A point of interest about the case, is the time during which the woman lived after infliction of the injuries; the information is said to have been brought to the nearest police *chowkee* "at noon," and the messenger was at once sent on to the thannah, distant 3½ miles, a person returning from there, met the party bringing in the woman about a mile from the village. She was alive when entering the station near the racket court, a mile further on, and is said to have died just before reaching hospital, 2 miles further on still; thus a distance of nearly 9 miles was gone over on foot, after the first alarm was given; this would occupy at least three hours, and is there were numerous delays (seven are shown to have occurred) it is probable that double that time was occupied before she reached the dispensary. This too would correspond with the other facts noted, viz., the receipt of the information about noon by the first police officer, and report to the Magistrate at the racked court, between 5 and 6 o'clock, so that the woman lived for six hours after the spinal cord was completely cut through.

At the examination before the Magistrate, it was at first asserted by the police that the woman made three separate statements as to her murderer, and signed her mark to one of them. At the trial, however, this evidence completely broke down, and from statements made to me by two police men who first saw her, though they were not produced at the trial, I have no doubt that the only sign of life she showed was a quick, gasping, respiration, though when some water was dropped on her lips, they moved as in the act of drinking.

A MIRROR OF HOSPITAL PRACTICE.

PRESIDENCY GENERAL HOSPITAL.

THREE CASES OF ANTISEPTIC SURGERY.

By EDWARD LAWRIE, M.B., *Surgeon, Bengal Army.*

THE results which are attainable by the proper application of Mr. Lister's method of treatment in surgical practice, are illustrated by the following cases. In order that the treatment might be carried out to the letter, the appliances used were selected with Mr. Lister's approval, and sent direct from Edinburgh to Dr. Ewart:—

CASE I.—COMPOUND FRACTURE OF THE FOREARM.

Early on the morning of the 21st June, Mr. L. fell from a height, with his left arm doubled up under his body. Not finding his usual medical attendant at home, he came to the General Hospital, where I saw him at about 6-30 a.m. I found he had sustained a compound fracture of the forearm, the ulna being broken about the middle and the radius rather lower down, there being a jagged wound immediately over the seat of the latter fracture which communicated with the broken bone. To avoid repetition I shall describe pretty fully the way in which this wound was treated, and this description will apply, with some slight modifications, to the rest of the cases under consideration.

After the forearm had been thoroughly washed with a 1 to 40 solution of carbolic acid and water, the wound was well syringed out with the same solution, a spray of which was kept up while this was being done. The spray being still kept up, all the fluid was gently squeezed out of the wound, and the antiseptic dressings applied in the following manner:—Next the raw surface a piece of Mr. Lister's "protective" was placed, and above that about six folds of antiseptic muslin, which were made to completely envelope the forearm, and between the outer two layers of which a piece of waterproofing was inserted.* A muslin bandage completed the dressing, and the forearm was then placed between two narrow wooden splints.

The after-treatment in this case was very simple. The dressings were left undisturbed for six days, during which the patient had no fever whatever, a perfectly clean tongue, and otherwise manifested no signs of having received a severe injury. On the seventh day, as Dr. Ewart thought it would be advisable to inspect the condition of the arm, the dressings were removed under the carbolic acid spray. The wound was found to be a small superficial spot, quite level with the surrounding skin, and the discharge from it during the whole six days had not been sufficient to penetrate the muslin. As a matter of precaution, the antiseptic dressings were re-applied and left on for another week, when the wound was found to have healed without any further discharge. The fracture was afterwards treated as a simple one, which, owing to the measures employed, it had virtually been from the commencement.

* For an explanation of the uses of Mr. Lister's various appliances, *vide* Dr. Crombie's paper in the Indian Annals, No. XXX.

II.—BUBO.

Two cases of suppurating bubo appear worthy of record, as they proved instructive with regard to the value of Mr. Lister's method of treatment in this disease.

Two patients, each with a large bubo in the left groin, presented themselves at the General Hospital on the 8th June, and both buboes were opened and dressed according to Mr. Lister's method at the morning visit next day. One of the two patients was an intelligent Englishman, who was easily made to understand the necessity of not disturbing the dressings; the other was a low caste Arab, and on going into the ward unexpectedly the day after the bubo was opened, I caught him running from the bath-room to his bed; the consequence of which was that the dressings were displaced, and the cavity freely exposed to the air. In the case of the Englishman, the cavity of the bubo was quite consolidated, and the incision healed by the seventh day, when he was discharged and rejoined his ship. In the Arab's case on the contrary, the bubo was as intractable, and the after treatment as troublesome and unsatisfactory, as if it had been opened and poulticed in the usual way. Secondary suppuration occurred in the cavity, and there was a most profuse and long continued discharge of fœtid pus, the characteristic odour of which could not be got rid of, notwithstanding the most careful and frequent dressings and the lavish use of carbolic acid and other disinfectants.

