth.

Teeth are sometimes extracted by means of a strong string, specially when one end is tied to a post, and a sternutatory administered.

The receipts for extracting teeth without pain—horse-sweat a common ingredient—promise that a cough or a sneeze will throw out the tooth.

The insertion of artificial teeth has been practised in China for ages before it was introduced into Europe. Of bone or ivory, the tooth is fastened to the adjoining one by a copper wire or catgut string. If two or more required they are made in one piece, a hole drilled the whole length through this, a double string or wire passed looping over the natural tooth at one end and tied at the other. Costing but from five to ten cents each, a complete upper set may be had for one dollar and a half.

Western methods in dentistry are coming into vogue more or less rapidly.

If permanent teeth are appearing irregularly, a female doctor cuts paper like artificial teeth and puts inside the lips around the teeth and gums for a few seconds, after which it is removed and fine teeth will result.

* Drs. KERR and ROGERS' Article on Chinese Dentistry in China Review.
When a child grinds its teeth during sleep, the mother should buy a pig’s-tail, cook it ready for the next time, when she should slap him on the face several times, after which he must eat it.

Congenital and second permanent teeth are unlucky, and to be gouged out.

But more strange is the Beat-ut-the-Tooth Minu-tsz custom, with whom two of the front teeth of the daughter must be knocked out before given in marriage to prevent damage to the husband’s family.

Disease or Nosology, the Pak Peng (百病) “Hundred Diseases.”

There are many disease gods, rather disease being sent of evil spirits. There is constant need of appeasing these. The very name of the disease is by some unmentionable, lest the spirit be thus attracted. These spirits may inhabit the patients in shape of foxes, weasels, snakes, etc. The Mongols have a ceremony of prophylactically “killing the (disease) devils.” A disagreement between the dual principles of nature, the Yam (陰) and the Yeung (陽), is another cause of disease, so bad humors, wind, etc. The place of wind, “wind diseases,” the fourth of the Imperial College branches, and probably one of the humors of pathology, bad air, vapors, “malaria,” the delight of modern invalids, is noteworthy, and dates back to the centuries B.C. in Chinese practice.

There is a god of Malaria, which is a cause of leprosy, etc., so we have prescriptions for malaria. There are a number of diseases caused by wind and due to confined air. Dr. Dudgeon says:—“The Chinese themselves trace almost all their diseases to anger and wine. The former stands first.”† Diseases have been divided differently at different epochs: during the Ming dynasty into 13 branches, at the commencement of the present dynasty 11 were recognized by the Imperial Medical College, but the number was afterwards reduced to nine, viz., great blood-vessel and small-pox complaints, lesser blood-vessel complaints, fevers, female complaints, cutaneous diseases, cases of acupuncture, eye complaints, throat, mouth and teeth complaints and bone complaints.

The periodic and seasonal character of disease is also noted by the Chinese.

“Always in treating diseases, whether internal or external, it is necessary in all cases to examine into the origin of the malady by inspection, by hearing, by interrogation and by feeling the pulse.” ‡

As there are six incurable cases, so disease may prove fatal in six ways:—by its not being examined, by its not being acknowledged, by its being neglected, by the bad choice of a physician, by his not understanding the disease.

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† Peking Hospital Report, 1874, p. 39.
‡ Bridgman’s Chrestomathy, p. 499.
In this probable quotation from one of the ancient authors, in the celebrated *Pun Tse*, the sixth is omitted without any reason being given.

As to the treatment of the *Eye*, it is one of the wonders that the Chinese have made little or no progress in this department.

Eye affections are most prevalent. The very oblique curvature characteristic of the Chinese physiognomy tends to disease. Yet it is conjectured the native practitioner more often increases the trouble than effects a cure by his meddlesome practice, at least in the severer forms of disease. So the proverb, "Your ears won't go deaf if you don't have them examined, your eyes won't go blind if you refuse to use washes." The stories of past success in the surgery of the eye are probably mythical. Dr. Parker reports a very taking recipe for disease of the iris: "Put one half of a chicken over the eye as a poultice, and eat the other half." A number of treatises on the eye are found. But the 500,000 blind are having desertions from their ranks: hundreds of cataracts alone are opened to the light annually in our mission hospitals.*

The kinds of *Fever* enumerated by the Chinese are numerous. They note the periodicity of fevers and in diagnosis and treatment have made considerable advance.

They have a number of vegetable febrifuges. A cure for ague is the following: Take a pitch plaster, place a Spanish fly in the centre, either whole or reduced to powder, and apply it between the eye-brows or on the nape of the neck.†

Blood-letting is discountenanced in fever. for "fever is like a pot boiling, it is necessary to diminish the fire (since the phenomena of fever is caused by the fire element of the body) and not the liquid if we wish to stop the fever." But quinine is becoming the usual and effective remedy; almost the first foreign drug found in the shops (not drug stores), it is now scattered widely. They have even a god of malaria. It is said: "of three men encountering malaria, one whose stomach is empty will sicken and die; the other, who has imbibed spirits, will suffer a disease; while the third, who has well breakfasted, escapes unscathed."‡

There are many notices of fever from earliest times, but the earliest known work on fever dates from the period from B.C. 200 to A.D. 200. During the Sung dynasty a work on *Fever* in six volumes appeared.

With no practical experience of the native treatment of Fever, we give the experience of Robt. Fortune, the Botanist, in the interior of China. He says: "In the month of August, I had a somewhat sudden and violent attack of fever—whether from exposure to the sun or other causes, it is impossible to say. Having no medicine, and far from foreign medical advice, I put myself into the hands of a

* (See *Surgery*).
† *Peking Hosp. Rep.* 1873, 23.
‡ *Gordon's Epitome* of *C. I. M. Med. Reports*, 118.
Chinese practitioner. When the doctor arrived I was in bed, with a burning fever upon me. After putting several questions as to the time the fever came on, whether I had daily attacks and the time each attack continued, he then felt my skin and pulse, and looked as if he understood the nature of the disease and could cure me. He then forbade the morning bath in the cold stream that flows past the temple, and the use of kene (a kind of vermicelli) in soup, and prescribed a diet of congee for a few days. Dipping the knuckles of his two forefingers into a basin of strong hot tea, he used them like a pair of pincers on my skin, under the ribs, round the back, and on several other parts of the body, every now and then re-wetting his knuckles with the hot tea. He pinched and drew my skin so hard I could scarcely refrain from crying out with pain, and left marks for several weeks after. His medicines having arrived, I was asked to swallow a large paper of about a hundred or perhaps more small pills, which had a hot peppery kind of flavor, with a cup of hot tea to wash them down.

"Then into a tea-pot were put dried orange or citron peel, pomegranate, charred fruit of Gardenia radicans, the bark and wood of Rosa Banksiana, and two other things unknown to me, about half an ounce of each. Filling the tea-pot to the brim with boiling water, and allowed to stand a few minutes, I was desired to drink the decoction cup after cup as fast as possible, and then cover myself over with all the blankets which could be laid hold of. I lay for an hour ere perspiration broke, when, of course, I got instant relief. The doctor said he would return on the third day about ten in the morning, this being about an hour before the fever was likely to return and, if it did it would be slight, and that then I would get rid of it altogether.

"On the third day about ten, the fever not having come on, the pinching process was repeated, and was if anything more painful. I then swallowed another large dose of pills and the hot decoction, and ere I had drunk the last cupful my skin became moist, and I was soon covered with profuse perspiration. The fever had left me and I was cured. The doctor was evidently much pleased with the results of his treatment of his first ‘hung-mo yan’ patient."

