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## RELAPSING OR FAMINE FEVER.

By JAS. B. NEAL, M.D.

During the winter and spring of 1889, unusual scarcity prevailed in many parts of the province of Shantung, China, amounting in some parts to actual famine, in others, as in the writer's former prefecture of Tungchowfu, to merely very high prices for the ordinary staples of food.

Returning early in June from the famine region, where reports of fever were just beginning to prevail, I found during the ensuing few months an unusual prevalence of fever in Tungchowfu, there being some twenty-two cases under treatment in hospital, ten of which were diagnosed as Relapsing Fever. From these ten cases, I have selected six for reporting upon, partly because their temperature charts show so plainly the attacks and remissions of fever, the only exception being that of No. 3, and partly because the other symptoms correspond so nearly to the descriptions of the disease given by various authors as to leave no room for doubt as to the diagnosis.

As will be seen by an examination of the appended notes, the symptoms which were almost invariably present in these cases, and which may be considered diagnostic of the disease, were nausea and bilious vomiting; jaundice, slight or severe, shown not only in the yellowness of the surface but also by the presence of bile in the urine; pains in the muscles and joints, usually severe and causing the patient much distress; and finally the occurrence of relapses.

The duration of the first attack of fever ranged from three to five days, the first intermission from five to ten days, the second attack of fever from three to five days, the second intermission, in cases where there was a third attack, being very short, only one day, while the third attack was also correspondingly short,

only in one case exceeding two days. In no case did I observe more than two relapses, that is, three separate and distinct attacks of fever. As will be observed, the fever in the relapse usually ran higher than in the first attack, and always, whether in the first or second attack, fell by crisis. The highest temperatures reached were  $107.2^{\circ}$  and  $108^{\circ}$ , the usual range being from  $103^{\circ}$  to  $105^{\circ}$ , these very high temperatures showing themselves only at the time of a crisis. Delirium was a very infrequent accompaniment of the disease, while low typhoid symptoms were not observed in a single case. The convalescence was always much protracted, the patient finding his strength very much reduced by the fever, and requiring a long time to get back to his former state of health. The intermissions were characterized by no symptoms except loss of strength and occasionally a slight persistence of the pains and jaundice. It did not seem to be virulently contagious. Only one of seven people, who were in intimate contact with the patients, took the disease. Treatment in my cases consisted for the most part simply of milk and gruel diet at regular intervals, with antipyrin or antifebrin when the temperature rose above  $103.5^{\circ}$ .

#### RECORD OF CASES.

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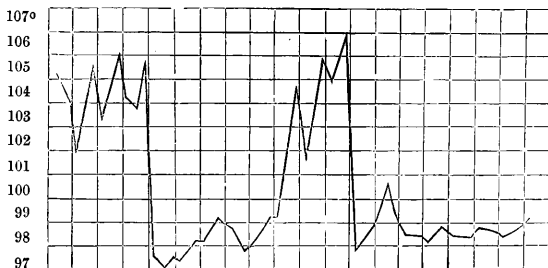
*Case No. 1.*—Male, age 21, scholar in college.

Is not naturally strong. Disease began two days before temperature observations were taken, with headache, nausea and fever, second day felt chilly at times. Vomited a number of times during first three days, ejecta consisting of food, bile and round worms. Complained of a good deal of pain in stomach but no tenderness on pressure, and of pains in his legs; jaundiced. First attack of fever six days. Temperature fell by crisis, and intermission lasted eight days, second fever five days. Was delirious one night.



*Case No. 2.*—Male, farmer.

Good physique. Came in on second day of fever with temperature of  $105^{\circ}$ , giving no history of nausea or vomiting. Complained afterwards of pains in legs, pretty severe, and vomited several times, some jaundice. First fever five days, intermission five days, second fever three days, intermission one day, third fever one day.

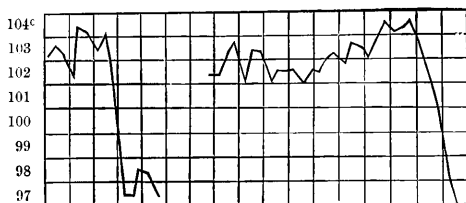
*Case No. 3.*—Male, age 33, medical student.

Usually very strong and robust. Disease began with feeling of feverishness, headache and dizziness, succeeded by nausea and vomiting up of sour liquid, yellowness of surface and dark colored urine, showing presence of bile on addition of sulphuric acid and sugar, and by severe and constant pains in muscles of legs and joints of fingers. After twelve days of continued fever, without delirium or any low typhoid symptoms, his temperature gradually declined to normal, but his convalescence was very slow. He had no relapse. I have included this case among the more undoubted cases of Relapsing Fever because I think the general *ensemble* of symptoms point more clearly to its being this disease than any other fever, although I am aware there is room for doubt, especially as a slight discrete rash of slightly raised dark red spots declared itself about the fifth day on his abdomen and arms, pointing to the possibility of its being Typhus, though no typhoid symptoms were developed.

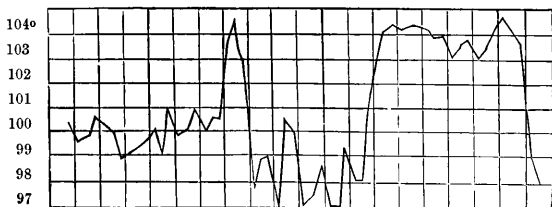


*Case No. 4.—Male, age 19, beggar.*

Underfed, weakly. Disease began with headache, chilliness, general pains, followed by vomiting, severe jaundice, and pains in arms and legs and knuckles. He had fever for only three days, when it suddenly left him and he was free from fever for ten days, when he had another attack, which lasted for only two days, the symptoms being about the same, the pains, however, being more distinctly localized in the larger joints, such as his shoulders, elbows and hips. His case is interesting as showing a very long interval between the attacks. He had been sent home after eight days' freedom from fever, which explains the hiatus in the observations of temperature.

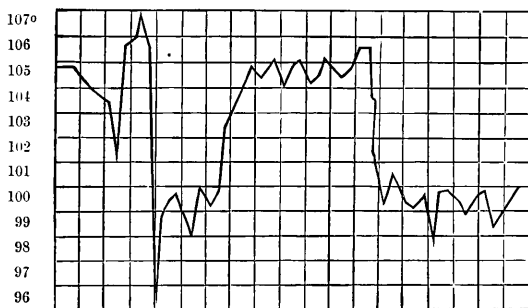
*Case No. 5.—Male, age 22, farmer.*

Came in on fourth day of fever. Began with general pains, nausea and vomiting. Heavily jaundiced; urine dark colored. During the relapse, which came on after six days' intermission, he suffered from diarrhoea and vomiting. Complained very little or none at all of pains in limbs. Fever left him the second time after five days, but he was granted only one day's respite, it set in again and continued seven days, when he ran away. Was slightly delirious at times.



*Case No. 6.*—Male, age 21, house servant.

Well-nourished. Began with malaise and general pains, followed on second day by severe pains in knee and shoulder joints. Slightly jaundiced and nauseated. First attack of fever lasted six days, and during the first few days of the intermission he still complained some of pains in large joints. After six days' freedom from fever he had a second attack of four days, during which, at the time of the crisis, his temperature reached  $108^{\circ}$ . It fell immediately, however, to below normal, but continued low for one day, rising afterwards to only  $101.5^{\circ}$  for the day and then declining to the normal \*



## THE OPIUM CURE.

### A PLEA FOR GRADUAL WITHDRAWAL.

By ARTHUR MORLEY, L.R.C.S. & P. ED., *etc.*

During its meetings in Shanghai, the Missionary Medical Association unanimously requested the Conference to condemn the indiscriminate distribution by Church members of pills containing opium; it also appointed a Committee to prepare prescriptions for the use of non-professional men in the cure of opium patients, specially directing that they contain no form of the drug. Thus the Association not only condemns the indiscriminate distribution of opiates, but also affirms that in no instance are they required in the treatment of the habit,

\* The highest temperature attained has been omitted in the Author's Thermograph sketch. The accompanying woodcut is a facsimile of the same, and we did not notice it until after the block was cut and it was printed off.—*Editor.*

for its formulæ provide for no such instance. If opium be never required, its use is always unjustifiable; and, therefore, in the opinion of the Association, the only justifiable method for laymen to cure the habit is the total and immediate withdrawal of the drug. The Association committed itself to this conclusion after scarcely any discussion; nor has the subject yet been dealt with in this Journal. I propose, therefore, notwithstanding the narrowness of my special experience, to give the readers of the Journal some of the results of that experience, hoping that my doing so, may at least be of use in pointing out the direction, in which useful enquiries may be made by those who have fuller opportunities.

If only our hospitals were prisons, we might get some of the brilliant results which have been achieved in Hongkong,—that is, if we could also then get the patients. A man comes to us of his own will to break off opium. He does not look to have the craving, which he knows must be endured, destroyed by a charm; he wants us to give him what help we can to overcome it, which, in plain English, means to make the cure as easy for him as possible. If, therefore, it be easier for him to break off the habit gradually, and if the gradual breaking-off has no counterbalancing evil effects, we ought to help him to that extent, and not play him false by inflicting a useless suffering upon him.

There are at least two pieces of evidence to shew what precise amount of suffering is relieved by a gradual withdrawal of the drug: there is the proportionate number of those under different treatment who fail to endure the pain; and there is the proportion who require the assistance of narcotics. Before I give these figures I must explain the treatment which I adopt. I follow no rigid rule, but roughly divide the patients into two classes: first, old smokers and those much enfeebled by the habit; to these I generally give opium in diminishing doses, for from four to seven days, at about their usual time of smoking, and sufficient perceptibly to lessen the craving, but of course never, even at first, wholly to satisfy it; secondly, those who are light smokers or who appear to be in tolerable health; these I break off at once, except that I frequently—that is, in nearly half of their number—give them the stimulant which they so often need, in the form to which they have been accustomed, minute doses of opium, but never sufficient appreciably to lessen the craving; of those included in this class the one to whom I gave most opium took a total amount of 70 drops of laudanum, the average being 45 drops, scarcely a single full dose for a man unaccustomed to the drug, and that divided into 3 or 4 doses. The patients do not know that they are undergoing different treatment, or that they ever take opium after coming into hospital, for to all appearance their medicine is the same, containing capsicum and *nux vomica*. Nor having decided that a man is not to have opium do I ever give it him for his craving; he is as free as the other patients to leave the hospital at any time, but he knows that he cannot come

back, and will forfeit his deposit-money of 1,200 cash. The total number of my cases for the two years just completed is only 94. Of these the notes, if taken, of 17 have been lost; of the remaining 77, 30 took opium in diminishing doses, and 47 either not at all or in the minute quantity as explained above; of these 47, 18, or 38 %, not counting one death, left the hospital without my consent, thereby forfeiting their money; whereas of the 30 who were broken off gradually, and who included the heaviest and the most enfeebled smokers, several of whom also ate opium, 7, or 23 %, left without permission. I do not conceal from myself that young smokers are apt to flatter themselves that they can easily give up the habit, and are disappointed to find that their craving is greater than they imagined; whilst an old smoker knows better what it means, and will not come to the hospital unless he be fully determined to go through with cure. But this I do not think invalidates statistics as much as another consideration, which is, that young smokers often come for cure at the behest of their parents, without any set purpose of their own to give up the habit; also, some patients, no doubt, leave the hospital at the call of business, sincerely believing themselves to be cured; it is, however, impossible to eliminate this number.

There is also the evidence of the amount of narcotics required in the two groups. This is obviously a less decisive test than the former, because the amount of narcotics given depends more upon the physician, but it points in the same direction and pretty nearly in the same proportion. I find that of the patients from whom the drug was suddenly withdrawn 54 % required narcotics, whilst of those who took opium only, 36 %, and they in considerably less quantity.

If the number of these cases be sufficient to warrant the forming of an opinion, which I know may be doubted, we must conclude that by suddenly withdrawing the drug we nearly double the chances that the patient will not go through with the treatment, and therefore presumably nearly double his sufferings. Such failures must count as failures to the physician, for he has not succeeded in doing that for which the patient primarily came to him. Why then not make the cure still more gradual? Had I a private patient and his full confidence, I should certainly do so. But the loss of time and money of staying in hospital is a great consideration for most of our patients; nor is the idling about wards good morally for opium-smokers, who ought to set about some healthy occupation as soon as possible. This loss of time is the chief disadvantage against a gradual cure, but if a patient take diminishing doses for seven days—and that, according to my cases, is an immense help to him, the first dose being sufficient only half to satisfy his craving—the extra time required cannot be more than four days. Beyond the saving of this short time, I know of no advantage in suddenly withdrawing the drug, and can imagine none, except that it has been said that those patients who break off suddenly stand better afterwards. This is an

exquisitely interesting statement, but should be supported by evidence. I can imagine that a sharp breaking with the past may be a great moral help to the strong man. Few of these men are morally strong, and when so many of the weak cannot bear the sharpness of the strain, we are helping the strong at the expense of the weak.

I must write a sentence or two as to the relative safety of the two plans. There is no doubt whatever that most of the patients who come to us can be broken off suddenly without any danger to life, but not all. Out of deference to our President, I feel bound to quote his opinion here against me. Dr. BOONE tells us, that in his long experience of suddenly withdrawing the drug he has not known a single opium-patient give him half-an-hour's anxiety; but he also tells us, that in his early days he withdrew the drug gradually; and it occurs to me that therein may be the secret of his later success. He only attempted the more difficult cure after becoming thoroughly acquainted with this class of patients by treating them at first according to the safer and surer method. I do not know what Dr. BOONE's custom is, but I know that some medical men, who practise only the routine treatment of suddenly withdrawing the drug, frequently refuse to undertake bad cases. I should be bold enough to refuse none provided that I was allowed plenty of time. To return: we unfortunately have not all had Dr. BOONE's long experience. In Ich Ngan we have already lost one patient—an old smoker who was broken off suddenly and died on the twelfth day. To those in Hongkong who laugh at the gullibility of Mission doctors, I will not affirm that this man did not sham death, but only that his burial was no sham. I have also had cases which shewed symptoms of delirium, but only one who got into anything like a serious condition. He too was an old smoker, but seeing him determined to give up the habit, I resolved somewhat hesitatingly to break him off suddenly. On the sixth and seventh days he slowly sank into a state of delirium, much like delirium tremens, but fortunately he improved under digitalis, or I should certainly have returned at once to full doses of opium and begun the cure again more gradually. I am vain enough to presume that there are those who undertake opium curing still less experienced than myself; and it is for them that the Association is preparing its prescriptions and explicitly recommending precisely that method of cure which most requires skilled treatment. At all events, though the formulæ are not yet published, it is certain that they will contain drugs more dangerous to an opium-smoker than opium, whilst the use of opium would greatly lessen the necessity for those drugs. For instance, what will be recommended for sleeplessness. Bromide and most of the narcotics are useless; chloral and sulphonal are not harmless in the hands of an untrained man, where large doses are often required. A medical missionary informs me that he once lost an opium case through chloral. A foreign layman may acquire a knowledge of his drugs sufficient to recognise



when they are doing harm. But there are many natives who take opium patients in hand. That some of them are humbugs I do not doubt; but not all. There are few missionaries who have made enquiries and not found that, by the help of these men, many opium-smokers have been enabled to forsake their pipe without the inconvenience of leaving their business or the expense of coming to hospital. The world, even with its maladies, was not made for the doctors; and we, especially, being also missionaries in a country where trained medical men are so few, should not, because of a theory, hamper uncertificated men who do good. They almost invariably use opium in some form; and I for one should not feel justified in putting into their hands the powerful drugs which it is safe to assume that the Association prescriptions, if of any use, will contain, and take from them their poppy-heads.

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## TUMOUR OF LATERAL LOBE OF CEREBELLUM.