III.—BULLET WOUND OF THIGH.

Gunput, a Mahomedan lad, was shot in the left thigh on the 26th June by a bullet, which had previously passed through the chest of a policeman. He was immediately brought to and admitted into the General Hospital under the care of Dr. Ewart. On examination, it was found that there was a wound about the size of a shilling, with tolerably clean cut edges, at the upper and outer part of the front of the left thigh. The finger inserted into this wound passed through a slit in the fascia lata, between the rectus and tensor vaginæ femoris, beneath which it could be moved about freely in all directions, the tissues being lacerated and torn to shreds, as if by a charge of small shot. This laceration was caused by the bullet having driven in before it five folds of the patient's dhootie, and then having forced its way through the three outer layers, the fragments of which it had scattered in every direction. The men who brought the patient to hospital said that when the dhootie was pulled from the wound the bullet fell out of it. An examination of the dhootie confirmed this explanation of the manner in which the extensive laceration of the soft parts had been produced.

In the treatment of this wound the antiseptic system was rigidly adhered to. It was dressed in exactly the same way as described in case I., except that a broad piece of Mr. Lister's drainage tube, 4 inches long, was inserted into the wound before the dressings were applied, in order to prevent any tension in the cavity by allowing the free escape of all discharges. The after-treatment may be described in very few words. The dressings were renewed every day for the first five days, during which there was considerable oozing of blood and serum, but no suppuration whatever. From the fifth to the eighth day they were left undisturbed; but when they were removed on the eighth day some pus was found in the wound, and a little could be squeezed out from the deeper parts. It was perfectly free from smell of any kind, and I was at a loss to account for it, until it struck me that the drainage tubing was larger than was required, the wound having contracted considerably, and was itself causing tension from its size. It was therefore replaced by a much narrower and shorter one, and when the dressings were again renewed on the 10th day (July 2nd), the discharge was so scanty that the drainage tubing was removed altogether. The dressings were not disturbed again for six days, at the end of which time the wound was found to be quite closed up, and the patient was discharged from the hospital.

This case speaks for itself, but one or two points in connection with it seem worthy of remark. The first is, that from

the time he received the injury, the patient never had a single constitutional symptom. His temperature was taken twice a day in the rectum, and was never found to be raised a degree; his appetite was good, his tongue clean, and his pulse never rose above 80 throughout. The second noteworthy point is with regard to the vitality of the tissues, with which the bullet came in contact. There can be no doubt that if this wound had been treated in any other way, there would have been considerable inflammation, if not sloughing, both of the skin and of the deeper textures. One of the most important indications in the treatment of gunshot wounds, noticed by all surgical authors, is "to circumscribe and moderate the *resulting* inflammation;" and, during the progress of treatment, to "prevent the formation of sinuses and favor the escape of pus." The tissues which lie in the track of a ball are so injured "as to deprive them to some extent of their vitality, or at any rate to place them in such a condition as inevitably to lead to suppuration."* But in this case there was neither inflammation nor sloughing, and the parts whose vitality was impaired, were either absorbed or reorganized. The very limited amount of suppuration which occurred on the eighth day, was entirely accounted for by the undue size of the drainage tube employed, as it ceased at once when the tension was relieved by the substitution of a smaller one.

The cases above recorded, though of a very ordinary kind, are good examples of the advantages which Mr. Lister's system of treatment has conferred on surgical practice. Though infinite care and attention to minutiæ are essential to its success, the actual amount of trouble it gives is, in the long run, very much less than that involved in any other method of treatment with which I am acquainted. Moreover, the materials employed as dressings in the antiseptic system, are so light and open, that in a climate like India more especially, the comfort of the patient is insured no less than his safety.

NOTES FROM PRACTICE.

By Surgeon-Major H. CAYLEY, *Civil Surgeon, Cuttack.*

OLD TRAUMATIC OPHTHALMITIS; SYMPATHETIC OPHITHALMIA; EXCISON OF DAMAGED EYE.

MR. A.B. in fair health, has been six or seven years in India. Some 15 years ago, he was struck by a shot in his right eye, but does not know if it remained in. He had a good deal of inflammation at first, and the sight was quite lost, and he has since then had repeated attacks of inflammation and deep-seated pain in the eye. During the last two years, the left eye has been subject to frequent attacks of inflammation, accompanied by aching pain, haziness of vision, flashes of light, and other symptoms of general irritation. The eye is now easily fatigued, and slight exposure to the sun, or any overwork, sets up pain and irritation, and he can hardly use his eye by candle light.

Condition when first seen—.Right eye, shrunken and rather soft; no perception of light; lens white, glistening, and small; cornea clear; pupil rather dilated, irregular, and fixed; eye tender. I had no doubt there was a foreign body in the eye.

