The China
Medical Missionary Journal

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RED CROSS WORK IN TIENTSIN.

By B. C. Atterbury.

An account was given in a former number of the Journal of the formation of an "Independent Red Cross Society" at this point and of its expedition to Port Arthur.

With the cessation of hostilities the work of the Association is drawing to a close, and a Report is now presented of what has been done during the past few months.

As will be seen this general Report is made up of Individual Reports contributed by those most actively engaged in caring for the wounded soldiers. Dr. Kin, although not definitely connected with the organization, has been asked to contribute his experiences, as most of his patients at the front finally passed through the Tientsin hospitals. Two members of the Society were stationed at Shan-hai-kuan for some days to receive the wounded as they arrived from Dr. Kin's hospital, and after making them as comfortable as possible placed them on board the cars to be carried to Tientsin. In this connexion the great kindness of F. J. Bourne, of the I. C. Railways, must be mentioned. It was through his hospitality and assistance that we were able to do much more at that place than otherwise would have been possible.

A good word must also be said for the Chinese soldier. In fact on closer acquaintance he does not appear as black as he is often painted. Robbed of his pay, and forced to steal, he is without doubt an object of terror to the unprotected country people. Treated, however, as a human being there is but little trouble in controlling him.

The patience and endurance of these men is amazing. They arrived in an exhausted condition at Shan-hai-kuan after a ride of six days in springless
carts over rough roads, during which time their wounds, often severe, had not received any attention; yet I heard no complaints. In fact after having had a change of dressings and a bowl of rice they became very cheerful; their good nature even showing itself at times in expressions of gratitude to the foreigner for his kind attentions.

Another point worthy of notice is the value of the Red Cross Society in stirring up the Chinese officials to something like a realization of what they themselves owe to their own soldiers. The idea of a number of foreigners contributing time and money in such efforts was novel to them. From very shame, and perhaps from higher motives, several of the most influential took a lively interest in the work and helped in many ways. Nor have the good influences yet stopped, as more than one general has asked for foreign trained doctors to be stationed in the camps under his command, promising to such money sufficient for all expenses.

In looking after these wounded valuable lessons have been taught the surgeons in charge.

Nature has shown her power to heal in many striking ways. Given free drainage and the removal of all causes for irritation, such as splinters of bone, many cases seemingly hopeless of cure, without a severe operation, recovered as by magic. Two classes of wounds have been noticed. The one made by the bullet encased with a steel jacket, of small size, and going at great velocity. It makes a clean path; the point of entrance and exit being about the same in size. In some cases so slight is its effect on the wounded man that he continues in the ranks, unmindful of his injury, till weakened by hemorrhage he falls to the ground. The leaden bullet, larger in size and with its end flattened by contact with a bone, tears through the tissues with a much more terrible effect. Thus, as has been pointed out, the demoralizing effect of a sudden volley on the advancing line of the enemy may be lost by the use of these new arms, a point worthy of consideration, especially when fighting with savages, whose courage rapidly disappears at the sight of their comrades falling around them.

As the reports given below are so full there is nothing more to be added, excepting that it is pleasant to think in connexion with this whole work that many of the "braves" carry to their homes some knowledge of Christianity which they can think about themselves and speak of to their friends.

As all the Reports are not yet in, the exact number of wounded treated in Tientsin cannot at this moment be given. It will not vary much from 1,400, distributed among the following hospitals, all of which were kindly placed at the Red Cross Society's disposal:—

Methodist Hospital for Women, under charge of Dr. Benn.
Report of Doctor Kin of the Viceroy's Hospital, Tientsin.

Hospital for Women, under charge of Dr. King.
London Mission Hospital, charge of Dr. Smith.
R. C. Hospital, Dr. Frazer visiting surgeon.
Viceroy's Hospital, charge of Dr. Lin.

The above have been asked to contribute something about their work to the Journal, and it is hoped will fully respond.

REPORT OF DOCTOR KIN OF THE VICEROY'S HOSPITAL, TIENTSIN.

I was called to the front to look after the wounded soldiers after the battle of Ping-yang. It was in consequence of numerous telegrams sent by H. E. Yuan, formerly Chinese Resident at Seoul, to H. E. Li Hung-chang, then the commander-in-chief of the whole north China forces. He begged the Viceroy most earnestly to send a medical officer to open a field hospital at Hsing-ming-t'ing, a large town S. W. of Moukden.

Upon my arrival at that place I found over four hundred wounded men; most of them came from Ping-yang, after having traveled eight or nine hundred li. Hungry and cold they were in a miserable condition. Several native doctors were looking after them; their only remedy being a plaster, which they asserted would extract the bullet and prevent all evil consequences. At that dangerous time but few were willing to expose their lives, and my staff were chiefly inexperienced men. The supply also of drugs and dressings allowed me by the authorities was also insufficient. Had the army possessed a proper medical corps most of the wounded might have quickly been cured and restored to their duties. As it was the plaster placed over the wounds did great harm, especially as no care was taken to cleanse the parts before they were applied.

The injured soldiers were quartered in the various inns of the town, living in dirt and clothed in rags.

I found that the majority were wounded in the extremities; the wounds being clean out and easy to heal. On the first day we extracted over forty bullets, which had been lying in the wounds for over a month.

With the exception of the opium smokers all did well.

After the fall of Hai-ch'êng I was ordered by the authorities to remove my head-quarters to Kin-chou, where I remained till the end of the war. To this point stragglers continually made their way; all in a truly wretched condition, being left to shift for themselves while their generals drew their pay for their own benefit.

The battles of Niu-chuang and T'ien-chuang-t'ai brought to our hospital over nine hundred wounded. I fitted up all the houses I could secure to accommodate these poor fellows. Dr. Brander most kindly allowed me the
use of his hospital property and thoughtfully asked his Consul at Niuchuang to notify the Commander-in-chief of the Japanese Army as to the position of my quarters, so that in case of an advance in Kin-chou I might receive as much protection as possible. The sudden rush of wounded kept us very busy. They came in carts, mostly in a starving state and but poorly clothed. H. E. Yuan Shih-kai allowed me a grant of five taels to buy clothes for each man, together with bedding. Full allowance was also made for their daily food.

Soon my proper dressings gave out, and the stock so kindly sent by Mrs. Andersen, prime mover of the Red Cross Society of Shanghai, did not reach Kin-chou till near the close of my work. Hence I had to resort to native supplies. Sesamum oil, carefully strained and purified, made a good dressing, especially in combination with carbolic oil. Native jute also answered admirably for oakum. The want of experienced assistants could not so easily be supplied, hence at times our work was somewhat after the rough and ready style.

When it was evident that peace was to be declared I requested Dr. Irwin to arrange for the reception of such of my patients as were not fully cured at the hospitals at Tientsin. They were sent by carts to Shan-hai-kuan, when the wounds were redressed by Dr. Atterbury and other members of the Red Cross Society, and then placed on board the rail-road.

In spite of all the drawbacks with which I had to contend we only had nine deaths.

Many of the men were very superstitious and great believers in a necromancer's power to cure their wounds without dressing them.

The commander-in-chief of the army sent to the wounded one of these men of high repute. A Hunan general, whose humerus was splintered by a ball, thinking my method of cure—picking out splinters of bone and daily washing the wound—too slow, sent for the quack. He gave for several days to the general a mixture consisting of the ash of a piece of red paper, on which was written some prayers, some drugs soaked in wine, but neglected the wound. In four days blood poisoning set in, and the patient quickly died. This is only one of many instances in which ignorance and superstition cost a man's life.

The wounds of the last lot of soldiers who came into the hospital were made by lead bullets, and hence far more ugly than those caused by the smaller bullets encased in a steel jacket. These latter make a clean wound; the point of entrance and exit having about the same appearance. May China soon learn the value of skilled medical service for her armies and be willing to supply what now is so sadly lacking!
THE ISABELLA FISHER HOSPITAL.

In common with the other hospitals of Tientsin the Isabella Fisher Hospital, of the Woman's Foreign Missionary Society of the M. E. Church, opened its doors to the wounded soldiers, and, notwithstanding the bad name the Chinese soldiers have borne, no one could ask for more obedient and respectful patients than they proved to be. Nearly all were from the south, many from Honan; the terrible Hunanese soldier was as docile and as grateful a patient as could be found.

Most of the soldiers were gratifying patients also, because they responded so quickly to treatment. Coming to us with wounds undressed for weeks, filthy and septic to the last degree, the transformation wrought by cleanliness and daily dressing was comforting.

Out of one hundred and twenty-four patients we* had but one death, and that not from the severity of the wound but from exhaustion. He was an old opium-smoker, and had so little vitality that he succumbed where others, far more seriously wounded, rapidly recovered. Let me say here that we found a marked difference between the opium consumer and those free from the habit. Where the one made a good recovery the other lingered and lingered; the whole process of repair being exceedingly feeble.

The possibilities of conservative treatment, in contrast with the radical surgical treatment usually employed, as shown in cases of denuded and necrosed bone, greatly interested us.

Two feet, which were in such a state at the first dressing that we thought complete amputation was probably the only remedy for one and partial amputation for the other, will serve as illustrations.

In the first case the ball entered just to the left of the outer malleolus of the right ankle and came out on the dorsum of the foot, between the third and fourth metatarsal bones. The probe revealed crushed and denuded bone nearly the whole length of the septic wound, and the whole foot was badly swollen and discoloured. On March thirty-first we commenced thorough daily irrigation and drainage, fomentations and thick wrappings of antiseptic lint. From time to time pieces of bone came out, but with the exception of small counter-openings for drainage there was no surgical interference, and on May twenty-third the man was dismissed with a stiff but very useful foot.

The second case was a perforating wound through the arch of the right foot; the ball passing from right to left shattering the tarsal bones as it went. This foot, like the other, was swollen, purple and discharging foul

* The "we" in this article includes Dr. Edna Terry of M. E. Woman's Foreign Missionary Society and Dr. Philip Leach of the U. S. gun-boat Monocacy, who did as much of the work as I.
smelling pus. At first it was a question whether or not enough healthy skin for a flap could be obtained: if not, the sacrificing of the foot seemed inevitable. Under treatment improvement was rapid, and we concluded an operation might not become necessary. Then signs of inflammation would appear, pus sacs form and counter openings have to be made, and we would conclude the dead bone must be taken out. The man was loth to part with his bones, even the broken dead ones, and so we waited, with the result that he departed, the same day the other one did, with a whole foot, which will probably give him some trouble in the future by bits of bone working out, but which is a surprisingly good result. To be sure these cases took time—which is nothing to a Chinaman—and patience—of which he has a large share—and left stiff, bad-looking feet, instead of the neat result of surgical operations, but it saved the men their precious bones and showed what nature will do without the surgeon's knife.

The recuperative powers of the men seemed extraordinary to me. I often wondered how European soldiers would have come out under similar circumstances, as I saw a man with pierced pleural cavity, and a broken rib, recover with no complications; another in whom a ball had passed from the groin through the ilium, and who had a foul wound of twenty-one days' standing without dressing, recover rapidly. The result of one of Dr. Leach's operations was a surprise along the same line. The ball had passed in an oblique direction across the toes of the left foot, taking a piece out of the third toe, splitting the second and passing under the big toe, carrying away a part of the bone and the side and under part of the toe. Dr. Leach took off the injured top of the third toe and removed the bone at the phalangeal metatarsal articulation, retaining the under half of the toe. The second toe being already split he removed the broken bone, retaining both the upper and lower flap. He then removed the injured bone from the end of the big toe, and stitched across the top and side, bringing the flesh down over the bone: then stitching the upper half of the second to the great toe to fill in the side cavity he turned the two under flaps up over and stitched them fast on top. I laughed at him, saying those three narrow flaps had not enough blood supply to keep them alive, and dubbed it "Dr. Leach's Crazy Quilt Operation." He said he thought himself the healing was doubtful, but it was worth trying. Not a bit of sloughing occurred. All healed beautifully, and the man went away happy, carrying with him, as a trophy of the war, a piece of patch work, which must prove a curiosity to his countrymen, consummate patchers as they are.

One of the most interesting cases we treated was a man from Shantung, who was wounded at Tien-chuang-t'ai. The ball entered just above the lower edge of the sub-maxillary bone, on the left side, so close to the facial artery, as it comes up over the bone, that its escape was marvellous, and came out on the opposite side slightly nearer the point of the chin, carrying away
The Isabella Fisher Hospital.

all the front teeth and sublingual structures. The site of exit had healed, and the cavity under the tongue was full of pus and broken bone. On April seventeenth I made an incision from the site of entrance, obliquely to corner of mouth, thus opening up the field of operation, and found complete fracture of the bone, both at entrance and exit, and the section between shattered into many small fragments. On the left side the bone had fractured obliquely, undermining two teeth, leaving them intact with their nerve and blood supply torn away and roots broken off. On the right the fracture was perpendicular. I removed all the bone between the fractures, placed a small drainage tube in the cavity with one extremity protruding from the site of entrance, sewed up the incision and packed the cavity with antiseptic gauze. The incision healed by first intention. April twenty-ninth the drainage tube was removed, and May sixth he departed in such good shape that though I reported him as severely wounded, and thus entitled to twenty taels, they said he was not badly hurt; he had his arms and legs, and could eat and so they only gave him ten taels. We called this man "The Philosopher," because he took everything—even the anaesthetic—in the most philosophical manner. He arrived after dark, and seeing what a condition his mouth was in we brought the spirit lamp and beef extract and long nosed feeding cup, giving orders for liquid food to be prepared especially for him. The next day the attendant returned the feeding cup, saying it was not needed, as the man was able to eat himself full; he had just eaten six bowls. Curious to see how it was done I watched him eat. Turning the bed-tick back from the edge of his wooden bed he placed his bowls of food in a row upon it. Kneeling so as to bring his mouth on a plane with them he then took a bowl, got its edge in his mouth above his tongue, tipped his head back, and the contents disappeared. Just how I could not make out, though giving the closest attention.

After the tube and packing had been removed from his mouth it was necessary to keep the cavity clean from food, and I used an irrigator. One day he signified his ability to attend to it himself, and taking some water in his mouth he set his head at a certain angle, gave a sudden north-east-all-round jerk of the head, and lo! the thing was done as well as I could have done it with the irrigator.

While with us the men listened very respectfully to instruction in the Christian religion. Those who could read seemed glad to receive Christian books, and carried them home to read to their friends. When we remember how wide and distant is the territory represented by them we are cheered with the hope that through their stay with us the Gospel of love may be carried to many places.

Rachel Benn, M.D.
TIENTSIN INDEPENDENT RED CROSS SOCIETY.

LONDON MISSION HOSPITAL REPORT.

In all 190 soldiers, from the seat of war, came into our hospital; these included 13 attendants; 45 of their number were discharged after a couple of days' rest, they were either foot-sore, suffering from minor ailments, or malingerers. One stalwart soldier, in perfect health, had himself carried to hospital in a basket; he was forthwith turned out, much to his discomfiture.

Condition of the Wounded on Arrival.

Most of the men had been under the care of Dr. Kin at Kin-chou; there was abundant evidence and testimony as to the valuable service rendered by him; it is quite certain that by his brave efforts many a life had been saved. Including the railway journey it took the wounded seven days to come from Chin-chou, and this interval of time, during which they were not dressed, told heavily on some of the severer cases; their wounds were in a putrid condition. The last arrivals had been attended to at Shan-hai-kuan by members of our Red Cross Society; this also was a distinct benefit. One cannot but see the tremendous advantage of a regular series of intermediate Red Cross Stations between the field of battle and the hospital.

History.

The wounded came from the engagements at P'ing-yang, Hu-san, Chü-lien-chêng, Sa-hê-tzi, Chi-li-kou-tzi, Kin-chou, Ta-lien-wan, Port Arthur, Ta-p'ing-san and T'ien-tsoang-tai, especially from the latter five.

The accounts given are very varied; sometimes the Japanese were three li distant, but oftener only one li or half a li, and frequently it was a hand to hand engagement. With few exceptions they stated that they had been hit by rifle bullets; one or two were struck by pieces of exploded shell; a few had received sabre cuts; two men came in minus their queues.

The sufferings from the intense cold must have been great, for there were a number of severe frost-bites; two men had lost both feet in this way.

Situation of the Wounds.

The larger proportion were wounded in the arm, two were shot through the shoulder joint, several in the scapular region, one man had his lower jaw fractured, some had received scalp wounds. Three were wounded in the thoracic region, and of these the bullet in one case traversed the lung from back to front and was removed from below the pectoralis muscle. Three men were wounded in the lumbar region, but in neither was there any dangerous
injury; in one of these the bullet entered on one side just above the crest of
the ileum and passed out on the opposite side at the 11th interspace in the
posterior axillary line; strange to say, in this case, none of the internal
organs were injured. The small proportion of wounds in the lower extremity
(and most of these were flesh wounds) points rather to the fact that those
who could not walk were left behind. One man had a compound fracture of
the tibia, and two men had been shot through the ankle joint.

Character of the Wounds.

a. Wounds of entrance and of exit.

To illustrate the relative sizes of these a few examples may be quoted.

*Case I.* Wounded in the engagement at Ta-p'ing-san. The Japanese were
not many feet distant when the patient was struck by a rifle bullet in his
right arm, at about the junction of the middle and upper thirds; the bullet
entered anteriorly, caused a complete compound fracture of the humerus with
longitudinal splintering, and then passed out posteriorly.

![Wound of entrance.](image1)

![Wound of exit.](image2)

*Case II.* Wounded at Ta-p'ing-san. The Japanese were half a *li* distant.
The patient was struck by a rifle bullet, which traversed his right arm from
before backwards at about the junction of the middle and upper thirds. It
caused a complete compound fracture of the humerus with longitudinal
splintering. A small piece of the bullet got chipped off, and was found in the
wound; it seemed to be a piece of a leaden bullet $\frac{7}{5}$ inch calibre. Muratta.

![Wound of entrance.](image3)

![Wound of exit.](image4)

*Case III.* This man was wounded at T'ien-tsoang-t'ai. He states that
the Japanese were half a *li* distant when the bullet hit him; it traversed the
thigh from behind forwards, passing through the muscles in the upper third
of the posterior and internal femoral region and injuring the adductor longus
muscle in its course.
Case IV. This case too is from T'ien-tsoang-t'ai. While helping a wounded man he was hit by a rifle bullet. The Japanese were about one li away. The bullet entered the upper part of his left thigh on the posterior femoral region and passed out in front; it re-entered his right thigh at the upper part of the internal femoral region, and was found lying in a bag of pus, below the rectus femoris, about its middle.

The bullet was ¾ inch calibre. See Picture, Fig. 2.

In comparing these four cases one notices that in No. 1, where the shot was fired at a few paces distant, the wound of entrance is larger than the wound of exit; in No. 2, where the place of fracture is practically the same, but where the shot was fired at a distance of half a li, the wound of entrance is smaller than the wound of exit.

In No. 3 also the wound of entrance is the smallest.

In No. 4 too the wound of entrance was smaller than the wound of exit, but when the bullet, with diminished speed, entered the right thigh it seems to have caused a wound of entrance at least four times as large as the wound of entrance in the left thigh.
FOUR BULLETS EXTRACTED FROM CASES REFERRED TO IN THIS PAPER.
Tientsin Independent Red Cross Society.

Treatment.

Thirty-nine operations were performed; many of these under chloroform and the others with cocaine. There were two amputations of the leg, one of the arm, three of the fingers and one of the toes.

Five entire bullets were removed; also some hollowed out, thin fragments of bullets, which had evidently been chipped off the pointed end of the bullet as it came in contact with the bone.

A bullet removed from below the under jaw may be mentioned. See Fig. 1. Along one side it has been split up into a number of jagged layers between which are wedged pieces of bone; this was evidently caused by contact with the lower jaw, which it had fractured.

One flattened out piece of lead was found wedged in between the re-united fragments of a broken humerus; here the external wound was healed, and this piece of lead seemed to give little, if any trouble. All the bullets were of the old Muratta pattern large calibre.

As to dressings. In most cases ship's oakum was used; the more particular were dressed with alembroth wool. For a dusting powder we applied iodoform 1 pt. to boracic acid 3 pts. Then for bandages we used the neatly and tightly rolled calico bandages with which the ladies kept us supplied.

The wounds were freely irrigated with corrosive sublimate solution 1 to 2000 of water. In many instances a solution of sulphate of copper, 15 grs. to 1 ounce of water, proved most useful.

One has been impressed with the importance of not being in too great a hurry to remove all loose bone. It has been amazing to notice how apparently hopelessly loose pieces of bone have healed in again. Specially was this noticed in a case of compound fracture of the humerus with longitudinal splitting. In this connexion may be mentioned the case of a man with compound fracture of the tibia. When he came to us, some six weeks after the battle, there was a large open granulating wound with two ends of bare bone protruding. Amputation seemed the only possible treatment, but the patient absolutely refused to have his limb operated on in any way whatsoever. The bone, although bared of its periosteum, had a pinkish appearance, and was seemingly well supplied with blood from the nutrient artery, or from anastamoses with the healthy periosteal vessels. With the exception of removing a small sequestrum nothing was done, but careful washing and dressing. Gradually a strong case of new bone was formed, and he left us with a fairly useful limb. It should be mentioned that he was in the hospital at Newchwang, and the splinters of bone were there removed. On the approach of the Japanese he left Newchwang and came on here.
The following three cases may be mentioned. Ma Ch'êng-ming was in the battle of T'ien-tsoang-t'ai, and was shot through the ankle. The Japanese were on the opposite bank of the river; their main force had crossed the river at some distance, and on the morning of the fourth day the Chinese found themselves surrounded; the latter fought till midday, and then beat a retreat. While thus running for his life this patient was hit by a rifle bullet, fired at a distance of half a li; it entered his left ankle 1 ½ inches posterior to the internal malleolus. On removing the dressing the bullet dropped out of the open wound at the tip of the external malleolus. See Fig. 3. He was suffering from blood poisoning, and at one time his life seemed to be in danger, but he pulled through. A large-sized drainage-tube was passed through the ankle joint, and frequent irrigation with corrosive sublimate solution did much for him; he is recovering with an anchylosed joint.

Yang Chûn-iung, a cavalry soldier, was likewise wounded in the engagement at T'ien-tsoang-t'ai. While he was riding a rifle bullet traversed the body of his horse and then got lodged in his ankle; the horse was killed. The wound of entrance had a diameter of one inch. The much contused bullet (see Fig. 4, see Picture IV) was found lying in the joint. Free through drainage and liberal feeding have enabled this man to make steady progress. He has a limited amount of movement in the joint, and the foot is in good position.

Hou Tei-shêng, wounded at T'ien-tsoang-t'ai. He was in the act of firing when a bullet hit him from before. It entered at the edge of the latissimus dorsi, where this muscle forms the lower border of the posterior boundary of the axillary space. The wound of exit was three-fourths inch external to and midway between the spinous processes of the 7th and 8th dorsal vertebral on the same side. The bullet passed between the scapula and the ribs without any injury to bone, and it passed out at the above mentioned point. The wound was healed on his arrival. From his account of the position of his arm when hit, it must have been such as to form an almost direct line from the wound of entrance to the wound of exit.

This man afterwards lost both feet from frost-bite. Amputation below the knee was performed on both limbs; he made a good recovery.