By R. A. JAMIESON, M.A., M.D., M.R.C.P.,

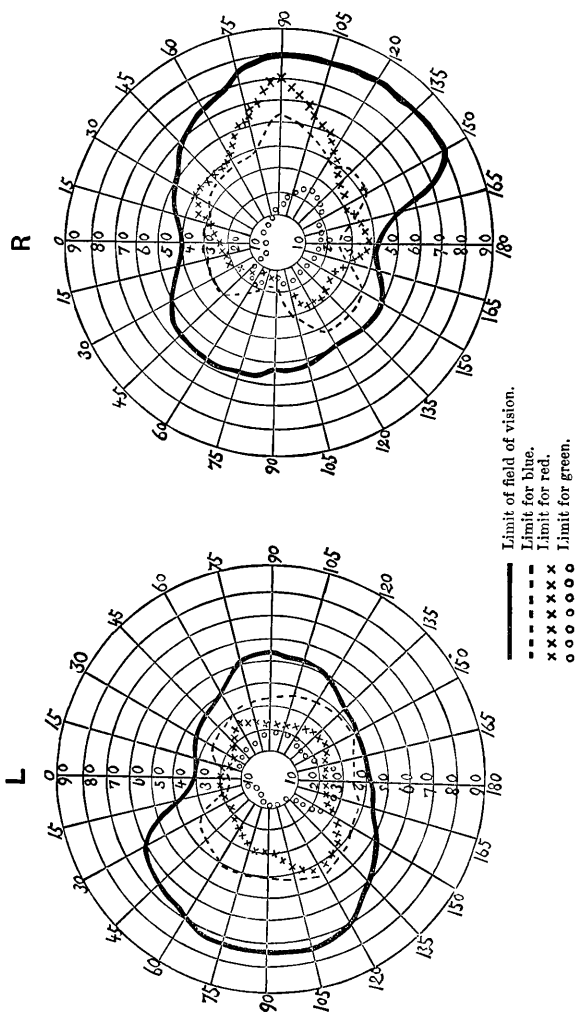
*Consulting Surgeon to the Customs.*

Mrs. D., born in 1860. Father died at an advanced age of chronic bronchitis. Mother, one of maternal aunts and a daughter of this aunt died of phthisis. Two maternal aunts living, one aged 50, and the other 70, both healthy women.

Patient is of delicate appearance, very bright and intelligent. Has never shewn any symptoms of phthisis or any tendency to bronchial catarrh. On examination, however, slight impairment of resonance is observed at both apices, with faint crackling limited to the sub-clavicular regions. Heart normal. Never any morbid symptoms referrible to the abdominal or pelvic viscera. There is no recollection of any fall or blow on the head.

She was married in 1882, and arrived in China shortly afterwards. She had two children, one in March 1883, the other in January 1885. Both these children are (1890) remarkably healthy.

Up to April 1884 Mrs. D. enjoyed excellent health. Then she complained of paroxysms of neuralgia of the right side of the face and head, increasing in severity during the night. As time went on this pain became more and more severe, so that at last it completely prevented sleep except when overcome by narcotics. A little later in onset, but permanently adding itself to the paroxysmal neuralgia, was a fixed and intense pain, described as "boring," in the vertex and occipital region. No part of the head was at any time markedly sensitive to moderate percussion.



In the autumn of 1884 deafness on the right side gradually but rapidly declared itself. The external ear was normal and the Eustachian tube pervious. There were occasional subjective sensations of singing and buzzing. By January 1885 deafness was absolute in the right ear, and the tuning fork on the vertex was inaudible on that side.

By the middle of 1884 the right eye began to fail. At this time an ophthalmoscopic examination gave negative results. Fugitive attacks of partial or complete blindness of both eyes were soon observed, vision on the left side being normal in the intervals. In February 1885 it was noted that both discs were cloudy. From this out, each paroxysm of blindness was complete, lasting for variable periods from five minutes to twenty. The return of sight was always announced by the sensation of white, zig-zag flashes in both eyes. The pupils were dilated and but slightly sensitive to light. Little or no difference could be made out between the condition and reactions of the right and left. There was no strabismus, no nystagmus. In October 1885 the papilla on each side was prominent, with tortuous and dilated vessels, and ill-defined borders passing into a general haze.

The limits of the field of vision for different colours at this period, as indicated in the accompanying diagram\* are specially worthy of study, on account both of their extraordinary irregularity and of their abnormal relative positions. Taking only the latter into consideration, it is well known that under ordinary circumstances colours are perceived in the following decreasing order of extent as regards the visual field :—

*Blue.*  
*Yellow.*  
*Orange.*  
*Red.*  
*Green.*  
*Violet.*

The colours indicated by italics in the above list were those alone tested.

CHARCOT (*Œuvres Complètes*, iii. 260) lays down as at least a provisional law that when the visual field for blue falls within that for red the sign is completely characteristic of hysteria. Here it will be observed that while its periphery in the right eye loops outside that of the red in three places, by far the larger portion of the area for blue falls inside the red line. On the left side the red lies normally within the blue except at one point where the blue line encroaches a little on the red field. Apart from this all the stigmata

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\* Three perimetric examinations were made within a fortnight, with results practically identical. The diagram reproduced is that of the second examination, made on the 17th October 1885. It is very curious that in respect of area the absolute field of vision was more extensive on the right side than on the left.

of hysteria were totally absent. Cutaneous sensibility was normal and equal on both halves of the body, odours were perceived alike in both nostrils, and the taste of sapid substances was appreciated equally on both halves of the tongue.

From beginning to end there was no paralysis, paresis, or contracture of the limbs; no paroxysmal pains in the trunk or extremities; constipation existed, but no stammering or incontinence of the rectum or bladder. There was no fever. The headache described above increased in violence and persistency, but in the late spring of 1885 began to be accompanied by somnolence, which no doubt rendered it somewhat less intolerable. About this time it was observed that movements of the head were rendered difficult and slightly painful by stiffness of the neck. A little later this stiffness passed into retraction, which, however, was never very marked, and could always be overcome by trivial effort.

Respiration was normal until near the close of life, when, during the last two days, it became slow and irregular without ever approaching the CHEYNE-STOKES type. The pulse was variable in character and rhythm, generally hard and rapid, sometimes irregular with rare intermittences. There were irregular flushings of the face and neck, usually coincident with the occurrence of the scintillating scotomata which presented themselves at the close of each period of blindness. The catamenia ceased in July 1885 without any concomitant pelvic symptoms. At no time was there either sugar or albumen in the urine.

From May 1885 Mrs. D. was much inconvenienced by the collection of mucus in the throat, chiefly in the early morning. Finally it became almost impossible for her to swallow fluids, and especially hot fluids which suddenly loosening the mucus brought on vomiting.

About this time or a little earlier (shortly after rising from her second lying-in) she began to walk like one drunk, with a tendency to propulsion, and to fall to either side indiscriminately. Vertigo, with disappearance of objects towards the left, occurred as soon as she assumed the standing posture, and was rarely, but only rarely, present while she remained recumbent. When standing it was intensified by closure of the eyes. Walking filled her with apprehension; she slid each foot a short distance after the other, not daring to allow either to quit the ground; and soon she could move from place to place in her rooms only by supporting herself on the furniture. The knee phenomenon was absent on both sides from the beginning of 1885. Gradually, trembling of the hand and forearm muscles declared itself with incoordination on voluntary effort, so that she could not sew or do fancy work, and her writing became illegible. At the same time her grasp of bulky objects was firm and tolerably steady. These symptoms became more aggravated as the year advanced, so that from the beginning of October, while the headache fortunately

diminished in severity, vertigo became so persistent that she could not take a single step without being half-carried.

Nausea and vomiting, independent of the collection of mucus in the pharynx before mentioned, now added much to the distress, and interfered seriously with nutrition. Emaciation progressed rapidly.

Early in October, a small bony growth, which caused much pain, was removed under chloroform from the external border of the alveolar process of the lower jaw on the right side. Projecting inwards it compressed the wisdom tooth, which was extracted after its removal. Patient took chloroform without difficulty of any kind, and recovered quickly and completely from its effects. During the following night the left side of the face became for the first time numb, and remained so for a few hours, when normal sensation returned. Similar paroxysms occurred frequently during the ensuing months.

On the evening of the 20th October, after a day of remission of symptoms, Mrs. D. was seized with a violent rigor accompanied by numbness ("pins and needles") of the right side of the face, tongue and scalp, but not extending to the neck. Common sensibility was lowered but not abolished over the numb area. Intelligence was not affected, there was no motor disturbance, the tongue was protruded straight. The symptoms all passed off during the night, but the attack was reproduced with increased violence next evening at the same hour, and persisted undiminished in intensity until the following morning. In the afternoon of the 22nd numbness, though less marked, was present, and the right angle of the mouth was slightly dragged. Next day speech was indistinct, but this was found to be due to an ulcer rapidly developed on the right border of the tongue. About this time tingling sensations in both legs were experienced, and they persisted paroxysmally to the end. There was now (end of October) lessened common sensibility over the entire right side of the neck from the level of the mastoid process to that of the clavicle.

As I had announced the existence of cerebellar tumour and the probability of sudden death, a second opinion was obtained at my request. Mrs. D.'s friends had suggested her return to Europe, and this suggestion was approved after a cursory examination,\* on the ground that the symptoms were "all nervous and probably hysterical," and that the patient was young and needed only time for recovery. I was compelled to denounce this opinion as wildly erroneous, and it was decided that the voyage should not be undertaken. Things went steadily from bad to worse. No new nervous symptoms developed, but all those

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\* Physical examination was limited to the sacramental inspection of the tongue and counting of the pulse, followed by an enquiry as to whether the patient could whistle, which, as it happened, was an accomplishment which even in health she had never been able to display

above noted became aggravated. Complete anorexia hastened the decline of strength, and nutritive enemata proved a failure. The patient gradually sank without any dulling of intelligence, except transient losses of memory, up to twenty-four hours before death.

Death occurred on the 23rd December 1885. For thirty-six hours before death there was retention of urine. For twelve hours there was dorsal decubitus with the head strongly retracted. There were also constant rolling from side to side and profuse sweating. The pulse varied between 54 and 65, was hard and irregular with frequent intermissions. The respiration was jerky and irregular. Temperature in axilla  $103^{\circ}$  to  $104^{\circ}$ . Semi-insensibility; questions answered only by groans. Features gradually became cyanosed. There were a few very slight general convulsions immediately before death.

The treatment had mainly consisted of Iodide of Potassium, to which Perchloride of Mercury was occasionally added.

*Autopsy, 54 hours after death.*—[The temperature of the air had never risen above  $32^{\circ}$  F. in the interval.] Rigor mortis still present. No signs of decomposition. The head only was examined. Veins of scalp injected; slight oozing of blood from veins of diploë; no adhesions between calvarium and dura. The membranes of the convexity appeared normal, but the arachnoid was distended. The sinuses were full of liquid blood. There was no marked congestion of the vessels of the pia, and no exudation on the convexity or at the base.

The convolutions were not flattened. Clear fluid in large quantity poured from the third ventricle, having distended it to such an extent that its floor was translucent, and the dilated lateral ventricles contained the same fluid, the actual bulk of which could not be accurately estimated. The foramen of Monro admitted the tip of the little finger. The aqueduct of Sylvius was dilated. The brain substance was rather bloodless than congested on section. No lesion was discovered anywhere. The corpora quadrigemina were carefully examined, but appeared to be intact.

Occupying, or rather replacing, the right lobe of the cerebellum, was a grey hard tumour, larger by about one-third than the left lobe, but almost reproducing the normal shape of the lobe. It possessed an ill-defined capsule, obviously derived from the pia mater. The great horizontal fissure could be made out, but the division into lobules was almost totally obliterated on both upper and lower surface. The tumour was smooth on section, shewing no trace of foliation; on pressure it exuded a small quantity of slightly sticky fluid. In the centre, and occupying about one-fifth of the bulk of the tumour was a soft red mass, originating probably in the corpus dentatum. This, under the microscope, was seen to be constituted of large multinucleated round cells, apparently supported only by fine vascular meshes. The solid portion of the tumour presented the characters of round-celled gliosarcoma.

The right *processus cerebelli ad testes* was markedly reduced in size, and hollowed by pressure which also had left its imprint on the right side of the floor of the fourth ventricle. This depression included the positions assigned to the sensory nucleus of the fifth nerve, the nucleus of the seventh (facial), the two nuclei of the eighth (auditory) and perhaps that of the nucleus of the ninth nerve (glossopharyngeal). The valve of Vieussens was not recognized, but this may have been an accident of dissection. The two divisions of the fourth nerve were seen beneath the corpora quadrigemina. It was noted that the middle lobe of the cerebellum was hardly, if at all, deformed by pressure.

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## COCAINE AS AN ANÆSTHETIC.

By WM. W. SHRUBSHALL, L.R.C.S. & P. Ed.

At this period after the introduction of Cocaine as an anæsthetic it is unnecessary to discuss its usefulness. In ophthalmic practice we are all acquainted with its value, and those medical missionaries who like myself are situated in the interior, with but inexperienced native assistants, will know the difficulties which attend an operation when chloroform is used. One needs one eye on the condition of patient and the other at the operation, and attention thus divided is certainly not conducive to the best results, hence the value, especially to us, of an efficient local anæsthetic.

The following case (almost identical with that given by Dr. CHRISTIE in a recent Number) is confirmatory of the effect of Cocaine in such circumstances.

LÜ CHANG CHIU, æt. 51 when admitted, had been suffering from epithelioma of penis for more than two years. Fetid discharge abundant. The man was weak, emaciated and irritable.

On two separate occasions chloroform was administered; each time proved the patient to be an unsuitable subject. I then injected in the line of intended incision thirty minims of a five-per-cent solution of Cocaine Hydrochlorate, in five-minim doses. In ten minutes after the first injection all parts of the penis anterior to the tourniquet were perfectly anæsthetised. The amputation completed, while I was tying the arteries, patient inquired "Is it cut yet?"—sufficient evidence of the painlessness of the operation. Anæsthesia lasted for about 18 hours. His recovery was complete without a bad symptom.

As shown by MAYO, ROBSON and others, the anæsthetic effects of Cocaine are much intensified, and the possibility of poisoning lessened, by applying an Esmarch's bandage above the seat of injection.

In operating on the extremities or in amputation of penis there is of course no difficulty in applying the tourniquet, and in removing small tumours, etc., from the trunk I find that anæsthesia takes place quicker when, immediately after injecting the Cocaine, a glass or cup be inverted over the injected area and kept there with firm pressure for a few minutes, thus retarding the circulation. In the removal of small tumours this has answered well. In several cases—resection of phalanges, removal of tarsal tumours, etc.—in which Cocaine has been used, I have seen no toxic effect, and anæsthesia has been as perfect as could be desired.

Lately I had a case of subglenoid dislocation of humerus which resisted reduction by the ordinary "heel-in-axilla" method, but was quickly reduced by traction at right angle to trunk, as advocated by Dr. NEIL MACLEOD in an early number of this Journal.

Patient complained of no pain during the reduction by the latter method. There was absence of any "click" or jerk indicating the return of the head of humerus, and nothing worse than the ordinary effect of a contusion subsequently occurred.

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## BORIC ACID AS AN ANTISEPTIC.\*

By H. M. MCCANDLISS, M.D.,

*Kiung Chau, Hainan.*

Since the introduction of antiseptic surgery a great many substances have been brought forward, made prominent, and then dropped into obscurity. Among these a few have been brought back from their neglected state and placed alongside of those which have constantly held the first rank. It has remained for bacteriologists to formally declare what is the mode and extent of antiseptics, and which the most worthy of these agents.

Mr. C. T. KINGSETT (*British Medical Journal*, p. 1192, November 1888), after a series of experiments with various antiseptic agents, determines that all antiseptics act in similar ways: (1) either killing the organisms directly, or (2) by causing their death indirectly by altering the composition of the medium in which they live, and these being due either to hydration or oxidation. As a result of his observations, he decides that as a rule "acid solutions are found to be better antiseptics than alkaline ones."

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\* Read before the Canton Medical Society.