The Chinese also first gave the idea of massage, the movement cure, and in the earliest periods of Chinese antiquity, some 3,000 years ago, the books declare. In ancient times curing by pressure and friction formed one of the 13 departments of the great Medical College. In a work published at the end of the 16th century is to be found a collection of engravings representing anatomical figures in the act of performing friction, pressures, percussions, vibrations, etc. "At the present day curative and prophylactic gymnastics are to a large extent in the hands of the barbers; besides shaving the head and plaiting the queue, they clean the eyes, ears, and nostrils of their customers; they put

* Fortune's Residence among the Chinese, 1853-6, p. 102.
the eyebrows in order, and perform generally what is known in Europe as macer or massage. By extending the limbs and gently rubbing them with the palm of the hand, the circulation is promoted, and tone and suppleness is given to the muscles. The operation generally consists of tapping, kneading, pinching, chafing, and ponnelling the body all over, producing the most delightful sensations and proving very bracing. I have known adults put to bed every night by their attendants so operating upon them." * In south-west Kwangtung, where there is considerable overland travel, blind men and girls, with a peculiar rattle, go about the streets and inns announcing themselves as massageurs. Among the Mongol this kneading in rheumatism is said to be done by the younger members of the family, or by means of a stick with a great V shaped crook called the "Rheumatism-curer." †

Massage is used in muscular fatigue, nervousness, headache, paralysis, rheumatism, pelvic disorders, labor, etc., and *twere well if more used by us, at the same time giving occupation to a few of the blind about us.·

This system was first brought to European notice in the last century, through an article by one of the Jesuits in their mémoires, and now widely practised in the West in various new phases, as by steam manipulators, electro-massage rubbers, etc. A recent San Francisco paper contained advertisements of thirteen massenses.

On the Chinese Materia Medica somewhat has been said in another place. Almost anything may find a place in their prescriptions—indeed the paper of the prescription itself may be eaten or it may be inserted in the nostril or ear. And while the Japanese consider the Chinese the homeopaths of the East as compared with themselves, the latter may make a full meal off the dose ordered for them or swallow the whole box of pills at once. The "once-to-be-taken" remedy is the popular one. The man who resignedly surrendered himself to the piller of Society at the rate of "200 pills a day for 42 days, till in imagination he had become a pill," must have been a hypochondriac. Though for the most part the theory is, everything and much of it, yet we find a school who believe "no medicine is the safe medium in physic," (i.e., between that which cures and that which kills), or "to take no medicine is as good as a middling doctor." The faith healers are an old school in China.

In the practice of Obstetrics we probably see more of the sublime and the ridiculous at the same time than in the consideration of any other subject, but consummate ignorance predominates. And is not the faculty in China measurably responsible for woman's inhumanity to woman, as here illustrated, though it be the sin of ignorance. Century upon century of blindest empiricism, with no ray of medical science to shine into these habitations of cruelty. But

* Dr. Dudgeon's Hospital Rep.
† Dr. Dudgeon's Hospital Rep. 1874, 33.
the Sun of China has arisen with healing in his beams and the ministering angels from the West have come with balm from Gilead and must increasingly prove a boon and blessing. The subject is too large, we can only be suggestive.

We have the "Mother" goddess with her two ranks of female Assistants, 36 of one and 72 of the other, the goddess of midwives, the goddess of speedy parturition, of wet nurses, of posterity, and the goddess of Mercy (Kun-yam), whose prerogative it is to send sons.

Previously then avoid eating turtles, chickens and ducks lest the offspring be born deaf and dumb. Avoid sight of hares or rabbits, which bring forth their young through their mouth, lest hare-lip or something worse result.

Avoid witnessing execution of criminals, or slaughtering of animals, or seeing a house repaired. Some of us have seen the effects of fright in "Che Mah" from Ningpo, of adult age though but two feet four inches high. As to the actual development of the fetus in the womb, all this through the "ten months" is given us. In the eighth month of gestation the infant suffers the eight hells. When the mother eats anything hot the child is cast into the "boiling-caldron hell;" anything cold, it suffers the "freezing hell;" the mother is full, the "stone-crushing hell;" hungry, the hungry demon hell; anything hard, the hell of those who are cast down on "the mountain of knives;" the mother walks, moves and labors hard, the hell of those who are "pounded in a stone-mortar;" sits, hell of those who are "fastened to the iron bed;" bows down her head, the hell of those who are "hung head downmost." In an "Account of the Lives of Eminent Women" of a century ago Mrs. Mencius, "model mother," says, in the good old days mothers began the education of their children while yet unborn, thus they would not lie on their sides, nor stand on tiptoe, nor look on ugly sights, but converse on serious and appropriate topics, etc., so they gave birth to sons of well-proportioned features and superior talents. Yet as revealing a belief in the heredity of disease mental and physical, it is added that "a wicked father can no more hope to beget virtuous children" than "a man who has sown the seeds of tares and weeds may hope to earn corn."

In the ninth month we have the three turnings, first that of male children towards the left side, of females to the right. (Sex is also distinguished by the pulse, when "the chih on the left inch pulse rises and swells like a flood the child is male, if in the right wrist, female). The second manifestation is the child's embracing the mother's heart and liver with both its hands. Sun Sz'-miu (孫思邈) of the T'ang dynasty was deified as the god of medicine, by reason of his superior diagnostic skill in this particular. Called to attend one of the Empresses of the T'ang dynasty in a case of difficult labor, which had baffled the court physicians, by means of a rope of considerable length, as he was not permitted to see her, attached to
the imperial wrist, he pronounced it from the pulse indication a case of the fœtus grasping the heart of the mother, and recommended acupuncture, which caused the child to loose its hold, and so the Empress was quickly delivered.*

The third version is the child's placing both feet on the loins of the mother, thus creating an acute pain in each member of the mother's body and making all her joints to loose and shake.

The Chinese, it is said, naturally suffer less and have easier deliveries than Western peoples. Their simple out-door habits are much in their favor. Though pelvic deformities are mentioned, the fact of the children being carried astride another's back for a number of years may have a bearing on the question, not to mention other circumstances. Yet there is much suffering and of a kind not much experienced in most parts—extensive lacerations, rupture of the bladder even, from meddlesome interference, for severe massage is reported in difficult labor, and all the evil sequelæ of such a condition for three, four days and even twelve days as reported. In has been estimated that the mortality of labor cases in China is 8 per cent. This, taking 5,000,000 of labor cases a year, gives a mortality of 400,000 lost in childbirth annually.†

The same native authority quoted above gives four evil births to be dreaded: first "the branch-gathering birth," i.e., when the child's hands are stretched over its head, like a person reaching up his hands to break down a branch of a tree; 2nd.—"The flower-treading birth," i.e., when feet first present; 3rd.—"The bowel-expelling birth," where the womb of the mother is injured, and a reversion of the uterus takes place; 4th.—"The salt-begging birth," i.e., when one hand alone presents, like a beggar stretching out the hand to ask for salt.

A good and filial child leaves the mother's womb in the time in which a man rubs his two fingers one upon another. An obstinate demon may require more than two or three days before it is brought forth, then the whole family is pained with solicitude and fear, life is divided between mother and child, i.e., there seems reason to fear that both cannot live, that either mother or child must die. The child is supposed to act its own pleasure as to speedy or retarded coming into the world. Cases are reported of years' tarrying in the womb.

It is well known that the Chinese, as some other peoples, do not remain in the bed at the time of actual delivery, but are supported frequently by a female member of the family and the husband seated on the edge of the bed with a tub below to receive the discharges, or she may be seated on a stool over a tub. The posture has some things in its favor—that of cleanliness and the aid

* C. Recorder. II. 166.
† Shanghai A. E. Hospital Report. 1885-1886, p. 9.
of the force of gravity at least—so the more or less upright position after the birth favors the passage of the discharges, clots, etc.

The indispensable midwife keeps up the courage of the household meanwhile. A nuisance generally, often injuriously meddlesome, as when they tear the soft parts when they think the time is up, or even hook out the parts, some of our doctors report them as of possible service when bidable.

Prescriptions for rendering parturition easy are abundant: lard, cart-oil and slippery elm, and the "hastening pill" appear better than hair of the white cock, ashes of a bowstring, finger-nails, or a claw of the flying-squirrel, which tears its young flying, and they at once fly after it.

So abortion-producing agents are numerous and largely placarded on the walls of cities. The evil of the proceeding seems not to occur to them. The plea may be poverty or other circumstances. Dr. Wedgwood reports the intercession of a woman for such medicine for herself, that her husband being in fever might perspire. The idea is that a pregnant woman has four eyes, and during the period of uterogestation, the husband also has four eyes, and that the husband may perspire it is necessary to divide and break up the four eyes either by natural delivery or abortion.

An arm presenting, the midwife may pinch it or put salt on it, to cause it to be drawn back, or it may be pulled off, in time. Against cross-birth the Pan Tsso prescribes the ashes of the husband's hair.