The conduct of the men, while in hospital, has been good. The greater proportion of them have regularly attended at morning prayers and other services held in the hospital. We rejoice in the fact that some left us changed men; they all were nicer in every way after they had been with us for a time. As each man left he took with him a copy of the New Testament, catechism, a calendar and various tracts. We pray that by God's blessing these men may act as living witnesses in the distant homes to which they have returned.
This Report would be incomplete without thanking Mr. Tenny, our able secretary, for his untiring and energetic management of the affairs of the Tientsin Independent Red Cross Society.

G. P. Smith, M.B., C.M.

London Mission, Tientsin,
August 2nd, 1895.

REPORT OF VICEROY'S HOSPITAL.

It is to be regretted that owing to pressure of business and absence from Tientsin Dr. Lin, and the other doctors associated with him in the hospital, have not yet prepared a full account of the many cases which have come under their care for treatment.

Soldiers to the number of about 1,500 have been entered on the hospital books, but many of these, suffering from fever or slight injuries, remained but a short time.

The number of cases actually treated in the hospital were 611. Most of these have been discharged, while the others, with a few exceptions, are well on the road towards recovery. In this connexion it is interesting to note that a pension list is being made out, which will give to these poor soldiers, many badly maimed for life, some support for the rest of their days.

TRAUMATIC ARACHNITIS.

By Sydney K. Hodge, M.R.C.S., L.R.C.P. (Eng.)

Compound Comminuted Depressed Fracture, Laceration of Sup. Longit. Sinus, Hernia Cerebri, Meningitis and Arachnitis. Death on 15th day.

Yang Kwē-h-yuen, aged twenty-six, in the employ of the government iron works at Han-yang, was brought to my hospital by Dr. Cuypers, the medical officer of the establishment, about one o'clock midday of Saturday, March 2. He was carried in on a stretcher, but was quite conscious on arrival. A large and heavy iron hook, with iron ring attached, used for pulley work and weighing several pounds, had fallen from a height of some thirty feet or more directly upon his skull. The injury being very severe, a deep com-
pound gutta fracture having been produced, it was determined to operate at once. The head having been shaved and washed Dr. Cuypers made the usual crucial incisions, freely exposing the area of injury. There was found a deep sulcus just behind the coronal suture, running from before backwards for about three inches in the line of the longitudinal sinus. The skull was severely comminuted (no less than nine fragments being removed), and the fragments were so firmly driven beneath the adjacent parts of the skull that it was impossible to move them until, with chisel and mallet, the bone around had been freely cut away. As soon as the fragments were elevated very profuse venous hemorrhage showed that the longitudinal sinus had been lacerated. Some four or five pressure forceps only serving to diminish and not to stop the hemorrhage, the wound was tamponed with iodoform gauze, the pressure forceps left in situ and firm pressure applied. The patient was put to bed with hot bottles around him, a bandage under his arm-pits and fixed to the head of the bed to prevent his slipping down, head supported with one sand bag under his neck and one on either side of the head to steady it; a man was placed to watch him.

March 3.—Oozing has continued to a sufficient extent to necessitate last night a gamgee-tissue covering being applied over the other dressings. Temp. 99.8; rapid pulse of 107. A large amount of urine was drawn off by catheter. Gave calomel gr. v.

March 4.—Temp. lower; passed urine himself; comfortable; bowels acted.

March 5.—To-day removed forceps and dressings. There was a slight smell from some dried and decomposed blood on the outside dressings, but the inner dressings were all right, and the wound perfectly sweet. A small piece of depressed bone was found and removed for fear of after irritation. There was indication of commencing small hernia cerebri at two places. Part of each flap was sutured so as to bring pressure on the hernia, and the wound after irrigation packed with iodoform gauze with tenax externally. Evening temp. 100.2. Appears comfortable.

March 6.—Temp. higher, but he appears comfortable. Wound redressed; appears quite sweet, but hernia appears larger in size.

March 7th.—Temp. lower; wound sweet. In the evening found him groaning from pain in his head, necessitating a narcotic draught.

March 8th.—Temp. this morning normal for the first time. Wound sweet, but there is a good deal of sloughy material to come away yet. Slept better after his nepenthe last night. Ordered calomel and a saline draught to open bowels, which were constipated. Had to open up the sutured parts of the flaps, as beads of pus were showing beneath. About five p.m. the pain in his head was so great that I had to give nepenthe m. xv. At
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evening visit there was a good deal of bloody oozing, which had come through all his dressings. On opening the wound it seemed to be coming from the left corner of the wound. After gentle irrigation sponge pressure was applied on the top of iodoform gauze. The hernial protrusion has increased to the size of a horse-chestnut. Temp. 99.8. Ordered nepenthe m. xx.

March 9th.—Forehead oedematous this morning. During the night a large mass of inflammatory material and blood clot has filled the angle of the wound, from which the bleeding came last night. Oozing having now stopped the wound was gently irrigated and dried with iodoform gauze. Ordinary flowers of sulphur were then powdered into the wound, which was finally dressed with tenax impregnated with the sulphur.

March 10th.—Wound under sulphur looks this morning cleaner than ever. On opening dressings there was an odour of sulphuretted hydrogen. A large blood clot came away. The hernia cerebri is smaller. Redressed with sulphur and tenax.

March 12th.—Complains this evening of having had great pain in his head for the last thirty-six hours, so gave chloral and nepenthe to relieve him.

March 13th.—Seemed very well when I came to dress him this afternoon at three o'clock, and sat up in a chair to be dressed. Whilst dressing him he was suddenly heard to be breathing in a loud blowing manner, and was found to be unconscious. The condition did not seem to have been preceded by any definite movements beyond that the hands were clutched; the right more firmly. After getting him in bed the right pupil was found dilated. Right cornea sensitive to touch and light; the left cornea insensitive to touch, but reacted slightly to light. Resp. 17; pulse 98.

4 p.m.—Still unconscious, but very noisy and restless. He now has definite paralysis of the left side of his face. There is paresis of the left side of the body; slight movement only being possible of the limbs on that side. Left knee jerk not exaggerated; no clonus. The left leg is more definitely paralysed than the arm. Could not test the right knee as he resisted. Sensation deficient all over the body.

March 14th.—Condition much the same; still unconscious; lips and tongue dry; has taken a little food; bowels not been open.

March 15th.—This morning he is quite sensible, and there is a slight return of sensation in the left cornea. Is passing his water and motions unconsciously. On opening the wound to redress it found a large mass of inflammatory material had been thrown out; some had come away in the dressings, and a good deal was more or less loose in the wound.

Evening.—Semi-conscious, but noisy and wandering; very restless. Pulse about 120, and very intermittent. Attempted an ophthalmoscopic examination, but the constant rolling of the eye made it impossible to get more than
The China Medical Missionary Journal.

a flash of the disc. Nothing seen beyond some pallor of the retina. Pupils are about the same size and react to light, but very sluggishly. The left cornea is still insensible. This evening he has passed his urine consciously, saying when he wanted to do so. Bowels been freely opened with calomel. Lungs normal. Sensation has returned on his left leg, but not in his arm. Has taken a fair quantity of food.

March 16th.—Passed a noisy night. Found him sinking into deep coma at my morning visit; both pupils inactive and cornea insensitive; pulse uncountable. He died at noon, the 15th day after the accident. On removing the dressings, after death, there was found a large bulging of inflammatory matter and brain substance through the wound. The inflammatory oedema of the flaps and scalp had gone down some days ago, and there was no infiltration of pus anywhere.

Remarks.—The fatal result in this case was probably due to arachnitis, secondary to inflammatory changes set up by the severe blow. The paralysis, setting in suddenly, was possibly secondary to the opening of some blood vessel in the area of inflammatory softening. There was no sign of septic inflammation, the wound being perfectly sweet; and I think the extensive traumatic inflammatory changes going on in the membranes of the brain are sufficient to account for the hernia cerebri. Not improbably there was thrombosis of the longitudinal sinus, and an embolus thence set loose may have had something, if not everything, to do with the subsequent paralysis and coma. As no post mortem was obtainable it is impossible to say what the condition was, but it is well to note that hemiplegia is a common symptom of direct traumatic arachnitis, without any definite post mortem naked eye changes in the brain, except slight discoloration of the cortical layer. Mr. Jonathan Hutchinson writes: “This hemiplegia is not due to compression, for the quantity of new material accumulated, whether fluid or solid, is usually not nearly enough for such a result. It is due, I believe, to the influence which the inflammatory process exerts upon the cortical layers of the hemisphere......... in my own practice I have never known an exception to the statement that arachnitis over the whole, or nearly the whole, of a hemisphere is denoted by paralysis of the opposite side.”—Illustrations of Clinical Surgery.

CHINESE TREATMENT OF FEVERS.

In the Sin-wen native newspaper there lately appeared an article on Scarlet Fever, which the writer calls a new disease. In this respect it differs from cholera, which has been long known. "Sha-chi (scarlet fever) is not
Chinese Treatment of Fevers. 229

mentioned by our medical authors till the Ming dynasty. They at first rec­ommended acupuncture and the moxa only. Sha-cheng (the same) became severely epidemic about a century ago in the reigns of Chien-lung and Chia-ch'ing. It is specially obnoxious in Kiang-su and at Shanghai; it abounds particularly on account of the crowded state of the population. In North­west China operators thrash the abdomen with willow twigs dipped in hot water. In South-east China they use the edges of oiled rice bowls, or oiled cash to scrape the chest, back, arms and legs. They insert the needle under the tongue and at the tips of the fingers, or prick the skin in two long rows down the back.”

In hot damp weather Chinese theory says hot moisture enters the lungs and stomach and proceeds to the region between the heart and groin. If it enters by the nose the lungs suffer, and these are in the gold region. If it enters by the mouth the stomach and other parts of the region of earth suffer. So the Chinese acupuncturist reasons, although so many books on medicine and the healing art have been translated into Chinese. Sad it is that it should be so, but it is hard to work conviction in the minds of those who do not wish to learn. They believe that the many millions of sick persons who have not died under the hand of China’s practitioners must be counted as having been saved by their skill. All the credit of their escape from death is due to the theory which has prevailed for two thousand years. Fever is fire, and the centre of fiery influence is in the San-tsiau, the “three scorching regions.” The mischievous vapour which causes fever, on reaching the region of the San-tsiau, below the heart, causes headache, and a hot-stage with ague following. Going a little farther in the same hot region the hands and feet are benumbed. Another step in advance, and pain follows in the abdomen with diarrhea and dysentery. In severe cases the battle between air and fire now commences. Fever rages in the whole bodily frame. Air fans fire, and fire disturbs air. The result is that the stomach dries up and feverish air is spread through the whole body of the patient. If very violent the fever turns to cholera with its peculiar spasms. Now is the time when the needle and the prescription can both be properly used. As to acupuncture the old mode of treatment with nine knives, or lancets, has long been forgotten. At Shanghai regular physi­cians treat patients with medicine. Practitioners who believe in the needle use several of these implements of different lengths. If they know where to insert it a cure follows on one puncture.

They distinguish between the office of the needle and that of medicine. The needle perforates the veins and other vessels and keeps the blood and other fluids in a state of movement. Medicine imparts aromatic fragrance, sweeps away impurities, dismisses heat, and searches out injurious vapours. With great persistency they adhere to the language of the past, especially that of the an-
cient works—Su-wen and Ling-chü—both of them written about two thousand years ago. They are loath to investigate the body in the way that Harvey and Haller have taught us to do. The human body ought to be studied by the physician as a wonderful organism found in nature with a vast number of mysteriously beautiful processes, some of which are understood and some of which are waiting for the investigator to explain them. The physician when learning his profession must study physiology and the other medical sciences, and be acquainted with remedies used in various countries for the restoration of normal activity when the human organism is diseased. Chinese physicians are content with tradition and such help as experience in the treatment of diseases can afford. The insertion of the needle they know may be most harmful to a patient. They say this themselves. For example this Sin-wen writer does so. At present only what is called the Hau-chên is in use. The Hau-chên is long, thin and pointed. The skilful acupuncturist thinks he knows where to insert it. The bungler pricks at a dangerous point, and may unexpectedly either make the patient an invalid for life, or put him in a moment out of existence. The skilful practitioner is he who knows "the cave." There are good and bad acupuncturists. The good operator inserts the needle in the right place, and the cure is effected in a minute. Yet, they say, people when they feel ill, will call in a barber and allow him to use the needle. He does so, though he may not understand the differences in diseases. He makes, we will suppose, a mistake about the position of the cave. In an uncertain random manner he uses his needle; and what is the result? The patient may recover. The sick man is himself delighted. He does not know that his attack was a very slight one, and that he would have recovered without acupuncture, by only taking the common remedies against hot weather fevers. But the result may be that he dies. The vital cave has been pierced by a bungling operator. The blame is not laid on him, but the writer thinks it ought to be. This author represents acupuncture as depending on the region between the heart and the groin for the source of its efficiency. The breath and blood of the whole body are ruled from this region, and whatever bad vapour enters the body, must pass here. The parts which must be punctured for headache and giddiness are at the upper end of the nose ridge to a depth of three-tenths of an inch, and at the back of the neck in a fleshy part to a depth of one inch. For tightness of chest and stomach, with low spirits and abdominal pain, there must be puncturing at two points, one four inches, and the other five inches above the umbilicus; the perforation to be one inch deep. Then for cholera and dysentery the points of perforation are at two inches above and two inches below the umbilicus; the depth being one inch in each case. For convulsions in the feet the acupuncture cave is at the back of the leg at a point one Chinese foot from the ground. Here again the needle must enter one Chinese inch.
In following these rules the Chinese operator who despises the barber, because he does not know where and how to insert his needle, is himself guilty of extreme negligence in not studying foreign works on physiology and anatomy, in order to learn the real position of these acupuncture caves in relation to vital parts in the body. He has no sound basis for his theory, and yet he will not learn from such foreign books as have been translated into Chinese and contain a careful description of the anatomy and physiology of the human frame. The physicians of China would do well to follow in the track of the Japanese and study carefully the medical sciences of the West. Not one of them can give a satisfactory reason for acupuncture at the points here mentioned, and while the lives of their countrymen depend on their knowledge and skill they decline to enlarge their acquaintance with the true principles of the physician’s noble art. No operator ought to be allowed to practise without a license, and no license should be given except to those who have a real acquaintance with medical science.

JOSEPH EDKINS.
Editorial.

A Merry Christmas and, as our next number is not due until March, 1896, a Happy New Year to all our readers. Our first year of editorial life has now passed into history, and we wish the number of those to whom we are indebted for help received were much larger than it is. Fourteen members only of the Society, out of our large membership, have sent us contributions, but to these we tender our sincere thanks; especially so to Dr. John Fryer who, from a busy life, has ungrudgingly spared time to do much editorial work in Shanghai. The attempt to edit the journal at a distance of six hundred miles from our printer, with no rapid railway communication between us, has been a trial of Christian patience and endurance to both editor and printer. We trust, however, that the experience of the past will enable us to surmount and avoid many of the difficulties which have, hitherto, beset us, and with the indulgence of our readers we hope to behave better editorially in 1896 than we have in 1895. We should much like to publish an ambitious programme for the coming year, and confess that such a programme exists in shadowy form in our mind. But as we do not propose to write the whole of the journal ourselves (though we have come perilously near to it in the past), and as we have neither the time nor the opportunity to travel about to stir up sleepy souls, we refrain. We do, however, make one or two suggestions. Will the members remember that the editor is a very busy man, with a large hospital practice, and finds it difficult to spend time writing letters dunning people for articles? Will they all make a resolution to send at least one article a year to the Journal? Will the collaborators who have either sent nothing to the journal this year, or the veriest scrap, repent of their sins and justify their high sounding title in 1896? May we especially ask that interesting items for the "Evangelistic" heading of the Journal be regularly forwarded. The "Notes and Queries"
column, too, deserves more hearty support, and we trust that in the coming year members will avail themselves of it.

If we have in any way helped on the medical missionary cause during the past year we rejoice, and would once more remind our readers that this is the lofty aim of our Journal and Society, and its fulfillment rests more with the members than with the editor.

In forming a more or less public association there are two ways of going about the matter. One is for a few gentlemen to meet together and draw up a circular, stating briefly the objects and aims of the project ed society, for circulation amongst those likely to favour the suggestion. The circular generally requests those willing to join to forward their names to some gentleman, previously selected, who, should the matter be taken up warmly, appoints a day for a general meeting to form the society. Another way is for a few gentlemen to at once form themselves into a society, draw up a set of rules, and then invite others to join. The latter was the course which, for reasons which are not difficult to arrive at, those adopted who founded the Medical Missionary Association nine years ago. The constitution which they then drew up they themselves would be the first to acknowledge was tentative and somewhat experimental. The problems they had to face, arising from the peculiar circumstances under which the society would have to work, were not easy of solution. They worked out the best solution they could, and if the test of experience has shown that some points need modifying, and some difficulties have not been met, we still owe a debt of gratitude to those first legislators, whose work has been so useful to us.

We propose briefly to indicate where in our opinion experience shows that the original constitution needs modifying, as well as to indicate other reforms which are desirable.

Article III. is both ambiguous and unworkable. It is unworkable for the simple reason that a man living in Manchuria can scarcely sign the constitution which may be in Canton; this rule has, therefore, in practice been ignored. It is ambiguous because the first and last clause provide different methods of electing members. As the matter stands now no one can be elected a member of the society at a conference (which is the only occasion on which regular meetings of the society are held) unless his name has previously been proposed in the Journal,
which is obviously inconvenient; neither can any one elected by voting in the Journal be considered a member until such election is confirmed by a two-thirds vote of a regular meeting, which is absurd.

Article V. provides fifteen officers for the Association, the great majority of whom have nothing to do. Vice-Presidents were appointed for various districts in the hope, we presume, that local branches of the society would be formed, over which they could preside. Even so there is not the slightest necessity that they should be officers of the Association, especially when it is a not infrequent occurrence that the legally elected Vice-President resides miles away from the central place of meeting. It has always been a puzzle to us, too, to know what are the duties of the six censors. A member once wrote to us for information on the subject, but we were unable to satisfy him; their duties are not defined in the Bye-Laws. We suppose their duties, on lines similar to the censors of the great medical bodies, would be to examine into, and adjudicate upon, any cases calling for expulsion from the society, or to veto any nomination for election. This is, however, a mere guess on our part, and if correct we should think we might well dispense with their services. To be called upon once every two years to elect fifteen different officers from a society, the great majority of whose members are strangers to one another, is a great task to impose upon people, and the fact that so few voting papers are filled up at the bi-annual elections testifies that it is one which the majority of our members cannot accomplish. We would suggest that the following five officers are ample for the needs of our Association, viz., a President, a Vice-President, a Secretary, a Treasurer, and an Editor. The election of one Vice-President only would shed a ray of light on the meaning of Article II. of the Bye-Laws, which provides that the Vice-President (sic) shall preside at a meeting in the absence of the President.

Article IV. of the Bye-Laws needs careful and thoughtful revision; the working of the financial department of our Association has been a constant difficulty. We are not prepared at the present time to make any suggestions, but point out that the practice of publishing the accounts in the Journal has superseded the "reporting of the condition of the treasury to the President." This is, to our mind, a better and more workable method, and it would be well to alter the Bye-Laws accordingly.

Article VI. of the Bye-Laws needs alteration. It was framed oblivious of the fact that all voting on such motions is done through the Journal, and no provision is made for amendments, etc.
By far the most important piece of machinery in our Association is the Journal, and there are many matters connected with its management and conduct which need careful attention. The amount of work which for want of proper and sufficient help, falls upon the Editor, is overwhelming, and it is a very serious question whether any man is acting fairly by his society and his work in giving up his time to it. There should be two Sub-editors, appointed to definite departments of the work, who would relieve the editor of a good deal of drudgery.

There are other suggestions on this subject of the constitution which we shall make on another occasion, and which we trust will be discussed in the pages of the Journal. Then when the time arrives for another medical conference, and we think the time is not far off, we shall come prepared in some measure to approach this matter with instructed minds.
Queries and Answers.

Query No. 3. Answer:—"In my experience, which covers five years, I have never had a case of obstinate diarrhoea. During this time I have seen over seven hundred opium patients, ranging in age from sixteen to seventy-five years, including smokers of forty years' standing down to those who had only smoked a few months, and those who had smoked the finest imported opium down to those who eat the ashes from the pipe.

I do not mean to say that it does not and could not occur, but I have not had a case in my experience with those in the hospital breaking off opium. When it does occur I can explain it no better than to quote the words of America's great therapeutist, Robert Bartholow, where he says, "The secretions of mucus, and the special glandular apparatus of the gastro-intestinal mucous membrane are lessened by opium, and hence the digestive and peristaltic movements are less active. The secretion being thus locked up dullness and hebetude are experienced, the skin looks muddy, the tongue is coated and the breath offensive.

When the influence of the opium ceases it not infrequently happens that the constipation is succeeded by relaxation of the intestine and rather profuse and fetid evacuations, and increased urinary discharges take place."

This explanation is, in my opinion, sufficient to account for such a condition when it does occur, but acting on this opinion we have made it a rule in nearly every case, when admitted, to give them a mild laxative like Oleum Ricini, or a more active cathartic like Magnesia Sulph., thus cleaning the bowel before the influence of the opium has passed off. I have no reason to doubt that the absence of the obstinate diarrhoea is due to this preliminary treatment, Castor Oil or Magnesia Sulph. On the other hand, I have met with fatal cases among opium patients brought into the hospital on account of dysentery, where the bowel seemed to have lost all tonicly, and Morphine in full doses had no effect whatever. In a large percentage of these cases treatment proved of no use. The pathological state of the bowel was such that opium and its preparations had no effect in controlling it.

We lost the use of one of our best therapeutic agents when deprived of opium in this condition.

J. H. McCARTNEY, M.D.

[Dr. McCartney's experience is different from ours, though we must confess we have not adopted his treatment. It would be interesting to know whether others have adopted it, and whether their experience is the same. With regard to such matters as these it is easy to have a long run of cases and never see certain symptoms, and thereupon to build a theory; one day a case comes under our notice which disposes entirely of all our former ideas. We must confess, however, that 700 consecutive cases gives Dr. McCartney a right to speak; we are not quite convinced though, and chiefly because the treatment scarcely seems to us to be the logical outcome of the explanation—Ed. M. M. J.]
SOME ADVANCES IN CARDIAC THERAPEUTICS.

By William C. Krauss, M.D., Buffalo, N.Y.

A cardiac stimulant is described by Dr. W. H. Porter as a remedy that calls into action the intrinsic or stored-up motor power of the cardiac muscle without directly affecting its nutritive condition. Have we at our command an agent that fulfils all these requirements? I believe we have, and recent investigations have proved that in strychnine we have an ideal cardiac stimulant whose worth is beginning to be recognized and appreciated. The attraction existing between strychnine and the vagus centre is an accepted fact; hence, besides its power as a cardiac stimulant, it acts with equal force upon respiration, digestion, and assimilation. It may, therefore, be said to strengthen the heart directly through the vagi, indirectly through improved muscular tonicity the result of increased activity of the digestive organs.