One frequently sees in the medical journals paragraphs on poisoning by corrosive sublimate, by carbolic acid, and by iodoform. Corrosive sublimate and carbolic acid are now most widely used, even though they are both most severely criticized. Some go so far as to say that the moral effect of the odor of carbolic acid is its chief virtue. The adverse criticisms vary in kind from those of LAWSON TAIT, who humorously desires a pad of good ordinary germs for a dressing after abdominal section, to SINGER who finds that antiseptics are dangerous and injurious, corrosive sublimate being the most dangerous, and then in the following order: iodoform, carbolic acid, salicylic acid and boric acid; and advises that we use LAWSON TAIT's sterilized water, or a solution of salt.

One of the objections urged against carbolic acid and corrosive sublimate when treating wounds in which primary union is desired, is that if the antiseptic is really enough to be effective it forms an eschar, which can itself become a nidus for germs, and which in any case must be thrown off or absorbed before union can take place. Iodoform does not seem to meet with this objection, but it does have the element of danger, as seen by the detection of iodine in the urine, and its odor also is somewhat of an objection.

The *U. S. Dispensatory* asks "Whether boric acid is a poison, and if so, in what doses, can not yet be considered as determined. MODDEWIKOW is stated to have had two fatal cases of poisoning, but as in one case a lumbar abscess, and in the other case a pleuritic cavity, was freely washed out with a five per cent solution, it is possible that the fatal collapse may have been the result of the operation."

BARTHOLOW says of boric acid, "it arrests fermentations and putrefactive changes, and is destructive of minute organisms, bacteria, vibrio, etc.; applied to wounds it is free from irritative effects; it lessens suppuration and prevents decomposition."

Dr. GREENE (*Boston Medical and Surgical Journal*) has used it internally in the treatment of chronic cystitis, prostatitis and in septic diseases, exhibiting as much as a drachm every four hours without ill effect.

In the large class of cases where we desire union by the first intention, a substance is wanted that will not interfere with that union, further be thoroughly antiseptic, and its absorption occasion no alarm. This substance is supplied in the dry boric acid dressing. My attention was first called to this method of using boric acid by an article in the *British Medical Journal*. I have made use of the dressing in a series of minor operations, and although sprinkling it quite freely over opposing raw surfaces, it has not prevented union, and has kept surrounding tissues free from odor. In a case where I removed a tumor from the frontal bone, weighing probably an ounce, I sprinkled boric acid freely inside, and then stitched up the wound; opposing surfaces being kept in contact

with compress, the whole wound healed by first intention. In bone operations where the necrosis has been occasioned by syphilis, we naturally use iodoform, but in the non-syphilitic, we may safely rely upon boric acid.

The antiseptics of large ulcers is in China an important matter, and especially ulcers of two kinds—the leprous ulcer, which fills the dispensary with its foul, almost cancerous, odor, and the common large ulcer of the leg. There is a certain portion of this island which is very unhealthy for non-residents, and the Chinese who visit the district are said to be bitten by the *Lois* demon, as some return with large ulcers of the legs and feet. Last autumn I had a party of five, all of whom had gone to this district, and they all came back with these ulcers. Four of them under tonics and ordinary dressings rapidly healed, but the fifth would get to a certain point in healing and have a relapse. He came back this spring in a worse condition than ever. I began giving him daily doses of the phosphates of iron, potash and lime, and after washing off the ulcer, which was the size of my extended hand, I dusted it thickly with dry boric acid, wrapping it round with tough Chinese paper. The man's temperature fell, the appetite grew better, he could attend to his work, and the ulcer rapidly healed, leaving but one regret, *i.e.*, that I had not skin grafted the wound.

For the large leprous ulcers iodoform may be as good and possibly better than boric acid, but the difference of expense at once decides in favor of dry boric acid. The last English quotations put boric acid at 7 pence per pound, and iodoform at 19 shillings. I have no means of knowing whether the fever which so many of the lepers suffer at the time that ulcers open is due merely to the inflammation, or whether it arises from the absorption of septic material, but it is certain that the boric acid corrects the foul condition of the ulcer and gives at least that much comfort.

I have a patient, a young man, who has suffered for several years with polypus of the nose. When I first saw him two years ago I made several attempts to remove the parasites, but the man belongs to the family of bleeders, and I was compelled to desist from further attempts. The discharge is quite fetid, and the young man comes quite regularly to get a supply of boric acid to insufflate. It corrects the foul odor and lessens his headache.

A number of carcinomatous patients find their way to the Dispensary, and where the tumor is broken and fetid, I use the boric acid to dust over, and after a few days the friends and bystanders are less offended when the dressing is removed.

These few remarks are sufficient to show that I find in boric acid a widely-useful cleanly antiseptic. There are doubtless others as handy and harmless, efficacious and cheap, of which I would be glad to hear.

[As *apropos* to the foregoing article, we append the following, taken from the *Scientific Miscellany*, October 1890.—ED.]—

“Some very interesting and possibly important experiments have been made during the past five years by Dr. GAUCHER of Paris. Bacilli of tuberculosis were injected into several rabbits, producing the disease in all cases. Other rabbits were then inoculated in just the same manner, but were fed afterward with bran mixed with boracic acid. On killing these rabbits after a time, no trace of tubercular disease could be found. How far the boracic acid might be beneficial to the human victim of tuberculosis is not known, but in such trials as have been made lung decay has been arrested and improvement in every way has resulted.”

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## SUPRAPUBIC LITHOTOMY.

NOTES ON FIVE CASES PERFORMED AT THE AMOY CHINESE HOSPITAL.

By B. S. RINGER, *M.R.C.S. & L.S.A. Lond.*

*Case I.*—TIAU LAI, aged 30, presented himself at the Amoy Chinese Hospital, March 18th, 1889, and complained that for many years he had suffered much difficulty in passing water, and that for the last two weeks it had been constantly dribbling away. He seemed very weak, and bent his body forward as he walked painfully and slowly along.

After examination with sound, a stone of large size was diagnosed, and the patient being thin and a good deal wasted, it could be plainly felt by manipulation between the abdominal wall and the rectum.

On the 12th April 1889, chloroform was administered, and about 8 or 9 ounces of a warm solution of boracic acid (5 grains to the ounce) were injected into the bladder, and the base of the penis ligatured with a piece of thin india-rubber tubing which retained the liquid perfectly; the bladder could now be felt above the pubes. No attempt was made to distend the rectum. An incision was made over the symphysis pubis and carried up in the medium line towards the umbilicus for about four inches. The fascia and muscular fibres of the pyramidalis and rectus abdominis were carefully cut through to the full extent of the wound, then with the fingers and handle of scalpel the glistening surface of the bladder was gradually exposed, the thin layer of fat with the peritoneum being scraped upwards towards the top of the incision and held there out of harm's way by the fingers of an assistant. The bladder was now steadied by hooks and punctured by a sharp-pointed bistoury near the upper

portion of the skin-wound and the bistoury carried in a straight line downwards towards the pubes. The index finger of the left hand was now quickly introduced into the bladder and closely followed by that of the right, and the stone, grasped between them, was brought upwards to the wound in the bladder, which, however, was not sufficiently large to allow its extraction; the stone was therefore released and the wound lengthened towards the pubes; it was then again caught, and, after some gentle manipulation, was removed with the fingers.

The stone was of an oval shape, measuring  $2\frac{1}{2}$  in. long,  $2\frac{3}{16}$  in. broad,  $1\frac{5}{8}$  in. thick, and weighed 5 ounces and 40 grains. On section it showed a thick external layer of phosphatic deposit with alternating concentric layers within of a harder and darker material, probably uric acid. The patient believed it had been growing for more than twenty years.

The bladder having been washed out with a weak solution of boracic acid, the wound was allowed to remain open, and a soft india-rubber catheter placed in the bladder, with the end hanging out at the pubic end of the wound, which was covered with a carbolized oil dressing and changed twice daily.

The recovery was very protracted, as eight days after the operation a large bed-sore began to form over the sacrum and was a source of great trouble. Up to this time the temperature had not risen over  $101\cdot4$ , but now gradually increased to  $103\cdot4$ . The sore was treated with lead lotion and iodoform ointment, pressure being removed as much as possible by means of an air cushion.

The catheter had to be frequently changed, as the urine contained mucus, pus and phosphatic deposit. On the 24th April, the catheter was removed from the wound and some urine passed by the urethra. On May 5th (23 days after the operation) the temperature became normal and the general condition improved. On May 22nd the abdominal wound had nearly healed, the bladder had closed over, and all the urine was passed by the urethra. The patient was, however, kept in the hospital for several weeks longer till the bed-sore had completely healed.

Some months after his discharge this patient again presented himself to seek advice about an abdominal swelling which had arisen since he left the hospital. This was found to be a ventral hernia about the size of half an orange, at the upper part of the abdominal cicatrix. He was advised to wear a band, but did not place himself under further treatment, and has not been seen since.

*Case II.*—TEK LIONG, a Chinese boy, 7 years of age, with a stone in the bladder, was put under chloroform on the 5th August 1889. A few ounces of a weak solution of boracic acid were injected into the bladder and the penis ligatured; the rectum was not distended. An incision  $2\frac{1}{2}$  in. long was made from the pubes upwards, and the bladder reached in the same manner as described in Case I. It was steadied with artery forceps and opened with a

scalpel, the wound being subsequently enlarged by the fingers, and a stone with rather a rough surface, measuring  $1\frac{1}{2}$  in. long,  $1\frac{1}{8}$  in. wide and  $\frac{1}{16}$  in. thick, and weighing 230 grains, and composed chiefly of uric acid, was removed.

A drainage tube was placed in bladder, one end being brought out of the wound, which was covered with carbolized dressing. The drainage tube was removed on the third day, as the child was by no means amenable to treatment, and the crying and struggling produced when the tube was taken out to be cleaned seemed to be doing more harm than good, as some hæmorrhage took place, blocking the tube and wound with blood-clots; these being removed, however, the urine flowed freely from the wound and gave no further trouble. The skin in the neighbourhood was kept constantly smeared with boracic acid ointment to prevent excoriation, and folded cloths, which could be easily removed, were arranged to catch the dribbling urine.

The highest temperature recorded was 102·2.

On the 5th September a little, and on the 13th September all the urine was passed by the urethra, the opening into the bladder having closed. The patient was discharged, with the wound firmly healed, on the 25th September.

*Case III.*—TIAU, a Chinese youth, aged 17, was admitted into the Chinese hospital suffering from stone in the bladder, and on the 10th September 1889 was placed under chloroform, and the bladder having been distended with boracic acid solution, a stone was removed by an operation similar to that performed in the two preceding cases. The bladder in this case was drained by means of a catheter in the urethra; this was, however, removed on the third day after the operation, as it was thought to produce some irritation. The temperature having risen to 103, subsequently fell to 101·2, which was the highest point reached during the future progress of the case. The calculus, which was formed of uric acid, was of a flattened oval shape  $1\frac{3}{8}$  in. long,  $1\frac{1}{8}$  in. wide and  $\frac{1}{16}$  in. thick, and weighed 242 grains. The treatment was the same as in Case II. A small slough formed in the upper part of the wound, which separated 13 days after the operation, leaving the surface beneath healthy. Ten days after the operation a little urine was passed by the urethra; the quantity increased daily till 9th October, when all was passed by the natural channel. Patient discharged October 18th, with wound firmly healed.

*Case IV.*—KIN, Chinese boy, aged eight years, suffering from stone in the bladder, was operated on under chloroform on 21st September 1889. Six ounces of weak boracic solution were injected into the bladder. The rectum was not distended. The stone was, as in the three former cases, extracted above the pubes. Weighed 77 grains, measured  $1\frac{3}{16}$  in. long  $\times$   $\frac{3}{4}$  in. wide  $\times$   $\frac{9}{16}$  in. thick, was composed of uric acid, showing alternate layers on section. In this case the peritoneum was brought plainly into view at the upper part of the wound, as the child strained a good deal, as if about to vomit, during the early

part of the operation, and a portion of the peritoneal sac was forced out, looking like a delicate, thin bladder. As soon as observed, it was of course kept out of danger by fingers. The bladder was steadied by a loop of fairly thick carbolized catgut being passed through the muscular wall, as neat as possible, to the upper part of the wound, and held firmly in position by an assistant. An incision was made in the bladder with a sharp-pointed bistoury and the stone, being small and elongated, was readily extracted by the tips of the two index fingers. The bladder having been washed out with boracic solution, the edges of the wound were stitched together by means of interrupted carbolized catgut sutures, about  $\frac{1}{4}$  of an inch apart, through the muscular coat only; the skin wound was treated in a similar manner, and a piece of narrow india-rubber drainage tube placed between it and the bladder with one end brought out over the pubes. The patient passed water freely by the urethra the next morning, and the drainage tube was removed. The highest temperature recorded was 101·2. The bladder was not quite water-tight, as during the next four days a few drops of urine passed through the wound during each act of micturition, and on the fifth day, owing to the partial absorption of the catgut sutures, which were rather thin, the lower part of the abdominal wound had opened up and the same condition, in a more limited degree, had probably extended to the bladder, as the few drops were now increased to about a drachm. The wound, which looked perfectly healthy, was strapped for the next few days with adhesive plaster, and on the 2nd October (11 days after the operation) no more urine passed by it, and the patient progressed favourably till 1st November, when he was discharged with the wound firmly healed. He was seen again four months later: no local trouble existed and the scar was perfectly sound.

*Case V.*—JU, aged five years, male, presented himself at the hospital with symptoms of stone in the bladder.

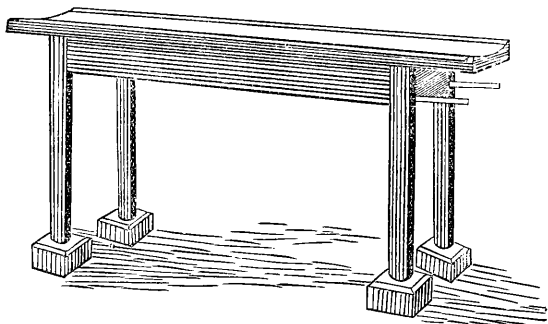
On 20th May 1890, supra-pubic cystotomy was performed as described in Case IV, and two very hard stones were removed; the larger weighed 137 grains and the smaller one 77 grains, the shape in each case being somewhat flattened oval. The smaller one was marked on two surfaces with several facets. The bladder and skin wounds were both closed and a small drainage tube inserted between them, as in Case IV. The day after the operation the temperature reached 100·8, which was the highest recorded. The urine was drawn off by a catheter for a day or two and some passed through the wound. On the 25th the patient passed some urine by the urethra, and on the 28th micturated freely several times, but still a little urine escaped by the wound during each act. On the 1st June all the urine was passed by the natural channel, and on the 14th the wounds, which had been dressed with boracic acid ointment, were healed.

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## A NEW AND EASILY CLEANED OPERATING TABLE.

By H. W. BOONE, M.D., *Surgeon to St. Luke's Hospital, Shanghai, China.*

While on a visit home a few years ago, I tried to find an operating table, that should have no joints or crevices which could catch or hold any infectious material. Operating tables in Europe, England and America were examined by me, ranging in price from \$45 to \$150; they all were defective and very difficult to clean, and keep aseptic. I returned to China without purchasing one. In my despair I had, like the German scientist, to evolve one from my inner consciousness. Messrs. Hall & Holtz, of Shanghai, made a table for me from my drawings, and since April 1888 it has been in constant use at St. Luke's Hospital. Other surgeons have seen it, and they have ordered tables of the same pattern for their own work; it stands the trial of daily use. I wish to describe it, for the benefit of other men who may need an operating table. The idea is, Table one solid slab, not a single crevice in it, legs joined on water-tight, no acute



angles, no corner where dirt can lodge or be concealed, every part of it, including bottom of legs, rounded and polished so that it cannot hold dirt, and it can be sponged clean in a few minutes for another operation. I do away entirely with the rubber sheeting and cushions, put the patient on the bare table, except in cold weather, when I cover it with an aseptic cotton sheet folded triple to keep him from the chill of the hard surface, put on a fresh aseptic sheet for next operation, after the table has been scrubbed with soap and water, and then carbolic or perchloride solution, and so on for each operation. The table is made rather low, with a slight incline from head to foot, is curved on surface so as to cause fluids to go towards the foot, and not splash over the sides. At the foot, under the table, two rounded irons are screwed into the wood, after the auger-holes have

had white lead paint put into them, to make a water-tight fit. I have four tins made to fit the table, so as to change them when soiled,  shape of the tins. Length of the tin 2 ft., width 10½ in., depth 2¼ in. This tin is laid upon the two iron supports, and it is tied on with a *fresh* piece of cord, to keep it in place, a new piece being used each time. Any catch or joint at this place would hold infection. The cord costs but little. All joints and crevices of tin should be filled up smooth and solid with solder. The table is purposely made low, in order that blocks may be put under the legs, by removing the foot-blocks, that end of the table is depressed while the head is elevated. Put back foot-blocks, and remove those at upper end of the table, and you depress the head. You can double the blocks at one end if you wish. Size of blocks, square 7½ in., thick 4 in. These blocks to be of hard wood, without cracks, all corners and edges rounded off, polished smooth and varnished, table to be made of fine grained hard wood, without a single crack or defect in any part.

