proceeded to a village named Ambikapore, some 12 miles off, when other two of their number were attacked with cholera and one of these died; besides, the subordinate said he had no doubt afterwards of the case having been one of cholera.

To proceed with the history. Minah was burnt on the 10th, and the clothes were washed in the river which runs through Kamgaon, above the town. At this particular time of the year there were numerous small holes in the bed of the river, which the people had dug to serve as subsiding ponds, and from which they obtained their drinking water. The Chittalkathis left Kamgaon on the 11th of July, and at 1 A. M. on the 18th the first case of cholera appeared; from that time until 9 in the morning five attacks occurred. On enquiry into the previous history of these cases, I found the first case, that of Kushnapah, had had no communication with any infected place or person. The third case, that of Durikatoo, had no communication with any infected place or person. The fourth case Boodai, drove a cart about the town, and had been to no infected place, nor had communication with any affected person. The fifth case, Seebaram Chumar, had no traceable connection with the disease, in that he had not left his place for months and had not had a visitor from any affected place to him for a corresponding period.

The second case having a history differing from that of the others, I have taken it out of its proper place. It was that of a woman named Beemai aged 35 years, she had gone to Jullumb, 7 miles off, on the 17th to see her sister-in-law Jipri, wife of Maroti Koonbee. This sister-in-law was ill with cholera, and died from it. Beemai got diarrhœa, and returned to Kamgoan at once, she was very sick on the 18th morning, and decided symptoms of cholera set in at 4 o'clock; she died at 4 P. M. on the same day. Her son Eetoo had accompanied her to Jullumb, he was attacked with cholera on the 19th evening, and died on 20th afternoon. On the 20th Seetai (æt. 50), mother-in law of Beemai, was attacked and died on the 21st.

I think I must leave my readers to draw their own conclusions from the above narration, and if they do so intelligently, it will prevent them falling into the error of believing in new efforts at creation, whenever an attack of cholera occurs, when the enquirer has not been able to trace any communication between attacks and infected places or persons. I think the above clearly point out one fallacy in recent enquiries, viz. that only one line of communication has been enquired into, that is, actual personal contact, which the above history shows may never occur, and yet the contagion be successful.

There are numerous fallacies connected with this subject of cholera which seem to me merely to require mention, that they may be disproved. One of these is, that the contagious nature of cholera is disproved because, notwithstanding our more rapid means of communication, epidemics don't travel faster than they did formerly. This may or may not be true (though the case I mentioned as taking place in Akola is against its truth) but the probably unaltered duration of the period of incubation of the cholera poison, and the drag now imposed on contagion by sanitation and disinfectants is lost sight of. I have not time to write further on this subject at present, but may resume it hereafter.

When every one is writing of the success of their treatment of cholera, one man of sulphur fumes, and another of dilute sulphuric acid, I think I will make my recommendation of a remedy, which has proved in my hands good and efficacious both as a prophylactic and as a curative medicine. It has this great advantage as a remedy in India, that it can be obtained in any bazar. I will put it in familiar language, so that non-professional persons who may wish to benefit from it, may not be impeded by Latin abbreviations.

Camphor	...	2 grs.
Chilli	...	3 ,,

Make up with some flour paste into a pill and take one morning and evening, when cholera is prevailing.

As a curative remedy, one grain of opium to each pill, and given more frequently, say every 2 hours, it is efficacious.

Camphor is one of the most powerful antiseptics we have, and it seems to have an effect on the cholera poison, or micro-organism, whatever it may be.

REPORT OF SURGICAL OPERATIONS PERFORMED AT THE MAYO HOSPITAL, LAHORE, DURING JANUARY, FEBRUARY AND MARCH 1882.

By EDWARD LAWRIE, *Professor of Surgery.*

Lithotomy	10
Division of Tarsal cartilage	101
Excision of Tarsal margin...	1
Excision of Tongue	1
Extraction of Cataract	113
Amputations.—Great toe...	1
Shoulder	1
Arm	2
Forearm	1
Thigh (upper third)	1
Foot (Syme's)	1
Excision of lower jaw and lower lip	1
,, upper jaw	1
,, cicatrix from a burn	1
,, ,, (webbed fingers)	1
,, dead bone	6
,, shoulder joint	1
,, eyeball	2
,, Tumours	3
Radical operation (McLeod's) for hernia ...	1
Fistula in ano	3
Tenotomy	1
Hydrocele	4
Rhinoplasty	3
Pterygium	6
Iridectomy	8
Abscess of liver	1