Porter, in a recent lecture, described the action of strychnine upon the heart as follows:

The tone of the heart-muscle is improved, compensation effected and prolonged beyond the period of administration, because the amount of contractile tissue is increased. A building-up process is the result, not alone of the effect upon the circulatory centre, but because the nutrition of the heart, as of the rest of the body, is improved by reason of the action of the drug upon the digestive process.

Reichert, of Philadelphia, has published perhaps one of the best papers on strychnine, and concludes there can be no doubt that strychnine exerts a number of important independent actions on the circulatory apparatus. The action was not exerted on the accelerator apparatus of the heart or on the heart-muscle. The typical and important effects during the stage of excitement are: a primary decrease in the frequency of the pulse, due to stimulation of the cardio-inhibitory apparatus; then an increase, due to a depression of the same; finally, a decrease, due to a depression of the excito-motor ganglion in the heart.

He found that the drug exercises a stimulating influence on the vaso-motor system, followed by one of depression; that the increase of the arterial pressure is due to a stimulation of the vaso-motor centres in the medulla, and the fall to their depression, which is preceded and assisted by a depression of the heart.

Strychnine is especially indicated in the weak heart of pneumonia and the febrile processes in general. In these affections is superior to digitalis, or even the rapidly acting, diffusible stimulants, such as ether, alcohol, Hoffman's anodyne, and the preparations of ammonia. It should be given hypodermically in $\frac{1}{10}$ to $\frac{1}{5}$ grain doses, repeated until some sign of the action of the drug is manifested.

Washburn, in the Therapeutic Gazette, for February, 1894, narrates a case of chloroform-poisoning with suicidal intent where hypodermics of strychnine repeatedly given were followed by recovery of the patient. In another case of chloroform anaesthesia where the patient did not recover quickly, but appeared blanched with an almost imperceptible pulse, rapid improvement followed upon the hypodermic injection of $\frac{1}{10}$ grain of strychnine.

In the alarming symptoms which often occur during surgical anaesthesia, hypoder-
mics of strychnine act in a wonderful manner, and its use in such cases is gaining favour rapidly. Morton, of Philadelphia, resorts to it at once in cases of surgical shock. In weakness of the heart due to depressed nerve-force, strychnine is of paramount importance, and likewise in those cases of weakened heart's action due to influence of the emotions acting reflexly upon the cardio-inhibitory centre.

In the cardiac weakness often associated with neurasthenia, I have had excellent results with this drug, and from its manifold effects regard it as one of the most important agents in the Pharmacopoeia. The heart may be made to do increased work in three ways: first, though the relaxation of a normal inhibitory control through the vagus nerve by the cardio-inhibitory centre; secondly, through the sympathetic (motor) fibres in the vagus itself; and, finally, through fibres with similar action in the sympathetic system. 

Strychnine acts upon the heart in the first and second ways just mentioned, and strophanthus acts as a cardiac stimulant or tonic in the second and third ways.

The literature touching upon strophanthus is as yet meagre, and conflicting opinions exist as to its value and efficiency in cardiac therapeutics. Reports are coming in, however, that bid fair to make it outrivall its adversary, — digitalis, — as the action of the two drugs upon the heart is quite similar. To Professor T. R. Fraser we are indebted, along with Drasche, Zerner, and Loow, for much that we know regarding the physiological action of this drug. The precise mode of action—that is, its specific action—is as yet not well understood. It slows the heart-beat, lengthens the interval between the contractions, and increases the energy of the muscular tissue. Its effect on the circulatory system, according to Shoemaker, is as follows: it lessens the ischæmia of the arteries and increases the rate of the blood-current to the veins, but does not materially affect the calibre of the arteries. Strophanthus has been used with good effect in the progressive heart-failure of elderly people, in angina pectoris, but more especially in the tachycardia so often present in functional and organic nervous affections. Moncorvo employs it in almost any period of childhood, from fifteen months to fifteen years, and has never observed the slightest intolerance of the remedy. The strength of the heart was always considerably increased and its rhythm steadied without detriment to the arterial tension, which was generally augmented and always regulated. Moncorvo is in the habit of giving from 6 to 10 drops of Fraser's tincture in the twenty-four hours. This author quotes eight cases of mitral disease accompanied by the usual symptoms,— palpitations, dyspœnas, insomnia, etc.,—improved and finally completely cured by strophanthus. In children reduced by severe dystrophic affections, strophanthus is a valuable indirect tonic. In asthma it acts upon the unimpaired cardiac muscle, but has no influence upon the asthmatic symptoms. Parenchymatous nephritis, with or without disturbance of the heart, is benefitted, and the infiltration disappears after use of the remedy. The action of the heart is rapidly stimulated and rhythm of the pulsations is secured. In the pulmonary and broncho-pulmonary diseases of children, so commonly complicated with cardiac asthma, strophanthus plays the part of a cardiac tonic.

It is, however, to its use as a cardiac sedative that I would call your particular attention, and more especially in that form of tachycardia so common in Basedow's disease, or exophthalmic goitre. Tachycardia is the most constant of the three cardinal symptoms of this disease, the exophthalmos and goitre being less pronounced and very often one or both entirely absent. In fact, in many cases the tachycardia will be the only symptom present for months, and on this account
many cases of Basedow’s disease are overlooked and wrongly diagnosed. Where the goitre and exophthalmos are absent or ill developed, the syndrome of Basedow’s disease resembles rather closely that of neurasthenia, and these patients are treated as simple cases of “nervousness” by the majority of physicians. The writer has seen and treated ten cases of this disease within the past three years, and has met with uniformly good results in every case. The tincture of strophanthus was prescribed in each, along with the mild galvanic current, in those cases where this was possible. In one case of a young girl, with a pulse of 130 to 150 per minute, with a slight degree of exophthalmos and no thyroid enlargement, the trouble was diagnosed as “heart-disease,” and the family counselled to return home immediately from Chicago, where they were attending the World’s Fair. Terror-stricken and heart-broken, metaphorically speaking, they brought their daughter home as hastily as possible, so as to allow her to die peacefully in her own home. After six months of strophanthus medication, with occasional applications of galvanism to the sympathetic nerves, she is to-day as active and healthy as any girl of her age.

Another case—a young married woman, seen by me in the Buffalo Woman’s Hospital, with an exaggeration of all the symptoms of this affection—made a slow but almost complete recovery under the use of strophanthus alone.

A third case, in which none of the symptoms were very well marked, but which had resisted all forms of treatment, yielded promptly to strophanthus in 5-drop doses twice daily.

Without taking the time to report the details of the other seven cases, I can say of them that the results of treatment were not merely temporary, but permanent. In some nerve tonics were administered along with strophanthus, but I do not believe that they acted upon the sympathetic nervous system, but upon the cerebro-spinal.

Ferguson, of Troy (Therapeutic Gazette, February 15, 1894) has had uniformly good results with this drug in Basedow’s disease, and has observed no relapses. Recognizing tachycardia as an early symptom, he has been able to forestall the blossoming out of the disease through the use of strophanthus. Many of the ablest neurotherapists, as Gray, Gowers, Strümpell, Hirt, and Seeligmüller, make no reference to it in describing their treatment of this disease, while Hammond, Oppenheim, Corning, Thompson, and others rely upon strophanthus, thus far controlling at least the tachycardia.

In the passing procession of cardiac therapeutics, strychnine and strophanthus are in the lead, and doubtless will become more prominent and retain their supremacy because of their influence over the vital centres in the medulla, to which the various systems of the body look for support and encouragement.

ANTISEPTICS IN MIDWIFERY.

Under the heading of “Comparative Studies,” the Practitioner reviews the antiseptic methods employed in certain lying-in hospitals and those recommended by leading authorities. At Queen Charlotte’s Lying-in Hospital, London, the following measures are adopted: The patient on admission to the hospital, before entering the labour-ward, is washed from head to foot and clothed in garments provided for the purpose. On entering the ward, before any vaginal examination is made, the vulva and surrounding parts are thoroughly washed with soap and hot water, and, the soap having been removed with plenty of water, the vagina and vulva are irrigated with a solution of perchloride of mercury 1 in 2000. Any rings worn by the obstetrician are removed and the hands well washed with soap and water and scrubbed with a nail-brush. The hands
are then immersed for not less than one minute in a solution of perchloride 1 in 1000. As a lubricant vaselin and perchloride 1 in 1000 are used, and the jar containing it is kept permanently immersed in a basin of 1 in 1000 perchloride solution. When delivery is completed, a warm vaginal douche of 1 in 2000 is given to all patients. Forceps and other instruments before being used are boiled in water in a vessel resembling a fish-kettle in shape. The solution of perchloride of mercury is made from ordinary tap-water, and no acid or other substance is added except some colouring material.

At the General Lying-in Hospital, London, where the antiseptic methods adopted have met with so large a measure of success, the rules are much the same as those above mentioned. The vulva is cleansed and a vaginal douche is given before and after delivery. The lubricant employed consists of glycerin and perchloride 1 in 1000, a small quantity of hydrochloric acid being added to the mercurial solution.

At St. Mary’s Hospital and Manchester and Salford Lying-in Institution the methods are as follow: The nurses are taught to thoroughly cleanse the hands with soap and water and turpentine, and then to soak them in a solution of perchloride of mercury 1 in 1000 for five minutes. The vulva is always cleansed with soap and water, and then with the mercurial solution 1 in 1000; but a vaginal douche is only given before labour in cases where there is evidence of septic discharge, as, for example, where there is profuse leucorrhoea or vulvitis. It is, however, given in cases where operative measures are to be undertaken. The lubricant used is glycercin and perchloride, 1 grain (0.065 grammes) to the ounce (31 grammes). After delivery a douche of perchloride of mercury 1 in 6000 is given in all cases.

At the Rotunda Hospital, Dublin, the following plan is adopted: The vulva is washed with soap and then with lysol solution at the commencement of labour. It is believed that this hardens the tissues less than corrosive sublimate. A vaginal douche is not given either before, during, or after labour in uncomplicated cases, nor during the puerperium. Four vaginal examinations are all that are allowed during the entire course of a normal labour. The hands are carefully scrubbed with soap and water and a nail-brush, and the latter is kept constantly immersed in a creolin solution, and, as an additional precaution is boiled once a week. All soap having been washed off, the hands are soaked and scrubbed with a special brush for one minute in a solution of perchloride of mercury, 1 in 500, to which some tartaric acid has been added. The hands are not dried before examining, and no lubricant is used under ordinary circumstances. If, however, the hand has to be passed into the vagina, then soap is the lubricant preferred. Carbolic soap is usually employed, but no stress is laid on this, as ordinary soap, when once its surface is melted off by hot water, may be regarded as an aseptic substance. Before obstetrical operations the vulva is scrubbed with sterilized tow, soap and 2 per-cent. creolin solution. The vagina is scrubbed out in the same way with soap and the 2 per-cent. creolin solution.

Professor Tarnier, late Surgeon to the Maternity at Paris, recommends the following plan: The hands are washed and scrubbed with a nail-brush in a solution of 1 in 4000 perchloride of mercury, soap being used. The depression around the nails is cleansed with a wet cloth, the hands washed in alcohol to remove the fatty substances, and steeped in a perchloride solution. A vaginal douche of perchloride of mercury is always given before and after delivery, and the greatest care is exercised in cleansing the vulva. At the termination of labour an intra-uterine douche of iodine and water is given in all cases, the following formula being the one employed: R. Tinct. iodi, 1 fluidounce (31 cubic centimetres); potassi iodidi, 1½ drachms (6 grammes); aq. destil.,
32 fluid ounces (1000 cubic centimeters) 
Ft. lotio. Instruments are sterilized in a 
specially-devised dry-heat sterilizer. The 
following solution known as Van Swieten's 
fluid, is employed: R. Hydrarg. perchlo., 
1 part; alcohol, 100 parts; aq. destil., 
900 parts. Mise et ft. lotio. This lotion 
is diluted with four times its bulk of water 
before us; so that the strength then becomes 
1 in 5000. Professor Tarnier believes that 
this is less toxic than mercurial solutions 
made with tartaric acid.

Professor Winckel, of Munich, adopts the 
following plan: The genitals are washed 
with a 3 per cent. solution of carbolic acid 
and then dried with salicylated cotton-wool. 
Vaginal injections before delivery are not 
necessary in all cases, but when given 
carbolic lotion of the strength mentioned 
above is used. The hands and arms after 
washing are soaked either in a 3 per cent. 
solution of carbolic acid or a solution of 
perchloride of mercury 1 in 1000.

It will be observed that the methods 
described above admit of being divided 
broadly into (1) methods for disinfection 
of hands and instruments, and (2) methods 
for disinfection of the patient. It is 
universally acknowledged that the prelimi­
nary and most essential step is to thoroughly 
cleanse the hands with hot water, soap, and 
a nail-brush, and then to immerse them for 
a minute in an antiseptic solution, repeating 
this immersion before each subsequent ex­
amination of the patient. The most widely 
used antiseptic is perchloride of mercury. 
Some of this is lost by forming an insoluble 
oxide when mixed with ordinary tap-water; 
and as distilled water is not available in 
private practice, the following formula is 
recommended as insuring a stable solution: 
R. Pulv. hydrarg. perchlor., 10 grains; 
pulv. acidi. tartarici, 20 grains; cochineal, 
1 grain. M. et. ft. pulv. One powder added 
to a quart (litre) of water makes a solution 
of 1 in 2000.

The following routine procedure is sug­
gested as not being unnecessarily compi­
cated, and easily carried out by the general 
practitioner if a competent nurse is in 
attendance. Before full term is reached an 
order should be given to the patient to pro­
cure a packet of absorbent cotton-wool, an 
one of sublimated vaselin (1 in 1000), and 
twelve powders prepared according to the 
formula given above, or, if preferred at least 
two quarts of carbolic lotion (1 in 20.) 
The nurse is instructed to wash the vulva 
with soap and water as soon as the labour-
pains begin and then thoroughly sponge it 
with cotton-wool soaked in the antiseptic. 
A fresh supply of the antiseptic solu­
tion is then to be prepared and placed on a 
table by the side of the bed, together 
with the jar of vaselin, so as to be in 
readiness for the doctor when he arrives. 
Before making any examination the hands 
are washed with soap and water, and 
then immersed in the antiseptic solu­
tion at the patient's bedside. The vulva 
should be sponged from time to time with 
pludgets of cotton-wool soaked in the an­
tiseptic.

After labour is over, and during the puer.
perium, three basins should be placed side 
by side on the wash-stand, and permanently 
kept there. The first is to be used for 
washing the hands; the second to contain 
a solution of perchloride of mercury, freshly 
prepared each morning by the addition of 
one of the powders to a quart of water; 
the third basin to contain a solution of 
the perchloride, in which are kept the glass 
vaginal tube and catheter; but, if douching 
is not employed, the third basin is not 
necessary. The nurse is instructed to soak 
er hands in the solution contained in the 
second basin before doing anything for the 
patient which involves contact with the 
genital organs. If this plan is insisted on 
and explained to the nurse, there is no 
reason why in most cases in private practice 
antiseptic precautions should not be carried 
out as efficiently as within the walls of a 
well-managed hospital.
RECTAL EXAMINATION OF PREGNANT WOMEN.

W. H. Beckman has tried this method with great success in 100 parturient women, the details of pelvis and cervix being easily made out. The length of the pregnancy and state of the bladder could not be determined in 7 per cent. of the cases, and the fontanelles and sutures could not be felt in 28 per cent., but this was less important, since the position of the fetus could easily be detected by external examination and especially by auscultation. It was always possible to distinguish the occipital from the frontal portion of the head. The advantage of rectal examination is that infection through the genitals is avoided, the only objection being that sometimes examination through the vagina may become necessary, and that infection may occur through the examining finger, though the latter is easily disinfected, since the rectum does not contain specific microbes. The author considers rectal examination of great value to midwives, enabling them to determine if the presence of an obstetrician will be necessary. Zweifel’s experience in the Leipzig obstetrical clinic showed that students instructed in this method of examination could determine all the necessary details without recourse to vagina examination. Ries believes that midwives should be forbidden to make examinations through the vagina, as their duty is only to assist at normal births. Kroning is inclined to permit vaginal examinations only (1) when it is difficult to determine through the rectum what part of the fetus is presenting, (2) when the midwife is not able to bring about relaxation of the cervix, and (3) when the pains last more than two hours.

SYPHILITIC HEADACHE.

Certainly no syphilographer living to-day, and probably none who has ever studied this subject, is better fitted than Fournier, not only from his profound study of the subject, but from his wonderful personal experience of cases, to speak authoritatively upon the subject of cephalic syphilis. In a series of papers contributed to the Gazette Médicale de Paris for June 1, 8, 15, and 22, he traverses this subject with that thoroughness and brilliancy which makes his every utterance upon his chosen topic of interest to the whole scientific world. He points out that pain in the head is one of the most frequent manifestations of secondary syphilis, while the prodromal headache of tertiary encephalopathies is universally recognized and described. It is, however, unfortunate that the term specific cephalalgia conveys to many minds the impression of a single pathological process, when, as a matter of clinical fact, the lesions may be and often are widely diverse in their nature. The single symptom common to all is pain in the head. Thus, this pain may be due to specific neuralgia, affecting one or more of the cranial nerves, constituting what is called neuralgic headache. Or it may be due to a lesion in the cranial bone, such as periostosis, gummatous osteoma, causing bone pain. Or it may develop as neuralgia without bone lesion, in which case it is often impossible to locate it. In many respects it differs not at all from headaches due to causes other than syphilis. Finally, there is a headache which, though dependent on syphilis, is not syphilitic in nature; in other words, it is a parasyphilitic neurosis.

Syphilitic neuralgias are not headaches in the true sense of the word; the pain is located in the trunk or distribution of a given nerve, and is aggravated by pressure upon certain portions of this nerve, particularly points of emergence. The supraorbital is most frequently affected, extreme tenderness being elicited on pressure over the supraorbital notch. This pain may affect the upper branches of the fifth pair, or the auricular and mastoid filaments of the cervical plexus, or the occipital nerve, but it is most frequently observed attacking the fifth pair, and has
for its type the supraorbital neuralgia. This affection is observed during the early stage of the secondary period,—that is, in the first six or eight months of the disease. It is impossible to state whether or not it is dependent upon organic lesions. When it occurs during the tertiary period, it is nearly always due to a distinct lesion; often the pressure of a gumma or bony outgrowth. These specific neuralgias are characterized by almost identically the same symptoms dependent on neuritis from other causes. They have, however, a tendency to become worse at night, and yield promptly to specific treatment. Indeed, the therapeutic test is the only means of making a positive diagnosis.

Pain due to zone lesions may occur in the early stages, during the height of the disease, or at a late tertiary period. It is most frequent in the tertiary period, and is readily recognized, since the lesions are gross, producing considerable deformity. Secondary lesions are slight, circumscribed, and readily overlooked, especially when they develop in the hairy scalp. They occur during this early period as periostitis, periostosis, or as ostealgias characterized by circumscribed areas of hyperesthesia without appreciable lesion. These lesions are very common, especially in women, and are usually overlooked. The periostites produce slight circumscribed swelling of the bone, particularly in the parietal, temporal, and frontal regions. The involved areas are small,—about the size of a ten-cent piece, sometimes as large as a fifty-cent piece,—very slightly raised, sometimes obscurely fluctuating. They are painful and extremely sensitive. This excessive sensibility is a characteristic sign. Periostoses offer the same symptoms, and are even more painful. They are, however, more dense and resistant, and last longer. There is true bony proliferation on the surface of the bone.

The ostealgias are characterized solely by pain. There is no swelling and no appreciable alteration of any kind. The pathological alteration occasioning this symptom is absolutely unknown. The pain of these bony affections is sometimes agonizing, and often radiates over a very large surface. The diagnosis is founded upon careful and thorough palpation of the entire cranium.

Headaches due to syphilitic affections of the brain or its envelopes are more diffuse and more deeply placed than those dependent upon bony lesions or upon neuralgia. It is impossible from the symptoms to decide whether they are dependent upon lesions of the meninges, the cerebrum, the blood-vessels, or whether all these structures are involved.

Clinically, three varieties are recognized: secondary encephalalgia, headache symptomatic of cephalic lesions, para-syphilitic headache due to hysteria or neurasthenia. By all odds the most important variety is the migraine preceding grosser symptoms of cerebral syphilis. In certainly two-thirds of all the cases of hemiplegia, amnesia, epilepsy, coma, pseudo-paralysis, etc., dependent upon syphilis, there is this prodromal headache. A large percentage of these cases could have been saved from these grave accidents by vigorous treatment instituted during the period of prodromal headache. This headache differs from other cephalalgias, as, for instance, those due to neuralgia or epicranial rheumatism, from the fact that it is felt to be deep within the head. The character of the pain varies; there may be simply a sense of weight and mental hebetude, or there may be a constrictive pain, as though the head were screwed in a vice; or, finally, the sensation may resemble that produced by blows of a hammer, the suffering being very intense and the pain being deeply placed.

These three types may be associated, or may succeed each other. The pain may be sharply circumscribed to an area not larger than a half-dollar. In this case it frequently indicates the formation of a gumma.
Sometimes it is diffuse, occupying a general region, as the frontal, or temporal, or parietal, or occipital, or spread over two or more of these regions. Exceptionally it seems to involve the whole head. The fronto-parietal region is the one most frequently subject to this pain. This pain has three characteristics which should at least strongly suggest its nature. There is an habitual intensity, sometimes extraordinary severity, of pain. It is persistent, tenacious, long-lasting; there are nocturnal exacerbations. Even in mild cases the pain is less bearable than the ordinary headache; it harasses the sufferers, making them despondent, morose, excitable, sleepless, and interfering with general nutrition; or it may be so severe as to completely prostrate them. Exceptionally the pain amounts to a veritable anguish, comparable in intensity to that of hepatic or nephritic colic.

Nocturnal exacerbations of pain, though the rule, are by no means invariable. In the secondary period this characteristic is most pronounced; in the tertiary period it may be wanting entirely; indeed, it may happen that there are nocturnal remissions. As a rule, syphilitic cephalalgia precedes the grave developments of brain syphilis by an interval of three to six weeks; it is, however, not uncommon for this pain to last three to six months; exceptionally the pain may exhibit remissions and exacerbations for two or three years. Under the influence of intermittent, mild, specific treatment, the headache may be temporarily cured, to recur time after time, till symptoms such as hemiplegia or epilepsy show that irreparable damage has been done.

The prodromal headache is a sign of inestimable value, enabling a treatment to be instituted in time to prevent grave lesions. This treatment should be instituted early, should be vigorous, should be long continued. It is not sufficient to cure the headache; the underlying constitutional taint must be eradicated in so far as this is possible.

This treatment should combine mercury and potassium iodide, each given in the most active form and manner possible. Every ten days an injection of 1½ grains of calomel should be given, repeated as often as is required. Internally, the iodide of potassium is to be administered: to a woman, 1 to 1½ drachms a day; to a man, nearly twice this dose. This treatment should be long continued, with appropriate short intervals of rest, until there is good reason to believe that there is no likelihood of further recurrence.

Among the parasyphilitic affections causing headache may be mentioned the neuralgic migraine and the crises of pain often observed in tabes. The most important affection and by far the most common is neurasthenia. This is an ordinary sequence of syphilis, and among its multititudinous symptoms none is more troublesome or more frequent than headache.