#### Dimensions.

|                                               |                                                        |
|-----------------------------------------------|--------------------------------------------------------|
| Length, 6 ft. 3 in.                           | Depth of curve in the upper surface, $\frac{5}{8}$ in. |
| Width, 1 ft. 11 in.                           | Height at head of table ... 2 ft. 9½ in.               |
| Thickness of table slab, 2¼ in.               | Height at foot of table ... 2 ft. 7½ in.               |
| Length of frame for the legs, under the table | 4 ft. 9½ in.                                           |
| Width of frame                                | " " 1 ft. 8½ in.                                       |
| Thickness of frame                            | " " 1½ in.                                             |
| Circumference of legs above                   | ... 1 ft.                                              |
| Circumference at bottom of legs               | ... 9¼ in.                                             |
| Length of iron pieces under foot of table...  | 7 in. $\frac{3}{4}$ -in. rod iron.                     |

The frame is fastened underneath to the table by long and strong screws which are countersunk, and the heads filled in. In putting the table together no glue is used, but white lead paint is put between all joints before they are put together, to make them water-tight. All joints must fit perfectly. This table looks very plain, but to accomplish what is intended it *must* be of the most perfect workmanship in every part, and it should last for 40 years, as there is nothing to get out of order. On first looking at the model, it may appear too plain to be of much good, but its very simplicity is its perfection. With ordinary care it cannot get dirty. Paint it with Ningpo varnish or white paint, and the surface will show any dirt adhering to it. With Clover's perineal crutch perineal operations are readily done, and the tin at the foot of the table keeps the operator clean. To recapitulate: it is very strong; cannot get out of order; it is, and can be kept clean and aseptic with the least possible amount of trouble; dirt is easily seen on the smooth surface; combined with the tin at the foot, it drains dry without any splash while one is operating. Compared with other tables its cost is moderate—Tls. 18.



## NOTES ON A CASE OF AMPUTATION OF THE LEG.

By J. A. OTTE, M.D., *Neerbosch Hospital, Amoy.*

*Case II.*—Entered the hospital June 10th, 1890. The patient was pale, emaciated, and so weak that he himself expected to live only a few days longer. The temperature on the evening of admission was 102.8 F. Though the foot seemed healthy, the lower part of the leg was one foul, sloughing mass. There was only a bridge of healthy tissue about one inch in width on the posterior aspect of the leg. There was osteo-myelitis of both tibia and fibula and a day or two before entering the hospital both bones had broken spontaneously. The foot was now dangling by the small bridge of healthy tissue left. The upper part of the leg appeared healthy. It was larger than the limb of the opposite side, though there was no œdema, and no sign of inflammation at that point.

The history revealed that there had been an ulcer of the lower third of the leg for three years. This had suddenly grown worse three months before the patient entered the hospital. Immediate amputation was advised, though very little hope, even of life, was held out.

As there is great difficulty here in China in getting an artificial limb to fit a stump at, or above the knee, and as there was no pain on severe pressure at the junction of the upper and middle third, it was decided to amputate below the knee instead of at the knee, as we would have done at home.

On June 15th, ether was administered and the limb rendered bloodless, after which we proceeded to dissect up the skin flaps. All the muscles of the leg were now found to have undergone fatty degeneration. Not the smallest shred of muscular tissue could be discovered. Both bones appeared on the outside to be perfectly healthy. After stripping up the periosteum, the saw was applied. The tibia was found to be diseased to the anterior surface of the medullary canal. It was now decided to reamputate at the knee-joint, but the assistant giving the ether, informed me that the patient was apparently dying. The pulse was not felt at the wrist, and the breathing was very shallow. An hypodermic injection of sp. ether was administered. After this the pulse was again felt at the wrist, though weak, and the breathing improved slightly. It was therefore decided to take the chances and complete the operation already begun. The main arteries were now to be tied. Catgut was used, but on seizing the vessel with an ordinary artery forceps the least tension caused it to tear. The vessels, as well as the muscle, had undergone fatty degeneration. Torsion forceps were therefore used to catch up the arteries. On applying a ligature, and using but little force, the artery was cut through. The vessel was again seized and a new ligature applied very loosely. This was fortified by a second ligature. In this way the

artery was closed without rupture of the internal coat. All the vessels were tied after this manner. In order to get rid of as much diseased bone as possible, another half inch was now sawn from the tibia, and then the medullary cavity was thoroughly scraped with a Volkman's sharp spoon, as high up as possible. The tourniquet was now removed, the oozing stopped, and the wound sutured. Three drainage tubes were introduced, one at each angle of the wound, and one in the centre, extending up into the medullary canal of the tibia as high as it would go.

The patient recovered from the shock very soon. At 9 p.m., the first day after the operation, the temperature was 102.4 F. Antipyrine was administered, and he was put on iron, quinine, and Liebig's Extract. From this time his progress was very good. After the second day, the temperature reached 100 F. several times, but was kept from going higher by antipyrine. The drainage tubes were gradually shortened, and on July 29th the man was dismissed with a very good stump, and looking robust.

## A REVISED PEN TS'AO (本草).

(*Pium Desiderium.*)

By The Rev. ERNST FABER, Dr. Theol.

As the *Pen Ts'ao* (see *Journal of the North-China Branch of the Royal Asiatic Society*, Vol. xvi, pp. 54, ff.) is one of the most popular works among the Chinese, and cannot possibly be supplanted by the best foreign publication for some generations to come, it appears the wisest plan, to take this work as a basis for introducing Western scientific research bearing on the subjects treated in the work.

The contents of the *Pen Ts'ao* may be summarised as Pathology, Materia Medica and Prescriptions. As the revised edition ought to be kept strictly popular, the description of diseases should be restricted to the prominent symptoms, recognizable by any educated Chinaman without scientific apparatus. A popular account of the human body in all its parts and functions in a healthy state, should be given as an introduction, and accompanied with clear and instructive illustrations.

The Chinese Materia Medica is composed of substances from the mineral, the vegetable, and the animal kingdoms. As the identification of some of these important substances—very generally and largely used in China and the neighbouring countries—is not yet satisfactory, it is necessary to begin patiently from

the beginning. A Medical Museum, however, having already been started at Shanghai, the work of determination could now be carried on more satisfactorily than before, when such efforts were more or less sporadic. The co-operation of every Foreign Medical practitioner is required to achieve best results. As every province of China has its peculiar productions, names and usages, we can never gain satisfactory results from one or a few localities along the sea-coast of China. In journeying, we may collect this and that, but nothing can be done thoroughly. Physicians residing in the interior enjoy, on the other hand, great advantages. Their acquaintance with the people, enables them to get almost anything they may intelligibly ask for regarding the healing and welfare of the Chinese. Thus one essential point for reliable research may be gained, *i.e.*, that every substance used as a medicine by the Chinese is collected at the place of its natural occurrence. This is important with regard to minerals and plants, but it applies even to animals, especially of the smaller kinds. Of each drug, there should be mentioned the place, and the conditions of its occurrence. The different names used in books\* and among the people are also required. Care has, moreover, to be taken to find out what name the substance bears in its natural condition, and what name in its prepared state for commerce. The process employed to prepare a drug should be distinctly stated. Specimens of the drugs taken from the mineral kingdom can easily be obtained; they are at once ready for the museum. Botanical specimens require some extra work. Of smaller plants the whole plant should be taken, in flowers as well as fruit. Five good specimens are needed of each species, as some may have to be sent home for determination. If the plant is too large, a branch may suffice, and some lower leaves if they differ, but the root should be dried separately if it is used in any way among the Chinese. Every plant must be well pressed and dried between paper. For this purpose common Chinese paper, especially the stiffer kind, is very suitable. The paper has to be changed every day for three or four days, and then at longer periods, till the plant is perfectly dry. If left too long in damp paper some plants will ferment, turn black and fall to pieces. The paper can be used over and over again after it has been well dried. The size of the paper is 16 inches by 10½ inches at the best herbariums. Plants of larger size can be folded. Care should be taken to select good specimens.

As food is even more important than medicine, the collections might comprise every plant used as such in daily life or in times of famine. If the space of the Museum permits, it would be advisable to collect specimens of every object of natural history, native to China, that is in any way utilized by the Chinese. We need not enter here into the methods of preserving animals, as medical men are well enough acquainted therewith. All identifications would be published in

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\* I call special attention to the geographical works on each Province, Prefecture and District.

this periodical, with the name of the collector, and any information sent by him. Any reference to the specimens kept in the museum could be made easy enough by a catalogue. This museum could in this way, become the indispensable basis for all research in the line of the *Pen Ts'ao* within a few years.

After the names have been determined, the medicinal properties of each drug can be given according to the best Chinese authorities, but corrected and supplemented by Western science. Good drawings are needed wherever different names might confuse the Chinese reader. The foreign scientific name should also be added.

The last section of the Revised *Pen Ts'ao* might contain a selection of prescriptions. The Chinese are accustomed to help themselves in this way. It might also assist native practitioners. We have to remember that foreign hospitals are still comparatively few in China. Many patients living at a great distance could not possibly make a journey of several days or weeks, to get a simple remedy which they need immediately and could buy next door. Let us then be merciful as our Father in Heaven is merciful! Hua.



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No. 4.

This Number completes the Fourth Volume of the Journal, and it is with pleasure we now view the brighter prospect under which the Fifth may be commenced. It is, we deem, not inapt, at a time like this, to touch upon the make-up of a Journal such as ours, and premise by stating that, holding the position we may assume it does, as the exponent of the Medical Missionary Association of China, with its inclusive full membership of upwards of one hundred, and of honorary and corresponding members of upwards of half that number, all of whom are necessarily interested in our undertaking, it does seem unfortunate that at times we are at a loss, from sheer lack of material, to suitably arrange our issues. Though representing matters as they have been, we repeat we have now reason to believe this statement of fact is one only to be referred to, and not haply apply to the future. By way of obviating this possible recurrence, may we suggest to those who do not wish to undertake elaborated articles, that they should write simple, chatty letters descriptive of their work, or even letters of their personal welfare generally, thus making the Journal what it aims to be—a bond of union, a tangible expression of our common entity and sympathy, the one with the other. It must occur to us, when glancing at the photograph facing our title-page, the many advantages we now enjoy compared with the times in which Dr. LOCKHART lived and labored in China. Dr. LOCKHART himself, though some years later, recalls the era of Dr. LIVINGSTONE, who in 1820 “was the first person who systematically brought medical aid within the reach of the Chinese.” Then following on in goodly order, but seven years later, GUTZLAFF, DAVID LIVINGSTONE’s prototype, PARKER and BALL, 1834 and 1838, and then, though in broken sequence, comes KERR of Canton, who yet as it were connects us with that past, and evidences the warm interest in the Association and Journal it is our earnest aim to perpetuate. With these few explanatory remarks to our Brethren, we send our Xmas Greetings, and kindly wishes that 1891 may be a very happy and successful New Year—one it may be of “Toiling, rejoicing, sorrowing, as onward through life we go,” yet at the close, if we are spared to reach it, may we all feel something *more* has been attempted, something *more* done.

## NOTICES OF BOOKS.

## INTRODUCTION.

## ANNUAL OF THE UNIVERSAL MEDICAL SCIENCES.

Edited by CHARLES E. SAJOUS, M.D., and Seventy Associate Editors.

The issue for the year 1890, lately received, shows the same wide research with careful and judicious selection, as that which distinguished the former editions. The value of these publications is much enhanced by the thoughtful and discriminating comments of the learned Editors. Every department pertaining to the practice of Medicine and Surgery is noticed, and the latest information on each subject is incorporated in these pages. Our time and the space at our disposal only enable us to notice the first three volumes in this article. We present such matter from their pages as may be of special interest to us here in China, and hope that they will give some idea of the value of the work itself.

*Tuberculosis : Invasion by Inheritance.*—As a result of the investigations of CORNET, the question of inheritance sinks in value more and more; so that, while it may be admitted in exceptional cases of internal tuberculosis, it may be probably rejected altogether in the case of phthisis pulmonum.

*Invasion by the Alimentary Canal. Food and Drink.*—A careful analysis of 127 cases of tuberculosis in children by WOODHEAD showed that the disease selects particular organs by preference. Intestinal canal involved in 43 of 127 cases, the mesenteric glands were involved in 100, of which 62 occurred between the ages of 1 and  $5\frac{1}{2}$ . Most common cause of primary localization of tuberculosis in the mesenteric glands, was thought to be the use of milk containing the tubercle bacillus.

*Invasion of the Lungs. Sputum.*—The work of the year has established almost to universal conviction that tuberculosis pulmonum is caused exclusively by the inhalation of dried sputum.

*Treatment of Aortic Aneurism.*—SENATOR considered iodide of potash curative.

*Suppurative Hepatitis. Etiology.*—YOUNGE. Dysenteric abscesses are the result of purulent phlebitis excited by the lodgement of septic thrombi. They are small, usually numerous, and are connected with the branches of the venæ Portæ. They are always fatal, and no operative interference is justifiable. Tropical abscesses are large, usually single, and occur in connection with the

branches of the hepatic artery. They are due to the breaking-down of a comparatively healthy inflammatory effusion, and an early operation is necessary and is frequently successful.

*Dysentery.*—H. Z. JENCKES quotes EWART as stating that the mortality from Dysentery in India has been reduced from 80 to 20 per 1,000 by the use of ipecacuanha, given in from 20 grains to a drachm (1·3 to 4 grammes) dose every 12 hours. Alum-water enemata,  $\frac{1}{2}$  ounce of alum to  $\frac{1}{2}$  pint of water, is strongly recommended by HEPBURN in the treatment of Dysentery.

*Constipation.*—The method of treatment by glycerine enemata, has received universal attention, and thus far only universal commendation.

*Intestinal Obstruction.*—TREVES states that over 2,000 persons die every year, in England, from various forms of intestinal obstruction, exclusive of hernias. NORTUAGEL adopts the following plan: Increase peristalsis by enema; fight collapse with opium; order complete abstinence from food; give no purgatives. Uses lavage of the stomach, observes no visible results, but considers it a palliative of value. FITZ states that the diagnosis must be made in the first two days, the capacity of the colon being ascertained before tympany develops. Diagnosis should be made by exclusion, seat by injection, variety by seat, age, and antecedents. Treatment should be surgical on the third day.

*Treatment of Infantile Diarrhœa.*—Opiates are falling more and more into disuse, particularly in cases of "Summer Diarrhœa;" vegetable astringents have been found by a large number entirely worthless. Irrigation of the colon has come to be quite extensively practised. Evacuants are used extensively, calomel being the favourite, although castor-oil is extensively used in the preliminary stages. In the later stages the majority of writers have directed their attention to the use of antiseptics of one form or another. On the contrary, JACOBÌ states that opium is an invaluable means in the treatment of all diarrhœal diseases. Prefers Dover's Powder,  $\frac{1}{10}$  to  $\frac{1}{3}$  grain ample for the effect required in children; given to control hypersecretion, hyperperistalsis and hyperæsthesia of bowel. Time to give opium has come, when the odor of the evacuations begins to assume normal character. Finds no contra-indication in the cases of follicular enteritis which last for weeks, even when discharges continue foul.