Ankylosis	1
Circumcision	6
Total ...	282

Two hundred and eighty-two operations were performed with one death, which occurred from pyæmia after lithotomy. The majority of those included in the list were operations on the eye. The first that requires notice is division of the tarsal cartilages. I have employed this operation for more than a year as a remedy for granular lids, and can recommend it as a most reliable method of treating that intractable malady. I cannot explain precisely how the operation does good, but in most cases of granular lids the tarsal cartilages are thickened, or their curvature is altered, and the free division of the cartilage appears to restore the healthy condition of the conjunctiva by remedying either or both of these defects. Since the operation was introduced here the aspect of the ophthalmic out-patient department of the Mayo Hospital has completely changed. Formerly the same patients with granular lids, appeared morning after morning to have blue-stone or some other routine remedy applied. Now we have a succession of patients eager to have the operation performed. At first the plan I followed was to evert the lid, seize the upper (now lowest) margin of the cartilage with catch forceps and cut it across in one place with sharp scissors. I found however, after a time, that a number of patients though relieved were not cured by this procedure, and used to return to have it repeated. I have therefore, for some time past, always divided the cartilage in at least two places, *i. e.* on each side of, and at a little distance from, the spot where it is caught by the forceps, and a failure is very rare. The operation is certainly popular among the natives, who present themselves now in such numbers that Assistant-Surgeon Bureh Khan, in charge of the eye out-patients, performs it five or six times every morning. The wound left by the operation requires no after-treatment beyond a pad and bandage for a few hours till bleeding has ceased.

One hundred and thirteen cataracts were extracted during the three months. Ninety-six recovered with good vision and seventeen were unsuccessful. All were performed under strict Listerism. A spray was used at the time of operation and the eye shut up with a Lister's dressing for five days afterwards. The percentage of recoveries would have been greater I believe, but for the difficulty of keeping the patients quiet during this period. The dressing consisted of a pad of boracic lint next the eye, and a large quadruple fold of gauze held in position by an ordinary roller bandage. The only drawback to the application of Listerism in cataract operations that I have experienced has been with regard to the spray. Carbolic acid irritates the cornea and conjunctiva and I had to abandon its use; and all the other antiseptics we have tried have proved unsatisfactory except the one we now employ, which is Little's Soluble Phenyle obtained from Messrs. Baird & Co., Lahore. I have been using this lately in the proportion of 1—80 for the spray and cleansing lotions, and it has proved to be a most effective antiseptic, non-irritating and cheap.

In the seven cases of amputation which took place during the quarter, Listerism was carried out in various ways to suit the circumstances of each case. The amputation of the great toe was performed for cario-necrosis and requires no comment. That of the shoulder was in a case of compound fracture of the elbow joint, which happened a week before admission. When admitted the boy was suffering from pyæmia and osteo-myelitis of the humerus. He made a rapid recovery after the operation. In this case the wound was treated antiseptically in the open method till granulation was established. The flaps were then brought together, and union by the third intention took place at once. One of the amputations of the arm and those of the thigh, forearm and foot were also treated in the open method, owing to putrefactive suppuration having spread beyond the site of the wound before operation. The second amputation of the arm was for a lympho-sarcoma, which originated in the group of glands just below the head of the radius. The patient, a healthy man of thirty, was admitted on account of a large tumour at the bend of the elbow of two years' growth which had latterly become very painful. It was diagnosed to be a cysto-sarcoma, but on examination after the operation it appeared doubtful if the tumour were really cystic, and I therefore sent it to my friend Dr. McConnell, the Professor of Pathology in Calcutta. He described it as "a lympho-sarcoma evidently originating in the glands immediately below the bend of the elbow. In parts the growth is cystic, but the cysts are merely secondary transformations and have sebaceous-like (fatty) mucoid and sanguineous contents. One of the cysts was very large, and contained fully eight ounces of blood." In this case union took place by the first intention. In all the amputations the arteries were twisted.

The excision of the lower jaw and lower lip was necessitated by an epithelioma of the lip, which had involved the jaw and part of the floor of the mouth. The whole of the lip was removed by a V-shaped incision, together with about a third of the lower jaw and the affected portion of the floor of the mouth. The gap was filled up by a new lip made by Syme's method from the skin of the neck. The patient recovered without any unfavorable symptoms.

The case of excision of the upper jaw was one of melanotic sarcoma of the antrum involving the mucus membrane of the nostril. The jaw and part of the nose were removed by an incision through the centre of the upper lip carried through the side of the nose. The whole of the disease was extirpated and the patient, who was an old man, made an excellent recovery.

Dr. K. McLeod's operation for the radical cure of inguinal hernia was performed in the case of a powerful Hindu lad of 20. Listerism was carried out in this operation: but no drain was provided for the wound. The ends of the catgut which Dr. McLeod recommends should be left long for this purpose were all cut short. The patient was completely cured of the hernia, and is now at work as a chuprassee and does not even wear a truss.

One case of abscess of the liver presented itself during

the quarter. It was treated by free incision and evacuation with strict Listerian precautions, and the patient left the hospital cured and with the wound soundly healed on the 12th day.

The only other case worth special mention is that of excision of the tongue.* The patient was a European of about 50, suffering from cancer. The right lateral half of the tongue was removed by Whitehead's operation with scissors. The bleeding was rather formidable at first, but when the patient was sat up and made to open his mouth, with his face to the light, the lingual artery was easily secured and twisted, and no other vessel gave any trouble whatever.

Lahore, 13th April 1882.