This parasyphilitic neurasthenic headache is characterized by very moderate intensity; it is not really a pain, but rather a sensation of weight or constriction, of dulled or imperfect cerebral action. As to duration, it usually lasts several years. It is present in the morning on rising; it is sometimes better after meals, but shortly returns with its original intensity, or even with a slight excess of this; it is better at night, so that sleep is not disturbed. It is not benefited by specific treatment; it is usually located in the occipital region; and, finally, it is usually associated with other signs of neurasthenia. These are characteristics which sufficiently distinguish the cephalalgia from pain prodromal to the recognized cephalopathies; indeed, a headache which has lasted for several years almost certainly does not belong to the latter class, since apoplexy or some one of the serious symptoms denoting irreparable lesion is quite certain to develop long before the expiration of this period. Yet it may well happen that a differential diagnosis
cannot be made. In this case the mixed specific treatment should be given one thorough trial. Should it fail, there should be no further effort in the direction of attempting cure by this treatment.

Where the diagnosis of parasyphilitic neurasthenia is firmly established, minute attention to general hygiene, a thorough hydrotherapy, especially with douches of brief duration, or warm-bath treatment, massage, and change of surroundings represent the best methods of ultimately accomplishing a cure. The only drug which is of the least service, aside from tonics and nutritives, is bromide of potassium; this sometimes relieves the headache.

A CASE OF COCAINE-POISONING.
By J. Nelson Teeter, M.D.,
Fourth Assistant Physician, Utica State Hospital, Utica, N.Y.

The patient, R. N., a man of moderate habits and apparently in perfect health, had been suffering from an ingrowing nail of the left great toe for some weeks, and came to me, requesting an operation. Cocaine hydrochlorate was chosen as a local anaesthetic, and, after a ligature had been tied about the base of the toe, 20 minims of a six-per-cent solution was injected at the matrix and along the left border of the nail. The operation was performed successfully, the patient reading a newspaper meanwhile and feeling no pain. Fifteen minutes after the application of the ligature it was removed and the slight bleeding that occurred was arrested, the wound dressed antiseptically, and a bandage applied. A few minutes later the patient complained of feeling faint, and upon closer examination I found the pupils extremely dilated, countenance pale and haggard, respiration increased in frequency, and the pulse thready and irregular, registering 160 beats to the minute. Patient was immediately placed in a recumbent posture, and 2 ounces of whiskey with 10 drops of aromatic spirits of ammonia were given, with but little improvement following, and in a few minutes the dose was repeated, with the addition of 5 minims of the tincture of digitalis and a hypodermic injection of \( \frac{1}{2} \) grain of strychnine sulphate. The pulse still remained very weak, and at one time was almost imperceptible. The great pallor continued, and the respirations were shallow, numbering 36 to the minute. Whiskey was repeated, and \( \frac{1}{100} \) grain of nitro-glycerin was given. A few minutes later patient showed some improvement in colour, and pulse became 140, with a corresponding decrease in the respiration.

During the whole period patient retained complete consciousness, but was greatly impressed with the fear of impending death. He described a numb sensation that crept up from his feet to his legs and body, which seemed as if it were attacking his brain, and he felt that he could not live did he not exert his will to overcome this sinking into unconsciousness. He also experienced great oppression in respiration and constantly called for fresh air. No convulsions or convulsive twitchings occurred. After he recovered from the acute effects of the poison he was much exhausted, and for five or six hours was not able to move his extremities without excessive fatigue following. Insomnia was a marked feature the following night. The immediate effects of the poisoning lasted about one hour, but twelve hours passed before the patient entirely recovered. The quantity of cocaine administered was about one and two-fifths of a grain.

OPium-POISONING TREATED WITH POTASSIUM PERMANGANATE.
By Norton Downs, M.D., Germantown, Pa.

I desire to add some additional testimony to the mass of evidence that has accumulated of late as to the value of permanganate of potassium in opium-poisoning, especially after the drug or its alkaloids have been absorbed and are exerting their deadly influence upon the cerebral centres.
The case I am about to report presents in a striking manner the point in question.

I was recently summoned to see a man of thirty years of age, of marked mental attainments and perfect physical health, but who had been under great mental strain of late. I learned from him that three-quarters of an hour previous he had swallowed the contents of a vial of lead-water and laudanum.

A hasty examination showed that he was labouring under intense excitement; his pulse was 140 and very small, respiration slow, and the pupils somewhat contracted. He answered questions intelligently and with perfect frankness; he begged me not to give an emetic, and, in fact, declared that he would refuse to swallow one. But, fortunately, I had in my hypodermic case some apomorphine, and of course he made no objection to my giving him ¼ grain. The action of the drug was most satisfactory, and I could not but be astonished at the promptness with which the vomiting began, for in less than a minute from the injection of the drug he was beginning to relieve his stomach of what remained of the poison. This, as I had feared, proved to be but a small portion of the amount swallowed. He was much incensed at the trick that had been resorted to, and he thereupon flatly refused to assist me by swallowing water to wash out the stomach more completely.

Soon after the vomiting had ceased the effect of the opium became prominent, and he gradually sank into a state of almost complete coma, despite all the efforts to keep him awake, so that it was with great difficulty that he could be aroused to answer in monosyllables a question asked.

His pulse, which had previously been so rapid, doubtless due to the excitement incident to the fact of his having attempted to take his life, now became very slow,—from 36 to 44 to the minute. The respirations were shallow and about 8 to 10 per minute. The pupils, which were contracted on my arrival, were now pin-point in character, and the case was certainly assuming a grave aspect.

The value of a hypodermic injection of permanganate of potassium came to my mind, and hurriedly getting a solution, I gave ½ grain in the thigh, and repeated the dose a moment later.

The pain occasioned by the introduction of the drug was felt by the patient, causing him to draw away the leg, but he showed no further evidence of consciousness.

Now comes the interesting point to which I wish to call particular attention.

In less than fifteen minutes from the time the last hypodermic injection was given, from being in a condition of almost absolute coma, with pin-point pupils, a slow pulse, and infrequent respiration, he had entirely returned to consciousness. The pupils were dilated, the pulse about 100, and in a perfectly natural manner he was talking of the sensations through which he had passed, and his regret at my having given him relief.

The length of time elapsing from the taking of the laudanum—which I estimated at about 3 drachms—to the time he was given the permanganate of potassium, of which he received a grain, was about two and a half hours.

I remained with the patient for some time, and seeing that there was no returning drowsiness, departed, leaving instructions for future treatment.

On seeing him the following day, he reported having passed a comfortable night, without sleeping, but that his mind was constantly filled with pleasing dreams and pictures.

The result of this case was prompt and satisfactory. Even though he probably would have survived the ingestion of the 3 drachms of laudanum, his condition at the time the permanganate of potassium was given was so critical that we must, I think, give due credit to the drug which in such a striking manner demonstrated its power.
In the medical journals one has frequently been confronted of late with reports as to the value of permanganate of potassium in cases of opium-poisoning. Within the past week I have seen reported cases where its proper use secured almost miraculous results. Unfortunately, I have not the precise data with me, but one case was reported in a recent issue of the New York Medical Journal and the other in the Therapeutic Gazette. In both reports it was stated that the patients were completely narcotized, but that they returned to consciousness and the symptoms abated, shortly after the injection of the permanganate of potassium.

It is true that the case I have reported probably would have survived the ingestion of only 3 drachms of laudanum, but at the time I gave the hypodermic I was uncertain as to the quantity that had been taken, and the symptoms were of a grave character and warranted all the apprehension that was shown.

The permanganate almost immediately relieved a threatening coma, bringing the patient back to complete consciousness. I am so well satisfied in my own mind as to its great value that, should I be placed in a like situation again, the free use of permanganate would be the first means of treatment suggesting itself to me.

PERMANGANATE OF POTASSIUM AS AN ANTIDOTE TO MORPHINE.

To the Editors of the Therapeutic Gazette.

Dear Sirs:—Miss B. E. McC., aged thirty-five, born in America. On May 4, 1895, at six o'clock in the morning, she took 30 grains of the sulphate of morphine. At 7.30 a.m., I was called, and found her in the following condition:

Every muscle was completely relaxed; the iris had contracted so as to give only a pinpoint pupil; the extremities were cold and intensely cyanotic; there was a clammy perspiration, livid lips and cheeks, decidedly stertorous breathing, averaging five respirations per minute; pulse could scarcely be detected. No vomiting had taken place, and, upon the whole, she gave the appearance of being entirely beyond hope of recovery.

The following is the treatment that was resorted to:

First I injected $\frac{1}{2}$ grain of apomorphine at 7.35 a.m., and at 7.45 a.m., $\frac{1}{30}$ grain of nitroglycerin. The apomorphine failed to cause emesis, but the nitro-glycerin acted nicely. At 7.50 a.m. I began injections of permanganate of potassium, 4 to 30 aq. dest., an average of 12 minims every ten to fifteen minutes. The patients were given nothing to eat and were kept awake by means of the hypodermic. At 7.45 a.m., and again at 8.50 a.m., I gave 1 grain of nitroglycerin, but no emesis were induced by it. At 9.15 a.m., I gave 1 grain of apomorphine, followed by $\frac{1}{2}$ grain of nitroglycerin at 9.30 a.m., and again at 10 a.m., the same treatment was repeated at 10.30 a.m., 11 a.m., and 11.30 a.m., with the same effect. At 12.30 a.m., I was able to make her respond to her name.

The following is the treatment that was resorted to:—

First I injected $\frac{1}{2}$ grain of apomorphine at 7.35 a.m., and at 7.45 a.m., $\frac{1}{30}$ grain of nitroglycerin. The apomorphine failed to cause emesis, but the nitro-glycerin acted nicely. At 7.50 a.m. I began injections of permanganate of potassium, 4 to 30 aq. dest., an average of 12 minims every ten to fifteen minutes. There was no use in trying to keep her awake or even arouse her. She lay in this condition until 11 a.m., when I was able to make her respond to her name. After the fourth injection of the permanganate she materially improved; respirations became more frequent, also very much deeper, the pulse grew stronger, and the cyanotic condition began to lessen.

By the time I had injected the ninth syringeful she was practically out of danger, and from then on she improved rapidly. Though the pupils did not respond to strong light until towards evening, yet complete sensation was restored by noon. All injections were made subcutaneously in the right and left forearm.

I did not attempt to give her any food until thirty-six hours after. Obtained a good movement from the bowels early the following morning by hydrarg. chlor. mite, 8 grains.

For a couple of days afterwards she had a peculiar light-headed sensation and complained of feeling very dizzy.

The numerous injections (eighteen in all) caused more or less swelling of her arms, as well as discoloration, though no trouble resulted therefrom.

GEORGE F. SUEKES, M.D.
Toledo, Ohio.

FEEDING BY THE RECTUM.

G. Singer (Central. f. d. Ges. Therapie, March, 1895) recalls that the clinical value of rectal nutrition was established by Voit, Bauer, Von Eichhorst, and others. Egg albu-
min, with or without preliminary peptonization, is absorbed and assimilated by the mucous membrane of the large intestine. For direct absorption, milk is well suited. According to some, egg albumin is best when first mixed with salt (one gramme to the egg), though Ewald attaches no value to it, thinking, as he does, that the peptonization is the most important. Better still is Huber's combination of the two methods: six eggs are mixed with six grammes of salt and two hundred cubic centimetres of a .15-per-cent. solution of HCL, containing five grammes of pepsin, and the mixture is kept for ten hours in the warm chamber. Of this mixture, nutrient enemata may be given twice daily. Rectal feeding is still insufficiently employed in practice, partly because it is sometimes disagreeable, partly also, perhaps, because this method of nutrition has not quite fulfilled the somewhat exaggerated expectations at first entertained of its utility. Singer thinks that after hemorrhage from a gastric ulcer rectal feeding should be resorted to for some days. It diminishes the likelihood of a recurrence of the hemorrhage by doing away with the irritation caused by the presence of food, and by giving the stomach physiological rest, with freedom from the peristalsis and hyperæmia accompanying digestion; it is at the same time a treatment for the troublesome vomiting of gastric ulcer, with or without hemorrhage. The nutrient enema should not consist of more than a quarter of a litre. Singer has practically kept to the mixture recommended by Boas, and uses one hundred and twenty-five grammes of milk, one hundred and twenty-five grammes of wine, the yolk of two eggs, mixed with a little salt and a teaspoonful of Witte's peptone; he sometimes adds a little grape-sugar. The mixture is well beaten up, and an ordinary enema syringe furnished with a soft tube is used to inject it. The nutrient enema may be given three or four times daily at intervals of four to five hours. The rectum must be cleaned out with enemata before each nutrient enema is given, and neglect of this precaution is a common cause of symptoms of rectal irritation. Singer recommends after each nutrient enema the administration of a suppository containing 1/10 grain of extract of opium; when there is great tendency to tenesmus, 8 to 10 drops of tincture of opium with the other ingredients of the enema. It is very seldom that the enemata are not retained, but in this case the preparation of the mixture may be at fault; there may be too much salt, or an unsuitable ready-made peptone preparation may have been used. The patients with hemorrhage from gastric ulcer were kept in bed and nourished solely by the rectum for from four to eight days. Singer says that recurrence of the hemorrhage took place only when patients secretly took solid food before they were allowed. When there is much pain, a mixture containing subnitrate of bismuth and chloroform can be given by the mouth. Excessive feeling of hunger and thirst can be treated by a little opium (better than cocaine) and two hundred cubic centimetres of water (for thirst), but if the thirst be excessive, owing to diarrhoea, more fluid may be given. Singer also recommends exclusive rectal feeding to be tried in some cases of dilatation of the stomach, in some of gastric neurosis, including excessive vomiting of pregnancy, and after some abdominal operations. In cases of typhoid fever he thinks that he has diminished the great loss of weight by feeding patients by the rectum in addition to the ordinary feeding by the mouth. Enemata containing alcohol and tea may be useful in collapse during acute diseases, and where alcohol cannot well be administered by the mouth.—British Medical Journal, April 13, 1895.

**EFFECTS OF DOUBLE CASTRATION ON THE ENLARGED PROSTATE.**

Mr. E. Hurry Fenwick, of London, believes that the operation of double castration, which Dr. J. W. White, of Philadel-
phia, has proposed for the shrinkage of the enlarged senile prostate, is a valuable and an important addition to the methods of treating the distressing sequelæ of this form of urinary obstruction, for, although his experience is limited to nine cases, yet he has seen sufficient improvement in these to induce him to recommend the operation for certain forms of the disease. He gathers that the profession at large is too sanguine as to the immediate benefit to be expected from the procedure, that too pronounced a relief is anticipated from it, and that it is regarded as a panacea for all stages of prostatic obstruction,—views which he regards as untenable. He suggests that those who record their experiences should be careful to recognize and to mention the character and size of the prostate per rectum and the length of its channel before and after the operation, for it is only upon accumulated reports of such data that we can be guided to the selection of that form of postatic enlargement which is best suited for double castration. Accurate estimation of the character and size of the prostate is far from easy, and he is forced to believe that statements describing enormous prostates disappearing in three weeks after orchectomy spring from an erroneous appreciation of the size and shape of the gland. There is no doubt that slow shrinkage of the prostatic tissue, in many of the forms of senile enlarged prostate, ensues upon double castration. Further experience must, however, decide as to whether every form of prostatic growth is thus affected. It is certain that escape from catheter life after castration depends absolutely upon the health of the vesical muscle. The grade of the atony, therefore, should be most carefully estimated before any hopes of relief from catheterization are held out. To promise a confirmed catheter case that orchectomy will do away with the instrument will merely bring discredit on the operation and disappointment to the patient. Even after prostatectomy we are unable to promise such relief if the muscle is hopelessly atonic, and we cannot do so after castration. It is possible that castration, by diminishing the microbic infection from the inflamed senile prostate, will remove a constant menace to the integrity of the kidneys, for it will control the most prolific source of ascending pyelitis.

In his opinion it will prove of value in the following conditions: 1. In reducing bulky outgrowth of the lateral lobes of the prostate. It may be found that the small, tough, fibrous, median or lateral vesical outgrowths will be better removed by suprapubie prostatectomy. 2. In controlling the distress and danger of an inflamed senile enlarged prostate. 3. In lessening the frequency or difficulty of introducing the catheter in advanced or confirmed catheter life. 4. In avoiding the mechanical difficulty of crushing a post-prostatic on a post-trigonal stone, by levelling the base of the bladder, thus rendering the operation of litholapaxy feasible in a condition in which before it was impracticable. 5. In reducing chronic cystitis and recurrent phosphatic calculus in cases of confirmed catheter life.—British Medical Journal.

THE TREATMENT OF COMA.

From La Tribune Médicale, the following treatment is taken:—

Coma following Affections of the Meninges and Brain.—1. Place patient in a well- aired room.

2. Friction the entire body with alcohol and water.

3. Apply sinapisms to the legs.

4. Apply four leeches to the mastoid region or bleed from the arms.

5. Give the following purgative enema:—

\[
\text{R Sodii sulphat., oz. i; Sennæ fol., oz. ss; Aque, ad f oz. viii. M. et ft. infusio.}
\]

6. Practise rhythmical tractions of the tongue by the method of Laborde.
7. Feed patient with milk and bouillon, or, if deglutition is too difficult, give this nutritive enema:

- Yellow of two eggs
- Peptone (dry), oz. ss
- Milk, f oz. viii.

**Coma of Infection and Toxification.**

Give every hour a subcutaneous injection alternately of ether and caffeine:

- Caffeine, gr. xlv
- Soda benzozat., oz. i
- Aquæ bull., oz. iii

**Neurotic Coma.**

Give the following enema:

- Acetate of ammonium, oz.
- Tr. musk, gr. xv
- Essence of mint, m iv
- Tr. jalap, f oz. iss
- Tr. gentian. q. s. ad. f oz. iv

3. Provoke diuresis by large injections of cold water (a quart and a half).

4. If poisoning is indicated, give the special antidote required, and induce vomiting by the subcutaneous injection of apomorphine,—gr. 1/12.

**FOR NEURALGIA.**

The following has been recommended:

- Antipyrin dr. iss
- Caffeine dr. ss
- Ext. cannabis Ind. iisg
- Ext. aconite gr. £
- Hyoscyami hydrobromat. gr. 

M. et ft. caps. no. xxx. Sig.—One every two or three hours.

**TREATMENT OF TIC DOULOUREUX.**

M. Grandelement communicated a method of treating this affection from which he claimed excellent results. It consists in making subcutaneous injections of the following solution into the affected side of the face: Distilled water, 10 grammes (2 1/4 fluidrachms); antipyrin, 4 grammes (1 drachm); hydrochlorate of cocaine, 0.03 grammes (1/2 grain). The face sometimes became much swollen, but soon resumed its normal appearance. One case in which he succeeded was that of a woman of 60 years who had suffered so much that she had decided a submit to resection of the trigeminal nerve. After thirty injections, made within a period of ten days, over all the painful points, the attacks ceased. A year later they recommenced, though with less severity, and the patient was about to undergo the same treatment when she died from some pulmonary affection. A second patient, who had also decided upon a surgical operation, was submitted to the injections and recovered. A relapse also occurred within one year, but yielded in two days to the same treatment. She had a second relapse in September, 1894, but this was also arrested by the injections in three days. Beyond the complication of oedema, M. Grandelement has seen no ill-effects, though he has made use of the solution a great many times.—Universal Medical Journal.

**TREATMENT OF CHOLERA INFANTUM BY LARGE DOSES OF WATER.**

Jules Para reports (Rev. Men. des Mal. de l'Enfance:—Amer. Jour. of Med. Sci.) five cases of cholera infantum treated successfully in accordance with the plan of Luton, of Reims, and Remy, of Nancy. He believes that by this method almost all children affected while in good health may be saved, if seen by the physician sufficiently early. In accordance with Remy's method, in the beginning of the treatment, all food is
interdicted, this restriction to be maintained for a number of hours, according to the strength of the child and the intensity of the disease. Then, to answer the immediate indications, to calm thirst, cleanse the digestive tract of the poisonous substances which it contains, and to restore to the blood the liquid lost, and re-establish normal blood-pressure, water is prescribed. Plain water, however, is not suitable, nor is an acidulated solution. A feebly alkalized and sparkling water, like that of Soultzmatt or Vals, has proved most acceptable. At first, small doses are given, frequently repeated, as long as thirst is evident; and in this way, in hours, a quarter, half, or even an entire litre may be taken. When the gastric intolerance is extreme, the first doses are rejected; but this irritability will soon subside under persistent administration. The cry, which indicates the sufferings of the organism deprived of water, quickly ceases, and a period of quietude supervenes. Under the influences of the absorption of water into the blood the circulation is re-established and all the alarming symptoms subside. While, however, the child is thus saved from its impending peril, the success of the case naturally depends upon the subsequent treatment, which is carried out by the cautious administration of well diluted sterilized milk, increasing the strength of the mixture gradually until the pure milk can be borne.

THE CLINICAL USES OF APOMORPHINE.

In an extended article, J. Boyer and L. Guinard (Bull. Génér. de Thérapeutique, August 30, September 15 and 30, 1894) write of the physiological action and clinical uses of apomorphine. The authors state that the drug produces two kinds of physiological phenomena, one being characterized by excitation, in which spasms, trismus, convulsions, agitation, vertigo, and hyperesthesia are observed; the other, by depression, in which there occur syncope, collapse, hypothermia, general weakness, muscular paralysis, weakness and arrest of respiration, cardiac enfeeblement, and anæsthesia. These various phenomena are the result of the actions of two different kinds of drugs. The writers believe that the crystalline form of apomorphine causes exciting and convulsive phenomena, while the amorphous salts of the drug produce chiefly symptoms of stupor and paralysis. To obviate the production of diverse phenomena, and in order to obtain in the adult a simple and pure emetic effect, the white crystalline hydrochlorate of apomorphine should be employed in doses of from 3 to 5 milligrammes (1/16 to 1/8 grain). The authors believe that, judging from the results of the principal researches so far published, and which they review in a careful and thorough manner, apomorphine is a medicament of real value. Its efficacy and the superiority of its action over other emetics have been established. The easy method for its administration by subcutaneous injections and the rapidity of its action make it an excellent therapeutic agent. If employed in a pure form, apomorphine will not cause serious after-effects.

A FATTENING FOOD.

Dr. T. Robinson states (Lancet) that with patients suffering from cold feet, physical and mental depression, exhausting headaches, aching of the nerve centres, indolence of the digestive, menstrual, and other functions, intolerance of physical exercise, and a subnormal temperature, he prescribes tonics and cod liver oil; but he frequently meets with considerable difficulty in getting his patients to take his remedies. They say that the oil makes them sick and the tonics irritate their stomachs. To overcome this difficulty, and to find a combination which would fulfil the indications for treatment, he suggests the following formula:

Extract of Malt............ oz. iss;
Pancreatized Cod Liver Oil oz. j;  
Spirit of Chloroform....... oz. j;  
Oil of Cinnamon............... m vj;  
Water........................to oz. vj.
A tablespoonful to be taken three times a day after meals. This mixture is given as a food, and if persevered with will be found to be easily assimilated and to constitute a treatment of signal service.