"When the face is flushed and the tongue livid, the mother will live and the foetus will die; the tongue being red and the face livid show that the foetus will live and the mother will die; moreover, the pains that are felt in the expulsion of a dead foetus are not the same as those experienced in natural labor."

The birth occurring, the cord is cut with scissors or a piece of broken porcelain, near the navel, or sometimes it is said nearer the placenta measured off to the top of the child's head. This portion sloughing off at the navel for use as medicine. Or it may be done up in rice flour, or with the placenta buried at the outside of the door if a male, at the base of the left door-post, if a female at the right. Should there be retention of the placenta, tie a hempen string to the cord and to the other end affix a weight to prevent it from going back, and in three or four days the whole will shrivel up and come away. The midwife must not be allowed to pull away the membranes; many have lost their lives from this, therefore be very careful."* 

The child is wiped with soft paper and laid aside, well wrapped up in any old clothing. Its rice diet begins as soon as it can be made to take it, not waiting for the flow of breast-milk. It gets a bath after several days. Twins and triplets are probably the same in proportion here as elsewhere. "A triple

* Translation of Midwifery made Easy, by Drs. Kerr & Lockhart.
birth is the harbinger of evil.” We heard recently of a case of quadruplets, but several, if not all, soon died. The mother, after the birth, is kept in a half-reclining posture for a time and not allowed to go to sleep, because it would “produce exhaustion, impede the circulation and cause giddiness.” Fresh air is excluded as injurious to the “open pores” of the woman, and ginger-tea and a powder (金不換) prepared from the scrapings of old commodes is given to prevent her taking cold.

The third day or sooner she may have begun her domestic duties to a greater or less extent. The wealthy may keep her room for a month as being “unclean,” but at expiration of that time occurs the boy-naming, head-shaving, wine-drinking and ginger-eating feast. Should the infant die ere this, it is simply carried off, as not yet having any identity, to some dead-house or infant-tower, without ceremony or burial.

The after-diet of the mother is hearty—an element of it, rice and pickled ginger, hard-boiled eggs and often wine and boy’s urine. In the event of her dying within the mouth she is supposed to be plunged into the “bloody lake” hell, though for a good sum the priests may save her or have her released. Short of actual release or during the tedious process of accomplishing it, pauses in the torment can be obtained by purchasing the privilege of affixing a few hairs cut from the dead woman’s head to the inside of a certain bell set apart for this purpose. Every time the bell is struck during the progress of the temple ceremonies, the women whose hair is attached to it rise for a moment above the lake, and are allowed to catch a breath of air. In a temple in the suburbs of Szu-chi there was a bell five feet high crammed full of hair, while alongside of it there stood a firmly packed bale 3½ feet high and nearly 8 feet in circumference, of the same substance, that had recently been removed from the inside.*

There are superstitions about the death of the child, lest its spirit should re-enter the womb, etc.; but we conclude with an infallible recipe for weaning. At the age of two or three years, take three of the fruits of the Gardenia florida and burn them black, add vermillion and a very little calomel, throw in some oil, and then paint over the eyebrows of the child during sleep, and when it awakes it will refuse the breast. If, however, this should prove ineffective, then paint the breast with Indian ink, and the child, when it sees it, will be afraid, and so refuse the breast. We have some ancient works on Parturition and the Diseases of Women and Children but the references given are no doubt sufficient.

On the subjects of Small-pox and Inoculation a more or less full account has already been given in the Journal of December 1887. See also that of Sep. 1887.

There seems to have been a time when there was something of Surgery to boast of, at least we are well aware of the existence of the boast; but there is

now hardly anything worth the appellation; and what there is, is of the character of "meddlesome surgery" born of the merest empiricism.

The Chinese are timid of the knife, and well they may be in view of their dense ignorance of human anatomy. But they have also a deep-seated superstition against the maiming of the body, lest their well-being in a future state be affected by it. The body must be kept intact.

Thus we hear of an extracted tooth pulverized and swallowed, or an excised portion of the body actually eaten, or laid away carefully and reburied with the body.

The God of Surgery came from the Loo-choo Islands.

The Golden Mirror of Practice, the standard authority, tells of the eight operations of Surgery (外治): Feeling (palpation), reduction of dislocations, elevation of depressed bones, depression of elevations, trituration, protrusion, and grasping or tension. Their surgical apparatus is limited to ten articles, viz., bandages; a beater, a wooden angel applied to the soles of the feet; broad supporters of cow-hide, 5 inches long by 3 inches, with two holes at each end, through which cotton strings are passed to bind it on the wounded part; climbing cords, suspended cords on which to take hold; piled bricks, three under each foot to straighten the body, being removed as the patient hangs by the cords; black splints, a piece of pine timber three inches broad, extending from the loins above the shoulders, the inner surface grooved to set close to the back bone; lumbar splints, four pieces of thin wood with holes for small cords to give corset-like support; suspensory bandages of rattan or bamboo-matting to suspend the injured part; pine compresses. narrow splints of wood strung upon cords to bind upon body or limb to close up and compress the wound: kneecaps, a bamboo-ring with four clasps bound on to give strength and firmness to the joint; and nine needles, the arrow-headed, blunt, puncturing, spear-pointed, ensiform, round, capillary, long, and great used in acupuncture.*

Acupuncture and the moxa are applied to all manner of diseases where there is local pain or swelling. To these we have referred, as to the actual cautery and dentistry. As to some surgery of the eye, the commonest is that for entropium. As by clamping a portion of the eyelid between two bamboo sticks, tying these firmly together at the ends and causing a sloughing of the enclosed fold of skin, resulting in a contraction of the lid with eversion of the eyelids, or by string over the head drawing lid up or by double-headed bamboo arrow, worked into tissues of lid and skin of forehead, thus everting the lid,† or by hoop of bamboo, one end fixed on the lid, the other on the malar bone.

The barber we know periodically scrapes the conjunctiva, or with long bamboo probe punctures the conjunctiva of the ball, but especially of the upper lids, to ease any inflammation, as well as shaving the nostrils and ears.‡

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* BRIDGMAN'S Chrestomathy, p. 525.
‡ Peking L. M. Hosp. 1874, 24.
As of more importance we give a few detached sentences or two from a poem by Soo Tung-po, A.D. 1170, presented to the oculist Wang Yenyo, transcribed by an influential patient on a gilt fan, and given Dr. Parker after being cured of cataract. "The point of the needle is like the beard of wheat, ... The eye is so fragile that it cannot endure the least touch, but you, sir, move the pointed instrument within, back and forward, whilst you are laughing and talking and quite at your ease. Those who behold it, start backward because you turn the needle like a hatchet, you destroy the cataract as if you were breaking down a house. ... At first I did not know, it was the same to pierce the eye as to prick the flesh. You, sir, examined the eye, and cataract, and that cataract was not like the eye. All I beheld (formerly) with my eyes was indistinct and vague. Who opened the empty flower (the cataract), and made it fall off, so that the clear moon may rise, and go down? I presume to ask whether amidst the rejoicings of the whole family, they will forget to talk about your honorable dwelling?"* Dr. Parker thought from the characters used this indicated couching of cataract, or operation for pterygium.

Harelip, "divided or parted life," a common deformity, is, it would seem, sometimes remedied by applying an escharotic between the edges of the lip, and on this sloughing out the lips of the wound are brought together and heal by granulations.

For gunshot wounds there are a variety of plasters guaranteed to draw the bullets out, beyond this we have never known them to go.

In the way of a splint, some seem to succeed pretty well, the cue possibly taken from foreigners however.

This is about the extent of their surgery, though their skilfulness in the capital operation (amputation between the head and shoulders) has been remarked upon. Not to tarry on Father Ripa’s surgical experience, nor on cases of patients going 200 miles to have a splinter removed, or leaving the same protruding from the body for years, until a foreign doctor was met with, we must recall the famous illustration of the Golden Age, that of Wa-t'o, who in the cholera plague of 1888 sent us an infallible cure via planchette, and is an object of worship for all medical men. His image can be bought for a few dimes in any idol shop.