*Typhoid Fever.*—VON ZIEMSSON has compared the morbidity with the mortality of enteric fever in Munich from 1866 to 1887, as a supplement to VON PETTENKOFER's inquiry into the reduction of mortality brought about by improved drainage. Before 1881 the yearly average of enteric fever morbidity in hospitals was 594; for seven years subsequently it had been only 104, notwithstanding a great increase in population. Before the new system of drainage was introduced, the hospital morbidity was 3·32 per 1,000 of population; afterwards only 0·42 per 1,000. The mortality from enteric fever in the whole city, from 1866 to 1880, amounted to 3,118, with a yearly average of 208; but from 1881 to 1888

there were only 324 deaths from this disease—a yearly average of only 40. The mortality per 1,000 of population, for the former period, was 1.15; for the latter, 0.16. After all circumstances are fully considered, this great diminution in both morbidity and mortality is shown to be due to the improved drainage. In concluding his contribution, Von ZIEMSSON considers the results already gained as regards typhoid fever as only part of the fruits, of the great outlay that has been made. Not only is the nutrient soil taken away from typhoid fever, but the conditions for the epidemic development of cholera are removed with it, and that it will take decennials to show all that has, from a hygienic point of view, been gained.

*Beri Beri.*—The most valuable article on this subject during the past year is that by PEKELHARING and TRINKLER. They say: 1.—Beri Beri has no dependence on anæmia. 2.—There exists a well-developed and recognizable initial stage for all forms of the malady. 3.—The unity of the various clinical and frequently widely-differing forms of Beri Beri, is confirmed by a close investigation into the electrical reaction of nerve and muscle-tissue. 4.—The majority of the symptoms are dependent on affections of nerve and muscle-tissue, and these are due to a definite nerve-lesion degeneration. 5.—In the blood of Beri Beri patients, bacilli and micrococci are to be found. 6.—Pure cultures of such micrococci give a nerve deprivation of like nature to that found in Beri Beri when injected into rabbits and dogs. 7.—The inhalation of air impregnated with such culture can originate a nerve degeneration in rabbits. 8.—Beri Beri must in all probability be regarded as a contagious disease, induced by the action of a micro-organism. 9.—The infecting micrococcus can also exist apart from contact with the human being. 10.—Direct transmission from one to another person rarely occurs; infection through wearing-apparel is more common. 11.—The infecting material finds its way into the body principally through the respiratory organs. 12.—The spread of the malady can be interrupted by disinfection, or, in a person attacked, by removal; when the symptoms are once well-developed, nothing but nature can effect a cure.

*Headache.*—A practical point of importance in the use of Antipyrine is the dosage. Often the best results are obtained by small doses frequently repeated.

*Chorea.*—COLBURN reports 54 cases of chorea, in 39 of which he found, on examination of eyes, errors of refraction. In 16 of the cases, school-work was evidently a secondary cause of the first manifestation of the trouble, and a return to any work that required close application of the eyes, would greatly increase the severity of the spasms.

*Transfusion.*—Transfusion was the subject selected by WILLIAM HUNTER, for a course of three lectures before the Royal College of Surgeons. His conclusions, which are based upon experiment, are that, for practical purposes, “all the advantages to be gained by transfusion may be equally well, and more readily



obtained by infusion of a neutral saline, such as  $\frac{3}{4}$  per cent solution of common salt (about 1 drachm—4 grammes—to the pint—500 cubic centimetres). For the operation of transfusing a saline solution, the oily instruments needed are a glass cannula, 3 feet of small, clean tubing, and a funnel, the fluid being allowed to flow into the vein by gravity. It is also undeniable, that *subcutaneous* transfusion of a saline solution, is a most valuable therapeutic resource in the collapse which follows a large loss of blood. The intra-venous transfusion of blood is practically abandoned, and rightly so.

*Obstetrics.—Forceps.*—At the Royal Frauen Klinik in Dresden, from 1883 to 1888, out of 7,322 labors 206 (2·8 per cent) were terminated by the forceps, 187 typical forceps to the head low down in the pelvic cavity, 19 atypical forceps to the head at the inlet. Out of a mortality of 3·4 per cent none perished on account of the operation, 57·7 per cent suffered considerable injury of the soft parts, 68 per cent were without fever, 9·7 per cent had slight fever, 21·8 per cent had high fever, 3·4 per cent had demonstrable parametritis. Out of the 206 children 17 per cent died, yet only 12 per cent as the result of the forceps. Of the 19 high-forceps operations no mother perished. Of the children 21 per cent died, several suffered severe injury. It is necessary to bear in mind that the forceps is the bloodiest obstetric operation, in consequence of the lacerations caused by the instrument. The high-forceps operation should be avoided as far as possible; it should only be practised by the expert hand after an accurate estimate of all the dangers involved. Even in cases of "easy" forceps, significant tears of the vagina and cervix may occur without injury to the perineum; these tears may even cause fatal hæmorrhage. It is necessary to limit the indications for this operation. In severe hæmorrhage after the forceps, that is not stopped by the delivery of the afterbirth and by the customary means, it is necessary to remember the possibility of a vaginal or cervical tear, to seek out the tear and close it by suture. In these cases NÆGLE's forceps was used, and the axis-traction forceps was not used at all.

*Infant Feeding.*—ENHERICH prefers for infants sterilized cow's-milk; to each four ounces a teaspoonful of malt extract is added; malt is less liable to cause fermentation than milk or cane-sugar. This is diluted with sterilized water in progressively diminishing quantities; he supplies fat by adding to the water a preparation of almond-meal, 1 teaspoonful to 4 oz. of water. [In China, or where the almond-meal cannot be obtained, why not substitute a small amount of pure cod-liver oil daily]. He believes that the usual methods result in the ingestion of much more food than is assimilated.

*Acute Intestinal Obstruction.*—ANNANDALE says it must be considered that, unless an acute intussusception is relieved in the early stages, it is, especially in young children, a very fatal disease. Use of enemata or insufflation can only be successful in its early stages. In the latter stages this plan is attended with

considerable risk. Much emphasis was laid upon the importance of early operation in these cases.

*Fistula in Ano.*—The article by KELSEY is too long and full for quotation, but is one of exceeding value.

P. J. FREYER, Bengal Medical Service, to April 1889, latest statistics, 100 litholapaxies and 32 lithotomies. A number of children among the litholapaxies. Largest stone from a child, a hard one weighing 765 grains; from child 9 years old, in 2 hours and 5 minutes. One weighing three grains in child of 18 months in eight minutes. One death in one hundred litholapaxies (a man of 60), 2 deaths out of 32 lithotomies. The leading authorities claim litholapaxy as the operation of choice in all ordinary cases of stone in the adult at any age. Very large stones and selected cases, they agree, are better dealt with by the high operation; when cutting is done in the perineum they advocate the lateral operation for children, the median for the adult. CABOT makes a plea for litholapaxy in children—an operation which is rapidly gaining favor.

*Supra-Pubic Cystotomy.*—WATSON, 100 cases analysed, 35 per cent healed by first intention. When harm arises it is due to not having left abdominal wound open. His conclusions are, suture should be employed when bladder-walls are healthy. Suture should be avoided when the bladder-walls are much thickened, when there is much liability to hæmorrhage within the bladder, or when there is foul cystitis, and the abdominal wound should be left open for the greater portion of its extent. We hope at a later date to give some further notice of the two remaining volumes.

H. W. B.

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### LEPROSY IN HONGKONG.

By JAMES CANTLIE, M.A., M.B., F.R.C.S.

This interesting monograph begins with a statement of the difficulty of obtaining evidence of the existence of Leprosy previous to the time of the present investigation, goes on to tell how the Government of the Colony deals with lepers. He then advocates classification of the lepers in Hongkong into (1) Hypertrophic Leprosy, (2) Anæstho-hypertrophic Leprosy, and further regional classification only; regards anæsthesia as an invariable concomitant of the disease. "Anæsthesia is present in all cases as an initial symptom, or subsequently supervenes upon leprous hypertrophies."

Page 10.—"The period of incubation is quite unascertainable." "I do not believe in the heredity of leprosy." Leprosy is endemic, never epidemic. Interesting particulars are given as to the birthplace of lepers met with in

Hongkong, sex, age, occupation. Has never seen or heard of any European being attacked in China. *Contagious Nature of Leprosy*.—"A contact of years' standing is the usual finding; it was even 9 years in Father DAMIEN'S case." "There seems little doubt that leprosy is inoculable." *Vaccination as affecting Leprosy*.—"By arm-to-arm vaccination of infants up to three months, I do not consider it possible to communicate leprosy."

*The Treatment of Leprosy.*

The remarks on treatment are interesting enough to be quoted in full.

"The treatment of leprosy resolves itself into improving the general health by tonics and purity of hygienic surroundings. Further, a few remedies may be used, but altogether empirically, to allay symptoms.

"When a leper first presents himself or herself for treatment, any medicine which improves the general health will cause an improvement, not only in the patient's spirits, but also in the leprous patches. Cod-liver oil, iron, bitter tonics, some of the acids, arsenic, &c, &c. may, and usually do, cause improvement, so that frequently the patient is deluded into the belief of the possibility of an ultimate cure.

"Without entering into a lengthy disquisition on treatment, I will merely state what I have done for lepers and the result:—

"I.—General treatment consists in administering some of the tonics mentioned, but most useful of all I found to be improvement in the quality and quantity of the food. The poor leper is sent away from every threshold to find sustenance as best he can. The pavement is frequently his bed and refuse his food. By supplying good food to such, a marked improvement takes place, without medicine.

"II.—In addition to general treatment, I have used as an empiric remedy, chaoulmoogra oil, in the form of pills, in increasing doses from 5 to 15 drops, and continued its administration for an indefinite time.

"In six cases the oil seemed to have no effect in staying the progress of the disease.

"In thirteen cases the patients showed more or less improvement.

"In one case, a case of mixed leprosy, anæsthesia of the lower limbs, and patches of hypertrophy on the face—the usual Malar bumps—marked improvement. The treatment has been kept up for fifteen months. The patient has lost all facial disfigurement, sensation has returned in the face, and the only marks remaining are a few patches of anæsthesia about the right leg and the outside of both thighs. In these spots the patient can feel touch, but not pain, *i.e.*, he can feel a pin touch him, but he can push it in as far as its head without actual pain.

"This is the case that has done best, and the length of time since first seen seems hopeful.

"Increasing doses is the only point to notice in the treatment, 15 drops being the maximum as yet.

"III.—Of external applications, the only one I have employed lately, is the ointment recently recommended by Una:—

|                       |     |     |     |             |
|-----------------------|-----|-----|-----|-------------|
| <i>R.</i> Chrysarobin | ... | ... | ... | 5 per cent. |
| Salicylic acid        | ... | ... | ... | 2 „         |
| Ichthyol...           | ... | ... | ... | 5 „         |

"The use of the ichthyol, is to combat the action of salicylic acid in laying bare the skin; this is applied to the arms, legs and trunk. With this ointment, I have seen marked improvement in the twelve cases tried. Even after one week's application a decided improvement takes place. To all appearance, patients after a short course, lose symptoms of leprosy.

"When the application is for the face the ointment is weakened, and pyrogallol introduced instead of chrysarobin.

"The quantities are as follows:

|                      |     |     |     |          |
|----------------------|-----|-----|-----|----------|
| <i>R.</i> Pyrogallol | ... | ... | ... | 6 parts. |
| Salicylic acid       | ... | ... | ... | 2 „      |
| Ichthyol             | ... | ... | ... | 5 „      |
| Lard                 | ... | ... | ... | To 100 „ |

"Certainly the milder ointment was non-irritating to the tender skin of the face, and the beneficial effect was most marked. More than one patient, who had come to Hongkong for treatment, took their departure in 14 days, pronouncing themselves cured.

"According to Una's advice, I administered internally 10 drops of dilute hydrochloric acid three times a day, to counteract the deleterious effects of pyrogallol on the blood. In the three cases I did so, the ointment had been used for some time alone, but after taking the acid, improvement was more marked.

"In many cases the patients presented themselves with a leonine expression, anæsthetic in patches, and large purplish patches here and there over the face and limbs. The limbs were usually anæsthetic to a marked extent, and the patients in many instances were deprived of the privilege of earning a livelihood owing to their disfigurement.

"After a week's course of Una's ointment, a marked improvement in all cases took place, and frequently it happened that in six weeks' time the facial deformity had all but gone and the leper was well enough to be admitted by his fellows to earn his living.

"The extent of improvement is that:—

1. The leonine expression is ameliorated, or, as in three cases, wholly disappears.

2. Sensation returns to the face and limbs, completely or in part.
3. Patients unable to obtain employment before are free to obtain a livelihood.

"The treatment recommended is upheld merely as empiric and ameliorative. No cure is advocated or claimed. But even amelioration of symptoms is something, if it can be shown that by amelioration, life is made more pleasant; and, if in addition, life is prolonged, then modern medicine must claim a triumph."

### *Segregation of Lepers.*

"In all leper countries and from early times segregation is, and has been, practised with more or less rigor. In spite however of segregation, leprosy maintains its course in these countries, and no amount of leper villages or leper asylums seem capable of eradicating the disease.

"What then is the good of segregation if it does not prevent contagion, may well be asked. In the first place, it provides a home for the leper outcast; this is surely of itself a great humanitarian work. Leprosy does not cause a tithe of the misery in the world created by syphilis, yet we expel the leper who has got a disease through no fault of his own, but we shelter the syphilitic. Therefore, on no other ground but on those of simple benefit of the lepers alone, it is incumbent to institute leper homes or asylums.

"I.—A leper retreat must be provided for British subjects, be they Chinese or Foreigners."

Appended to the paper are the histories of 10 cases, with diagrams which show the location and the extent of the parts affected with leprosy. They are taken as typical cases out of 62 cases of leprosy observed.

Under the heading of treatment no mention is made of nerve-stretching as a means of affording relief. BEAVEN RAKE performed 100 operations of nerve-stretching, twelve in cases of *lepra tuberosa*, sixty-four in *lepra anæsthesia*, and twenty-four in which the two varieties occurred simultaneously. Results were as follows: Improvement, 47; no improvement, 49; doubtful, 4. MITRA affirms that although evident improvement followed in a few cases, the majority of cases did not permanently benefit by the operation.

By the timely publication of this monograph, Mr. CANTLIE has placed the Medical Profession of China under an obligation. His observations are interesting and suggestive, while at the same time they go to show two things,—(1) that China is a splendid field for the investigation of the disease, (2) that we have much to learn about it. His suggestions as to treatment are thoroughly practical and sensible, and offer quite as good a chance of cure as any plan we know of.

H. W. B.

## SEA SICKNESS :

PRACTICAL PRECEPTS TO OCEAN TRAVELLERS.

*A Prize Work.*

By HERMAN PARTSCH, M.D.

Boston :—J. G. CUPPLES Co., Publishers, 94, Boylston Str.

Dr. PARTSCH, whom we know to be a well-read and scientific man, here produces a carefully-elaborated and thought-out treatise on Sea Sickness, and had but the deductions therefrom, evidenced some practical outcome as to treatment, a matter in which we are chiefly concerned, right gladly would we have welcomed it, but with some regret we give an adverse opinion in this respect, for in a lengthened voyage we had every opportunity of testing the effects of the treatment herein advocated, and feel assured it would have been very gratifying, had but the passengers on that occasion realized, that some 90 % of their sufferings were in reality relieved, inasmuch as Dr. PARTSCH, a martyr, by-the-way, himself to sea sickness, undertakes to "easily reduce them to a minimum of  $\frac{1}{10}$  of the individual share" be that presumably more or less, we ourselves have generally found it more. The line of treatment indicated in this work, beyond some few accepted principles, is humorously fallacious; humorously, because the author has such a firm conception of his heaven-sent mission, notwithstanding the panoramic hint on board ship to the contrary.