LEITER'S PLIABLE METAL TEMPERATURE REGULATORS.

By SURGEON SHIRLEY DEAKIN, F. R. C. S. ENG., S. SC. CERT., CAMB.

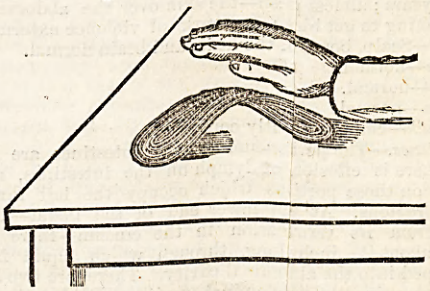
In this newly patented invention of Mr. Leiter's we have an invaluable and simple appliance for allaying local inflammatory action by the application of cold or heat. Patients are charmed with the regulators, for they do away with the constant discomfort inseparable from the use of moist flannels and bladders of ice, while they admit of an inflamed part being kept in a state of perfect rest the first surgical indication in the treatment of an injury.

Leiter's regulators are so pliable that they are easily moulded to fit any part of the body without injury to the apparatus, which is made in various shapes and sizes, square, oblong, circular, as caps for the head, and as spirals for fingers, toes, etc. When full of water these regulators are lighter than india rubber bags or tubes covering a similar area; they are free from smell, are perfectly cleanly, and do not spoil in a hot climate. The rubber tubing connecting the regulator with the vessel containing the water being easily replaced.

The metal tubing may be placed either near or in contact with the skin, and the constant passage of hot or cold water through the regulator enables the temperature of the part to be kept at one uniform heat. An ingenious lamp arrangement is used for hot water. The metal is such a good conductor of heat, that a temperature of 15° to 20° centigrade (59° to 68° Fahrenheit) is as cold as can be borne for any long time—water from 3° to 4° C. (36° to 39° F.) producing complete anæsthesia in a short time. When once in action the apparatus will work for hours without further attention.

I have used the regulators in cases of peritonitis, orchitis, to the abdomen in typhoid fever, to the head in another case of typhoid with delirium lasting for five days, with great benefit, and the regulators have been highly approved of in every instance.

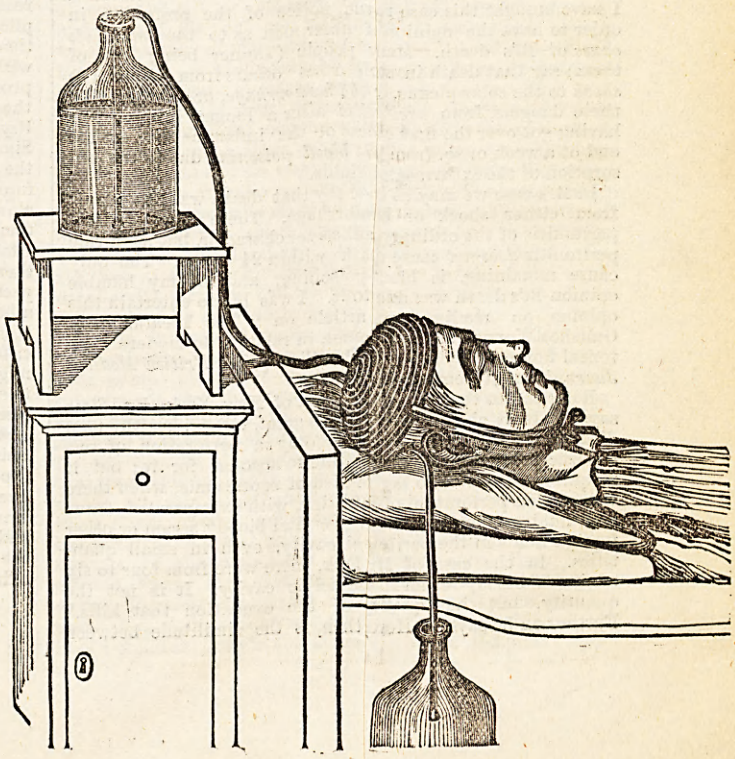
Leiter's regulators are cheap, varying in price from 1*s.* 6*d.* to £3, according to the size and shape. I consider the invention to be one of the most valuable therapeutic agents introduced into India for years; it is destined to have a great future. In the field and in camp life, where ice cannot be obtained, a porous *sarai* will furnish water sufficiently cooled for all practical purposes. A large regulator tied over a pillow and used with water at 80° ensures a good night's rest in a hot room, and renders one independent of tatties and thermantidotes. One should form part of every railway travellers' kit during the hot weather.



The engravings show the method of bending and straightening the metal regulators which may be fixed to the part with a bandage or pieces of tape; in the typhoid case with delirium the regulator was simply placed on the lad's shaved head as he was so restless at first, and it was replaced whenever he moved away from it. The mode of using the regulator as a cap is shown below.

The regulators are manufactured by Messrs. Krohne and Lesemann of 8, Duke Street, Manchester-Square, W.

Allahabad.



* This case ought not properly to be included in this quarter's report.