Left eye, slightly tender, slight ciliary redness; conjunctival veins enlarged, some intolerance of light; subject to frequent slight attacks of inflammation; slight haziness of vision; eye easily fatigued; pupil sluggish. I strongly recommended immediate removal of the right, as being probably the only chance of saving the left eye.

The patient was at first unwilling to lose the right eye, and treatment was tried for a time; but, as was to be expected, with no benefit.

February 19th.—The right eye was extracted by the usual method, the patient being under chloroform; the conjunctiva was divided round the margin of the cornea, and then with scissors the muscles were all divided close to their insertion, and the optic nerve cut through; there was, as is usually the case, very little bleeding. On making a section of the eye, the lens was shrunken and ossified, like a small disc of worm-eaten bone; the vitreous was fluid and cloudy; the shot was found lying on the choroid, close behind the ciliary body; the retina was occupied by flakes of chalky deposit.

The wound quite healed up in a fortnight, leaving a good movable stump for an artificial eye.

* Gross' System of Surgery, Vol. I, page 365.

A good deal of irritation remained in the left eye for some weeks, showing how severely it had been affected; but this gradually lessened, and two months afterwards, when the patient went away on leave, had almost subsided.

In cases like the above, the surgeon and patient cannot bear in mind too forcibly the absolute necessity of removing a useless and damaged eye directly the good eye begins to show the slightest sign of sympathetic irritation. I believe that when once sympathetic inflammation is developed (as in this case was seriously threatened), it invariably leads to ultimate destruction of the eye, and the removal of the source of irritation; the damaged eye is then, only too often, too late to arrest the disease.

SARCOMATIOUS TUMOUR OF ORBIT; REMOVAL; RECOVERY.

A prisoner in jail, a Hindu, aged 40, in fair general health, has a tumour projecting from the inner side of the left orbit. The upper part protrudes under the inner end of the left eyebrow, and the tumour extends downwards to the middle of the cheek; the side of the nose is involved, and the eye is squeezed up against the outer corner of the orbit, and can hardly be seen; he has perception of light, but no distinct vision; the skin was free, but covered with large pulsating vessels; the tumour feels hard but elastic, the nostril free, but lachrymal sac obliterated.

The swelling commenced about eight years ago: at first grew very slowly, but for the last five months has increased much more rapidly, and at times gives severe pain.

June 19th.—Under choloroform, the skin was divided longitudinally on the tumour, and a transverse cut made across the cheek, below the orbit; the flaps were dissected back, and the tumour was then found firmly attached to the inner and lower walls of the orbit, and the side of the nasal cavity; the parts of the bone to which the tumour was attached, were divided with forceps, and the finger passed back into the orbit; behind the tumour which projected back nearly to the apex of the orbit, and the tumour forcibly turned out, no diseased structure being left. The bleeding vessels were easily closed by torsion, the wound was united by sutures. The tumour was the size of a large duck's egg, was of fibrous character, and under the microscope, presented the characters of a fibro-plastic tumour, chiefly composed of fibrous structure, with nucleated cells and granules between.

The wound healed almost entirely by first intention, and the eye returned to its proper position, but it is cataractous and shrunken. The tears of course flow on the cheek, and it remains to be seen if a new lachrymal channel into the nose can be established.

GUN-SHOT WOUND THROUGH PELVIS? DEATH ON 6TH DAY.

The patient, a Hindu, was admitted into the dispensary on the 23rd June. He was said to have been shot accidentally on the previous day by another native. There was a gun-shot wound in the right gluteal region, entering just above and behind the great trochanter of the femur, and passing in a direction upwards, inwards, and forwards. The bullet could not be felt, and it seemed to have passed through the ilium into the pelvis.

The probe touched upon a rough surface of bone; he passed urine naturally. There was a good deal of swelling, and pain, over the whole side of the pelvis, but not much bleeding. On the 24th, there was suppuration down the back of the thigh, along the course of the sciatic nerve, along which a probe passed for a distance of 4 inches. Fever had set in; urine and fæces passed naturally.

The man was kept perfectly at rest, and carbolic lotion and large poultice applied.

On the 24th, there was profuse suppuration from the wound, and a swelling could be felt in the groin just above Poupart's ligament, which pressed forwards the external iliac vessels, and the artery could be felt and seen pulsating distinctly. In the next two days the swelling and suppuration increased, and the fever became more constant. On the evening of the 27th he seemed pretty well, and in no immediate danger; but on the morning of the 28th he was found dead; his friends, who slept by his side, not knowing when or how he died.

On examining the body, it was found that the bullet had passed through the ilium, smashing the bone into fragments, and was lodged in a cavity full of grumous pus, just between the brim of the true pelvis and the side of the bladder, and behind and beneath the external iliac vessels.