Having had some considerable experience at sea, we refute, solely on practical grounds, the teaching of this little work, and for the benefit of our readers substitute, and thoroughly endorse the general principles of treatment sketched out in Mr. KIRBY'S *Pharmacopæia of Selected Remedies*:—"Recumbent position, keeping the head low. No specific for susceptible persons. Preventive:—"Fresh air, deck berth, recumbent position, warmth to be well maintained; hot bottles to feet, etc. For faintness:—Brandy, Iced Champagne, *Ammonia*, a few doses of Chloral, 15 to 25 grains most successful. Opium for short passages, 1 or 2 grains. *Creosote* or *chloroform* in one-drop doses, *Nitrate Amyl* inhaled from a handkerchief, [a dose or two of blue pill or *Podophyllin* and *Colocynth* should be taken a day or two before embarking]. In extreme cases the patient should be slung in a hammock.

P. M.

## THE CHINESE SCIENTIFIC AND INDUSTRIAL MAGAZINE.

Vol. V, No. III.

JAMES FISKE concludes his "Cosmic Philosophy" with these words:—"The long and mistaken warfare between Science and Religion will be exchanged for an intelligent and enduring alliance. The two Knights of the fable finally throw down their weapons on discovering that the causes for which they have so long been waging battle, are in reality one and the same eternal cause,—the cause of truth, of goodness, and of beauty; the glory of God, and the relief of man's estate."

We believe these words are profoundly true, that true science and true religion are but the obverse sides of the one shield, and so hail with joy, every attempt made towards the education of the Chinese nation in the principles of science.

This Quarterly Magazine, edited by Mr. FRYER, it is needless to say, is one of the best attempts in that direction that could possibly be made. The present number contains many interesting and well-written articles, giving much instruction in Physics, Mechanics, Hygiene, Entomology, etc. The illustrations are admirable, and the articles clear and concise.

The labor of editing such a magazine cannot be slight, and we think all honor is due to him who has conceived the plan, and who has taken so much pains in its completion.

As we look over the articles, it is with a feeling of sorrow that we read the brief notice of the proposed plans, and lectures of the recently-arrived Lecturer for the Polytechnic Institute—Mr. BURTON. Certainly a life of great usefulness lay before him, and his sudden removal by death is a great loss, not only to the Institute, but to the cause of science in China.

The articles "Planting Trees to Remedy Disasters from Floods," "How to Construct a Dynamo," and "Comets," by native authors, show very clearly that there must already be a large class in China, to whom the discussion of scientific subjects is acceptable and interesting, and undoubtedly one the great effects of this excellent Scientific Quarterly, will be to make that class still larger.

F. L. H. P.



## HOSPITAL REPORTS.

Dr. LYALL's report for 1889 from Swatow and Ch'ao-Chow-Fu is especially interesting from an evangelistic point of view, though the amount of *practical work* done staggers one's faith.

We give below statistics and remarks.

*Number of Individual Patients.*

|                                                       |     |       |       |
|-------------------------------------------------------|-----|-------|-------|
| In-patients                                           | ... | ...   | 2,679 |
| Out-patients                                          | ... | ...   | 3,151 |
|                                                       |     | Total | 5,830 |
| Daily average number of in-patients                   | ... | ...   | 182   |
| Average attendance of out-patients on Dispensary days | ... | ...   | 53    |
| Number of Operations                                  | ... | ...   | 1,129 |

Patients have come from 1,780 different towns and villages. This fact alone reveals to some extent the character of the work we have to do, and it also shows the value of the Hospital as an evangelistic agency.

"The question of the spread of leprosy has been exciting unusual popular interest of late in some European countries. This disease is very common here, and it is the general opinion among intelligent natives that it is becoming more prevalent. More than 250 cases applied for treatment." Of surgical operations there were on the eye alone 601. On the body generally 528. Of eighteen cases of iridectomy only one was a failure, two had a little vision, while in all the others good and useful sight resulted.

Dr. LYALL reports one case of death under Chloroform, a boy aged fifteen; another case had a somewhat unpleasant bearing upon the same. "The patient was much debilitated from long-standing necrosis of femur. The operation was not specially severe, but it was followed by a pretty severe attack of chloroform sickness. On the evening of the 2nd day, on sitting up to take some food he was suddenly attacked with dyspnoea and died in

about an hour. A typical case of traumatic tetanus was successfully treated with large doses of opium. On the third day of the disease the patient swallowed, within a few hours, the whole of a mixture containing six drams of Tinct. Opii. This dose effectually restrained the tetanic spasms for 30 hours or so. When the spasms returned I gave him four drams more in two doses. Afterwards he did not require particularly large doses."

From Ch'ao-Chow-Fu the report gives the number of patients treated as 11,011 with 533 operations. Good results are reported from the use of electricity in cases of Trichiasis where a major operation was not required or desirable. A couple of 1½ pt. Bunsen cells were used and two sewing needles, the positive being kept nearly stationary, and the negative used to loosen the hairs.

"In certain localities *Anæmia* is common among the agriculturists. Bland's pills are an almost never failing remedy. Iron in this form is well tolerated. The Perchloride and Sulphate even in small doses are liable to cause abdominal pain and diarrhoea among the Hoklos of the plains."

Of the evangelistic work Dr. LYALL thus speaks in regard to the Hospital:—

"Of the native helpers, special mention might well be made of the two senior hospital assistants. Between them they take the Gospels in course, and as the larger number of the services devolves upon them, they are able in the course of a few months, to give the patients a connected account of our Lord's life and work. When it is remembered that upon these men rests necessarily much of the routine work of this large hospital, it will readily be admitted that they might well be excused from bearing so large a share in the religious services. Yet they rarely seek to excuse themselves



from this part of their work, but do it with much earnestness and zeal, seeming to feel real joy in striving to show their heathen countrymen the better way." Mention is also made of visits of native Christian women to the wards, of reading class and oral instruction in such books as the *Peep of Day*. One is not surprised that the "Inquirer's class" has numbered 110.

"Of these about 20 have applied before. They had first heard the Gospel at the hospital, had entered their names as applicants, had returned to their homes, and after one year or more, have again come to the hospital for treatment and again given in their names as applicants for baptism. Surely we may conclude that such are truly in earnest. They have confessed their faith to their heathen relatives and neighbours, they have counted the cost and are prepared to take the consequences. It is an interesting fact that many of those who apply have not done so until on a second, and sometimes even a third visit to the hospital.

From Hangchow comes a pleasantly written report from Dr. DUNCAN MAIN, now resting from his labors in the home-land. We cull from it a few facts of interest. "During the year," he says, "we endeavoured not to forget that the object of the Mission is to bring the diseases of the soul into contact with the Great Physician that they may be healed. Christ went about doing good, preaching the Gospel and healing the sick, and always subordinating his healing power as regards physical diseases, to the great end for which He laid down His life, the salvation of all men."

"The sale of anti-opium medicine is very extensively carried on in this region. It is a dangerous business, and I am sorry to say that Native Christians sometimes dabble in it, but not, I fear, without injury to their spiritual life. Our experience is, that this work does anything but recommend Christianity, and ought to be discouraged on every side. The cases are very exceptional where

an opium-smoker can be trusted with morphia pills to cure himself of the opium habit. The pills are very convenient, and, as a rule, are bought not to cure, but to take as a substitute for the pipe by those who find it inconvenient to smoke during business hours."

"A great amount of good is done through the Dispensary, but it is much less satisfactory than in-door work, from the extreme difficulty of securing regular attendance, and getting the patients to go through a proper course of treatment; there is also the difficulty of getting them to take the medicine according to our instructions; sometimes a patient will throw away the medicine as useless, simply because the first dose did not touch the tender part; on the other hand a patient who feels much better after the first tablespoonful, will reason with himself that the whole is better than a part and so empty the bottle at one draught in order to hasten the cure; there is the difficulty too of taking native medicine along with the foreign, with the idea that *two halves make one whole*."

"Much of our time was taken up with the Medical Class and we are glad to report that the 31st December ended a five years' course of instruction, with considerable satisfaction not only to the instructed, but also to the instructor."

"The great value of Medical Mission work in China can scarcely be overrated and we have every reason to thank God, and go forward knowing that our work is not in vain in the Lord. We cannot in a work like ours tabulate spiritual results like so many packages of goods, but we can say that Christ has been preached and souls have been saved, and although the number is not a large one it is sufficient to stimulate and encourage us."

#### Statistics.

Out-patients (registered only

|                 |     |          |              |
|-----------------|-----|----------|--------------|
| on first visit) | ... | ...Male, | 5,894        |
|                 |     | Female,  | 2,114        |
|                 |     |          | <u>8,008</u> |

|             |     |     |          |           |
|-------------|-----|-----|----------|-----------|
| In-patients | ... | ... | Male,    | 381       |
|             |     |     | 'Female, | 77        |
|             |     |     |          | <hr/> 458 |

Number of visits paid by Out-patients  
to the Dispensary ... 22,814

We select from the report one case as of interest from its rarity.

"*Subclavian Murmur*.—This rare affection, which WEIL only met with six times in 600 cases and GUTTMANN only three times in several years, was met with in a young adult aged 16 suffering from acute pulmonary disease of six months' duration, with marked consolidation of the right apex, and slight consolidation of the left apex.

"The Murmur, which was clearly demarcated from the heart sounds, was heard with greatest intensity in the right sub-clavicular fossa at a spot exactly corresponding with the course of the subclavian below the clavicle. It was systolic in rhythm, loud, somewhat harsh, and blowing in character, and heard with the utmost ease and distinctness on the lightest pressure with the stethoscope, and it was absent on the left side. With regard to the heart, there was marked accentuation of the pulmonary sound, with a palpable and visible impulse over the 2nd left interspace. The area of cardiac dulness was not increased. The apex beat was not displaced, and cardiac Murmur was to be heard,—but the heart sounds were widely propagated over the pulmonary area.

"After a month's treatment, patient left us not materially improved."

The medical work of the American Board in Foochow is presented in a report for three centres of work the Foochow Medical Missionary Hospital, under the care of Dr. H. N. KINNEAR, the Shaowu Medical Missionary work, with Dr. WHITNEY as chief, and the Hospital for Women and Children, in Foochow, under the management of Dr. KATE C. WOODHULL. Dr. KINNEAR

reports good progress in his work, though he is comparatively a new-comer. During the year 1889 there were 9,772 patients including Hospital and Dispensary. Dr. WHITNEY has again taken up work in Shaowu, where he labored previously in the years 1877-1879. He says:—

"During our first sojourn in this field we gained not a few native friends and on our return the number had increased and they were all glad to welcome us back again.

"Those willing to use foreign medicines are largely on the increase, and though they still fear the knife, through the influence of minor surgery their fears are being allayed, and they are gradually approaching the day when major surgery can be undertaken.

"We cannot have a regular time for dispensing, and then go to some other work, since the patients come from near and far, and at all hours of the day. So the doors are kept open every day except Sundays, and some one in constant waiting. On the Sabbath the doors are closed and we attend only to very urgent cases where great suffering or life are involved. A small charge is made for all medicines. When we furnish vials a charge of 30 cash, or three cents is made."

Dr. WOODHULL, reports:—

The event of greatest importance during the past year has been the completion and occupation of the new Hospital and Dispensary. This has been fully appreciated by all concerned in the work. Even the patients seemed pleased with the clean new quarters, although they have no idea of keeping them so."

She also reports a steadily increasing work. An interesting case is mentioned, "that of a woman with an immense tumor growing from nearly the whole length of thigh and leg, and so heavy it was impossible for her to walk. No operation was attempted on account of the great size of the growth."

ANNUAL REPORT OF THE MEDICAL DE-  
PARTMENT OF ST. JOHN'S COLLEGE,  
*For the year ending 30th June 1890.*  
Under the charge of Dr. MATHEWS,  
*Resident Physician.*

The critic has so many trying tasks to perform, so many dull works to read, and his duty so often leads him to wield the lash, that it is with the most unfeigned pleasure he reads a report with which there is no fault to find except that of its brevity.

The report before us, sets forth in a few modest words the record of daily duties well performed, of work intelligently planned and conducted, with a steady purpose to improve and enlarge this sphere of action in the not distant future. First the College, the Girls School and the Orphanages have been carefully looked after, sanitary matters have received due attention. Cleanliness, ventilation, out-door sports and recreation for both boys and girls are fully recognized as means to that great end the *mens sana in corpore sano*. An epidemic of Rôtheln was introduced by some of the boys on their return from vacation, and a still more serious one of scarlet-fever was imported, "nine lads being at one time affected and isolated in the infirmary." No deaths.

The Orphanage, where small waifs of humanity are taken in, suffering from every conceivable inheritance of suffering, is always an anxious place for the medical man, but is also the school of experience. The report shows that the orphans have done well, though two casualties are recorded.

The Dispensary at St. John's has been well attended during the year, and the recapitulation shows the attendance to have been ... .. 4,880

Vaccinations ... .. 782

Total ... .. 5,662

This does not include visits made in the neighborhood, where the local mandarin was one of the patients, but does the work at the out-stations under the charge of the Rev. H. N. Woo.

The native clergy and the Biblewoman have laboured among these poor sick and suffering ones, and we trust that the work amongst them has not been in vain and that the seed thus sown may prove fruitful and multiply 30 nay 60, or, it may be, even an hundred fold.

TWENTY-SECOND ANNUAL REPORT OF  
S. LUKE'S HOSPITAL FOR  
CHINESE, SHANGHAI.

*For the year ending 31st October 1890.*

"To do good by stealth and blush to find it fame" deservedly and aptly applies to the Report of the Hospital here under consideration. We, however, regret its brevity, and almost entirely statistical make-up. Dr. BOONE, in a few modest words, "trusts" that good has been done. When we read of the thousands who have received comfort and help within these hospital walls, and think again of the many thousands dependent upon those who have received these inestimable blessings, we feel assured that this wish has been fulfilled in all its noble entirety. It requires but little effort of imagination to realize that this hospital is doing great good, and relieving an immensity of sad, direful suffering; and, further, judging from the very satisfactory condition of the finances, which are carefully and wisely husbanded, we note that this fact is equally appreciated by foreigners and Chinese alike."

The opening remarks make grateful recognition of Dr. R. A. JAMIESON'S "unremitting and valuable services," of Dr. H. M. PERKINS, and of Dr. DUNCAN REID.

The following table gives a summary of the work done during the year:—

| Description.  | Intern. | Extern. | Total. |
|---------------|---------|---------|--------|
| Native Males. | 451     | 12,224  | 12,675 |
| " Females     | 44      | 8,106   | 8,150  |
| Foreign Males | 13      | 296     | 309    |
| " Females     | 4       | 152     | 156    |
|               | 512     | 20,778  | 21,290 |

"One hundred and twenty-nine surgical operations were performed in the hospital. Six hundred and two minor surgical operations were performed in the out-patient department."

"Seventeen deaths occurred during the year. The Chinese have a habit of bringing persons to the hospital to die, so as to save the trouble and expense of a funeral from their own homes."

"Since our last report was issued we have been enabled by the use of the Gutzlaff Fund to purchase a corner lot in front of the one on which the hospital stands, and to put up on it a suitable building as a ward for women and young children. The new building was formally opened by Bishop BOONE, on the 9th of September. The lady doctor in charge, Dr. MARIE HASLER, finds a plenty to do, and will, we trust, be able to give an interesting account of her department in the report for 1891."

"The medical pupils attended the hospital regularly, and have received clinical instruction."

"Daily services for the out-patients have been held in the chapel, in addition to the work done in the wards by the clergy, who have regularly visited the patients."

The Report of the Medical Department of the Wesleyan Mission, Central China, for 1889, is at hand. It is tastefully gotten up, carefully edited, and well published. Two capital and pleasing woodcuts give us an excellent impression of the wards of this evidently well-arranged hospital. We quote the following from the "Historical."