Wa-t'o scraped the arrow poison from the bone of the god-of-war, and afterwards sewed it up, Kwan-fu-tsz having refused Wa-t'o’s anodyne medicine, meanwhile chatting with his friends, none of whom dared look upon the ghostly operation. He also excised the eye-ball of an Emperor’s son, cut off the diseased portion and replaced it. He would also cut open the abdomen, wash the viscera with medicinal liquids, and stitch it up again. But also on account of the mere proposition to split open the head of Genl. Ts’o Ts’o, to let the wind out, he was

thrown, whence he went (after decapitation some say) to "wander among the genii," and now reigns as the god of medicine.

**Venereal and Syphilitic Disease was observed and described in China in most ancient times.** The Yellow (3rd) Emperor (B.C. 2637) wrote on gonorrhea with its complications of cystitis, nephritis, and epididymitis. He also describes chancre and buboes."* However, the genesis of Syphilis, it is said, must be referred to Canton (though perchance but one of several spots on the globe entitled to that bad distinction), where it was a common disorder at a period probably anterior to the 9th century, whence it spread to all portions of the Empire [to Japan (where a Japanese work states it was known anterior to A.D. 806; † though we also find it first appeared at Nagasaki, said to have been imported from the south (China) in A.D. 1624-44)‡ and elsewhere]. The earliest Chinese work in which syphilis has been described is the *Dermatology* of Tou Hanch'ing, imperial physician during the Northern Sung, at an uncertain period of the 11th century. The blocks from which that early book on cutaneous diseases was printed having perished, it was recut by a descendant of the author in the reign of Lung Ch'ing (1567-72), and printed with additions that are not distinguishable from the original treatise. Although ancient, the work is much valued, and is now to be found in almost every medical library. It is in six volumes, containing thirteen sections. Soyang in Honan was at that time the metropolis, and the residence of the court physician. According to our dermatologist, syphilis invaded Central China from Canton, then known only as a fit place for penal servitude, criminals being banished to that province, and officers who were in disgrace sent to govern it, or in other words, there was little intercourse between the far South and the Great Plain. From Canton it spread over the Empire, the period assigned being the latter part of the 11th century of our era. It was probably conveyed by junk to Japan from Canton, where it is likely that it prevailed for ages before it commenced its northward course. Assuming that syphilis was imported into Europe, its place of export is determined by this record. It may have been by caravan, but presumably it was by ship, *Arabians* being the carriers of commodities between Canton and the Arabian Gulf in the 8th century, if not anterior to the Hegira. If it be asked, "How did the venereal malady arise?" I answer that, Canton being marshy and hot, without frost and snow, insects and serpents there do not burrow or become torpid, and garbage accumulating on the ground, in the eleventh month (commencement of winter) its moisture and the mountain malaria, mutually fermenting, induced in the physically vitiated what were called genital corroding ulcers, which, like creeping plants or permeating dyes, infected

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* La médecine chez les chinois, par le Capitaine DABRY. 1868.
† Dr. SCHEUBE'S Contribution to the History of Syphilis. *C.I.M. Customs Medical Rep.*, No. 26 and 27.
‡ Dr. WHITNEY'S *History of Medical Progress in Japan*. 

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brothels; originating in telluric influences, it became epidemic, and was called the "Canton ulcer."

Not only did syphilis originate in China, but the Chinese were the first to employ mercury in its treatment, a mode of cure repudiated by our author, who claims merit for neutralising its poisonous effects on those who had been subjected to a mercurial course. It will be observed, however, that he employed it (unconsciously) in another form.

The controversy that our author commenced regarding the use of mercury in the treatment of syphilis still continues, but those who, like him, denounce its employment in one form—protochloride—ignorantly use the bisulphide. In the great work that was compiled by and issued under imperial auspices in 1717, "Golden Mirror of Eminent Medical Authors, compiled by Imperial Authority," the chapter on syphilis states that while mercury appears to effect a speedy cure, it merely drives the poison into the bones, whence after a protracted lodgment, it reappears in the forms that we designate secondary and tertiary.

It would seem, we read, in an old China periodical, that being commonly declined by the regular practitioners venereal cases are given to the care of barber surgeons, who use a singular preparation from quicksilver, cinnabar and arsenic externally. Patients often stipulate with the practitioner that mercury shall not enter into their prescriptions.

And in the same, "The Quacks of Canton employ a most powerful, but dangerous remedy for the venereal disease, which is well known by the name the "Triad Angel Elixir (三仙丹) composed of mercury, a sublimate of mercury, and arsenic, which are thrown together and sublimed, constituting the elixir of the three angels. Another prescription is saltpetre 3 drams, calomel 5 drams to the dose.

By way of pre-eminence the Canton Ulcer and its fruits are abundant in this Province. The popular estimate is that nine out of ten suffer from its infliction, and yet it probably shows nothing of the ravages it did when first introduced. It, however, complicates many diseases and its sequela are manifold.

The use of the gonorrhea bougies at the North, as described by Dr. Dudgeon, is a singular one.

Finally, we give some gleanings on this subject from popular sayings.

The Proverbial Philosophy of the Chinese is abundant, in books, on scrolls, on tablets, in conversation, so most characteristic of the Chinese one of the Branches of Medicine in the Imperial Medical College is Ancient True Medical Saying (太古真言). We append a few such:—

The prescription was good but the medicine bad 說的是真方賣的是假藥.

† Indo-Chinese Gleaner, III, 7, 186.
The quack cures the head of a disease, the honest doctor the tail also. 驱去先生
医病頭時來先生醫病尾.
In a dangerous illness call in three doctors. 急病請三師.
If the medicine does not create dizziness you will not recover from your sickness.
若藥不瞑眩疾不癒.
Quacks puncture and plaster, but only use spurious drugs. 打針貼膏藥賣藥
的用假藥.
Out of ten men eleven have the itch. 十人有十一個人生瘧.
A doctor has the heart to cut flesh off his thigh, but never the mind to deceive him.
醫有割股之心並無虛假之意.
The clever doctor can't cure himself. 能醫不自醫.
If a gambler can reform then is there medicine for leprosy. 賭錢能變麻瘋有藥.
Still by a lotus fibre the big salt-junk is bound; and having reached their climax, diseases must turn round. 薄絲繚痔船住災殃已滿病自愈.
When a disease returns no medicine can cure it. 反病無藥醫.
The son of the good sorcerer is generally killed by demons; the son of the great doctor often dies of disease. 長巫之子多死於鬼長醫之子多死於病.
With a leper you may sleep in the same bed, but don't stay opposite the door of one who has the itch. 寧與瘧疾人同床勿與疥癬人對門.
Pockmarks are marks of beauty. 痘皮痘得俏.
A teacher will not speak against a teacher nor a doctor against a doctor. 師不談
師醫不談醫.
When disease enters the region of the heart, no medicine can effect a cure. 病入膏
肓不可救藥.
Diseases enter by the mouth, misfortunes issue from it. 病從口入禍從口出.
Nine of every ten have listula. 十人九疷.
Before the small-pox and after the measles—are the critical periods. 痘前痘後.
The ordinary physician kills men. 常醫殺人.
The good medicine is bitter. 良藥苦口利於病.
The body may be healed; but the mind is incurable. 藥得身不醫得心.
Give a man a golden pill, and the devil of his disease will depart in a trice. 投以金
丹病摩立退.
There is a medicine for sickness but none for fate. 醫得病醫不得命.
When Im Wong (the king of hell) has decreed a man shall die at the third watch, no
power can detain him till the fifth. 闔王注定三更死勢不留人到五更.

DISCUSSION.

Dr Hasler asked on what grounds Dr Thompson thought the Chinese
ahead of us in some branches of obstetrics?

Dr Hodge thought we might possibly utilise the native barbers for massage.
He asked for information as to the oil cure for opium suicide; said he had
known a native doctor douche a man with cold water, as well as making drink large quantities, in the hope of bringing him round. Said the Chinese recognised that consumption was infectious; referred to the common practice of native doctors to recommend opium in any cases they cannot cure; gave instances, and said that in our fight against the evil we must not lose sight of the great influence of the native faculty in spreading the evil. Asked for information as to their treatment of fevers. Dr. Thompson said, in his reply, that they claimed to use gurjon oil as a remedy in opium suicide. He only intended to suggest that in midwifery there were some things we might possibly learn from them.

Dr. Morley found the native massage very effective in relieving the pains of opium-smokers; allowed every opium-smoker in his hospital to call in the native barber twice a day at the hospital's expense.