THE TREATMENT OF SCIATICA BY NITROGLYCERIN.

La Médecine Moderne for January 23, 1895, states that nitro-glycerin is a valuable remedy in the treatment of sciatica. The dose which should be given is 1 drop of a one-per-cent. alcoholic solution three times a day, although larger doses than this may be needed.

Mikhalkine has reported three cases of rebellious sciatic neuralgia which were cured or much ameliorated by nitro-glycerin. In one case a patient aged forty-four years was attacked with violent pain in the sciatic nerve, extending from the trochanter to the malleolus. The pain was extremely severe and made sleep impossible. The attitude of the limb was characteristic.

Salicylate of sodium, the bromide of sodium, antipyrin, acetanilide, and phenacetin with quinine were administered without effect, and the application of a blister to the painful point, along with a soothing ointment and massage, failed to do good. Even chloral at night gave the patient but temporary rest. The pain persisted for three weeks. The author then administered the following prescription:—

R Nitro-glycerin(one-per-cent solution), m iii to m xxx?  
Tincture of capsicum, m xc;  
Peppermint water, oz. iii;  
and gave of it 3 drops three times a day for three days, and after this 10 drops three times a day. After the medicine had been administered for two days, the patient had a comfortable night and the pain was diminished. The amelioration of the symptoms progressed during fifteen days, the attacks of pain diminishing in intensity and the patient being able to walk readily. At the end of this time an attack of erysipelas with high temperature developed, which lasted for twelve days. During its presence the neuralgia disappeared, but returned with the fall of temperature and desquamation. Once more nitro-glycerin was administered, in the dose of 10 drops of the above prescription three times a day, and ten days later the patient left the hospital completely restored to health. There was not a great modification of the pulse produced by this dose, neither was there headache.

In another case this author treated a woman aged forty-five years, who had atheromatous blood-vessels and was very nervous, for sciatica of the right side, with which there was associated muscular atrophy and hyperesthesia. After trying the bromide of potassium with galvanization and morphine, with an ointment of salicylic acid, without effect for five weeks, recourse was had to the nitro-glycerin mixture. After the patient had taken it for fifteen days an attack of malarial fever interrupted its administration and required the use of quinine. The excess of pain, however, forced a renewal of the treatment with the nitro-glycerin. After twelve days’ more treatment the patient was able to walk without suffering from pain. For the purpose of calming the neurotic condition the following mixture was given:—

R Bromide of potassium;  
Bromide of sodium;  
Bromide of ammonium, of each, oz. i;  
(Distilled water), oz. iss.
A teaspoonful of this three times a day.
A continuation of the nitro-glycerin mixture with this prescription entirely relieved this attack.

The third case was that of a man of forty years, who was brought into the hospital
suffering from an attack of fever and violent pain in the lower part of the right leg. There was a quickened pulse and marked tenderness of the limb on palpation. 30 grains of the salicylate of sodium and 20 drops of the tincture of valerian were given internally and a blister applied over the trochanter. While this reduced the fever, it did not relieve the pain, and four days later the nitro-glycerin mixture was given, in the dose of 5 drops three times a day, increased finally to four times a day. After eight days’ treatment the symptoms ameliorated very much, and after six weeks the patient was entirely cured, there being no return of the trouble for six months after.

RARE FORM OF ANTIPYRIN RASH.

In La Presse Médicale of February 16 a rare eruption caused by antipyrin is recorded. The patient, aged thirty and very fat, was seized with violent, even unbearable, pains in the head while at his doctor’s residence, for which 15 grains of antipyrin were given. His urine contained a little sugar (two hundred and twenty-five grains in the twenty-four hours) and traces of albumin. He also presented an old and obstinate psoriasis in the seborrhoeic regions (scalp), scrotum, gluteal folds, palms of the hands, umbilicus, etc. Exactly four to five minutes after the ingestion of the remedy he was seized with tinglings over the whole body, then a desire to scratch himself. His face became red, his eyes filled with tears, a keen sensation of heat was experienced, his pulse noted 120 to 130 pulsations, at the same time red patches appeared on his neck, then on his back. On the morrow, after a sleepless night, there was the same febrile state, the same pruritus. The eruption at its height consisted of a collection of plaques of a bright, inflammatory redness, scattered at all points of the body, without special localizations, without marked symmetry. In general round in shape, these plaques were mostly of the size of a five-franc piece. They formed a slight relief, and in their neighborhood the skin was perceptibly hotter. Taken between the finger and thumb, these lesions, in no way painful, gave the sensation of a pretty deep thickening of the skin; their evolution was rapid. On the second day after the febrile state had disappeared the itching diminished progressively, to disappear on the eighth day. Most of the plaques grew pale, became covered with slight scales, and disappeared in fifteen days. Some of the largest ones presented in their centre an epidermic upheaval (abortive bulla), and were a little longer in disappearing. The patient afterwards stated that years before a dose of antipyrin had given him similar trouble. The eruption described differed from a nodose polymorphous erythema in the abruptness of the onset, the tingling and pricking over the whole cutaneous surface, in the itching preceding the eruption, and in the eruptive elements being more numerous, less prominent, painless, and with rapid evolution.—British Medical Journal, March 9, 1895.

CHLOROFORM.

V. G. Stadnitzky (Vratch, No. 43, 1894) has carried out a series of elaborate experiments on seven healthy young men, in order to study the influence of chloroform, when administered internally, on the gastric functions. In each instance the experiment lasted fourteen days, being divided into two equally long stages, during the second of which the subject was given from 3 to 10 drops of the drug (with water) three times daily. The author’s general conclusion is to the effect that CHCL₄ markedly improves all the functions of the stomach, which fact suggests that the drug might prove very valuable in the treatment of various gastric disturbances and, before all, in dyspepsia.—British Medical Journal, February 9, 1895.
THE TREATMENT OF HEMORRHAGIC METRITIS
BY SALOL AND ANTIPYRIN.

Bralant states that Labadie-Lagrave has resorted with success in certain cases of uterine hemorrhage to the employment of antipyrin. The difficulty is to carry the powdered antipyrin into the cavity of the uterus, and for this reason the idea arose that liquefied antipyrin when mixed with salol might prove useful as a hemostatic and antiseptic. The method of application consists in placing equal quantities of salol and antipyrin in a tube, which is then held over an alcohol lamp. The mixture is speedily transformed into a clear liquid, which has a somewhat brownish tint. This liquid is solidified by cooling. It is passed into the uterine cavity by means of some absorbent cotton which is wet with the medicament. A vaginal tampon of absorbent cotton wet with creosoted glycerin is also introduced and the patient directed to rest quietly. This application does not cause pain and is exempt from danger. The hemostatic action is rapid and complete, so that it is rare for a second application of the antipyrin and salol mixture to be necessary. The treatment is efficacious in nearly all forms of uterine hemorrhage, such as those due to fibro-myoma, fungous metritis, and similar conditions.—Revue Internationale de Médecine et de Chirurgie Pratiques. January 25, 1895.

MILK AS AN ELEMENT OF AN ASEPTIC DIETARY.

Drs. Gilbert and Dominici recently described before the Biological Society of Paris a series of experiments conducted upon dogs, rabbits, a man, and a woman, in which careful examinations were made of the intestinal contents and fecal matters, while under a milk dietary. The effect of the milk upon the development of microbes in the alimentary canal was determined by bacteriological examination of the feces, as already stated. It was found that with an exclusively milk diet the number of microbes diminished from the first day, and at the end of five days the number was found to be sixty-five times smaller than with an ordinary diet.

It is probable that the effect of milk in establishing intestinal asepsis is due, first, to the fact that it is so completely digested and absorbed, hence it leaves behind little food for bacteria; and secondly, to the development of lactic acid, which, as is well known, is very destructive to the bacillus coli, the dominant bacterium of the alimentary canal.

These experiments show very clearly the advantages to be derived from the use of milk in disorders of the liver and kidneys. In cases of diseases of the liver, this organ loses, to a large degree, its so-called antiseptic power, or its ability to destroy the toxines brought into it in the portal blood. The establishment of asepsis in the alimentary canal greatly lessens the amount of toxines produced, and thus relieves the liver in its work. In the same way the kidneys are relieved in nephritis. Milk acts as a natural diuretic, thus aiding the kidneys in their function.

CHLORIDE OF CALCIUM IN THE TREATMENT OF ACUTE PNEUMONIA.

Medical Chronicle, December, 1894.

In 1893 Dr. A. Crombie first called attention to the value of this drug in the treatment of pneumonia in a paper read before the Calcutta Medical Society, and in an article in The Practitioner of November, 1894, Dr. D. M. Moir reports cases treated by the same drug, apparently with much success. The remarkable features in the results are, the subsidence of the fever after two or three days' treatment to a practically normal point, notwithstanding the continuance of the physical signs; the singular freedom from the distress and anxiety often associated with high
temperatures; and, according to Dr. Crombie, an arrest of the disease in the stage in which it happened to be when the treatment was begun. Dr. Crombie thinks his results with calcium chloride closely resemble those obtained by the brothers Klemperer after use of the serum containing anti-pneumotoxin. He refers to the work of Green on the power of calcium salts in hastening the coagulation of blood, and the discovery of Pekelharing that peptones have a strong affinity for the calcium salts, and that the poisonous action of peptones, etc., is due to their removing from the tissues calcium salts, which are essential for nearly all the vital processes. He thinks it not impossible that the action of the chloride of calcium may consist in its neutralizing the toxic action of the peptones or albumoses circulating in the blood. He recommends that the chloride should be given in doses for adults ranging from five to fifteen grains every four hours.

SOLUTION OF ANTIPYRIN AS A HEMOSTATIC.

Dr. Roswell Park says (Med. News.) that during the winter of 1885 his attention was called to the efficiency of a solution of antipyrin as a hemostatic. Carefully tested, he found that it also had distinct antiseptic properties, comparing favourably in this respect with most of the anilin derivatives in use. Experimenting with animals, he found that it could be used as an antiseptic styptic anywhere upon the bowel, the brain-surface, or elsewhere, causing no symptoms that made him regret its use. He now keeps always on hand a standard, sterilized, five-per-cent solution, using it as a spray, a compress, or an injection. While it has not sufficient power to contract vessels that spurt, it almost instantly blanches and checks oozing from any surface from which blood is escaping just fast enough to be an annoyance. Moreover, it is practically unirritating. Dr. Park says that he has never known harm to occur from its entrance into any part of the body where it was not called for. He also recommends the use of the same solution in certain cases of inflammatory occlusion of the nose. To relieve the temporary smarting and irritation, a weak solution of cocaine may either be used a few minutes before the antipyrin, or the two may be combined. In certain acute catarrhal conditions of the upper air-passages and throat there is nothing which appears to him to give early relief more satisfactorily.

TREATMENT OF TONGUE TIE.

Dr. Chervin (Paris, 1894), the director of the Institute for the Treatment of Stam. mers, at Paris, made an interesting study of the surgical aspect of fraenum cutting. Much performed in certain regions of France, and formerly often done by some of the greatest surgeons, he thinks that its use has a very limited application; for example, in those rare cases where the tongue is bound down to the floor of the mouth by an inferior ankyloglossia, so that the tongue is immobilized. In certain cases where the fraenum is too long, extending even to the tip of the tongue, excision is required. This is exceptionally necessary, and, though in itself insignificant, it may present serious danger in a little child. It is wrong to think that if an infant nurses badly its fraenum must be cut. A little exercise upon the end of one's finger will correct this fault, and operative interference will be unnecessary. Cutting the fraenum is absolutely useless in correcting defective pronunciation, for this is only to be remedied by a methodical education of the voice by natural and rational exercises.—Practitioner June, 1895.

ASAFETIDA IN OBSTETRICAL AND GYNECOLOGICAL PRACTICE.

Warman (Therapeutische Monatshefte, January, 1895), after calling attention to the inefficiency of the remedies commonly employed in the treatment of abortion, warmly commends asafetida. Morphine in his hands has not proved satisfactory.
Small doses frequently fail and large doses are in themselves dangerous. The results are quite otherwise with asafetida. He usually gives it in the form of pills, each containing 1½ grains; sometimes an enema of the tincture properly diluted gave better results. This drug promptly arrests hemorrhage, though bleeding may recur later on. Even when the hemorrhage is severe and alarming, the first dose acts as a sedative and allows a gradual separation of the ovule without uterine contractions. Several striking cases are cited, particularly some of successive operations. Pills are administered, beginning with two a day, the dose increasing to ten a day, this quantity being gradually diminished. No disagreeable symptoms were observed, and the results were most gratifying.

**ACUTE CORYZA.**

Abortive treatment: Pure carbolic acid, ammonia, each 5 grammes (1½ fluidrachms); alcohol (90 per cent.), 10 grammes (2¼ fluidrachms); distilled water, 15 grammes (3¼ fluidrachms.) Pour 10 drops on blotting-paper every hour and inhale for several seconds. This is a modification of Brandt’s formula. Abortive powder: Cocaine hydrochlorate, 0.50 gramme (7½ grains); menthol, 0.25 gramme (4 grains); salol, 5 grammes (1¼ drachms); boric acid, 15 grammes (3¼ drachms). Use hourly as a snuff. Internally give tincture of belladonna and alcoholic extract of fresh aconite-root, equal parts, 30 drops, in two doses. To cause perspiration, vapour-bath. Palliative treatment: To restore nasal permeability, boiled solution of cocaine hydrochlorate, 1 to 100, lukewarm; or, if there is an idiosyncrasy to cocaine, spray of pure olive-oil, 20 grammes (5 fluidrachms); menthol, 1 gramme (15 grains). To relieve trigeminal neuralgia, chill, and lassitude: quinine hydrochlorate, 0.25 gramme (4 grains); antipyrin, 0.50 grammes (7½ grains). (Marcel Lermoyez, Jour. des Praticiens, January 26, 1895.)

**TREATMENT OF BUBOES.**

A practical method of securing compression in the treatment of buboes is recommended by Neebe (Monatshefte für Prak. Dermatologie, May 15, 1895). He uses a ball of wool half again as large as a man’s fist, which he places over the enlarged gland and binds in place by a firmly applied spica of the groin. To avoid slipping from its proper position, a few large safety-pins are placed in the bandage and through a part of the ball of wool.

The author has employed this method for two years in buboes of all sizes, and reports but one case of pus formation.

**THE TRANSMISSION OF MORPHINE FROM THE MATERNAL TO THE FETAL CIRCULATION.**

At a recent meeting of the Paris Obstetrical and Gynaecological Society, as we learn from a report of the proceedings published in the Mercredi Medical, Dr. Bureau mentioned the case of a woman who, having been addicted to the use of morphine for about seven years, had got to the point of taking fifteen grains a day when she was delivered of a child. When the umbilical cord was cut Dr. Bureau caught the blood that escaped from the umbilical vessels and the placenta, and on chemical analysis it was found to contain morphine. The effect of the drug on the child, if there was any, is not mentioned.—N. Y. M. J.

**TREATMENT OF WARTS.**

Kaposi (Medical Week, February 8, 1895) recommends the following mixture in the treatment of warts:—

R Sublimed sulphur, f. dr. iiss; Glycerin, f. dr. viss; Pure acetic acid, f. dr. iss. M.

This mixture is applied once a day to the regions covered with warts, and the growths shrivel up and ultimately disappear.

Suddenly and profuse discharge of a large amount of serum from the abdomen after colotomy is a sign that some part of the
wound has given way, and should lead to immediate removal of the dressings for inspection. If hernia be found, it is an easy matter to reduce it, and a stitch or two in the wound will keep it reduced.

DEPILATORY FOR SURGICAL OPERATION.

To remove hair from scalp, peri-anal, or scrotal region, without using razor, cut hair off with scissors, then apply paste made of sulphohydrate of calcium, mixed with a little water. Make layer one millimetre thick. No pain or erythema. In less than ten minutes hair can be rubbed or washed off, to grow again in several days.—Med. Mod.—Clin. Jour.

HAEMOPTYSIS.

Calcium chloride (the pure crystallized salt), 10 to 15 grains (0.65 to 1 gramme) every two hours, in glycerin, simple elixir and water, or in infusion of gentian, 10 grains (0.65 gramme) to the teaspoonful. Reduce frequency of dose as improvement takes place. (S. Solis-Cohen, Philadelph. Polyclinic, January 19, 1895.)

CHLOASMA.

Try the following for moth patches (so called):—

R

Ammonium chloride, 1 drachm.
Acid hydrochloric, 1} drachms.
Glycerin, 7 drachms.
Tincture benzoin, 2} drachms.
Rose-water, 3 ounces.

Mix, shake well. Apply night and morning with a brush or feather.

LAVERANEAA LINHEMICA.*

By T. V. Coronado, M.D., Cuba.
Translated by L. F. Alvarez, M.D., Hawaiian Islands.
The competitors for the Orfila prize were required to answer the following question: "Are there in the air, the water or the soil, bodies, either of animated nature or purely chemical, apt to develop malarial diseases (T'impaludisme), when by ordinary or experimental means they are introduced into the animal economy?"

The discovery of Laveran has been confirmed in nearly all the countries of the world; the micro-photographs showing positively the morphological identity of the different forms of evolution of the parasite of malaria in every country. This discovery has stood criticism for thirteen years and needs no further discussion. Of 752 cases of malarial diseases, whose blood was examined by Dr. Coronado, the parasites were found in 613 and would probably have been found in all if the search for them had been methodically repeated.

During the rainy season four test tubes were filled, one-third with mud and two-thirds with water, from a swamp decidedly malarious. These tubes were plugged with sterilized cotton and examined at frequent intervals. They were found to contain a large number of micro-organisms, some of a beautiful colour, but no hematozoa of Laveran were found. A drop of blood taken from a patient with malarial fever was added to tubes 1 and 2, while tubes 3 and 4 were kept to control the experiments. In 24 hours slight opalescence was observed in tubes 1 and 2, and microscopical examination, with eye-piece 3 and objective 7 (Leitz), showed a conglomeration of very small, lively organisms endowed with linear and rotary motion. Their size
was two mills of a millimeter in length by one in width. They had no colour, being completely transparent. If examined when they are not in motion they appear to be of oval form with a constriction in the middle as if they had been twisted on their minor axis.

On the following day the opacity of the water was more pronounced, and a light pellicle with some yellowish points appeared on the surface. The microscope revealed that this pellicle was formed by an entangled mass of vegetation of a beautiful amber-yellow colour, containing in its meshes very many organisms identical to those observed on the previous day, but appearing slightly larger and showing one or two dark granulations in their interior. Further observation on the same day revealed the fact that some organisms had assumed a rounded or spherical shape, measuring from three to six mills of a millimeter, showing numerous dark granulations in the centre and were endowed with lively movements. A few flagellated spheres, such as are found in the blood of patients with malaria, could now be seen. When the cultivations were 8 to 12 days old the flagellated spheres had increased in size and numbers, 40 or 50 could be seen in the field, and they reached a maximum diameter of 12 mills of a millimeter and the length of the flagella varied from 15 to 30 mills of a millimeter. The organisms could not be found in the control tubes 3 and 4, and the author could not doubt that he had succeeded in cultivating the true flagellated bodies of Laveran.

A drop of water with a bubble of air enclosed in an excavated slide affords ample opportunity to observe the evolution of these organisms. In a few days the granulations gather at any point of the surface as if to form a nucleus, the flagella detach themselves and the organs are destroyed. The great majority of the spheres presented a single flagellum, but some had two or even three. These flagella reproduce the spheres in a few days.

Repeated observations demonstrated that the flagellated spheres of Laveran are not found in the streams in the rainy season, but are very abundant during the dry season when the water is low or stagnant, and they were never found in the highlands of Cuba, where malaria is unknown. The plowing of new ground in a plantation caused an epidemic of malarial fever, and the examination of the soil revealed the presence of the spheres of Laveran. Many experiments demonstrated the existence of these parasites in stagnant water, mud and dry soil of malarious localities, and by means of the following experiments the night air of malarious regions was also found to contain these organisms.
Take a test tube partially filled with mud and water and keep it under observation several days. If the water remains clear and repeated examinations prove the absence of the parasites of Laveran, adjust a cork with two perforations to allow the passage of two tubes, one ending externally in a bell-shape similar to the ventilators in steamers, the internal or inferior end penetrating one or two millimeters in the water of the test tube. The other tube simply passes through the cork, the other end serving to establish communication by means of a rubber tube with the upper and interior part of a water container of 18 to 20 litre of capacity. This water container must be provided with a faucet at low level so as to allow the water to run out slowly, thus creating a vacuum at its upper and interior part which will be filled with air passing through the water, or artificial swamp, prepared in the test tube. The spheres of Laveran which the air may contain will be kept in the test tube.

The author had a faucet attached to an empty petroleum tin which served him as a water container. He fastened the test tube to the side of the petroleum tin with adhesive plaster. The end of the rubber tube, which establishes communication between the test tube and the interior of the petroleum tin, may be attached to the spout or to a small tube soldered to the upper part of the petroleum container.

Another simple method of demonstrating the presence of the hematozoa of Laveran in the air consists of ordinary or excavated slides with a drop of glycerine or vaseline and methyl blue exposed to the night air at different heights of a wooden frame fixed in a malarious locality. By placing a glass cover over the drop these slides are ready for microscopical examination with a power of 700 to 800 diameters.

The author concludes there are in the air, in the water and in the soil bodies of animated nature apt to develop malarial diseases when ingested with contaminated water or
food, or when moist air is inhaled containing them.

The word linhemica or limnhemica, the author states, is derived from *limni* (lagoon) and *aima* (blood).

**A PERFECTLY ASEPTIC DRAINAGE-TUBE.**

By J. H. Kellogg, M.D.

Notwithstanding the long and unsuccessful search that has been made by ovariotomists for an aseptic drainage-tube, or an aseptic method for managing the drainage-tube, the writer believes that he has solved the problem at last; and incredible though it may seem to the reader, he will certainly be convinced of the correctness of this assertion after reading the following description of a device which simplifies to the last degree the care of the drainage-tube, and at the same time renders it absolutely aseptic.

From experiments made a number of years ago I became convinced that the principal cause of infection from the drainage-tube was the sucking down into the tube of germ-infected air by means of the evacuating syringe. Other causes are possible, such as the gradual extension of growths of the staphylococcus pyogenes aureus and albus, and other germs along the outer or inner surface of the drainage-tube, thereby carrying infection from the surface to the deeper parts. By thorough asepsis and antisepsis in the treatment of the wound, however, the last-named causes may be eliminated, and many operators have succeeded in thoroughly eliminating this source of wound infection, but have still found it impossible in many cases to leave a drainage-tube in situ for more than a few hours without infecting the abdominal cavity, thus occasioning great inconvenience and suffering to the patient, as well as anxiety to the nurse.

How the abdominal cavity becomes infected in pumping out the fluid from the abdomen by means of the evacuating syringe, will be readily apparent if we conceive a glass bottle made to represent the abdominal cavity, the water in the flask representing the fluid to be drawn out. If an ordinary abdominal drainage-tube were passed through the cork placed in the mouth of the flask, and through this a quantity of fluid were drawn with an ordinary glass syringe such as is used in evacuating fluid from the drainage-tube, it would be noticed, that while water is passing up into the syringe, air is bubbling up from the lower end of the drainage-tube into the bottle. To any one who will give the matter a moment's thought, it will be apparent that it is impossible to get any considerable amount of fluid out of the flask without admitting an equal quantity of air to take the space of the fluid withdrawn.