"Nearly 30 years ago, War and Treaty threw open a great city in the heart of China, to foreign residence, and Wesleyan Missionaries followed in the wake of the first traders. Soon came the problem how to reach the hearts of the teeming multitudes, how to show them the life of Christ so that it should be lovely in their eyes. It was not long ere the sorrows and disease of hapless sufferers seemed to point to a new way, and

more than a quarter of a century has passed since Dr. PORTER SMITH came to show the Chinese the practical sympathy of a Christian physician. The medical work has had changing fortunes since then; first a dispensary in a native house, next a neat little hospital, for men and women alike, in the heart of the city, and a dispensary amid the mandarins of Wuchang across the Yangtze; fifteen years of happy ministering to the sickness of some ten thousand patients a year. Then came the time of disappointment when no one could be sent out to succeed the last medical man, when the hospital was closed, the influence of those years of labour ceased to accumulate, the building decayed and finally had to be pulled down."

After years of waiting, in 1885, a beginning was made in dispensary work, followed soon by the arrival of the present staff of workers, Drs. HODGE, MORLEY and Miss SUGDEN. Two Hospitals have been erected, one containing 23, the others 25 beds, a third is in process of building. The report continues—

"The completion of the Hospital at Hankow, the further development of the work at Wuchang and Teh Ngan and other cities as yet untouched—these lie among the hopes of the future; for the present we rejoice that the sad interruption of ten years is at an end and that these various agencies represent a Medical Mission once more in full activity."

Two months attendance only is reported for the Men's Hospital, Hankow:—

*Totals for the Three Hospitals.*

|                |     |     |       |
|----------------|-----|-----|-------|
| Out-Patients   | ... | ... | 7,701 |
| In-Patients    | ... | ... | 208   |
| Outside Visits | ... | ... | 104   |
| Operations     | ... | ... | 21    |

We extract the following closing words:—

"It is our hope that such thorough medical treatment, coupled with consistent firmness and kindness, will gain its due place of influence over the Chinese far and near, and that He whose love and pity are the living spring of all our service, may thus be brought near to these who know Him not. We endeavour, by His grace, so to live and

heal that the motive of our life-work may be unmistakable, and even the materialistic practicalness of the Chinaman may lead to Him whose sympathy has begotten ours, that loveless lives," brightened with a new thought and a new hope, may rejoice to find in Holy Writ the utterance of their new-born love 'We love because He first loved us.' "

#### REPORT OF THE NEERBOSCH HOSPITAL.

This Hospital was opened March 1889, and, allowing for unavoidable closing, has been in actual work for twelve-and-a-half months.

"The hospital was called Neerbosch Hospital, because it was at the Neerbosch Orphanage (Netherlands) that the first money for the building was received. The first money being five cents, given by a little orphan girl in the Neerbosch Orphanage. It was *all* she had."

"Very recently some Chinese friends have contributed a sum sufficient to enlarge the hospital, so that next year there will be room for forty beds in the enlarged wards."

"April 21st, 1890, a second dispensary was opened at Lam-sin, about thirteen miles distant from Sio-ke. Patients were treated one day every week, but we found it exceedingly difficult to get there, as the chair-bearers of the Sio-ke region have boycotted us. But for the kindness of Rev. A. S. VAN DYCK, who presented us with a horse, we would have had no means of conveyance."

#### Statistical Abstract.

|                                            |     |               |
|--------------------------------------------|-----|---------------|
| Patients admitted to the hospital ...      | ... | 317           |
| New names on register for Sio-ke:—         |     |               |
| Males ...                                  | ... | 3,033         |
| Females ...                                | ... | 448           |
| New names on register for Am-sin:—         |     |               |
| Males ...                                  | ... | 395           |
| Females ...                                | ... | 113           |
| <b>Total</b> ...                           |     | <b>3,989</b>  |
| New cases treated ...                      | ... | 4,342         |
| Return visits ...                          | ... | 12,912        |
| <b>Total</b> ...                           |     | <b>17,254</b> |
| Visits made to patients in their homes ... | ... | 328           |
| Surgical operations ...                    | ... | 285           |
| Teeth extracted ...                        | ... | 127           |
| Vaccinations (about) ...                   | ... | 30            |

#### Medical Curiosities.

"Among the curious cases which came under our notice we may mention two. One was a case of protracted labor, where the father of the woman, seeing that both mother and child were in danger, seized a sharp iron hook, resembling those on which the butchers hang dressed beef, but here used on the native steelyard. Introducing this into the scalp of the child, he succeeded in saving both mother and child. Nearly the whole scalp was detached in three places from the skull. The father walked twelve miles to the hospital with the child in his arms. The wound was sutured with silver wire, and to-day the infant is a vigorous boy.

"The mother of this child came to the hospital, with four peculiar tumors of the scalp, resembling rolls of skin, and extending from the crown to the neck. On cutting into one of them, it was found to consist of redematous tissue. It was neither possible nor necessary to remove them. The tumors were evidently caused by the peculiar manner of hair-dressing in vogue among the women of this region. They draw the hair forcibly backwards over a stiff wire frame, extending backwards about six or eight inches. This they load with heavy ornaments, thus causing a continuous strain upon the scalp.

"The comparatively small number of eye, and the exceptionally large number of spleen cases met with in this region, are worthy of note."

The report of "The Foochow Native Hospital and Dispensary," for 1889 gives a total for 8 years of work:—

|                             |     |            |
|-----------------------------|-----|------------|
| No. of In-patients ...      | ... | 5,101      |
| " Out-patients (new) ...    | ... | 31,715     |
| for year 1889:              |     |            |
| In-patients ...             | ... | 688        |
| New Out-patients ...        | ... | 5,248      |
| No. of visits ...           | ... | 13,173     |
| Total number of operations: |     |            |
| On In-patients ...          | ... | 137        |
| " Out-patients ...          | ... | 498        |
|                             |     | <b>635</b> |

The above-named Hospital appears to be supported by subscriptions from the foreign and native residents of Foochow.

## MEDICAL PROGRESS.

### ARSENITE OF COPPER IN DIARRHŒA.

Dr. BRANCH CLARK, in the *New York Medical Journal*, calls attention to the value of arsenite of copper in the treatment of diarrhœa, dysentery, cholera morbus, and cholera infantum. He says "I have not lost a single patient with cholera infantum since I began to use it. It is given largely diluted with water, and is not at all disagreeable to take. I think it was Dr. JOHN AULDE, of Philadelphia, who first advocated its use, about two years ago. I have used it about thirty times within a few weeks without a single failure. It is put up in tablets of  $\frac{1}{16}$  of a grain, one of which is to be dissolved in four ounces of water, and a teaspoonful of the solution (containing  $\frac{3}{16}$  of a grain) taken every fifteen minutes for the first hour and then every hour until relief is obtained. For children proportionally smaller doses are used. I feel sure that arsenite of copper may be made to reduce the mortality by cholera infantum as bichloride of mercury has reduced that by diphtheria."

### IODOFORM IN CARBUNCLE.

Dr. WHITEHEAD of Manchester, has been getting good results in the treatment of carbuncle, by the subcutaneous injection into the base of the tumor of a concentrated ethereal solution of iodoform. The pain is slight, and the improvement on the second day is marked. In a week only a scaly scab is left, and finally the scar left is superficial and inconspicuous.

### SALT FOR HEADACHES.

An English doctor reports over thirty cases of headache and facial neuralgia, cured by snuffing powdered salt up the nose.

In cases of chancroid which are excessively painful, Prof. GROSS directed the following wash :—

|                     |              |
|---------------------|--------------|
| R. Chloral hydrat., | gr. viij.    |
| Aquæ destillat.,    | f. oz. j. M. |

Sig.—Apply on cotton.

### THE TREATMENT OF DYSENTERY IN CHILDREN.

VEILLARD recommends the following mixture in the dysentery of children :

R.—Powdered ipecacuanha 25 grains.

Boil for five minutes in  $3\frac{1}{2}$  ounces of water. Filter and add :

|                                       |            |
|---------------------------------------|------------|
| Tincture of opium, from 2 to 4 drops. |            |
| Cinnamon water                        | 3 drachms. |
| Syrup of orange flowers               | 6 „ —M     |

Dose, for a three-year-old child, one dessert-spoonful every hour, or at longer intervals if nausea is produced. To quiet tenesmus enemata containing tincture of opium, or enemata of infusion of chamomile or of eucalyptus flowers, should be used.—*Annals of Gynecology and Pædiatry*, May, 1890.

For superficial Burns, Mr. C. HEATH, of London, recommends a mixture of two parts of castor-oil and one part of collodion.

When ordinary remedial measures fail to arrest hemorrhage from the lungs in a reasonable time, Prof. DA COSTA recommends sulphate of copper in  $\frac{1}{4}$ ,  $\frac{1}{2}$ ,  $\frac{3}{4}$  gr. doses, or tinct. matico, f. dr.  $\frac{1}{2}$  every four hours.—*Canada Medical Record*.

## REGULATING MATRIMONY.

A bill has been introduced into the Legislature of Kentucky, which prohibits marriage with an idiot, lunatic, pauper, vagrant, tramp, drunkard, gambler, felon, or any person rendered physically helpless or unfit for the marriage relation, or any person with a violent temper, or who has within one year been a frequenter of any immoral house.

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 IODOFORM OIL IN TUBERCULOUS AFFECTIONS OF BONES.

Iodoform oil is at present used in Germany for treating tuberculous affections of joints and bones. This oil is injected into the affections of joints and bones. This oil is injected into the tissues just like a solution of iodoform in ether, which, however, has been given up for reason of its extreme painfulness, and of its occasionally causing gangrene. A twenty per cent. mixture of iodoform with olive-oil, prepared fresh for each injection, is used. Part of the iodoform will decompose if this mixture is kept for some time, such decomposition being easily found out, as it causes a reddish-brown coloration; 30 to 45 minims of this mixture are injected every eight days, on different places, by the aid of a Pravaz syringe. Previous careful disinfection of the skin is advisable.—*The Provincial Medical Journal*.

## ANÆSTHESIA.

*An Address delivered before the International Medical Congress, Berlin, August 6th, 1890.*

By H. C. WOOD, M.D., LL.D.,  
*Professor of Therapeutics in the University of Pennsylvania.*

The following rules are so good as to be worth quoting :—

"In conclusion I may be allowed to state, that if the results and deductions arrived at in this address are, as I believe, correct, the rules for the proper treatment of accidents during anæsthesia can be summed up in a very few words,—avoid the use of all drugs except digitalis and ammonia. Give the tincture of digitalis hypodermically.

Draw out the tongue, and raise up the angle of the jaw, and see that the respiration is not mechanically impeded. Invert the patient temporarily.

Use forced artificial respiration promptly and in protracted cases employ external warmth and stimulation of the surface by the dry electric brush, etc., and above all remember that some at least, and probably many of the deaths which have been set down as due to chloroform and ether, have been produced by the alcohol which was given for the relief of the patient."

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 SOCIETY REPORTS.

The regular monthly meeting of the Shanghai Medical Missionary Association, took place at St. Luke's Hospital, on the afternoon of Tuesday the 17th of June 1890. Present, Dr. REIFSNYDER the President, in the chair, Drs. BOONE, HASLEP, and Honorary Members Drs. JAMIESON and LALCACA. The routine business being disposed of, Dr. REIFSNYDER then vacated the chair to Dr. HASLEP, to read her paper "Modern Surgery as seen during her late visit to Europe and America." In the discussion which ensued upon the reading of the

paper, Dr. JAMIESON remarked, with reference to a case of reposition of an inverted uterus by abdominal section, that so little force could be exerted by the divarication of two fingers, the tissue in that instance must have been lax enough to permit reposition from the vagina without section of the abdominal wall. As regarded the administration of morphia after inter-abdominal operations, it did not seem reasonable to lay down any rigid rule, which would deny morphia in cases where there was much restlessness or pain or chloroform vomiting, which would not yield to hot water and sinapisms. This too was the opinion of many leading operators in England, although absolute refusal of morphia was the practice of one or two of the most successful men. For his own part, within his limited experience, he had given morphia in rapidly decreasing doses in all his cases. That day he had removed the second and final dressing from a particularly difficult case of removal of the uterine appendages, which he had operated on exactly three weeks ago. In this the right ovary, which was only slightly enlarged, was completely occupied by old and recent blood-clots, and the right tube was full of pus. The adhesions were trivial, but on knotting the ligature round the uterine extremity of the tube the silk cut through the tissue, leaving the tube free. He had drawn the divided peritoneum together with a fine silk suture over the virtual opening in the uterine wall, and as sponges had previously been packed round the tube the peritoneum was not soiled. On the left side the adhesions were extensive and peculiar, the tube was as large as the middle and ring finger together, its walls greatly thickened, and its lumen tightly distended with pus. A loop of small intestine was intimately adherent to it, forming half a spiral round it. The speaker had been forced to enlarge the original 2 inch incision in the abdominal wall to  $3\frac{1}{2}$  inches, in order to get sufficient purchase to break down the adhesions, which bled profusely. When this was accomplished the ovary was found firmly attached to the sigmoid flexure, and here again there was smart hemorrhage. The left ovary was about two-thirds of the size of the thumb, and was reduced to a shell containing cheesy pus. On this side the ligature on the uterine end of the tube held, and sponge packing prevented any accident on section. He did not flush the peritoneum, although there was a great deal of blood in the pelvis. The pelvis was cleaned with sponges wrung out of recently boiled water, held in long catch-forceps, and when the sponges were withdrawn almost clean the abdomen was closed with four silk sutures embracing all the tissues of the wall. A superficial suture was inserted between each two of the deep sutures. A layer of boric acid was sprinkled over the incision, which was then covered with a pad of pure cotton held in its place by broad straps of adhesive plaster, and the whole was secured with an ordinary flannel belt. There was but slight sickness, but there were severe abdominal pains and much restlessness. On successive nights  $\frac{1}{4}$ ,  $\frac{1}{8}$ ,  $\frac{1}{8}$ ,  $\frac{1}{8}$ , and  $\frac{1}{16}$  grain of morphia was given hypodermically, and hardly any food was administered for 48 hours. The temperature once and only once touched  $100^{\circ}$ . The bowels



remained closed for a week, and were then opened with sulphate of magnesia. Recovery was complete at the end of a fortnight. This apparently unfavorable case proved that without chemical antiseptics, without any complicated peritoneal toilet, and without drainage, perfect results could be obtained provided there was reasonable care in operating and a pure atmosphere round the patient. He (Dr. JAMIESON) would like to ask the reader of the paper whether stitching of the peritoneum enveloping the pedicle after hysterectomy to the parietal peritoneum was practised by the operators she had recently seen. He had never performed hysterectomy, but on theoretical grounds he had always considered this plan as one to be adopted whenever a case should fall in his way. In connection with Apostoli's electrical treatment, he referred to a case of enormous uterine myoma in his own practice several years ago. The tumor was subject to wide variations in size, occasionally diminishing by at least a sixth or a fourth. He had advised against interference, as the menopause was not far off, and bleeding was trifling though discomfort was constant and pain occasionally severe. Within two years after the cessation of menstruation the tumor had completely disappeared. Lastly, he desired to correct a statement made by the reader, to the effect that LAWSON TAIT denied the possibility of diagnosing ectopic pregnancy before rupture. What LAWSON TAIT really does say is that the diagnosis is seldom made because there are in general no symptoms to lead patients to seek advice. Dr. BOONE asked if it was the *serre nœud* of KOEBERLE which was used in securing the stump after hysterectomy? Said that MEREDITH laid stress on clamping broad ligaments, then dividing them, securing every bleeding point, then applying elastic ligature and clamping it so that this ligature could be retightened when necessary. Dr. MEREDITH also spoke of the necessity for shutting off the abdominal cavity by stitching the peritoneal covering of the stump of the uterus to parietal peritoneum in order to prevent escape of putrid matters from stump into the peritoneal cavity. He asked Dr. JAMIESON if any pus was effused into peritoneal cavity during the operation for the removal of ovaries and tubes in the first case. Dr. JAMIESON replied that no pus, only blood in considerable quantity, reached the peritoneal cavity and was thence removed by sponging.