Dr. Lyall thought that native doctors treated ordinary febricula fairly well; they used strong diuretics and diaphoretics, and gave large quantities. Dr. Porter thought one reason why they distrusted us was that we gave so little medicine. Dr. Thompson pointed out that all Chinese looked upon us as outside doctors, and thought we knew nothing about internal diseases. Dr. Porter said that many fevers ran their course with a tendency to get well. Thought a large percentage of the successes of the Chinese doctors due to the fact that their patients' strength was sufficient to bring them through; did not consider the native faculty were really more successful with fevers than ourselves. Dr. Hunter said he had an assistant who had a very good knowledge of disease; his family for three generations have all been doctors. He cured a case of menorrhagia where he (Dr. Hunter) had failed. He gave a decoction of two native roots in vinegar, one of which was white peony root, and he explained their action rationally by saying they were all astringent. He thought we could learn much from the native faculty, and that all this bore on the training of our students. doubted if ever we shall be able to put a number of students into practice on purely foreign lines. Many of the native remedies are good and useful, and our students, to make a living, must modify the native practice. Dr. Thompson thought it well to conform to native prejudice, and always feel both pulses. Dr. Boone utilised the native barbers in suitable cases, but superintended them.

Dr. J. C. Thompson then read the following letter of greeting from Dr. Lockhart.

"As the oldest surviving Medical Missionary, I wish to send you, all good wishes for your every success in the Meetings you are about to hold. May the presence and blessing of the Saviour guide you in all you do, and may you all return to your stations refreshed and strengthened in mind and spirit. As you know, I am a Medical Missionary, and have spent many years in the land of
China, endeavouring, as far as I could, to make the Medical Work among the people the means by God's blessing of bringing them to the feet of Christ. I went out in 1838 and saw all the great changes that have taken effect and result in our now free intercourse with the Chinese people. I can say with perfect truth that I have never for a moment regretted that I went to China; the enthusiasm that took me sustained me to the end. I ever thought its the best course I could have taken and the best life I could live by spending it for Christ in China, and I believe it still. I was far more grieved when I left China than ever I was when a young man I left home to do God's work in the far off land. I do not wish to send many words of greeting to you all, but desire that in all your Conference, the influence of the Holy Spirit may lead and guide and bless you each one."

On the motion of Dr. Kerr, seconded by Dr. Watson, the Secretary was instructed to prepare a suitable reply, which the President was also requested to sign.

PAPER.

3.—By H. T. Whitney, M.D., Shao-en.

*Advantages of Co-operation in Teaching and Uniformity in the Nature and Length of the Course of Study.*

_Education_ is a relative quantity and dependent on talent and instruction, so that the depth and completeness of individual education depend both upon natural ability and the nature and extent of the instruction.

_Co-operation_ in its true sense implies increased facility and additional privilege.

*Uniformity* implies equal advantages to all.

These being the principles involved in our subject, let us seek to discover their relations and application.

In every age each country has its own institutions and its own peculiar duties, and each age, also, requires an education and fitness adequate to meet all of its duties and responsibilities.

And as the former systems of education in our own lands would be wholly inadequate to meet the demands of the present time, so we find it true in China, that her ancient institutions and methods of instruction wholly unfit her for a proper performance of the duties which lie at her door.

The influence of Christianity and foreign diplomacy; the progress of Western science and commerce; the introduction of Western inventions, such as foreign arms, gunboats, steamboats, the telegraph, railroads, etc., all reveal
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with glaring prominence the inability of old China to meet the growing demands of the new, and the consequent importance of new institutions and new systems to enable her to keep abreast of the advance of civilization even within her own borders.

And it is in aid of this, as one of its ultimate objects, that Medical Missions are established in China.

In harmony, therefore, with this purpose, we come to the consideration of the duties of the present hour.

It is well known that China has no medical schools, nor any system of medical instruction to offer her pupils. The native students of to-day have to feed upon the dry husks of the past. The medical part of China, as in all ancient countries, we know to be full of ignorance, superstition and error. To graft a new scion upon such a dead tree, with any hope of growth or fruitage, would be the height of folly. And Western physicians, perceiving this status in the beginning, have wisely set to work to prepare a complete series of Western medical works in Chinese, to admit of imparting to Chinese medical students a complete course in Western medicine.

The great opportunity now open to us is the completion of these Text-books, that we may have at an early day a full curriculum to offer all students of medicine throughout China.

And to this task co-operation is not only invited but absolutely required if we would hope for the most successful results.

The classic language in universal use: the Mandarin dialect, with certain regional differences, available in nearly half of the Empire, and more or less prevalent in all the provinces; the extensive local dialects like the Canton, Swatow, Amoy, Foochow, Ningpo, Shanghai, Hankow, etc., all open up to us a wide avenue through which to reach the intelligent classes both orally and by means of the printed page.

But the first step in this great work is the formation of a uniform medical nomenclature. Without this, foreign physicians in China cannot work together to advantage, and the native students will also be largely hindered in their efforts to learn Western medical science, owing to the confusion of terms in the Text-books and the medical literature which is certain to be created in coming years.

The second step in co-operative work is a united effort of the physicians in China to not only complete the regular medical Text-books but to prepare works on the special branches as well. And also begin the development of a medical literature, the most needy kind of which is a well-edited illustrated medical journal.

The third step in co-operative work is to endeavor to secure in the various mission schools two forms of preliminary instruction, one, the teaching of the first principles of Chemistry, Natural Philosophy, Physiology, and Hygiene.
These branches in connection with the other studies taught and the
disciplinary training secured at these schools is all important as a preliminary step.
The second form of instruction desirable is that obtained through "industrial
training."
The whole civilized world, during the past few years, has been waking up
to the importance of this kind of school training. And it is fully as important
in mission schools as it is in our home schools.
The value of this to medical students is, that it makes them more skilful in
the department of surgery,—a form of practice in constant requisition in China.
A physician who has not been accustomed to the use of tools, except he be
a mechanical genius, will usually be an awkward, bungling operator.
Even the man who was only a good whittler in boyhood, will open an
abscess or remove a tumor with more ease and grace than one who has not had
this practice.
So that it matters not so much what particular kind of work is done
provided the student is made familiar with the use of tools.
Every effort that is made to secure this kind of preliminary training for
students in our mission schools, will not only be equivalent to so much medical
training, but it will be the very best kind of co-operative work.
It will be observed from these remarks that we look for medical students to
come from the mission schools. This is exactly our position. We hold that as
far as possible, all medical students trained by medical missionaries, shall have
had some preliminary training in a mission school. And not only so, but it is
eminently desirable that every such youth should be a professed Christian. A
large part of a medical missionary's work is necessarily secular, but, as missionary
physicians, it is certainly our duty to endeavor to raise up a Christian medical
profession in China.
The position taken in regard to the preliminary training in mission schools,
applies equally to boys and girls, since the teaching of medicine to young ladies
has already begun, and the co-operative work done for them not only relates to
those who may be selected for medical students, but also to those who are to be
scattered among the masses, as they will make more intelligent patients and
help both us, and the native physicians who go out from us, in practising among
the people.
We come now to the specific work of the physician in teaching the student.
There are several good reasons why work of this kind should be co-operative.
In the first place, no one man is sufficient for such work and do it well.
Medical missionaries, from their own standpoint at least, are the busiest
and hardest worked class of laborers in the field. And what they do in teaching
is apt to be just so much extra work, after performing all their ordinary medical
duties and a good deal that is not medical.
Then, again, the physicians are scarce that can turn themselves into good sevenfold Professors.

It was said of the late Mark Hopkins, Ex-President of Williams College, U.S., that wherever one found President Hopkins and one student, there was a college. But it is not often the case that such words can be said of any one individual. And, besides, it is better to have a variety.

Students confined to the influence and teaching of one person for several years cannot obtain that depth, variety, and fullness of development that is possible with several teachers.

Then, too, physicians are not equally proficient in all branches of medicine, and some have special preferences and adaptability for certain lines of teaching. One prefers Anatomy, another Physiology, another Theory and Practice, another Surgery, and so on; and where these preferences can be utilized it secures for the student a more thorough training.

This applies not only to text-book but also to clinical teaching.