If it is suggested that the flask does not really represent the abdomen, since its walls are rigid, while those of the abdominal cavity are flexible, and that the intra-abdominal pressure will be sufficient to diminish the size of the abdominal cavity while the fluid is withdrawn, rendering unnecessary the entrance of air in the evacuation of fluid through the drainage-tube in the ordinary way, it is only necessary to call attention to the fact that while the drainage-tube is in place, the abdominal cavity is open and consequently intra-abdominal pressure is abolished. I had an opportunity recently to test the truth of this statement by attaching a manometer to my drainage-tube while in situ, and was surprised to find that the abdominal pressure was almost nothing, being only sufficient to sustain a water column of one or two inches. With each movement of the diaphragm the fluid in the drainage-tube plays up and down, the amount of oscillation depending upon the force of the diaphragmatic movements. So long as the intra-abdominal pressure exists the fluid is forced out through the drainage-tube, but the fact that the abdominal
cavity cannot empty itself completely of fluid is recognized by every surgeon who uses an evacuating syringe. As is well known, it is often possible to draw a number of ounces of fluid from the drainage-tube. It must be remembered that whenever fluid has been withdrawn, an equal quantity of air has been introduced into the abdominal cavity. In using the evacuating syringe, one can withdraw, without admitting air, only the small quantity of fluid which is in the drainage-tube itself.

As soon as the level of the fluid reaches the bottom of the tube or the first lateral opening, air begins to pass out into the abdominal cavity, more fluid pours into the lower end of the tube, and this process continues until all the fluid within reach of the end of the tube is evacuated. The bubbling which occurs while the fluid is being withdrawn affords an evidence of the correctness of this explanation.

From these facts it is readily apparent that the only thing necessary for absolute asepsis in the care of the drainage-tube, when the tube itself is clean and the wound and dressings perfectly aseptic, is to so arrange as to admit only sterilized air to the abdominal cavity. This the writer has for several years accomplished by means of a specially constructed drainage-tube, shown in Fig. 1, C. By means of this tube it is possible to evacuate the fluid from the abdominal cavity in the usual way without contamination of the wound, since all the air passes down through the evacuating tube, and is filtered before it enters the abdominal cavity. For evidence that this arrangement is practically as well as theoretically germ proof, so to speak, I connected

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Fig. 1. Aseptic Drainage-tube. First Pattern.
it with a glass flask, after having first placed in the flask a quantity of sterilized bouillon. I then pumped air through the bouillon in the flask for one or two minutes regularly every day. No infection occurred for two weeks, when, by clumsy manipulation, the cork became loosened and unfiltered air was admitted to the flask, the contents of which were the next day found to be turbid. This experiment demonstrated both the utility of the method of drainage suggested and the method by which abdominal wounds become infected through the evacuating syringe, even when the greatest possible care is taken with the dressing.

By a recent device (Fig. 2) I have been able to simplify the arrangement above described. The device consists of a plug embodying the two-way principle above described, and which can be fitted to any drainage tube of sufficient size. The device is fitted to the medium-size aluminum tube, the bore of which is made smooth and true at the upper end so as to make an air-tight connexion with the plug. Filtration of the air is effected by connecting with the lateral opening of the plug a small funnel filled with absorbent cotton and covered with sheet lint. It is better, of course, to have drainage-tubes of the exact size required to fit the plug, but in case a larger tube is used, or one which is not perfectly true, the plug can be made to fit by simply stretching over it a bit of rubber tubing, or by winding around it a strip of rubber dam.

In the employment of this drainage-tube most scrupulous attention must, of course, be given to asepsis in the dressing and care of the wound, so that infection may not occur from any other source, and the plug and rubber tubes connected with it must be kept thoroughly aseptic. In the intervals between use, the plug and connecting tubes must be kept submerged in a ten-per-cent solution of carbolic acid, being rinsed in distilled water just before using. The wound should be dressed with iodoform gauze, or, as I prefer, with gauze made of a powder consisting of the following mixture:

Camphor and Carbolic acid, a 1 part.
Boracic acid, 12-16 parts.

This powder answers well the purpose of an intestinal antiseptic, being free from any unpleasant odour and the frequently resulting erythema and other inconveniences of iodoform.

Complicated as this description may seem the device itself is so simple that no more time is taken and no more difficulty is experienced in its use than in the use of the ordinary evacuating syringe, and one may feel, in its employment, absolutely sure that the abdominal cavity is being kept free from infection, providing, of course, that other necessary precautions are taken.

The device which I have described is a most convenient means for washing out the abdominal cavity when this is necessary, as it occasionally is, subsequent to closure at the operation. For this purpose it is only necessary to remove the filtering funnel by disconnecting it from the plug to which the funnel is attached, substituting a tube of proper length, the other end of which is made to dip into a solution of boric acid, or whatever antiseptic solution may be employed. It is, of course, necessary to fill the tube with water before connecting it with the plug, so that any unsterilized air which the tube might contain will not be drawn into the abdominal cavity.
To persons familiar with bacteriological manipulations it will at once appear that the whole principle involved in this drainage-tube is simply that concerned in the handing of aseptic fluids in bacteriological manipulations. The plug, as well as the aluminum drainage-tube to which it is fitted, is made by Wm. H. Armstrong & Co., of Indianapolis, Ind.

A NEW MOUTH GAG.
By Louis Bors, M.D., Budapest, Hungary.

The advantages derived from this instrument are the following:

1. The gag can be placed in the mouth without the use of a spoon.
2. The mouth is under the full control of the operator, who can open or close it at will.
3. The gag is self-retaining, and therefore no assistant is needed.
4. It can be taken apart quickly and easily, and can therefore be thoroughly disinfected.

The instrument is composed of two steel plates, A B, A B; two connecting rods with two round plates, C, C; and a spiral spring between the two plates, around the upright (thicker) rod. The gag can be used on either side, but must be turned over.

It is manipulated as follows: The thumb and forefinger of each hand are pressed on the plates A A and B B, thus closing the instrument, which is then ready for introduction. It can then be forced between the teeth, when, by pressure on the round plates, C C, the mouth can be opened at the will of the operator. On the upper round plate is a screw, D, which regulates the opening of the plates A A. The rubber band E, which is fastened at B B, can now be drawn over the ear. The more the patient bites on the plates A A, the firmer will the gag maintain its position.

The instrument is made by the well-known firm of Tiemann & Co.
"The medical work is the divinely appointed substitute for miracles.

"There is a sense, of course, in which we may use the word miracle with reference to all missionary work. The changes which have come through the Gospel in the course of its wide proclamation are sometimes considered miraculous. As the exponent of the work of the Holy Spirit they are indeed marvellous. But these changes are the natural and determined results of the unfolding of God's grace to men. I do not consider it legitimate to call them miraculous. On the other hand, the medical appeal is to the same pitiful need of men. It is so direct and immediate that the dullest can appreciate and rejoice in it. The appeal is personal, and carries with it, as did the early miracles, its own demonstration, which neither the recipients of the aid nor their friends desire to gainsay, if they are able to.

"(1.) The medical work is a fitting substitute for miracle in the range of its influence. 'The multitudes' are aroused by it. In our own station during the ten years or twelve since medical work has been carried on we have reached directly and personally 100,000 persons. The direct influence is beyond our ability to estimate. In China alone there have been reached annually now for many years a multitude approaching half a million each year.

"The first recorded miracle of the Saviour, which was a work of healing, was wrought upon the son of a nobleman. The first raising of the dead was the ruler's daughter. 'And the fame thereof went abroad into all the land.' The most immovable class was thus affected, as well as the 'multitude,' who always received and heard gladly. The work of the medical missionary has had a like fame, sudden and widespread. At Tientsin, within a stone's throw from our own mission compound, three great hospitals are carrying on their beneficent work. The first was established in 1880, for men, in the grounds of the London Mission, a splendid building upon the busy thoroughfare bearing a constant testimony to the messages of the Gospel. The second is upon the other side of the same street, a few hundred yards away, established for women and children. The third is nearly opposite the original one, with its noble front upon the same street. Close beside these a fourth is in quiet operation, and adjoining the third one mentioned there are now being erected a vast series of buildings, for the purpose of equipping the Chinese army and navy with
suitably educated and furnished medical men. This remarkable series of
donnevences has sprung from the partial healing by missionary physicians,
one a man and the other a woman, of the wife of a nobleman. A Christian
native physician has been for many months the chief reliance of the imperial
court at Peking, when serious and alarming disease has attacked the members
of the imperial family.

"(2.) The medical work is the fitting substitute for miracle in the self-
conscious ability of the physician to give the needed relief. I once attended,
with another member of the profession, an old gentleman who had accumulat-
ed very large wealth, and was duly respected for his great business capacity
and general ability. No man in this generation has been more respected in
that community than he. He had a hopeless disease. He had called in no
less than 100 native doctors. A single examination showed the source of the
trouble. Surgical relief could give a temporary respite from pain and
death. The confidence with which the advice was given was marvellous to
those whose dependence had always been conjecture in place of clear and
exact knowledge.

"(3.) The medical work is the substitute for miracle in the marvellous
relief or cure which is effected through either surgical or medical skill. Our
native helpers, after seeing the many interesting cases which come to the
hospital go away with very great improvement, say in a humorous way:
'The deaf hear, the lame walk, the blind see.' They cannot say, 'The lepers
are cleansed, and the dead are raised.' But every other form of malady and
ill may be successfully reached. Nothing appeals more directly to sense of
wonder and grateful acknowledgment of ability than the cure of the apparently
hopelessly blind. We have a good woman who acts as the very efficient ma-
tron of our hospital. It is now some four years since she came some hundred
miles or more, a poor blind beggar, led by a little son. She was in good
estate as an inn-keeper until she became blind from cataract. Hearing of the
work, and dragging herself painfully along till she reached us, she sought for
the help the fame of which had reached her. The eyes were duly operated
on. One was gone too far for help; but the other was easily cured by the
operation and care. The marvellous result was enough to give an increasing
fame to the hospital work in the region she came from. The cases where both
eyes are thus enlightened and healed are very numerous now. The splendid
courage of the man who in absolute confidence begotten of superior knowledge
cuts off a man's leg to save his life, and who returns the patient to his friends
healed and strong, makes a tremendous impression upon an ignorant and
suspicous people. When such serene confidence is repeated unceasingly
through a series of years, through a multitude of appalling cases of di-
sease, the appeal is closely allied to that appeal which the Saviour made in His
marvellous works of touching and healing. The Chinese are forward in admitting the skill and power of Western physicians. They catch men. But the fish generally just nibble at the bait and pass on. They know that it tastes good, but that is all. But what can the single-handed medical missionary with his overwhelming work, do more than this?

"Our patients, as patients, are not always very easy to deal with on account of their crass ignorance and superstition. A man came to me with an inflamed knee joint. I arranged a splint for it, did everything else that I could think of, and hoped for a brilliant result. But, when I went next morning into the ward, lo and behold! my man's bed was empty. 'Where is he.' 'Gone away.' 'Why is that?' 'He sent to the idol temple to make enquiries, and found that his stay here would be unlucky and displeasing to the gods, so he went.' One form of making enquiry is to take two wooden blocks and let them fall. According to the way in which they fall, the answer is 'Yes' or 'No.'

"A little old woman came to me one day who did not present a very pleasing appearance. Her eye was swollen up. I wondered whether her eyeball was injured, and did what I could temporarily, pending a fuller examination. Meanwhile my wife gave her a cup of tea and some bread and butter, all of which she disposed of, though she had never seen bread and butter before, or had milk and sugar in her tea. The visit over, she went away and told the neighbours, 'They gave me medicine at the dispensary to make my head dizzy, and then the foreign teacher took my eye out.' The next day she came back to us, this time with her brother, a barber, who was greatly enraged with us for having excised his sister's eye. The swelling having by this time somewhat abated, I was able to open the eyelids and show the brother that the eye was there all right enough, whereupon the old lady went back to her neighbours and informed them, 'My brother went with me to the foreign teacher and threatened him, and frightened him so much that he put my eye back again.'

"The Fuh-ning Hospital was once a tea warehouse. It has a courtyard with wooden pillars covered with crimson scrolls. On one the Ten Commandments are written, on another is the Lord's Prayer. A platform is placed here, and here also are some bamboo chairs. All looks very nice and bright; and, indeed, rather gorgeous; and this is our Church. This is the rest-house, too, where people turn in and put down their burdens for awhile, drink tea and listen to whatever the catechist has to say. For a catechist is always to be found in that courtyard, preaching the Gospel and talking with those who want to know more of the doctrine. 'Tell us as simply as you can,' the people will say, 'for we are very ignorant and know nothing.'

"Our wards open off this courtyard. Very simply arranged and furnished they are, with tiled floors, trestles for beds and lumps of firewood for
pillows. But it is the best that we can do, and the people are satisfied. I have six students whom I train. They help me in the hospital and go on to the charge of branch dispensaries, under my superintendence, outside.

"A gong sounds at six, and patients throng to the dispensary, each of them carrying a little bowl. This is for their physic. We have to take care only to give them a dose at a time, or they would drink it all up at once. They are excellent takers of medicine. Castor oil is swallowed to the last drop without a wry face, and pills they will eat if you do not look after them. Amongst the crowd as the morning went on, you may see a well-dressed student, dressing some loathsome ulcer. Three or four years ago this student shrank sensitively from everything that was repulsive; but one day he changed to read about our Lord washing His disciples' feet, and from that day no service has been too mean for him to perform for any one of the patients. The ulcer cases he has made his special charge; so much so, that I have to take him off them at times and give them to a junior student; for he is now one of our seniors. There are as good Christians amongst my students as there are in this hall. It is well worth all the trouble it has given me to have had the joy of training such men. It is well worth your while, any of you Christian parents who may be here, to train up your children to such work—to set medical missions before your boys and girls, and to put them in the way of preparing for the service. We must have missionary parents if we are to hope to have missionary children.

"You spend a great deal of time in doctoring," say some who think that preaching is the great thing for the heathen world, and that doctoring is secular, or at best but a means to an end. We reply, 'So did Christ.' A servant is not greater than His Lord, and our Lord spent a great deal of time in doctoring. His every act of healing being an outward expression of His Divine Compassion for souls. Deeds speak to the heart sometimes as much as words, and one word often as much as a set conversation, and we are not left without seeing the fruit of our labours. 'We have heard of God,' a patient will say, 'now teach us to pray to Him.' Oh the opportunities that are thus afforded the medical missionary amongst the hundreds and thousands with whom he has to deal! 'The harvest truly is plenteous!' That would be a matter for satisfaction if, ah, if the labourers were many. 'Pray ye, therefore, the Lord of the harvest, that He would send forth labourers into His harvest.'"

—"Medical Missions at Home and Abroad."
IN THE WOMAN'S WARD.

Miss Morrill reports an excellent work going forward in connexion with Dr. Noble's dispensary at Pao-ting-fu. Several instances are narrated, showing how prejudices are overcome and permanent impressions have been made through this medical work. Miss Morrill says:

"The woman's waiting-room is just crowded these days, and I have some very pleasant times with the women. The other day an old woman, after listening quite earnestly, said: 'I am seventy-one years old. Does all my incense-burning count for nothing?' I said: 'Yes; those are men's ways, but the Lord wants you to learn His ways.' She watched me keenly, and again burst out with 'Who told you to come here and tell us these things?' I answered her, and then said: 'Has not Buddha told you to find some other woman and bring her to his temple?' 'He is only an image!' she answered quickly; 'a mud thing! How could he?' 'Your god must be alive!'"

A. B. M. Report.

NORTH CHINA MISSION.

Dr. Peck, of Pang-chuang, sends an account of some good results secured through the use of his "Kodak" among the Chinese:

"I find it a great wonder and interest to the Chinese. Upon the breaking up of our schools here, before the Chinese New Year, I presented a nicely mounted picture of their schoolmates to each boy and girl; these, carried into the various villages where their homes are, were the object of a great deal more wonder and curiosity than you could imagine such simple things could be. Especially was this the case with the group of Miss Wyckoff's schoolgirls, all of whom have unbound feet. This innovation when only supported by, perhaps, one example in a village, becomes much more impressive when a group of twenty or thirty of them are shown together.

"I had a very entertaining talk with one of our good Christian men from a village twenty miles away the other day. He had a daughter here in school, and when he took her home and had this picture to show he had crowds of visitors. His is the only Christian family in the village of 1,200 families—an unusually large one; and heretofore they all have held aloof, each one afraid to break the ice and even make inquiry about this new way.
But now the attraction was irresistible, and every day he had a crowd of visitors, and their numbers gave them courage. The women were decorously put in the rooms and the men kept in the courtyard, and the wonders of the simple photographs were never exhausted. 'How is it possible to put so many pictures on to the paper and have each one a perfect likeness?' The father had to describe graphically how it was done; but what delighted him most was that it was an introduction to the presentation of the Gospel story. Taking his stand in the doorway so that the women on the inside and the men on the outside could all hear, he would talk for hours on a stretch, and so great was the interest that if a child cried in the room the mother would be told to hush it up quick, as they could not hear the speaker; and if a man or boy made a noise moving about or going out, he would be reprimanded by the crowd. No opposition was manifested, and the good fellow came back to Dr. Porter's station class perfectly radiant and hardly able to speak aloud."—A. B. M. Report.

In the last number of Woman's Work in the Far East Mrs. Joseland has a short article on Dr. Fahmy's new hospital at Chiang-chiu. We extract the following: "The greater number of our patients are heathen, who have never heard the name of Jesus. Sometimes we come across an especially bright woman, who has to come for several weeks in succession, and we are able to interest her and make her long to hear more of the Saviour. I remember a case last year of a woman who came bringing her little girl, who was suffering from dropsy. She was obliged to come several weeks in succession, and seemed glad to hear all we had to tell her. She was visited in her home, and has now been to one of our mission chapels several times . . . One little girl about five years' old, suffering from hip-disease caused by a blow from her own mother, was lying on her back more than five weeks. We gave her bright pictures and taught her some little hymns . . . . Our Churches gain much from the work of the hospitals, and without it hundreds would never hear the name of Jesus, or know of a Saviour who died for them. This year we have a matron, who lives in the hospital. She is a good, earnest Christian woman, and we hope will do much to help her poor suffering sisters."

We have been favoured with a private copy of the Report of Dr. Peck's work at the Williams' Hospital, Pang-chuang, of the A. B. C. F. M. The writing of this Report, which is so interesting that we cannot but regret that Dr. Peck does not more frequently contribute to our columns, must have entailed much trouble for "not having a complete mimeograph at hand, the stencils for this work were made by writing with a style on sand paper." We wish the doctor
had told us more of the evangelistic work and its results, but the following is interesting: "This curtailment of our work at the station we have tried to balance by extension of itinerant medical work on a larger scale than we have hitherto attempted; two of our trained assistants have been sent, as they could be spared from the hospital, to various of our out-stations with medicines and a few surgical instruments for the performance of simple operations; the statistics of those thus treated are incorporated in the general tables. Professionally there is much about this kind of practice that is unsatisfactory, but it is doing the best we can for the people. Preaching and healing have gone together in these missions to out-stations as they do in our hospital waiting room, but these without the presence of a foreigner, and a general note of enthusiasm has come from places when this double work has been done.

So many have been attracted to listen with interest to the Gospel message that we plan to keep as many of our hospital staff as can be spared in this itinerating work, especially at such seasons as patients are fewer in the hospital."

Speaking of the Red Cross Society, which Dr. Peck suggested we should ally ourselves with, he writes:—

"The events of this war, then unforeseen, have emphasized the need in China of a Red Cross Society. If it is not feasible for our medical missionary society to stand in any official or auxiliary relation to the International Society of the Red Cross, each of the hundred or more mission hospitals in China will still uphold in its vicinage its own standard of the Cross, trusting that, if it be in the divine providence that this nation remain a united people, our efforts may be hastening the day of its regeneration."

The following, though not strictly evangelistic, very powerfully illustrates the degraded superstitions of this people, opens up a vista of the power of evil and emphasizes the need for the Gospel of Liberty.

"Of the curiosities of native practice will note but one case, a very chronic and inveterate psoriasis in a man of middle age, doctored for years without benefit, at last told by a priest, who was also a doctor, that he could not be cured unless some one would consent to die for him; the matter was presented to the family, but no one came forward with any alacrity; the general sentiment seemed to be that he could be spared himself as well as anyone. Priest at last suggested that a beast might do as a vicarious sacrifice. So a donkey was killed, and the man, stripped naked, was wrapped with ceremony in the fresh hide. But as he ruefully said when he came to me, he only lost a good donkey for nothing."

From the Wesleyan Mission Hospital at Hankow we have two items of cheering news. A brother had been disciplined for over twelve months for
having a pai-wei put up in his house, and refusing to take it down. The opposer was his son. A few days ago, on the visit of the pastor, the man expressed penitence, and as practical proof pulled down the shrine, singing the doxology to God. The explanation is that the said son had been in the Hankow hospital and come under the influence of the Gospel; he stood by whilst the destruction went on, and concurred in it. In another case a scholar, and a censor of his village, had been bitterly opposed to our work. Not long ago, in a quarrel with another man, he received a severe bite on one of his thumbs. His friends, who were members of the Church, brought him after some long interval to the Hankow Hospital, where it was necessary to amputate the digit. He was for some time an inmate of the Hospital, was faithfully dealt with as to his soul, and has so far come near the kingdom that the other day he invited the foreign pastor to a feast in his house and joined in prayer at its close. We pray that this lion may become a lamb, and the persecutor a preacher of the Cross.
How rarely does one find a European writer who has no personal acquaintance with China, or the Chinese language, giving anything like an accurate estimate of Chinese ideas on religion or any other subject. It is hardly possible to read a leading article, or even a paragraph of news from China, in a home paper without noting some more or less ludicrous error concerning things Chinese. Not a few writers who refer to Chinese ethics speak as if the Sermon on the Mount was almost a superfluous addition to the Four Books; yet others seem to think that the Chinese sages have said nothing worthy of being classed as ethical. One of the choicest Hulsean Essays—that which won the prize in 1869 and was published under the title of "The Light of the World" by A. S. Wilkins—had for its subject "The Distinctive Features of Christian as compared with Pagan Ethics;" it devotes one page out of two hundred to China, and remarks that "it will perhaps be enough to dismiss the subject [of Chinese Ethics] with two quotations." One of these is from the Westminster Review, announcing that "the precepts of Confucius are perfectly childish in comparison of Greek ethics," and the other is from a German work on Christian Ethics, which attributes the gloomy severity of the Chinese (!) to their "petrified morality."

It is positively refreshing to turn from such writers to one who stands out as an exception to the general rule—the present Bishop of Durham, Dr. Westcott. In quite a number of his works there is some interesting reference to, or apt quotation from, the Chinese Classics or the Tao-teh-king. He has quite recently given two very able critiques of the Confucian and Taoist writings—one in the article which he contributed to the Cambridge "Companion," the other in "The Gospel of Life." Chapter 5 of this latter book is entitled "Prae-Christian Gentile Solutions of the Problems of Being." It divides the "praef-Christian Book-religions" into three main divisions, viz., (i) The Religions of China, (ii) Religions of India, (iii) Zoroastrianism. The following is the author's own summary of the first of these three:

"(i) The Religions of China.