Dr. BOONE said that where no pus or putrid matters were effused into the peritoneal sac, it was optional whether sponging or irrigation should be resorted to in making the toilet of the peritoneum. In cases where pus or any offensive matters were poured out or lodged in the peritoneal cavity, all the modern authorities were agreed that irrigation with hot non-irritating fluids offered the best means of cleaning out the cavity; hot water, whether distilled or simply pure, was most generally used. The hot water douche thus used was a most valuable means of rallying the failing strength of a patient, and it alone could reach and cleanse out every part. Adhesions should be greatly separated with the finger,

pockets of pus, broken down, and freely washed out. Drainage by glass tube, generally reserved for cases where the peritoneum was soiled by foul matter, or where very extensive adhesions had to be separated. Dr. BOONE asked Dr. REIFSNYDER, if Dr. BROOMALL did not pass her fingers into inverted uterine in shape of a wedge and using counter pressure in the vagina with the other hand; thus exert very considerable force to dilate the inverted neck of the uterus and enable the reduction of the organ to take place. He related a case where a Gynæcologist, in New York, after abdominal section for the reduction of an inverted uterus used a modified form of glove-stretcher, which he had made for the purpose. With this instrument he readily dilated the constricted portion of the uterus and was then able to effect reduction. Dr. BOONE asked Dr. REIFSNYDER if the method of Apostoli for the relief and cure of uterine fibroids was gaining ground in the U.S. Dr. REIFSNYDER said that not many Gynæcologists seemed to put their faith in Apostoli's method for treatment of uterine myoma. This closed the discussion.

Dr. HASLER was then elected Secretary and Treasurer of the Society, and the meeting adjourned.

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*21st October.*

The routine business being disposed of, the Secretary then read a paper on "Progressive Pernicious Anæmia," by Dr. GALE.

In the discussion which ensued Dr. HUNTER said, that he had never seen a case of Progressive Pernicious Anæmia, though one that seemed much like it, he had decided to be Leucocythæmia, even though the result was fatal. A remark of DA COSTA's, made on one of his lectures, occurred to him, that the disease was as distressing as its name implies.

Dr. BOONE stated that he had never seen a case in a Chinese, but had in San Francisco. It went on from bad to worse. No post-mortem was allowed. This disease was now attracting much attention and being carefully studied. The case reported seemed more like one of Purpura than Progressive Pernicious Anæmia. Dr. HUNTER having read a report of a case on the disease in question, then gave a synopsis of a book in Chinese text, subject *E shā*. The idea being to describe a form of Malignant Eruptive Contagious Fever. He thought this meant scarlet-fever, not diphtheria, the book speaking of a dropsy which is so often a sequelæ of scarlet-fever, and though Dr. EDKINS thought it referred to diphtheria, and it was one of the names used for this disease, he was inclined to believe it scarlet-fever. Dr. BOONE asked if it dwelt on the throat symptoms. Dr. HUNTER said it did. Dr. BOONE reported a case of fracture of the skull, on account of its medico-legal aspect, the fracture having been received in a fight. If

the man died after operation, the doctors would be given as the cause on the trial that would follow. He had applied to the Japanese Consul, the patient being a Japanese, who had begged him not to operate for fear his countrymen would raise trouble. If only a blood-clot pressing on the brain caused his present symptoms, trephining would be of benefit; if more serious, harm would not be done by the operation. Dr. BOONE then showed a clamp forceps for securing and ligating arteries, especially those deeply seated, Tieman and Co. had made at his request.

Proposals regarding future arrangements being made, the Society then adjourned.

MARIE HASLEP,  
*Honorary Secretary.*

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## NOTES AND ITEMS.

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The following is the address presented by the communities of Tokio and Yokohama, Japan, to Dr. and Mrs. HEPBURN, on the occasion of the celebration of their golden wedding, 27th October 1890.

"We are here as the representatives of this community generally, wishing to honour this occasion as one unique, we believe, in the history of this Settlement, and especially in that this day witnesses the welding of that golden band which half a century of love and happiness in wedded life has been daily forging for you. Receive, we beg of you, at our hands, these small tokens of the respect, esteem, and affection which is felt for you by us all. There are thirty years and more to bear their witness to your walk and conversation amongst us. and it is on their testimony that we are bold to declare our high appreciation of your blameless lives, your untiring labours as Christian Missionaries, your works and labours of love towards all men. There are, besides, thousands of Japanese, aye, tens of thousands who, Dr. HEPBURN, must bear in their hearts a grateful recollection

of your skill as a physician, and your kindness as a fellow man; while Japanese and foreigners alike owe to you the first dictionary of the language of this land, a splendid work, the fruit of years of hard toil, as we know, and the benefits of which cannot be estimated. Of your other incessant labours in a like field, hidden by your modesty from many eyes, we might go on to speak; much more we might say, but, that we be no further burdensome to you, we will conclude, dear friends, with the hearty wish that gentle time may ripen the gold of to-day into the glistening diamonds of an added 25 years; and that in a happy old age, the good fight finished, the course fulfilled with joy, you may pass to receive that amaranthine crown which the hand of time can never touch, and where labour shall be rest, and where joy in the presence of the Master you serve shall be your full reward."

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Dr. HOWARD TAYLOR, in a genial, cheery letter from Ganking, tells us that he is fully occupied at present studying away at the

language, "and most interesting I find it, especially the character. My little trip into Honan, etc., gave me a pleasant and useful introduction to the spoken language." We are pleased to realize that Dr. TAYLOR finds the character interesting, we have held varied opinions on this matter.

Upon their return from Ningpo, Dr. and Mrs. DOUTHWAITE were good enough to pay us a visit in the country. To say that our genial and kindly friend looked well and happy, would be to belie the beautiful evenings we are now enjoying, lit up by a veritable honey-moon, and typically suggestive, please God, of the bright and calm future in store for them. We offer Dr. & Mrs. DOUTHWAITE, on behalf of ourselves, and, we are sure we may add, the Medical Missionary Association of China, our hearty and earnest congratulations.

The Treasurer in acknowledging many postage stamps of varying denominations, in payment of Association Dues, regrets that, not only is their acceptance in inverse proportion to their usefulness, but that he didn't emphasize this fact when recently sending out the year's accounts. He further adds, that he can no longer dispose of them among his friends, who are now amply supplied and proportionately grateful, even as he is; that they are declined at their respective places of nativity, and he hasn't time, now that the days are so very short, to peddle them about Shanghai.

With regret we quote the following passage in a letter recently received from Dr. KERR :—

"Mrs. Dr. HAPPER goes home, in charge of a nurse, a permanent invalid. Dr. HAPPER has been in bad health for some time and will go home in February next."

Dr. GEORGE COX writes us, date of 24th October, "that he is hoping soon to start for Tai-yuen-fu, Shansi, and take up the work of the Schofield Memorial Hospital." His address will be, *Care of The Sec. C.I.M., Tientsin.*

Referring to two MSS. which we have received, and beg to decline, we must remark, that when a manuscript is sent to this Journal, a similar manuscript, or any abstract thereof, must not be or have been sent to any other periodical, unless we are specially notified of the fact at the time the article is sent to us.

Miss VIRGINIA C. MURDOCK, M.D., of the North China Mission of the A.B.C.F.M., recently arrived in San Francisco on a home visit.

We are again indebted to the generosity of our accomplished historiographer Dr. JOS. C. THOMSON, of Macao, on this occasion for the photograph of Dr. LOCKHART, facing the title page of this Number of the Journal.

#### IMAGINARY ILLNESS.

Nothing more amusing has been written on this subject than the following by Mr. Jerome K. Jerome in his clever *Three Men in a Boat* :

"I had just been reading a patent liver-pill circular, in which were detailed the various symptoms by which a man could tell when his liver was out of order. I had them all.

"It is a most extraordinary thing, but I never read a patent medicine advertisement without being impelled to the conclusion that I am suffering from the particular disease therein dealt with in its most virulent form. The diagnosis seems in every case to correspond exactly with all the sensations that I have ever felt. I remember going to the British Museum one day to read up the treatment for some slight ailment of which I had a touch—hay fever, I fancy it was. I got down the book, and read all I came to read; and then, in an unthinking moment, I idly turned the leaves, and began to indolently study diseases generally. I forget which was the first distemper I plunged into—some fearful, devastating scourge, I

know—and, before I had glanced half down the list of 'premonitory symptoms,' it was borne in upon me that I had fairly got it.

"I sat for awhile, frozen with horror; and then in the listlessness of despair, I again turned over the pages. I came to typhoid fever—read the symptoms—discovered that I had typhoid fever, must have had it for months without knowing it—wondered what else I had got; turned up St. Vitus's Dance—found, as I expected, that I had that too,—began to get interested in my case, and determined to sift it to the bottom, and so started alphabetically—read up ague, and learnt that I was sickening for it, and that the acute stage would commence in about another fortnight. Bright's disease, I was relieved to find, I had only in a modified form, and, so far as that was concerned, I might live for years. Cholera I had, with severe complications; and diphtheria I seemed to have been born with. I plodded conscientiously through the twenty-six letters, and the only malady I could conclude I had not got was housemaid's knee.

"I felt rather hurt about this at first; it seemed somehow to be a sort of slight. Why hadn't I got housemaid's knee? Why this invidious reservation? After a while, however, less grasping feelings prevailed. I reflected that I had every other known malady in the pharmacology (*sic*), and I grew less selfish, and determined to do without housemaid's knee. Gout, in its most malignant stage, it would appear, had seized me without my being aware of it; and zymosis I had evidently been suffering with from boyhood. There were no more diseases after zymosis, so I concluded there was nothing else the matter with me.

"I sat and pondered. I thought what an interesting case I must be from a medical point of view, what an acquisition I should be to a class! Students would have no need 'to walk the hospitals,' if they had me. I was a hospital in myself. All they need do would be to walk round me, and, after that, take their diploma.

"Then I wondered how long I had to live. I tried to examine myself. I felt my pulse. I could not at first feel any pulse at all. Then, all of a sudden, it seemed to start off. I pulled out my watch and timed it. I made it a hundred and forty-seven to the minute. I tried to feel my heart. I could not feel my heart. It had stopped beating. I have since been induced to come to the opinion that it must have been there all the time, and must have been beating, but I cannot account for it. I patted myself all over my front; from what I call my waist up to my head, and I went a bit round each side, and a little way up the back. But I could not feel or hear anything. I tried to look at my tongue. I stuck it out as far as ever it would go, and I shut one eye, and tried to examine it with the other. I could only see the tip, and the only thing that I could gain from that was to feel more certain than before that I had scarlet fever.

"I had walked into that reading-room a happy, healthy man. I crawled out a decrepit wreck.

"I went to my medical man. He is an old chum of mine, and feels my pulse, and looks at my tongue, and talks about the weather, all for nothing, when I fancy I'm ill; so I thought I would do him a good turn by going to him now. 'What a doctor wants,' I said, 'is practice. He shall have me. He will get more practice out of me than out of seventeen hundred of your ordinary, commonplace patients, with only one or two diseases each.'

\* \* \* \*

"Going back to the liver-pill circular, I had the symptoms, beyond all mistake, the chief among them being 'a general disinclination to work of any kind.' What I suffer in that way no tongue can tell. From my earliest infancy I have been a martyr to it. As a boy, the disease hardly ever left me for a day. They did not know, then, that it was my liver. Medical science was in a far less advanced state than now, and they used to put it down to laziness."

Just upon going to press we regret to learn that a piratical attack was made, on November 27th, on Miss M. M. PHILLIPS, M.D., who is in charge of the Southern Methodist Mission Hospital, at Soochow. In returning from Shanghai the boat was attacked by a band of pirates armed with bayonets and fire-arms. Ineffectual resistance being made by the boatmen, the pirates entered the boat, appropriating all they could lay hands upon. There is something very ungrateful in Miss PHILLIPS being the victim of such an outrage, seeing the good work she has done in the immediate neighbourhood of the scene of attack.

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#### IN MEMORIAM.

Another soldier of Christ has fallen at his post. FRANKLIN ELMORE MCBRIDE, M.D., departed this life at Kalgan, China, July 6th, 1890.

He arrived in Kalgan, October 14th, 1889, and at once began the medical work and the study of the language. He held daily clinics at the Dispensary, and visited many patients at their homes. His treatment of the sick elicited from the Chinese the highest tributes of admiration and gratitude. Whatever he did, he did with energy and zeal. He was frequently called upon to save the lives of opium suicides, and always was ready to deny himself needed rest, hoping that the people might see in his work for them a token of the love of Christ.

Dr. MCBRIDE had a strong and wiry physique, that enabled him to work hard and long, without showing the usual signs of fatigue. In April, when returning from the Annual Meeting of his Mission, he walked thirty-five miles in one day. On June 6th, he received a call to visit Ta Tung Fu, to help a member of the China Inland Mission, who was dangerously ill. He went with all possible haste, but the travelling by night, and irregular diet on the way injured him, and he was not well at any time after his

return to Kalgan. Still he resumed his medical work and studies with his customary ardor. He was treating two Chinese patients who had typhus or typhoid fever, and from them he must have taken the fatal disease. On the 25th of June he was taken sick. From that time he sank rapidly, with malignant typhus fever, and fell asleep in Jesus on July 6th. Everything was done for him that love or medical skill could do. The Doctor was under the care of Miss Dr. SINCLAIR, of the Presbyterian Mission, Peking, who, with Miss MCKILLICAN, of the same Mission, devoted themselves most heroically to the task of saving, if possible, the patient's life, and of ministering to his comfort. But the Master called His servant home. To us who remain, it seems an inscrutable mystery, that so young, and able, and consecrated a missionary, should be taken from so needy a field. The event is, as it were, the voice of Jesus, saying: "Be ye also ready." Our Brother was with us less than nine months, and was as ambitious as any one for a long life of useful service. God has called him to a higher sphere of loving activity. His departure impresses on us the truth, that what we are is much more important than how much we do, and that our success is not to be judged by the apparent results, but by our faithfulness while permitted to work. "He liveth long who liveth well." May the Lord of the harvest send forth laborers into His harvest, that the work which our Brother has laid down may be taken up anew, that suffering humanity may be relieved, and that the love of the Lord may be manifested among the heathen! For the afflicted widow and fatherless children, we ask the prayers of God's people.—  
*The Rev. J. H. Roberts, Kalgan, China.*

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#### BIRTH.

At Siu Ching, Shantung, October 10th, the Wife of the Rev. J. F. SMITH, M.D., of a Son.

## MARRIAGES.

At Trinity Cathedral, Shanghai, on the 22nd October, by the Rev. H. C. HODGES, M.A., ARTHUR W. DOUTHWAITE, M.D., F.R.G.S., to CONSTANCE H. GROVES, eldest daughter of E. K. GROVES, Esq., of Bristol, England.

At the Cathedral, by the Rev. W. W. CASSELS, assisted by the Rev. H. C. HODGES, M.A., Dr. G. COX to Miss THOMAS.

## ARRIVALS.

At Shanghai, September 9th, Dr. and Mrs. T. C. BRANDLE, for Irish Presbyterian Mission, Newchwang.

At Shanghai, in September, Dr. JAS. H. MCCARTNEY, of the A. M. E. Mission, for Chinkiang.

At Shanghai, September 30th, Dr. and Mrs. I. L. VAN SCHOICK and child, for Am. Presbyterian Mission (North), Tsi Ming Chow, Shantung.

At Shanghai, 14th October, Dr. THOS. R. JONES, and Mrs. JONES, M.D., Miss M. L. STEVENSON, M.D., for Tientsin, Miss R. R. BENN, M.D., and Dr. CAMPBELL, of the A. M. E. Mission, for Soochow.

At Shanghai, October 21st, Miss E. WORLEY, M.D., of the Am. Presbyterian Mission (North).

At Shanghai, November 24th, WILLIAM PIRIE, L.R.C.S., L.R.C.P. Edin., Church of Scotland Mission, for Fchang.

## DEPARTURES.

From Shanghai, November 7th, Miss A. D. GLOSS, M.D., for the United States.



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