Different physicians employ different methods to teach the same truth.

Some also bring out points of diagnosis or treatment that might not suggest itself to others. Then, again, it is always helpful to secure, when possible, the co-operation of community physicians in places where there are such.

Even if they do not know Chinese, and the students cannot understand anything they say, yet they learn a good deal by observation. This is especially helpful in surgery, where different physicians employ different methods of operating.

The students are quick to note the difference, even if nothing is said.

This helps to a broader view of medicine.

Students, also, enjoy new faces, and they try to do better when their teacher has company. It helps to stimulate them to greater activity, and to stir up an ambition to be thorough and competent.

To make an application of these thoughts, when two or more missions are located in one place, it would be better to unite their forces in work of this kind, and also bring the students together, if possible. But if this is not convenient, then plan to give each student the benefit of united instruction.

There is one more phase of co-operation under this part of our subject, namely, the importance of securing the help of one or more of the missionaries in the endeavor to fortify the students with Christian truth, and develop in them a strong Christian character, that they may go out, like Luke, the beloved physician, to exert an influence of saving good among the people, as well as attend to their physical ills.

The Second Part of our Subject relates to Uniformity in the Nature and Course of Study.

The uniform nature of regular medical studies has been so long established in Western countries that a student seldom thinks of it in deciding which medical
school to attend, but rather of the differences in Professors, the extra lectures, the superior clinical advantages one institution offers over another, and the comparative cheapness of colleges in proportion to the greater facilities they afford for obtaining a thorough medical education.

As yet no distinctions of this kind can be made by Chinese medical students, as usually only one place is open to them.

However, we should endeavor to provide for them the best we can.

No course would be considered complete without some knowledge at least of the seven regular branches, and yet, such are the peculiar conditions in China, these branches are not all of equal importance.

For instance, Obstetrics, except with lady students. But a general knowledge of the subject, in the present state of practice in China, is as good for men students as a thorough acquaintance with all its details.

Chemistry also can be limited to a few first principles, with some knowledge of Physiological-Chemistry.

Materia Medica may be limited to one or two hundred remedies with a knowledge of their action and therapeutic use.

The principles of surgery need to be thoroughly taught, but in practice it is not necessary in the majority of cases to go much beyond minor operations.

Those who are to remain in hospitals require a more extensive knowledge, and they necessarily obtain it.

I cannot agree with some that a smattering of Anatomy is sufficient for Chinese students, but that this with Physiology and Practice, including of course Pathology, should be thoroughly taught as the necessary prerequisite to an intelligent understanding of the healing art.

In addition to the regular seven branches, whatever can be furnished commensurate with the needs of students, such as separate works on skin diseases, syphilis, diseases and operations on the eye, diseases peculiar to women and children, and operations upon special organs, etc., should also be taught.

Thorough instruction in vaccination should be given, and the students impressed with the importance of helping to secure a more extensive introduction of pure virus and the foreign method of vaccinating.

The time that should be required for a course of instruction cannot be regarded as a fixed quantity, because there are several modifying conditions, first the time at the disposal of the physician for teaching, and the plans, circumstances, and future prospects of the students are to be considered.

If there are several to assist in teaching, and the student merely plans to sell medicines, vaccinate, and get a little practice in his own town and vicinity, three years is sufficient, though this presupposes that he has come from a mission school, otherwise a longer time is necessary. If the physician has to do most of
the teaching, or if the student is expecting to practise in any of the ports or cities or have a position in a hospital, five years at least are necessary.

Hitherto students have not been taught with a view to entering government service in the army or navy, but if circumstances in the future should point to such on opening, mission hospitals should plan accordingly.

Too much stress has been laid upon the idea that native students must first learn English in order to become skilful physicians.

Foreign physicians are apt to look at China from a Western standpoint instead of the actual condition of things as they are. A country that is back in the "Middle Ages" in medical practice is not prepared to appreciate or utilize the most advanced results of Western medicine. But as fast as they can or will receive them, their own language is a competent medium through which to impart them.

For the present, the course which has been indicated, and the time required to complete it, is sufficient for all her requirements.

We will now briefly recapitulate the main points of this paper, which are as follows:

1. That China being destitute of any scientific medicine of her own, it is our duty to co-operate, as far as possible, in all efforts to secure to her this blessing.

2. That the first step in the right direction is to provide a uniform medical nomenclature, furnish a complete series of medical Text-books, and develop a medical literature.

3. That mission schools should furnish definite preliminary instruction to medical students, and, as far as possible, all medical students should be Christians and selected from the mission training schools.

4. That physicians should co-operate, as far as possible, in giving instruction, and ministerial aid should be secured in completing the religious training of the students.

5. That the course of study should embrace the regular seven branches of medicine taught in all Western colleges, and the most important of the special branches.

6. That the time of study should range from three to five years, according to the student's preliminary training, the teaching force and the future plans of the student.

7. That the stated curriculum and period of study correspond to the present requirements of students in China.

The morning sitting then adjourned.
The meeting was opened with prayer by Dr. Macklin of Nankin. The adjourned discussion on the papers of Drs. Lyall and Whitney was then opened by Dr. Roberts, who, whilst thoroughly agreeing with all that Dr. Lyall had said, especially emphasised the advantage that such co-operation would give in opening up new stations.

Dr. Hodge dwelt on the need for mutual help and consultation.

Dr. Watson had found the question very satisfactorily settled in his own case, his wife being a doctor. Recommended all his bachelor friends to bear the hint in mind.

Dr. Taylor asked for information as to whether his brethren thought it wise to have separate hospitals for women. Dr. Hodge thought it was. Experience had led them, in his own mission, to adopt that course with satisfactory results. A better class of patients was reached. Saw women at Wuchang himself, but never attempted any gynaecological work. Had known a woman leave their women's hospital rather than allow him to see her in consultation. Dr. Haslep also bore testimony that a better class of patients come to a purely woman's hospital. Dr. Lyall had for many years had men and women under him in the same building; he had not, however, found it satisfactory, and was now building a separate woman's hospital. Dr. Douthwaite said we should consider the needs of the field as a whole, and, although he quite appreciated all that had been said, he himself could not ask for a colleague whilst there were so many places without any doctor at all. He insisted upon the need of a thorough training of a Chinese student before he took up medicine. Our students, as a rule, are insufficiently grounded before they come to us. Ordinary Chinese training only develops the memory and not the reasoning faculties. Recommended that all students should be put through a course of mathematics.

Dr. Lambuth emphasised the need of better men at the big centres. Having been engaged in both medical and also purely evangelistic work, he could testify that the strain of the former was incomparably greater than that of the latter. A man without a colleague is unable to take the relaxation afforded by a country tour, and, not unfrequently, though lack of a successor to his work, has to prolong his stay in the country far beyond what was wise for his health. Thought this was not sufficiently recognised at home, and that too little consideration was shown for the medical man's health. Medical
Missionaries should have more frequent vacations home and more help in the
great centres of work.

The President thought it good that two men should work together in
the large centres, and suggested division of their work: two hospitals, one
for women and one for men, worked by different doctors, but as departments
of one hospital, the most economical course.

PAPER.

4.—By Professor E. P. Thwing, M.D., Ph.D., Brooklyn, N.Y.

Western Methods with Insane Chinese.

Is there a demand for Lunatic Asylums in this land? Do the native
population ask for the application of Western methods in the treatment of their
insane? We must admit that there is no popular call for such a movement.
The mass of the people are indifferent alike to the gospel, and all the sweet
humanities of life which are born and fostered by it. Do the educated and
wealthy natives ask for foreign aid in this matter? I have yet to learn of any
general demand. Their mental horizon is somewhat broadened by thought,
obervation and business intercourse with us, but they have the same apathy in
the matter. It is foreign to their way of thinking. There is no public spirit
here, that impersonal but mighty impulse which at home represents hereditary
instincts which are the growth of centuries of Christian thought.

With my honored colleague, Dr. John G. Kerr, I have visited wealthy
native citizens of Hongkong and Canton and laid before them the proposition of
a Lunatic Asylum which would bring relief to their suffering kinsmen. They
listened courteously, but declined to do anything. I have seen individuals of
influence alone and only secured a general and somewhat languid approval, but
no promise of help for their countrymen, inasmuch as they have their own
way of dispensing alms.