(a.) The Primitive Religion.

Imperial worship and worship of ancestors.

(b.) Taoism.

Conceptions of Tāo.

Corruption of Taoism.

(c.) Confucianism.

Foundation of Confucianism.

Filial Piety.

Relation to Old Religion."
Retribution on Earth.

Strength and Weakness of Confucianism.

Importance of the Primitive Religion of China.”

*Order* is the stamp impressed on the Chinese religions (nature on the Aryan and history on the Shemitic). “With Lao-tzu the order—the ‘way’ Tao—pointed to absolute repose . . . with Confucius the visible order was the one sufficient sphere of the citizen’s activity . . . In both cases the order which the teacher aimed at realising was something sovereign over the mutability of physical nature and life. Both teachers again regarded the earth as the one scene of human interest. Both wished for a return to the old paths. Both found their golden age in the past. Evil without and within was treated by them as something transitory and removable. Neither looked to any future existence as an occasion for just retribution; nor do they offer any direct doctrine on another state . . .

(a.) All that is properly speaking theological in the national Chinese religion is older than [Confucius and Lao-tzu]; this primitive religion . . . has no priesthood, no mythology. The sacrifices which are offered represent dependence on the power to which they are made and gratitude for protection, but they include no thought of expiation or propitiation; and no essentially evil powers whose malevolence needs to be averted are recognised in this earlier faith. A fellowship between heaven and earth is established through the spirits of the departed, which are placed in close connexion with the celestial hosts in the most solemn acts of worship.”

Two ceremonial institutions based upon these early beliefs, “the imperial worship of Shang-ti and the general worship of ancestors, present most impressively, and as it were under the form of a primeval tradition, two conceptions which as yet we have not mastered in their Christian fulfilment, the solidarity and the continuity of the race. The Chinese are commonly held to be a prosaic people. They have at least preserved in these national customs a vivid expression of the most far-reaching fellowship of men in the present and through all time. In the one the nation is gathered up and finds unity in its head, and so appears before its unseen Lord: in the other the family is realised as one through all the stages of succession; and few thoughts are grander than that which holds that the achievements of a great man extend the privileges of his nobility to his ancestors (comp. Luke i, 72). It is no doubt true that the practical effects of these venerable observances fall far below their true conception . . . Still the institutions themselves have a meaning for us. They come to us as a message from a patriarchal age, declaring what man reaches out to and what by himself he cannot obtain. As we look on them with true human sympathy we seem to see a dim shadow of Melchizedek moving among his people.”

Of Taoism he says: "Such a system [as that contained in the Tao-teh-king] contained no Gospel for the poor . . . at present Taoism is in China the most debased type of religion." "The book of rewards and punishments, a collection of moral aphorisms of great beauty, is said to be at present the most popular religious book in China."

(c.) Confucianism. "The system of Confucius is the most complete expression of the national character. Confucius is the only statesman who has fashioned a 'religion'; and he sought it in the establishment of an earthly order. He declined to entertain the questions, Whence? whither?"

With regard to the "Lâ-ki" Dr. Westcott says: "It is easy to disparage the observances as simply formal and external, but they witness to the intimate relation of the outward to the inward, and foreshadow in some sense the sacramental aspects of the world and life which Christianity has revealed." Analects xvii, 11, is quoted to show that Confucius looked beyond the impressions of sense.

"The history of China is the best comment on the strength and on the weakness of this most wonderful system of secularism leavened by the remains of a patriarchal faith. The empire has been at once the most lasting in the world and the most unprogressive. It has been lasting because it was the resolute expression of faith in a supreme and beneficent order . . . It has been unprogressive because Confucianism obscured the fact of sin and substituted a morality for a theology, rules for a divine fellowship, obedience to a code for devotion to a living Lord, teaching for a Teacher—as many at the present day seem to believe that the Sermon on the Mount can take the place of the Risen Christ—and adopted a type of order which was earthly and human, of the world and not above it. In China we see realised the effects of an absolute law, obeyed apart from reference to an absolute Law-giver, of a personal moral discipline ruled by the motive of self-regarding culture and not of self-sacrifice. China has been able to conquer its conquerors, but not to inspire them; to make them like itself, but not to call out the fulness of their life. The Chinese became what we may suppose the Jews would have become, if the covenant with Abraham had not underlain the Law."

"But not to close with the sad side of the picture, we may remember . . . that Confucius acknowledged the relation of Fatherhood as the basis of human

[* N. B.—The "k" is an italicised one in the original].
life. So far he was on the way to hear the fulness of the divine message to humanity . . . We can see that the revelation of a true Divine Father in the Mission of Christ completes what he began, and that his view of society illustrates the doctrine of the Fatherhood of God and of the brotherhood of man . . . There is nothing which gave strength to China which does not find a fitting place in the Apostolic doctrine, while the Christian Faith guards against the evils which weakened the Empire."

G. G. W.
Dr. The Medical Missionary Association of China in Account with the Treasurer of the same. Cr.

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By collected for 1895 77.00

Subscriptions, 6 months to date ... 391.06

Less commission 5 % ... 26.40

Less commission 10 % ... 1.25

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(Signed) W. E. MACKLIN, M.D., Treasurer.
Correspondence.

LONDON MISSION,
Hongkong, 1st Nov., 1895.

DEAR DR. HODGE:

My tenure of the office of Secretary of the China Medical Missionary Association is so much of a burlesque that I have decided to resign it.

All my efforts to obtain a copy of the Journal containing the constitution and rules have failed, and without a complete set of the "Journal" I cannot even render the small service of making out a roll, which you suggested would be advisable.

Anything pertaining to the office, moreover, such as notices, etc., must inevitably pass through the editor's hands, and it seems to me that it would not in the slightest increase the responsibility or work of the latter, as things are at present, to conjoin the offices. I would suggest that either this should be done, or that someone in your immediate neighbourhood should be appointed, with whom it might be possible for you to consult, and who might be of some practical assistance to you.

Work I do not shirk, and I shall at any time be willing to render you what help may be in my power, but I must ask you to announce my resignation of an office which, at this distance from the editor, I feel to be so much worse than a sinecure.

I shall return by parcel post at the same time as this letter the books and papers you forwarded to me.

With kind regards,

I am,

Yours very truly,

JOHN C. THOMSON.

[Dr. Thomson is in error in some of his statements; whatever it may seem to him it certainly would increase both the responsibility and work of the editor to conjoin the offices: we speak with some considerable knowledge of both posts.—Ed.]

DO THE NINETEENTH CENTURY MEDICAL MISSIONS FULFILL THE NEW TESTAMENT IDEAL?

To the Editor of "THE MEDICAL MISSIONARY JOURNAL."

DEAR DR. HODGE:

Many I am sure have felt disappointed that the interesting paper by the Rev. D. Hill (published in the June number) has not been discussed by any one in the September number. Mr. Hill asks a question which every medical missionary must feel to be a very practical and a very important one; and although nowhere in his paper does Mr. Hill say in so many words, "No, the nineteenth century medical missions do not fulfill the New Testament ideal," yet one cannot help feeling that this is the conclusion to which he is unwillingly forced—our medical missions are not on New Testament lines. If this be really so then so much the worse for nineteenth century medical missions, and for us who are medical missionaries. Mr. Hill compares and contrasts the medical missions of the first century with those of the nineteenth under three heads—methods, object and results.

I. Taking first the methods. Here there can be no question; our methods are not the same. But are they therefore necessarily less divine? I do not think so. The Christian doctor, to my mind, is as truly a servant of
the most high, as the prophets and apostles were of old; his Master is
the Great Physician, and the symptoms and signs of ordinary language are to
him the whispers of the Great Teacher. These he sometimes catches, some-
times hears but faintly, and at other times misses altogether. We are
skilful physicians just in proportion to the extent to which we are able to
hear and carry out God's commands. When we take charge of a case it is
true we take hold of the helm, but
our Captain is on the bridge and our
eyes are towards Him. That this
method is abused, and that often we
give not God the glory is no argu-
ment against the method. Under
this heading I only wish to point out
that the healing is as much Divine
healing in the present day as it was
in New Testament times. As to the
impression produced that will come
under another heading.

II. The object. These acts of heal-
ing were meant to be a revelation, “a
revelation of the wisdom, the love and
the power of God.” That is certainly
the aim every medical missionary
ought to have in view, and is, I be-
lieve, the aim of all medical mission-
aries, however short we may sometimes
fall below it. Our object is not to de-
monstrate the superiority of Western
science, and the idea of dazzling on-
lookers by our surgical ability has pro-
bably never entered the heads of the
majority of medical missionaries.
Once only have I heard of an opera-
tion done before a company of man-
darins, who had been invited to be
present, and the idea is so repugnant
to the ordinary surgeon, savouring so
much of the advertising quack, that I
believe it will be a long time before I
hear of another display of the same
kind. In that single instance it was
done by a surgeon, whose name stands
high on the list of medical mission-
aries, and it must have been from a
strong sense of the importance of in-
fluencing those mandarins in favour
of something higher than Western
science that led him to depart so far
from the usual custom of medical
men.

III. To come now to the third
point—results. Were the New Testa-
ment acts of healing better adapted to
reveal the wisdom, the power and the
love of God than the acts of heal-
ing of present day medical mission-
aries? In other words, was the effect
on the minds of the Jews and Gentiles
of the first century so much more
spiritual than the effect on the minds
of the Chinese or any other non-
Christian nation of the present day?
At first sight there seems to be only
one answer. Certainly there can be
no question about it. But on more
closely examining the subject I doubt
if we can affirm this so unhesitatingly.
Let us take the Lystran miracle.
The people saw a wonderful cure
performed; they regarded the persons
who performed this wonderful cure
as gods, and would have worshipped
them. A little later their minds
having been poisoned by lying reports
they stoned the chief actor and drew
him out of the city, supposing him to
be dead. Is not this very much
the same kind of effect we sometimes
see produced in China when a new
city has been opened up by medical
work. The priceless value of the
miracle as a direct revelation to the
Lyconians of God's power, wisdom and
love, is not apparent on the surface,
for they seem to have only been able
to see the human instruments, whom
they first treated as gods and then as
impostors, and this in spite of Paul's
clear declaration as to who they were
and what their work was. I am now
speaking of the impression made on
the people generally, and I am not
forgetting that there must have been
some who saw with other eyes, and
who understood and believed Paul's
words, and this in spite of Paul's
clear declaration as to who they were
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Correspondence.

of God and who give God the glory. I will just give one instance, which I do with all the more pleasure, inasmuch as the case occurred in connexion with the mission of which Mr. Hill is the beloved superintendent. A Chinese gentleman, who had been a District Magistrate and had also served as an officer in the Franco-Chinese war, came to the Wesleyan Mission to be cured of the opium habit. He was about to return to his father's home in Szchuen, but he did not dare to cross the threshold of his father's house as long as he was an opium smoker. He had been smoking for over twenty years, and although lately he had made more than one attempt to break off, he had not been able to do so. The minister in charge of the station told him that while the doctor could help him by giving medicine, there were two things more important than medicine. In the first place he must be in earnest about the matter, and secondly and more important still he must seek help from God. That evening the minister and the doctor visited Mr. S. in his Kung-kwan. After the customary cups of tea had been brought in, Mr. S. called a servant and told him to bring his opium pipe and a cleaver. When he had brought these, the servant was told to split the pipe up, which he did, after hesitating and looking longingly at the pipe several times, probably making a mental calculation as to how much he could sell it for. Then the three stood around a table, and the minister prayed that God would give Mr. S. the needed strength to break the chain which had bound him for so many years, and Mr. S.'s hearty yes, yes, after each sentence, made those who listened feel that his heart was in the prayer. For ten days he suffered from great weakness, and for two or three days he could scarcely stand. His wife and two daughters seeing his distress urged him to take just a little opium, but he was kept firm, and on the tenth day the victory was won. When he listened to the preaching and was told his state before God, he was greatly offended, but before the week was over he felt that the minister's words were true. By and bye he came to see that he must choose between official life and Christ, and he chose Christ. Whether he has kept to his decision or not I do not know, as he has not been heard from since he left for Szchuen. Just before he started to visit his father he gave ten dollars to the Church. He was asked if half of this sum was not intended for the doctor. No, he replied, I want to thank God now. I will thank the doctor when I return from Szchuen. Here then is at least one case where potent medicines were used, and where watchful care was necessary for days, but Mr. S.'s reply is sufficient to show that these were not the things he saw, but God who was above and in it all. I do not say that this is a typical case; ten were cured, and we cannot say anything like this about the nine, but so it was also in our Saviour's time.

Skillful treatment of disease, the use of potent drugs, watchful care for days and weeks, need not hide one ray of divine glory. Nay more I verily believe that the opportunities for revealing God's wisdom and love are greater in curing a cripple to-day than they were when Paul miraculously healed the cripple at Lystra. For one thing the people see that what we give costs us something, and that it seems to me is a distinct advantage. The Lyconians saw the cripple cured by a word, a word which apparently cost nobody anything. True there is the same tendency now-a-days to give the glory to the human instrument, but we can and ought to meet that just as Paul met it.

We must all feel deeply indebted to Mr. Hill for turning our attention to this subject and for reminding us of the high ideal set before us in the New Testament, but to say that present day medical missions are on an
altogether different plane from those of the first century, is surely not the best way to help us to realize that high ideal.

Let us believe that our medical missions are on the same spiritual plane as those of the first century, and though our methods are different our aim is the same, and our methods are calculated to produce the same results.

**I am, etc.,** M. B.

PHILANDER SMITH'S MEMORIAL HOSPITAL,
Nanking, Nov. 28th, 1895.

**DEAR DR. HODGE:**

Please allow me to make a suggestion through the Journal on the subject of Medical Education. When we look over the list of medical missionaries in China and consider that nearly all of these, besides their regular work, are teaching medical students, each having a class numbering from one to a dozen or even more, we realize that the foreign trained native practitioner is an element worthy of our most thoughtful consideration.

Already these young medicos are flitting from their nests and finding homes outside the fields where they were fledged. They carry with them a recommendation, or certificate of proficiency, or perhaps a diploma, from the physician or hospital or school that gave them a training. In the mind of the medical missionary to whom they come, however, there is a wondering query as to their real proficiency. To be sure a young man's teacher may be a very well qualified man and have a wide reputation for success in his profession yet we know that among good men there is a wide difference of view as to what is essential and what is non-essential, and that there is a great difference in attention to details and the standard for attainment. In short we have no standard by which we can estimate the young man's ability. We must learn by experience.

Now I recognize that this, under any circumstances, must be, to a certain extent, unavoidable, but if all were required to pass before a Board of Examiners, in a known course of study, one element of uncertainty would be removed. And this brings me to my suggestion. The Medical Missionary Association should arrange a course of study for medical students, fix the standard of requirements and appoint a Board of Examiners, who would meet once a year at some central point and examine all applicants for its diploma. The advantages accruing to the profession and to the students themselves are obvious. A diploma issued from such source would be of great value to its possessor, for it would give a professional standing to one who had proved able to secure it. The plan would raise the standard and promote uniformity of medical education. It would give an incentive to every medical student to do his best and give him an opportunity to secure the best and most practical recognition of his merits. What think you? Is not the scheme practicable?

**Very sincerely yours,**

ROBERT BEEBE.
DEAR DOCTOR BOONE:

Herewith I send you a classified list of the Pathological Specimens in the Museum.

The two or three Physiological Specimens I hardly thought worth mentioning. This is the best classification I can make with the information at hand, and whilst it may not be very scientific I trust it will be serviceable. Will you make such additions to the article as you deem best, and send same to the proper parties? Very truly yours,

WM. L. LUDLOW.

Monday evening, Nov. 25th, 1895.

LIST OF PATHOLOGICAL SPECIMENS PREPARED BY THE LATE DR. R. A. JAMIESON, PURCHASED FOR THE MEDICAL MISSIONARY ASSOCIATION MUSEUM.

PATHOLOGICAL.

Pulmonary:—
Tuberculosis, General.
Phthisis, Chronic.
Abscess (Tubercular).
Phthisis, General.
Abscess, Metastatic, from Acute Dysentery.

Hepatic and Renal:—
4 specimens of Abscess, Hepatic, resulting from Dysentery.
Bright's, Chronic, Liver and Kidney.
Alcoholism, Liver and Kidney.
Granular Contracting Kidney.
Hepatic Cancer.
Kidney, Cystic Degeneration from Enteric Fever.

Vascular:—
Aneurism, Aorta (Abdom.) 15 years' standing.
Aneurism, Aorta (Thoracic).
Aneurism of Heart, showing dilatation of Inter-auricular Septum.
Calcification of Aortic Valve.

Gastric and Intestinal:—
6 specimens of Diseased Mucous Membrane from various parts of Intestinal Canal, resulting from Enteric Fever.
3 of Dysentery, showing condition of Ileo Cæcal Valve.
2 Cancer of Pylorus.
2 Cholera.
Stricture Descending Colon.

Tumours:—
Sarcoma (Humerus.
' Periosteal and Endosteal.
' Syphilitic.
' Parotid.
' Melanotic (Primary).
Lymphoma of Neck.
Cystoma of Lower Jaw.
Fibroma of Ulnar Side of Hand.
Carcinoma of Prepuce.
' Male Breast.
' Floor of Mouth.
' Lower Jaw.
3 (Scirrhous) Breast.
Cystic, Multilocular.
2 Epithelioma of Penis.
Lipoma, Left Spermatic Cord.
Adenoma, Breast.
Epithelioma, Lower End Rectum.

Genito-Urinary:—
Bladder, showing effects of strong Argentic Nitrate injections for Cystitis.
Clitoris, Hypertrophy of.
Scrotum, Elephantiasis.
Ovaries (Pyo-salpinx.

Medical Missionary Association Museum.
The following graduation address at the University of Pennsylvania has been forwarded to us. The writer is a missionary volunteer. We trust there are many others like him. There are one or two slight inaccuracies, such as, "wherever new stations are to be occupied the medical missionary must (sic) lead the way," and the subject of the address is but lightly touched on in this short paper. It, however, so rings with the true missionary note that we are glad to publish it for an encouragement to ourselves, to remind us of many in the profession at home who are preparing to spend and be spent in this blessed service.

The True Dignity of the Medical Profession.

In the medical profession in the United States there are at present about one hundred thousand practitioners. Some have entered the ranks in a mad chase after the almighty dollar; some would gain the applause of men for skill in medicine and surgery, or for bringing to light some important mystery; some, in search for truth, are labouring to advance the cause of medical science; some, whose noble hearts overflow with love, are "moved with compassion" toward helpless and suffering humanity; some who realize that the body is the abiding place and instrument of the mind and soul seek to keep it "swept and garnished;" while still others, through the kindly relief of suffering, aim to swing open the door of the heart to the Great Physician.

To gain great wealth, to have great honour, to advance the cause of science, or to relieve much suffering, may be the happy result of faithful service, but to render the body most useful to the mind and soul, and to lead the soul by means of the body to its Maker, is a prize which shines with more attractive lustre than all others. This is the highest aim; in this consists the true dignity of the medical profession, inasmuch as the soul is greater than the body or mind, and eternal interests are more important than temporal.

There is an extensive and inviting field for the exercise of this motive in the home land, but to the medical missionary, in whom the true dignity of the Christian medical profession finds its most apparent expression, the foreign field is incomparably greater and more fruitful. What then is the mission of the medical missionary? He is both a pioneer and an evangelist. That he is a pioneer is seen in the opening up of the different countries.

Dr. Asahel Grant, armed with his needle and lancet, forced mountain passes in Persia which the sword could never penetrate, winning his way to the homes and hearts of the ferocious Nestorian warriors.

Dr. Mackenzie, with two others, was enabled to raise from a bed of serious illness Lady Li, the wife of his Excellency Li Hung-chang, and as a result the Chinese built and finely equipped a commodious hospital for him in Tientsin and granted perfect freedom to the preaching of the Gospel.

Time forbids us to illustrate further, but this pioneer agency which has proved so valuable in the past is still needed. May we not expect that the "great closed land" of Thibet will be unlocked by the medical missionary? Sixteen hundred and fifty of the two thousand islands of the Pacific have never been entered by missionaries. Remember too the millions of our suffering sisters in the Zenanas.
and harems of the East. Here, it is true, only lady physicians can gain entrance, but by helping hands and kind words they are able to win their hearts and lead them to the One who suffered and died for their salvation. To-day, even in the old missionary fields, wherever new stations are to be occupied the medical missionary must lead the way.

But why has this agency such great power? First, because the medical missionary gains the sympathy of the people by alleviating their suffering. In heathen lands ignorance and prejudice reign supreme. Every householder is at liberty to throw any kind of abominable refuse into the public street before his own door. When epidemics rage they seek to propitiate the evil spirits by organizing gaudy processions, while the germs of the pestilence are breeding in the streets through which they parade. Heathen doctors know nothing of the cause and cure of disease, but attribute all to the influence of spirits. Investigation even is precluded, lest they incur the anger of the gods. Their doctors treat injury with wanton cruelty, resort to charms and to spirits that "peep and mutter," and administer the vilest decoctions. Is it any wonder then that the medical missionary, when he is able to restore some loved one, or to remove great pain and suffering, gains the gratitude of the people?

Not only does the medical missionary gain sympathy, but he also destroys superstition. The people are taught by object lessons the true cause and cure of disease. They come to see the mockery of their own rites and ceremonies, and are ready to accept something better. Thus by gaining sympathy and breaking down superstition the medical missionary is able to do pioneer work.

But he is more than a pioneer. The missionaires themselves are often many miles distant from medical aid, but if a medical missionary is near he is often able to bring joy and peace to their homes, save many days of sickness, and sometimes avert an untimely death. He is thus a power to increase the efficiency of the evangelistic force.

But the medical missionary has a direct evangelistic work to perform. He is to lead his patients by direct personal work to a knowledge of the Saviour. This is his chief aim; all is subordinate to this, and in as far as he has failed in giving this the pre-eminence, just so far has he failed in fulfilling his mission. As he opens the eyes of the blind he must direct them to the Cross; as he relieves others of burdensome tumours he must tell them of relief from heavier burdens; as he comforts others in suffering and heals their diseases he must tell them of Him who is able to carry their sorrows and heal their sin-sick souls.

My brother, my sister, the opportunity is grand! The needs and claims are appalling! Only one medical missionary to every two and one half million of heathen. Four thousand physicians to the same number in this country. But let us always remember that the medical missionary goes to carry the Gospel. To the cry for help that rises with resistless appeal to the Christian heart, from millions of down-trodden, suffering, lost, human souls, there can be but one sufficient answer: "Education cannot compass it; civilization cannot effect it; science says, 'It is not in me'; Philosophy says, 'It is not with me'; History says, 'I have heard the fame thereof with mine ears'; but it is Christ alone who says, "Come unto me".

CHAS. H. LYON,
Wooster, Ohio.

THE RED CROSS HOSPITAL.