But, for all this, there is an imperative call for this undertaking. It is
found in the necessities of the case, in the actual condition of many of the people.
The demands of humanity require it of us. We ask, not what they want, but
what they need. The heathen do not ask for bibles and missionaries, but they
need them all the same. Moreover, the scientific instincts of an educated
physician at this age of the world will not allow him to rest when this department
of our medical equipment is so sadly deficient. The profession at home are
making the whole field of mental diseases a prominent study, and look to their
brethren abroad for valuable contributions. The researches of the lamented
Dr. George M. Beard, of New York, gave a great impulse to Medical Psychology.
In some sense as a memorial of my friend, the Academy of Anthropology was founded by me the year of his death, 1883. The co-operation of his associates, and of many eminent alienists in America and Europe, have broadened and enriched its scope beyond the anticipation of those who began its unpretentious work. The physical and psychic factors of disease; the social, civic and political; broader still, the racial tendencies—are hints of the materials of a unique and opulent department of study. Foreign physicians can aid materially in these researches.

Assuming the need, how shall we secure the introduction of Western methods? Smoke precedes the blaze. Agitation precedes accomplishment. Eighteen years ago Dr. Kerr's report of Canton Hospital called for this step. Reports from other hospitals say that applicants are refused for lack of suitable accommodations, and persons competent to undertake the custody, care and care of lunatics. At the semi-centennial meeting of the Medical Missionary Society of China, the matter was put into the hands of a Committee, who reported, January 24, 1890, recommending that the work be taken up by a separate organization. February 18, a Provisional Committee was formed to inaugurate plans for an Asylum in Canton or vicinity. They determined, first of all, to prepare in the Chinese language, and circulate, literature on the subject of insanity, its causes and cure; also to prepare plans of buildings, and show the Western methods, and urge upon society the duty of supporting such an institution. A pamphlet embodying these ideas has been printed with an English version and additions. Also subscription books have been prepared. The first money received came from Japan. As the details of architecture, location and general conduct of such an asylum are now published and accessible, I will not rehearse them, but hint at a few other essentials of a successful introduction and application of Western methods.

One vital requisite is to have a superintendent who is thoroughly versed in the treatment of lunacy and as thoroughly acquainted with Chinese themselves. Chinese characters are hard to understand, but Chinese character is still harder to read. Spain is called a riddle, a land of contradictions, where "two and two make five," but I find more surprises, antitheses and incompatibles here than in the Iberian peninsular. The true basis of remedial science is a knowledge of man himself in his historic development, his changing conditions and environments. There is an umbilical cord that binds him to past generations. We must understand the hereditary instincts of the Chinaman, his individual, social and religious life, the mental and moral, climatic and political conditions which mould his being and thought in a normal state, in order to treat those disturbed and tyrannizing mental conceptions which we call insanity.

Competent attendants are equally important. To ensure harmony and efficiency of action, they should be appointed by and made directly responsible to
the medical superintendent. To this end the study of mental diseases should be included in the curriculum of medical students here, as at home. It should be not only preceptive, in the form of lectures and recitations, but largely clinical, with reference to the actual care and cure of lunatics. Male nurses might also be trained at the same time in this work. A trustworthy steward is needed to attend to the material and pecuniary matters of the asylum. He should be a foreigner. It would be well to anticipate and prevent misunderstanding to have agreements in writing as to the custody of the patients and all matters pertaining to their support, control and disposal. People of the East are litigious, suspicious, distrustful. New, strange schemes like this, need guarding in every particular, at the start. Clinical details should be kept with the minuteness and fulness of Western asylums. These data will be helpful here, and valuable to those of us who at home are gathering information in reference to Eastern nations, their susceptibility to certain diseases, their immunity in others, the modifying influences at work, and ancillary topics.

It is of prime importance that there should be agreement as to the nomenclature used by alienists of the East. At the Saratoga Conference such a basis was reached, and the crowning work of the Paris Congress of Mental Medicine was the adoption of a system practically the same. The discussion was earnest and the result was reached with unanimity. Details may be found in the Medico-Legal Journal, a New York quarterly. This uniformity of definition and classification is needed to secure the full value of the statistics of neuropathic conditions, gathered from all parts of the world. And this is but one of many fields of professional activity in which we need to act in organized unity and co-operation, the world over.

Finally, I congratulate you in this humane and beneficent work now initiated, which furnishes this people a conspicuous example of the spirit of Him who taught, not "the survival of the fittest," but the restoration of the suffering and the lost. Believing Christianity to be the highest expression of human civilization, we seek to make it a regnant power in this land. The premature introduction of the material, mechanical civilization of the West, with all the anarchical strifes attending it, would, as Laffitte suggests, be likely to produce violent perturbations in China. But if the gospel has a priority and a pre-eminence, it will forfend disaster, and by its humanizing and philanthropic spirit prepare the people for those new social relations and economic conditions which are its legitimate fruit.

Dr. Lyall moved a vote of thanks for the very valuable paper which Professor Thwing had read. This was seconded by Dr. Park and carried nem. con. Professor Thwing made a suitable reply.

The following business was then attended to:—

The report of the Committee on nomination to the offices of the Society
for March 1890 was presented, and on the motion of Dr. Phillips, seconded by Dr. Watson, received.

The following elections were unanimously confirmed: —

President: — A. Lyall, M.B.C.M.

Vice-Presidents: —

North-China Division. — J. F. Roberts, M.B., C.M.
Wuchang and Hankow. — A. Morley, M.R.C.S., L.R.C.P. (Lon.)
Shanghai and Nanking. — R. Beebe, M.D.
Fukien and Formosa. — V. S. Taylor, M.D.
Kwang Tung. — M. Fulton, M.D.

Hon. Secretary. — S. R. Hodge, M.R.C.S., L.R.C.P. (Lon.)

Hon. Treasurer. — T. Gillison, M.B., M.Ch.

Board of Censors: — E. T. Pritchard, M.B., C.M.

T. R. Watson, M.B., M.R.C.S.
D. Grant, M.B., C.M.
K. C. Woodhull, M.D.
W. E. Macklin, M.D.
J. M. Swan, M.D.

Dr. Lyall, as President Elect, briefly acknowledged his appreciation of the honor conferred upon him.

The following gentlemen were elected Honorary Members of the Association: —

Dr. S. W. Bushell, Pekin, proposed by Dr. Watson, seconded by Dr. G. Y. Taylor.

Dr. J. T. Leonard, (U.S. Consul-General), proposed by Dr. Porter, seconded by Dr. Macklin.

Dr. John Dudgeon, proposed by Dr. G. Y. Taylor, seconded by Dr. Hunter.

The following were elected Corresponding Members: —

Rev. A. G. Jones, Chao Ping, Shantung, proposed by Dr. Roberts, seconded by Dr. J. C. Thomson.

Mrs. Dr. Corbett, Chefoo, proposed by Dr. Hunter, seconded by Dr. J. C. Thomson.

Rev. E. C. Smythe, Chao Ping, Shantung, proposed by Dr. Watson, seconded by Dr. Hunter.

Moved by Dr. J. G. Kerr, and seconded by Dr. J. C. Thomson: —

"That this Association cordially respond to the invitation of the International Congress of Medical Jurisprudence, and will cheerfully interchange publications and correspondence."

At the special request of Professor Thwing (speaking in the name of the International Congress) Dr. H. W. Boone, the President, consented to become an Honorary Vice-President of that Society.
The following Committee on Medical Nomenclature was nominated by the President:

- P. B. Cousland, M.B., C.M.
- A. W. Douthwaite, M.D.
- Wm. Wilson, M.B., C.M.
- H. D. Porter, M.D.
- S. A. Hunter, M.A., M.D.
- J. G. Kerr, M.D., (Chairman).

Moved by Dr. Hodge, and seconded by Dr. Hunter, and carried:

"That the Committee on Nomenclature be instructed to confer with the School and Text Book Committee of the General Conference on the general subject of nomenclature, but with perfect freedom to all independently."