When the United Presbyterian missionaries in Manchuria were obliged to leave their stations in the interior, they came to Newchwang, and Dr. Christie soon established a Red Cross Hospital.
at that port. This was in December last, and the hospital was soon filled with soldiers who were wounded at the battle of Chin-chow. Dr. Christie, writing to The Missionary Record of the United Presbyterian Church, speaks of one of the most deplorable features of the war that practically no provision was made for the wounded by the Chinese military authorities; there were neither ambulance corps nor medical officers. This Red Cross Hospital was therefore welcomed as a great boon. Dr. Christie writes: "The news of the opening of our hospital spread rapidly through the army, and the early cases who were discharged cured did much to establish the confidence of the soldiers in foreign treatment. The proportion of wounded who came under our care increased with each battle, and it was very pleasing to observe that after the last serious fight which took place before the Japanese took possession of the port, the Chinese officers in command promptly sent the wounded direct to us." Later on other inns were rented, and in January all the available medical force was employed, four doctors being appointed to each hospital. Some of Dr. Christie's students from Moukden rendered invaluable service. After the battle on the twenty-fourth of February 600 new cases were admitted, another inn was rented, and every available foreigner was pressed into the service. The Chinese officials publicly recognized the value of these services and sought to help in every way. The kind treatment of the wounded demonstrated to the Chinese the good feeling of the foreigners toward them, and they have received a striking lesson in reference to the spirit of benevolence which actuates Christians. The direct and indirect influences which will follow from this hospital service are incalculable.—The Missionary Herald.

THE MARTYR OF LIAO-YANG.

It will be remembered that Rev. J. A. Wylie, of the United Presbyterian Mission, was killed by a mob at Liao-yang in August of last year. Since then the Chinese government has sought, both by ample apologies and by the payment of a money indemnity, to atone as far as possible for the outrage. The Church at Liao-yang has now sent to the father of Mr. Wylie, in Scotland, a touching letter of condolence, from which we make the following extract: "To the Honourable Mr. Wylie,—Your honourable son came across the great seas to arouse the people. Our pastor fell upon trouble, and his soul has gone on high. Among his friends there is no one who does not mourn. What then must be the grief of his parents! We, though ignorant, being afraid that you, honored sir, grieve over the events of our Eastern country, reverently send a letter of comfort. Our pastor died like one of the many prophets of old, and his good deeds, like theirs, will be related after him. He has finished his great work. He has preached by his conduct. He has awoke from his dream, and is now close by the throne of God. Holy living is rewarded with glory. Our pastor has early entered the heavenly city. These thoughts, honored sir, should comfort your heart... Our pastor is gone, but his life lives in brightness before the eyes and in the ears of men. In all this, you, honored sir, should find comfort. Our pastor made a life of strict integrity his choice, and has attained to the character of complete benevolence. You, honored sir, will therefore be assuredly able to replace weeping with joy. We wish you unbroken peace." This was signed by eighteen members of the Liao-yang Church, representing the whole body.—The Missionary Herald.

"NO CROSS: NO CROWN."

It was an age of questioning, as is every age in which the forces of life awake and rush tumultuously together. Questioning has its perils, grave and, it may be, terrible perils; for it
may mean the shaking of those things which we most wish should remain, and the uprooting of aged growths—too aged ever to take root again—and wreckage far and near. "There is sorrow on the sea; it cannot be quiet." And always on the sea of life when the wind arises—the wind in virtue of which progress can alone be made and unwholesome stagnation avoided—there must be peril of sorrow.

It often seems as though in this life there can never be great good without the instant threatening of great evil. "Their sorrows shall be multiplied that hasten after another God." History and experience prove the truth of this in the sense in which the words were written. And it were vain to shut our eyes to the fact that in a sense precisely contrary the words are also true. For those who by mere inheritance or custom, without thought or earnestness of purpose, serve their own gods, or even their own false conceptions of the true God, when they awake to the need for a pure faith and turn away to search for the living God, will not infrequently find that sorrows are multiplied unto them.

"Light is sown for the righteous, and gladness for the upright in heart," but usually they have to wait for the harvest, and the waiting time is quite likely to be tempestuous with rain of tears and wind of conflicting thoughts. They enter into light and gladness, as did our Lord Himself, through darkness, and earthquakes, and strange rendings. It is one of the great errors and follies of the present day that so many men look to comfort and happiness and restful evenness—a mere untroubled voyaging—as the highest good. Christian teachers, in the Press and in the pulpit, are largely to blame for this. They have led the people to form mistaken conceptions of the immediate results which may be expected from faith and duty. They have kept the Cross in the background as an instrument which, having finished its work, is no more needed, save as a memorial of what has been.

Whereas He Who bore the Cross and endured its uttermost pain has taught us distinctly, and in many forms, that each of His followers must, as the first result of discipleship, take up the Cross, and carry it step by step along the pathway of sorrow, which He trod, and be crucified, dying daily that he may rise again, and enter into fulness of joy.

But although there was, as one might say through the working of natural law, peril and sorrow resulting from the questionings which so distinctively belonged to the new age starting from the Cross, there was also the uprising of a great hope, and a prophecy of "gain," the worth of which might not be estimated; and the thrilling of the "awakening life with a joy unspeakable and full of glory. The stormy wind which here and there marked its paths with wreckage swept away the deadly miasma which silently and surely threatened all spiritual life with extinction. Men and women on all sides were arising and beholding and hearkening, and therefore striving. The old dead life was passing away—it might be in whirlwind gusts which filled men with terror and dismay, but nevertheless most healthfully and to good purpose. The Christ, even in the storm which threatened to overwhelm Him, and with Him everything else true and pure and good, was the supremely triumphant force: "He ruled in the midst of His enemies." And it was the ruling, not of a theory, or of a system of philosophy, or of a new programme, or even of a new faith—for "the teaching" was as yet but faintly outlined and dimly seen even by the most spiritually wise. It was the ruling of a Personality, of a living "Son of Man," who was yet so obviously, even in the eyes of matter-of-fact and hard heathendom, "Son of God" that the great difficulty threatened to be the demonstration, not of His Godhead, but of His manhood. "The hour" had come, towards which all things, from age to age, had
been tending; from which all the light and force renewing life ever since has issued. And in that hour—the central hour in human history—Jesus Christ cried: "I, if I be lifted up from the earth, will draw all men unto Me." Can we ever forget that those memorable words were spoken in presence of the fact that questioners had come? It is immaterial whether we think of them as Greeks coming out from the great Gentile nation which had destroyed itself by its sensuous worship of the beautiful and by a decadent philosophy not greatly differing from that which deliberately unveiled itself in an English Criminal Court last week, or as men of Israel who had grafted Greek ideas among their ancient Hebrew faiths; they were questioners. They were "among"—how significant is the word!—"them that came up to worship at the feast." But the cry of their hearts was, "Sir, we would see Jesus."

It was in that hour of questioning, when Greeks, Jews, Romans, friends and foes, good, bad, and indifferent, leaders of the people and the crowd were all questioning, that Jesus Christ saw the ultimate glory, the ingathering to the Son of Man of the nations, the "much fruit" of the great harvest, the life kept up unto eternal life, the Divine honour of a great service, the judgment of the world, the casting out of the Prince of this world. He saw it all distinctly, and exulted in the vision. But He saw with equal clearness that it all must come, and could only come, through death. "Except a corn of wheat fall into the ground and die, it abideth alone; but if it die, it bringeth forth much fruit." Is it not the great universal law—the law of all natural life—the law of all spiritual life? Is there not "sorrow" everywhere, not only "on the sea," but on the land, among men and birds and all the creatures of God, and even in the silent earth, wherever life is disquieted, wherever, because it is awakening to its natural activities, it cannot be quiet? We must lose to win; we must die to live; we must bear the Cross to wear the crown. Through much tribulation can men and women alone enter the Kingdom, and it is equally true of society and of all great living systems, no matter whether they be religious or political or scientific or social. No one—nothing—can win the highest honour—the honour which the Father gives, except in the service of the Son; and the service of the Son is impossible except to those who follow Him, through Gethsemane and the hooting crowd, to the Cross, which ever stands "in the place of a skull." We, in this age, which is essentially an age of unrest, in which everything is questioned and probed to its very bottom, need fear no evil, if we remember that Christ abideth for ever, and that for evermore He is being lifted up from the earth and is drawing all the questioners to Himself, Who is the Light, and in whom there is no darkness at all.—Meth. Record.

Every man is a missionary for good or for evil. Dr. Chalmers.

Those who have had no real sorrows can afford to play with imaginary ones. Kingsley.

The daisy follows soft the sun, And, when his golden work is done, Sits shyly at his feet. He, waking, finds the flower near. "Wherefore, marauder, art thou here?" "Because, sir, love is sweet!" We are the flower, Thou the Sun! Forgive us if, as days decline, We nearer steal to Thee; Enamoured of the parting west, The peace, the flight, the amethyst, Night's possibility!

FRANKNESS BETWEEN PHYSICIAN AND PATIENT.

The course generally pursued by physicians of withholding from patients who are dangerously ill or affected with an incurable, though perhaps latent, chronic malady definite in-
formation as to their real condition is founded on most creditable motives, chiefly that of saving the patients unnecessary mental distress. Doubtless with some persons and on some occasions, however, it would be well to show the utmost frankness. At all events many persons feel that it would be. A lay correspondent of the British Medical Journal puts this feeling very aptly. He admits at the outset that it is not in all cases incumbent on the physician to reveal his suspicions of grave danger, but where a patient is clamorous to know just what is the matter with him and what the probabilities of the case are, he thinks, the physician ought not to give evasive or misleading replies, for the suspense and anxiety that often result from his so doing may be more injurious than a knowledge of the truth would be.

The correspondent proceeds to give some instances to illustrate his meaning. The first is that of a man about town, thirty years old, who fell in an epileptic seizure and cut his head open. His usual physician attended him, and from the patient's account of the occurrence it appeared that he supposed he had tripped over something and been stunned by the fall. The narrator thinks, but he cannot be certain, that the doctor had at least some suspicion of the truth; nevertheless, he encouraged the patient in his theory of the fall and gave him no hint as to what had probably been its real cause. The consequence was that the man kept on in his usual course of life and had several dangerous repetitions of his first attack; and yet the doctor continued to mislead him, although he must then have been fully aware of the nature of the trouble. Now, from what the writer knows of the man and the circumstances of the case, he has no hesitation in saying that had he been told at first what his real malady was he would have been able to avert much unnecessary suffering.

In another instance a man, accompanied by two doctors, whom he was in the habit of consulting, called on an eminent London specialist about a serious ailment from which he was suffering. After hearing the particulars and examining the patient, the specialist told his two professional brethren privately that the case was a very serious one, and that the patient's ultimate recovery was very doubtful; yet he said to the patient himself that his symptoms were favourable and that he might count on resuming his ordinary work in six months if he took complete rest in the meantime. On this opinion the man built up great hopes, but when the term of six months was up they were shattered, and the correspondent feels sure that this caused him keener disappointment than he would have felt if the truth had been broken to him judiciously at the time of the consultation.

Another evil that the correspondent complains of is that the physician, while concealing the truth from the patient, tells it privately to the nurse, who eventually blurts it out to the patient. "I believe," says the writer, "that ninety-nine doctors out of every hundred have tact enough and skill enough to break the worst news to any ordinary patient as gently as it can be done. I lay stress on this quality in doctors," he adds, "in contradistinction to the relatives' less judicious way of telling the truth." There is much food for reflection in what this writer says, and it is quite probable that such considerations as he sets forth ought often to have more weight than is allowed them. There are few well-meant things more injurious than mistaken kindness.—N. Y. Med. Journal.

ANARCOTINE—A NEGLECTED ALKALOID OF OPium.

At the Annual Meeting of the British Medical Association Sir Wm. Roberts, M.D., F.R.S., President of the Section of Pharmacology
I propose to utilise the time allotted to me in calling attention to the properties of a neglected alkaloid of opium, namely, anarcotine. During my travels in India last year, as a member of the Royal Commission on Opium, I heard a good deal about anarcotine and its employment in years gone by as a febrifuge in the treatment of the malarial fevers which are so prevalent in that country.

By far the most abundant alkaloids of opium are morphine and anarcotine, and while morphine represents the anodyne and hypnotic qualities of the drug, anarcotine represents, as I shall presently show, its antimalarial qualities. There are considerable differences in the proportion of morphine and anarcotine in the several varieties of commercial opium. These differences are especially pronounced in the case of Smyrna opium, which is used in this country for medicinal purposes, and Bengal opium, which is popularly used in India. These differences are set forth in round numbers in the subjoined table:

<table>
<thead>
<tr>
<th></th>
<th>Smyrna Opium</th>
<th>Bengal Opium</th>
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<tbody>
<tr>
<td>Morphine</td>
<td>8 per cent.</td>
<td>4 per cent.</td>
</tr>
<tr>
<td>Anarcotine</td>
<td>2 &quot;</td>
<td>6 &quot;</td>
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It will be observed that Bengal opium is comparatively poor in morphine but very rich in anarcotine. Smyrna opium, on the other hand, is very rich in morphine and very poor in anarcotine.

Anarcotine was brought into prominent notice in India about fifty years ago. At that time quinine became very scarce and dear. The supplies of bark from South America were failing, and it had not yet been proved that the quinine-bearing cinchonas could be cultivated with success on the uplands of India. There was thus a serious prospect of a dearth of quinine in India, and the Indian medical authorities had to cast about for some cheaper and more abundant substitute. Now, opium had long been held in high repute among the natives of India as a remedy and protective against malarial fevers; and the habitual opium eaters were said to enjoy a remarkable immunity from malarial infection. Attention was therefore directed to anarcotine, which is the most abundant alkaloid of Bengal opium, and trials were made of its curative power in malarial fevers.

Sir William O'Shaughnessy, in 1838, brought the subject before the Calcutta Medical Society. He gave an account of 32 cases of intermittent and remittent fevers treated with anarcotine. Of these 31 were cured. He also mentioned 100 other cases which had been treated by his pupils and colleagues with equal success.

These results, and others of a like character, induced the Indian authorities to institute further experiments, and these proving favourable, they caused anarcotine to be prepared in quantity at the laboratories of Ghazipur and Patna, and distributed to the medical depôts throughout British India.

Two important communications on the antiperiodic powers of anarcotine lie buried in the medical archives of India, and deserve resuscitation. They are based on a large experience, and they prove incontestably that anarcotine is scarcely inferior—and in some classes of cases is superior—to quinine as an antiperiodic. The first, from Dr. Palmer, is contained in a letter to the Director-General of the Indian Medical Department, and is reprinted in the Proceedings of the Opium Commission, vol. v., p. 78. In 1857-9 Dr. Palmer treated at Ghazipur 546 cases of malarial fever with anarcotine, in doses ranging from 1 to 3 grains. Of these 541 were cured and only 5 died. In addition to these 546 officially reported cases, he treated with anarcotine a large number of other cases of malarial fever, amounting in all to little short of 1,000 cases. Summing up his general experience, he states that in 70 per cent. the fever was arrested at the
Notes and Items.

second paroxysm after the medicine was administered; in 20 per cent. the arrest was equally sure, but was not quite so quick; and in 10 per cent. the medicine did not have any curative effect. He further remarks that there are cases where anaracotine is decidedly more efficacious than quinine—namely, where there is an intolerance of quinine, and where quinine has been given without any effect for a long time.

The second communication is a "Report on Anaracotine" by Dr. Garden, which is printed in the seventh volume of the *Indian Annals of Medical Science*. Dr. Garden succeeded Dr. Palmer in civil charge of the Ghazipur Station in 1859; and at that time a severe outbreak of intermittent fever, of quotidian and tertian type, had to be dealt with. Taking advantage of the opportunity he subjected anaracotine to an extensive trial. He treated altogether 684 cases, and gives details of 194. Of these 194 cases 187 were rapidly cured by anaracotine. It only failed in 7 cases, or 3.6 per cent. It, moreover, cured some cases where quinine had failed. The doses he employed ranged from 1\(\frac{1}{2}\) to 3 grains. He expresses his general conclusions in the following words: "That it (anaracotine) is equal in value to quinine I do not pretend to say, but that it has a claim to the next place in the ranks of antiperiodics is, I think, an undoubted fact."

Anaracotine continued in large demand in India for several years, and was regularly supplied from the government factories, at the rate of about a hundredweight per annum. Altogether, during the years of quinine dearth, not less than a ton of anaracotine was made and consumed in India in the treatment of malarial fevers. The day of prosperity of anaracotine, however, proved to be brief. With the success of cinchona cultivation on the Darjeeling hills quinine became again abundant and cheap; and the older and better known febrifuge speedily displaced its younger rival. At the present day, thanks to the skill and patriotic efforts of Dr. George King, the distinguished superintendent of the Calcutta Botanical Gardens, the natives of India are better provisioned with quinine than any population in the world. Dr. King has brought into operation a scheme whereby the local post offices are supplied with sealed packets, each containing 5 grains of pure quinine. These packets are sold to all comers at the rate of about one farthing a piece of our English money. By the courtesy of Dr. King I am able to show you samples of these wonderful little packets. Some are inscribed with English characters and some with native characters. This system is being gradually extended throughout the length and breadth of British India; and you can easily realise what an incalculable boon this is likely to prove in the fever-stricken regions of that country.

But to return to anaracotine. It is to be observed that Dr. Palmer and Dr. Garden perceived a distinction between quinine and anaracotine, and recognised that there were cases of malarial fever which resisted quinine but yielded to anaracotine. Both observers also noted that in a certain percentage of the cases anaracotine proved wholly ineffective. These discrepancies are probably to be explained by the facts brought to light in recent researches on the infective organisms of paludal fevers. It has been shown that these organisms are of more than one kind, and that each kind corresponds to a particular type of malarial fever. There seems to be valid evidence that in anaracotine we possess a second antiperiodic of great power analogous to, but not identical with, quinine; and the point I wish to press upon those who have opportunities of studying malarial fevers, especially upon investigators in India, is the desirability of subjecting anaracotine to a fresh examination, with a view of ascertaining its value, as compared with quinine, in the different types of malarial infection, and in
cases where quinine has proved ineffective.

I should mention that anarcotine was originally named "narcotine" by its discoverer, Derosne, and this is the name by which it is still generally known. This designation is, however, wholly inappropriate and misleading. The extensive trials made with this substance in India show that, in a pure state, it is quite devoid of narcotic properties. For this reason Dr. Palmer renamed it anarcotine. Dr. Garden adopted this suggestion, and I think it desirable to follow his example. I show you here two fine samples of anarcotine: one was manufactured in London by Hopkin and Williams, of 16, Cross Street, Hatton Garden; the other was procured by Dr. Vaughan Harley from India, where considerable unused stores of anarcotine still exist in medical depôts.

Life is only bright when it proceedeth Towards a truer, deeper Life above; Human love is sweetest when it leadeth To a more divine and perfect Love. A. A. Procter.

We are never more discontented with others than when we are discontented with ourselves. The consciousness of wrong-doing makes us irritable, and our heart in its cunning quarrels with what is outside it, in order that it may deafen the clamour within. Amiel.

In a letter to Dr. Atterbury re the Opium Report, Dr. Cousland writes: "I certainly think we as an Association should take some notice of the Report of the R. Commission on Opium, not in the form of a protest so much as in the shape of a deliverance on the whole subject with criticisms of the part of the Report that refers to China. It is quite evident all through that the idea of the pro-opium members is to put opium on a par with alcohol as used in European countries. If they had put it on a par with the use of alcohol in Africa it would be like it. You will see in the Report that they have not gone much into the moral aspect. Precious little most foreigners know or care about the life of Eastern people! We medical missionaries are far better able to deal with this aspect than any non-missionary foreigners in China."

We are sorry to hear that Dr. Kerr, of Canton, has been very ill, and are glad to know that he is now able to resume his work.

Dr. Cecil Davenport writes to tell of his safe arrival in Australia and of the benefit of the change to himself and family: "All much better, but not yet quite well." Speaking of Dr. Atterbury’s notice he says, "I must certainly think that the Royal Commission Report should be protested against by us—the M. M. A.—as a body. How medical men can treat the opium question lightly and give evidence to its favour I cannot imagine. What we find, and see, with regard to its abuse and harmfulness, seems just opposite to what government officials find and see. Why is it?! In my answers, printed in the “Report,” I gave what statistics I had on the subject. I think if we take up the matter we should do it thoroughly and exhaustively, so as to leave no loop-hole for the other side to get out of. I have only just seen the Report and not read it at all yet. Its effects are felt here, and some damper has been put on the zeal of those working against the evil."
BIRTH.

MARRIAGES.
At Shanghai, on Tuesday, the 3rd Sept., 1895, at the Cathedral, by the Rev. H. C. Hodges, M.A., Richard Smyth, M.B., Trinity College, Dublin, C. M. S. Hospital, Ningpo, to Gertrude, eldest daughter of C. Stanley, Esq., Lancaster Gate, Hyde Park.

At the Cathedral, Shanghai, on the 28th of October, 1895, by the Rev. H. C. Hodges, M.A., Gerald Stockwell Walton, M.B., of Hiao-kan, to Katherine Jane Tunna, of Wem, Shropshire.

ARRIVALS.
At Shanghai, Sept. 14th, Dr. and Mrs. McClure (returned) and child, for Canadian Presbyterian Mission, Honan; also Dr. Ludlow, for American Episcopal Mission, Shanghai.

At Shanghai, 5th Oct., Dr. Geo. A. Stuart, wife and four children (returned), M. E. Mission.

At Shanghai, 13th Oct., Dr. J. A. Anderson (returned), for C. I. M.

At Shanghai, 7th Nov., Dr. J. H. Ingram, wife and child (returned), A. B. C. F. M.

At Shanghai, 20th Nov., Miss Hill, M.D., for Am. Presbyterian Mission, Chining-chow.

At Shanghai, 1st Dec., Dr. Rankine, for Church of Scotland Mission, Ichang.

DEPARTURES.
From Shanghai, 5th Oct., Dr. and Mrs. Wilson and 3 children, of C. I. M., for England.

From Shanghai, 8th Nov., Dr. E. C. and Mrs. Smyth, English Baptist Mission, for England.

OFFICIAL NOTICES.

The following have been duly elected active members of the Association: Sarah A. Poindexter, M.D., of the American Presbyterian Mission, Chi-nan-fu; and Hermann A. H. Wittenberg, M.D., of the Basel Mission, Kia-ying-chow, Canton Province.

The Editor is wishful to publish a series of papers on the Medical Missionary Hospitals of China, with photographs, where possible, of buildings and past and present staff. His private application on this matter has met with but one response, and he now publicly asks that members of the Association furnish him with the needed papers, as he does not see his way to commence such a series without some prospect of being able to complete it. As photolithographs cannot be obtained in China, and are, in any case, expensive, it would be helpful, and add to the interest of the series of papers, if members would privately provide them (350 in number) for their own papers. It may
be remarked that illustrations from an ordinary photograph are now success­fully printed in Japan by collotype and other simple processes at com­paratively reasonable rates, and in any quantity.

Dr. J. C. Thomson having resigned the secretaryship of the Society, votes are now called for a new secretary, and should be forwarded to the Editor not later than February 1st, 1896.

Owing to the illness of one of the members of the Committee the Circulars on the Opium Question have been unavoidably delayed. They will be issued as speedily as possible and sent round to each member of the As­sociation.
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