The President brought forward a proposition for the preparation of an anti-opium pill, not containing opium, to be prepared and recommended by this Association. Some doubts having been expressed by Drs. Morley and Hodge as to whether the gradual reduction system were not the better one for non-qualified persons managing Refuges, Dr. Boone agreed to the substitution of the following resolution, which was moved by Dr. Hunter and seconded by Dr. Lyall:

"That a Committee of three be appointed by this Association to prepare a tract in English upon the treatment of the opium habit, containing formulæ of remedies which may be used for the purpose, such remedies not to contain opium or its alkaloids, and to be such as this Association can with confidence recommend to the missionary brethren for use in Opium Refuges and elsewhere."

Carried.

The President nominated the following Committee:

- J. G. Kerr, M.D.,
- A. Lyall, M.B., M.Ch.
- J. R. Watson, M.B., M.R.C.S.

to which, at the request of the meeting, the President consented to add his own name.

Moved by Dr. Douthwaite, seconded by Dr. Taylor, and carried:

"That a Committee of five be appointed to collect information on Chinese Materia Medica, and that the results of their investigations be published annually in the Journal."

The President nominated the following Committee:

- A. W. Douthwaite, M.D.
- J. B. Neal, M.D.
- Wm. Wilson, M.B., C.M.
- J. C. Thomson, M.D.
- W. H. Park, M.D.

Moved by Dr. Mathews, seconded by Dr. Hodge, and carried:

"That the inclusive proceedings of the present meetings be published consecutively in a Conference Number of the Journal. Such to
follow the June issue as soon as possible, and to take the place of the September Number if practicable.”

A long discussion took place on the question of an appeal to the home churches for more medical men, and finally the following motion, proposed by Dr. Roberts and seconded by Dr. Taylor, was carried:

“That a Committee be appointed to draw up an appeal to the home boards, urging most strongly that in every large centre there be appointed two medical missionaries, and that the reason for the appeal be also stated.”

The following Committee was appointed by the President:

A. W. Douthwaite, M.D.  B. C. Atterbury, M.D.
K. C. Woodhull, M.D.  Jos. C. Thomson, M.D.
E. Reifsnyder, M.D.  A. Lyall, M.B., M.Ch.
J. F. Roberts, M.B., M.Ch.

The following Resolution was moved by Dr. Porter, seconded by Dr. Park, and carried:

“Resolved, that we have heard with much interest of the inauguration of a scheme by Dr. Kerr and Professor Thwing for the establishment of an Asylum for the Insane in Canton, and that we wish them the greatest success in the accomplishment of this humane and much-needed object. Also, that we recommend that efforts be made to establish similar asylums in other parts of the Empire.”

Dr. Kerr moved and Dr. Taylor seconded:

“That the thanks of this Association be conveyed to the officers and trustees of the Union Church for the use of their Lecture Room.”

Carried.

Moved by Dr. Hodge and seconded by Dr. Mathews:

“That when a nomination for election is issued in the Journal, unless any Censor lodges an objection to any such nomination, it be concluded that such nomination is satisfactory. In the event of any such objection being lodged, the President shall take steps to postpone the election for further enquiry.”

Carried.

Moved by Dr. Thomson and seconded by Dr. Hodge:

“That the following words be added as §2 to article 5 of the Constitution:—‘That the Editor of the China Medical Missionary Journal be an officer of the Association.’”

Carried.

Resolved, on the motion of Dr. Park, that the Secretary be instructed to cast a ballot for Dr. Mathews as Editor of Journal.
Dr. Lalcaca expressed thanks on behalf of himself and colleagues for being permitted to take part in the discussions, also of his sense of the value of such an Association, as that of the Medical Missionary Association of China.

At the request of Dr. Porter the following was ordered to be entered on the minutes:

"That all Medical Societies, Practitioners and Medical Missionaries in China are cordially invited to send any medical papers, hospital reports, statistics and periodicals which they may publish or be interested in, to the Newbury Library, Chicago, Ill., U.S.A., to form part of a universal medical reference library now established. That any persons thus interested are cordially requested to communicate with Rev. E. W. Blatchford, Trustee of the above-mentioned library, 375, Lasalle Avenue, Chicago, U.S.A."

The same request was presented for the Army and Navy Museum, Washington, District of Columbia, U.S.A.

(Afternoon Session, 22nd May 1890.)

The President, H. W. Boone, M.D., in the Chair.

Percy Mathews, M.D., F.R.G.S. Acting Secretary.

The Rev. Dr. Hunter offered prayer.

The routine business being disposed of, the members present then signed the Constitution.

The following gentlemen were duly elected to the Membership of the Association:

G. A. Cox, L.R.C.S., L.R.C.P. (Edin.), L.F.C.P. & S. (Glas.)
Dr. J. J. Attwood of Chicago.
Dr. Henderson of Chefoo.
Dr. Bushell of Pekin.
Howard Taylor, M.D. (Lond.), F.R.C.S.

The Committee on Nomenclature reported progress.

Moved and seconded:

"Whereas the great prevalence of Small-pox in China is well established and fully known, and whereas three cases have occurred among members of the Missionary Conference during the time it was convened, and two deaths have taken place among the Missionary body in other parts of China during the same time, therefore
Resolved, that we recommend the various Missionary Boards to require successful revaccination as a necessary condition of appointment to Missionary work in China.

After a discussion, in the which nearly all the members took an active part, the motion was unanimously carried.

It was then proposed and seconded:

"That this motion be conveyed to the Home Boards by the Medical Missionaries connected with the various Societies, together with a letter of explanation."

Carried.

Moved and seconded:

"That in order to secure a uniform system in making up our Reports, the Classification of Diseases issued by the Royal College of Physicians and Surgeons of England be adopted."

Carried.

A discussion ensued as to the desirability or otherwise of translating the Society Anti-Opium Tract into Chinese. The matter was dropped.

It was then proposed and seconded:

"That as this Association never gave authority for the suspension of Article 7 of the Bye-Laws, and inasmuch as many heavy expenses connected with the various important Committees appointed by this Conference are to be anticipated, Be it enacted that the Treasurer call in all Dues for 1889."

Carried nem. con.

A vote of thanks was then moved to the Secretaries for their arduous and valuable services. Carried unanimously.

A vote of thanks was then moved to the President for the courteous and able manner in which he had carried out the duties of Chairman. Carried unanimously.

The President made a suitable reply, referring to the pleasure afforded him by meeting, and having such pleasant communion with his brethren of the profession for the past few days, and in thus officially parting with them, he would bid them farewell and God-speed.

Moved by Dr. Mathews, seconded by Dr. Kerr:

"That this Conference do now adjourn sine die.

Carried.

A suitable service of prayer was then held, in which the work and the workers were commended unto the Lord.
Members of Conference. 213

ALPHABETICAL LIST
OF THE
MEMBERS OF CONFERENCE.

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<td>Boone, H. W., M.D.</td>
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<td>Douthwaite, Rev. A. W., M.D., F.R.G.S.</td>
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<td>Hodge, Rev. S. R., M.R.C.S., L.R.C.P., (Lon.)</td>
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<td>Woodhull, K. C., M.D.</td>
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HONORARY MEMBERS.

Blanc, Ed. H., M.D., (Paris)  ...  ...  ...  ...  ...  ...  Shanghai
Broomhall, Anna, M.D.  ...  ...  ...  ...  ...  ...  Philadelphia
Jamieson, Alex., M.A., M.D., M.R.C.P.  ...  ...  ...  ...  Shanghai
Henderson, Edward, M.D., F.R.C.S., (Edin.)  ...  ...  ...  Shanghai
Lalcaza, Cawas, M.D., L.R.C.P., L.M., (Lon.)  ...  ...  Japan
Lambuth, Rev. W. R., M.D.  ...  ...  ...  ...  ...  Shanghai
Little, L. S., M.D., F.R.C.S., (Eng.), B.A.  ...  ...  ...  Shanghai
Macleod Neil, M.D., etc., (Edin.)  ...  ...  ...  New York
Reid, Duncan, M.B., M.C.H.  ...  ...  ...  Shanghai
Thwing, Rev. Professor, M.D. Ph.D.  ...  ...  ...  Shanghai

CORRESPONDING MEMBERS.

Fryer, Mr. John  ...  ...  ...  ...  ...  Shanghai
Sugden, Miss  ...  ...  ...  Wes. M.  Hankow
Swinney, E. F., M.D.  ...  ...  ...  A.S.D.B.M.  Shanghai
